



Village of Gilberts

Village Hall: 87 Galligan Road, Gilberts, Illinois 60136

Ph. 847-428-2861 Fax: 847-428-2955

www.villageofgilberts.com

VILLAGE BOARD MEETING AGENDA

Tuesday, October 19, 2021 - 7:00 p.m. - Village Hall Board Room

Whereas there is currently a statewide disaster declaration related to the ongoing COVID pandemic, the Village President has determined that it is not prudent or practical to conduct an in-person meeting for all members of the Board and the public due to increasing COVID-19 cases in Kane County. Therefore, some of the Village Board members may attend this meeting by electronic means, in compliance with the amended OMA.

Members of the public are encouraged to attend the meeting remotely via video or audio as follows:

Zoom (video and/or audio): <https://us06web.zoom.us/j/85008785840>

Meeting ID: 850 0878 5840

Dial-In (audio): (312) 626-6799

Members of the public can also submit written comments via email at info@villageofgilberts.com. Any comments received by 5:00 p.m. on October 19, 2021 will be submitted into the record of the meeting.

ORDER OF BUSINESS

1. CALL TO ORDER / PLEDGE OF ALLEGIANCE

2. ROLL CALL / ESTABLISH QUORUM

3. PUBLIC COMMENT*

4. PRESENTATION OF THE FY2021 AUDIT

5. CONSENT AGENDA

- A. A Motion to Minutes from the October 5, 2021 Village Board Meeting
- B. A Motion to approve Bills and Payroll dated October 19, 2021
- C. A Motion to approve the September 2021 Treasurer's Report
- D. A Motion to approve Resolution 24-2021, a Resolution Authorizing an Agreement with Rubbercycle for the Purchase of Mulch in an Amount Not to Exceed \$19,625
- E. A Motion to approve Resolution 25-2021, a Resolution Authorizing an Agreement with Cunningham Recreation and All Surface Installers for the Purchase and Installation of Park Equipment at Waitcus Park in an Aggregate Amount Not to Exceed \$52,867
- F. A Motion to approve Resolution 26-2021, a Resolution for General Maintenance Under the Illinois Highway Code (Motor Fuel Tax) for the Timber Trails and Timber Glen Road Paving Project
- G. A Motion to Receive and Accept the Comprehensive Annual Financial Report from Lauterbach & Amen, LLP for the Fiscal Year Ending April 30, 2021

6. ITEMS FOR APPROVAL

- A. A Motion to approve Resolution 27-2021, a Resolution Authorizing Approval of an Agreement with B&B Networks for the Purchase and Installation of a Mitel MiVoice Business VoIP Solution in an Amount Not-to-Exceed \$26,400, and for Monthly Service Provision

7. STAFF REPORTS

8. TRUSTEE REPORTS

9. PRESIDENT’S REPORT

10. ADJOURNMENT

***Executive Session Information**

A portion of the meeting will be closed to the Public, effective immediately as Permitted by 5 ILCS 120/2(c)(1) to discuss the appointment, employment, compensation, discipline, performance, or dismissal of specific employees of the Village, and as permitted by 5 ILCS 120/2(c)(11) to discuss litigation against, affecting, or on behalf of the Village which has been filed and is pending in a court or administrative tribunal of which is imminent and as permitted by 5 ILCS 120/2(c)(21) to review and approve closed session minutes and as permitted by 5 ILCS 120/2(c) 2 Collective negotiating matters.

***Public Comment Policy**

Anyone indicating a desire to speak during Public Comments portion of the Village Board Meeting will be acknowledged by the Village President. All remarks are to be addressed to the Village President and Board of Trustees as a whole, not to any specific person(s). To ensure that everyone who wishes to speak has the opportunity to do so, please limit your comments to five minutes. Additional time may be granted at the discretion of the Village President. If you have written comments, please provide a copy to the Village President. If there are a number of individuals present to speak on the same topic, please designate a spokesperson that can summarize the issue. During Public Comments, the Village President, Trustees and Staff will listen to comments and will not engage in discussion. The Village President or Trustees may ask questions to better understand your concern, suggestion or request. Please direct any personnel concerns to the Village Administrator before or after the meeting. The Village of Gilberts complies with the Americans Disabilities Act (ADA). For accessibility Assistance, please contact the Village Clerk at the Village Hall, telephone number is 847-428-2861. Assistive services will be provided upon request.



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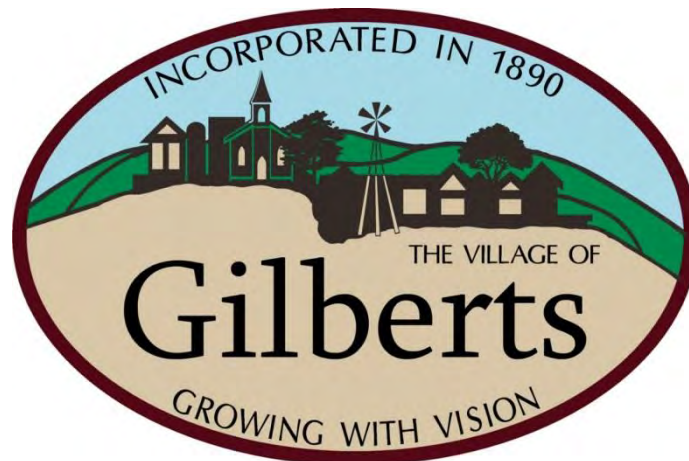
To: Village President and Board of Trustees
From: Brian Bourdeau, Village Administrator
Taunya Fischer, Finance Director
Date: October 19, 2021 Village Board Meeting
Re: Item 4: Presentation of the Comprehensive Annual Financial Report (CAFR) for the Fiscal Year Ending April 30, 2021

The Village's audit firm of Lauterbach & Amen, LLP has concluded the Village's Fiscal Year 2021 audit. Village staff is pleased to report that the Village once again received a clean audit opinion. Also, as you may recall, the Village was again awarded the GFOA Certificate of Excellence in Financial Reporting for the FY2020 CAFR, a copy of which is included in the FY2021 CAFR. The FY2021 CAFR will also be submitted for the award, and we have every expectation that we will once again achieve the award.

A representative of Lauterbach & Amen will be present on October 19, 2021 to present the auditor's findings and answer any questions. Following the auditor's presentation, formal acceptance of the FY2021 Audit is included for Board consideration on the Village Board meeting agenda.

VILLAGE OF GILBERTS, ILLINOIS

COMPREHENSIVE ANNUAL FINANCIAL REPORT



FOR THE FISCAL YEAR ENDED
APRIL 30, 2021

VILLAGE OF GILBERTS, ILLINOIS

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED
APRIL 30, 2021

Prepared by:
Finance Department

VILLAGE OF GILBERTS, ILLINOIS

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VILLAGE OF GILBERTS, ILLINOIS

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VILLAGE OF GILBERTS, ILLINOIS

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INTRODUCTORY SECTION

This section includes:

- List of Principal Officials
- Organizational Chart
- Transmittal Letter
- Certificate of Achievement for Excellence in Financial Reporting

VILLAGE OF GILBERTS, ILLINOIS

**List of Principal Officials
April 30, 2021**

BOARD OF TRUSTEES

Guy Zambetti, Acting Village President

Daniel Corbett, Jr., Trustee

Nancy Farrell, Trustee

Louis Hacker, Trustee

Kurt Kojzarek, Trustee

Jeanne Allen, Trustee

ADMINISTRATION

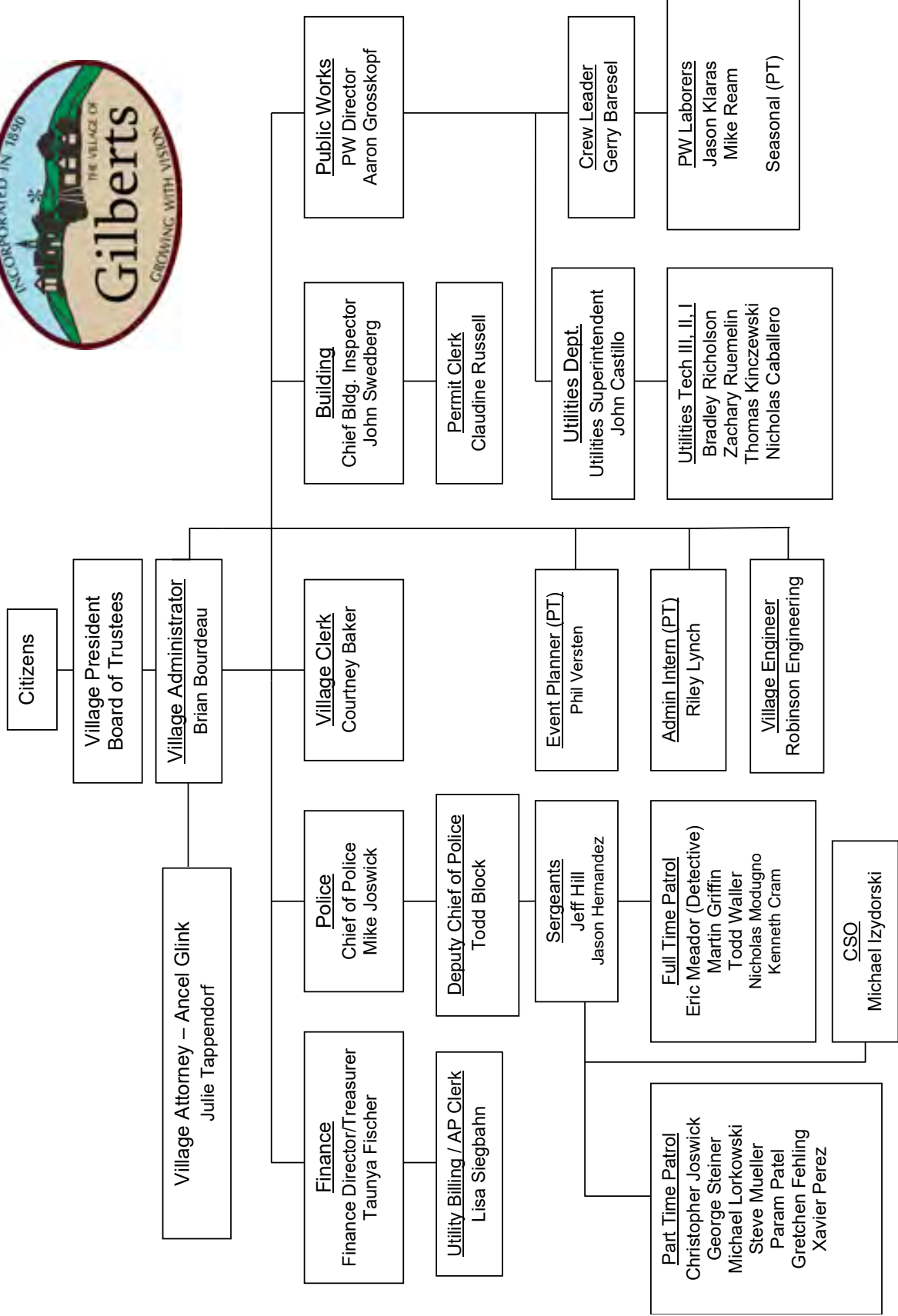
Courtney Baker, Village Clerk

Brian Bourdeau, Village Administrator

FINANCE

Taunya Fischer, Finance Director

Gilberts Organizational Chart





Village of Gilberts

Village Hall: 87 Galligan Road, Gilberts, Illinois 60136
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October 11, 2021

**To: The Village President, Members of the Village Board of Trustees, and
Citizens of the Village of Gilberts, Illinois.**

Illinois State Law requires that all general-purpose local governments publish a complete set of financial statements within six months of the close of the fiscal year. These financial statements must conform to Generally Accepted Accounting Principles (GAAP), and be audited in accordance with generally accepted accounting standards by Certified Public Accountants licensed by the State of Illinois. It is with pleasure that the Comprehensive Financial Annual Report (CAFR) for the Village of Gilberts, Illinois is presented for the year ended April 30, 2021.

The 2021 CAFR complies with the new financial reporting model developed by the Governmental Accounting Standards Board (GASB) and is intended to provide additional information not previously available in the Village's financial statements.

The CAFR consists of the Village of Gilberts management staff's representations concerning the finances of the Village. Management assumes full responsibility for the completeness and reliability of all of the information presented in this report. To provide a reasonable basis for making these representations, management has continued to focus on the internal controls that are designed to protect the Village's assets from loss, theft or misuse and to compile sufficiently reliable information for the preparation of the Village's financial statements in conformity with GAAP.

Management continues to revise processes, implement internal controls, and establish new financial policies that allow us to provide reasonable controls within our means in order to prepare financial statements that are free of any material misstatements. Management asserts that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived; and (2) the valuation of costs and benefits requires estimates and judgments by management.

**Finance & Building Departments
Public Work Facility – Utility Billing
73 Industrial Drive, Gilberts, IL 60136
Ph. 847-428-4167 Fax 847-551-3382**

**Police Department
86 Railroad Street, Gilberts, IL 60136
Ph. 847-428-2954 Fax 847-428-4232**

Fiscal Management

Annually the Village adopts a budget that defines its legal spending authority. Departments submit requests to the Village Administrator so that a budget may be prepared. The requested budget document is prepared by fund, function, and activity. The budget is presented to the Village Board for review. The Village Board holds a public hearing and adjusts the requested budgeted amounts to reflect anticipated operations and capital spending for the delivery of services offered by the Village. The Village's budget is adopted no later than April 30th, the close of the preceding fiscal year.

The Village of Gilbert's financial statements have been audited by Lauterbach & Amen, LLP, a firm licensed by the State of Illinois as certified public accountants with specialization in local government accounting. The goal of the independent audit is to provide reasonable assurance that the financial statements of the Village of Gilberts are free from material misstatement. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures shown in these financial statements; assessing the accounting principles and significant estimates used; and evaluating the overall financial statement presentation. In addition, the auditors prepared a list of management comments which outline areas where the Village management can further improve internal controls and accounting procedures. The administration, along with the finance department, appreciates and welcomes the auditors' recommendations for internal control improvement and looks forward to executing their recommendations.

Fiscal Report

The independent auditor concluded that there was a reasonable basis for rendering an unmodified opinion that the Village of Gilberts' financial statements for the fiscal year ended April 30, 2021, are fairly presented in conformity to GAAP. The independent auditor's report is presented as the first component of the financial section of this report.

The financial reports are presented in accordance with the GASB reporting model requirements. GAAP require that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of a Management Discussion and Analysis (MD&A). This letter of transmittal will not repeat the financial overview and analysis which is provided in the MD&A, but encourages the reader to review this important section of the financial statements for a comprehensive overview and analysis of how the Village has fared over the last fiscal year.

Village Profile

The Village of Gilberts was platted in 1855 and incorporated in 1890 and has a population of 8,366 at the 2020 census. The Village is located in Kane County and governed by a Village President and Board of Trustees. The Village's policies are set by the Village President and the Village Board. The Village Administrator is responsible for implementing the policies and directives of the Village President and the Village Board.

The Village provides a full range of services. Gilberts' public safety activities include police protection and a neighborhood watch program. Public works provides street and right-of-way maintenance and repair, as well as building maintenance, and park maintenance. Water service includes a treatment plant, sanitary sewer service and a sanitation treatment plant. These functions are included in the Water and Sewer enterprise fund.

The Village also assists with various community events within the Village's departmental program budgets. These include the annual Easter Egg Hunt, Halloween Bonfire, Movies in the Park, and Community Days celebration. In addition, the Village is accountable for the Gilberts Police Pension Fund, managed by a legally separate Board, and four Special Service Areas which are administered by independent Trustees (Wells Fargo and Amalgamated Bank of Chicago).

Economic Condition and Outlook

The Village continues to maintain a tenuous financial position with slow revenue growth. This trend has been evident over the last several years and results mainly from the increased emphasis on infrastructure improvements, slow residential growth, and the lack of new revenue sources.

During the current year the Village had slight increases in property taxes and increases in Intergovernmental revenues. Telecommunication revenue again declined slightly with the decrease in residential land lines. Actual General Fund revenues exceeded final adjusted budget due to a slight increase in building related revenues.

Financial Planning and Relevant Financial Policies

During the budget cycle, the Village Board reviewed the current Fund Balance/Net Position Policy as it pertains to Statement No. 54, Fund Balance Reporting and Governmental Fund Type Definitions. This policy establishes a minimum level at which the projected end-of-year fund balance/net position must observe as a result of the constraints imposed upon the resources reported. The Village Board set a fund balance target of no less than three months and no more than six months of operating expenditures. This will assist in providing available funds for any shortfalls in revenue and/or any unanticipated large expenditures.

Major Initiatives

New Development

In the Conservancy project, development continues with nine new single-family home permits being issued. Additionally, the Gilberts Town Center duplex lots have begun construction with the issuance of six permits in that development.

Comprehensive Plan

The Village will be reviewing its comprehensive plan in the next few years to ensure that it accurately reflects the goals of the Village Board.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Village of Gilberts for our Consolidated Annual Financial Report (CAFR) for the fiscal year ended April 30, 2020. This was the tenth consecutive year the Village received such a prestigious award.

A Certificate of Achievement is valid for one year. We believe that this current report also meets the requirements of the Certificate of Achievement Program, and we are submitting it to the GFOA to determine its eligibility for a certificate. It is our hope that the Village of Gilberts' Finance Department staff will continually meet the level of excellence required to be granted this award for many years in the future.

In addition to the Certificate of Achievement for Excellence in Financial Reporting, the Village of Gilberts also received an Award for Outstanding Achievement in Popular Annual Financial Reporting for our Popular Annual Financial Report (PAFR) for the fiscal year ended April 30, 2020. This is the ninth year the Village has earned this award.

The GFOA awards Certificates of Achievement for Excellence in Financial Reporting for CAFRs and PAFRs to those government entities who publish easily readable and efficiently organized reports. These reports must satisfy both generally accepted accounting principles and applicable legal requirements.

Acknowledgements

The preparation of this report, and the confidence with which it is presented, would not have been possible without the dedicated services of the Finance staff and our independent auditors Lauterbach & Amen, LLP.

In closing, we would also like to thank the President and the Board of Trustees, and all department heads for their support in maintaining the highest standards of professionalism in the management of the Village's finances.

A handwritten signature in black ink, appearing to read "Taunya Fischer". The signature is written in a cursive, flowing style.

Taunya Fischer
Finance Director



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**Village of Gilberts
Illinois**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

April 30, 2020

Christopher P. Morrill

Executive Director/CEO

FINANCIAL SECTION

This section includes:

- Independent Auditors' Report
- Management's Discussion and Analysis
- Basic Financial Statements
- Required Supplementary Information
- Other Supplementary Information
- Supplemental Schedules

INDEPENDENT AUDITORS' REPORT

This section includes the opinion of the Village's independent auditing firm.



INDEPENDENT AUDITORS' REPORT

October 11, 2021

The Honorable Village President
Members of the Board of Trustees
Village of Gilberts, Illinois

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Village of Gilberts, Illinois, as of and for the year ended April 30, 2021, and the related notes to the financial statements, which collectively comprise the Village's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Village's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Village's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Village of Gilberts, Illinois, as of April 30, 2021, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis as listed in the table of contents and budgetary information reported in the required supplementary information as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Village of Gilberts, Illinois' basic financial statements. The introductory section, other supplementary information, supplemental schedules, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information and supplemental schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information and supplemental schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Lauterbach & Amen, LLP
LAUTERBACH & AMEN, LLP

MANAGEMENT'S DISCUSSION AND ANALYSIS

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

Our discussion and analysis of the Village of Gilberts' financial performance provides an overview of the Village of Gilberts' financial activities for the fiscal year ended April 30, 2021. Please read it in conjunction with the Village of Gilberts' transmittal letter and the financial statements.

FINANCIAL HIGHLIGHTS

- During the year, the governmental funds reported revenues in excess of expenditures by \$2,054,915 due primarily from higher than anticipated collections in from certain tax revenues, such as sales and use taxes as well as income taxes. The General Fund reported an ending fund balance of \$5,806,349, an increase of 20.0% or \$967,875.
- Operating revenues for the year for business-type activities totaled \$1,872,330. Operating expenses (including depreciation) totaled \$1,822,680, resulting in a surplus of \$49,650. In the prior year the business-type activities reported a deficit of \$23,389.
- Total net position for governmental and business-type activities increased \$1,904,153 compared to the prior year, with total net position at April 30, 2021 of \$64,416,077.

USING THIS ANNUAL REPORT

This annual report consists of a series of financial statements. The Statement of Net position and the Statement of Activities provide information about the activities of the Village of Gilberts as a whole and present a longer-term view of the Village of Gilberts' finances. For governmental activities, these statements tell how these services were financed in the short term as well as what remains for future spending. Fund financial statements also report the Village of Gilberts' operation in more detail than the government-wide statements by providing information about the Village of Gilberts' most significant funds. The remaining statements provide financial information about activities for which the Village of Gilberts acts solely as a trustee or agent for the benefit of those outside of the government.

Government-Wide Financial Statements

The government-wide financial statements provide readers with a broad overview of the Village of Gilberts' finances, in a matter similar to a private-sector business. The Statement of Net Position reports information on all of the Village of Gilberts' assets/deferred outflows and liabilities/deferred inflows, with the difference between the two reported as net position.

Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Village of Gilberts is improving or deteriorating. Consideration of other nonfinancial factors, such as changes in the Village of Gilberts' property tax base and the condition of the Village of Gilberts' infrastructure, is needed to assess the overall health of the Village of Gilberts.

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

USING THIS ANNUAL REPORT – Continued

Government-Wide Financial Statements - Continued

The Statement of Activities presents information showing how the Village's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows.

Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., uncollected taxes and earned but unused vacation leave). Both of the government-wide financial statements distinguish functions of the Village of Gilberts that are principally supported by taxes and intergovernmental revenues (governmental activities) from other functions that are intended to recover all or a significant portion of their costs through user fees and charges (business-type activities). The governmental activities of the Village of Gilberts include general government, public safety, public works, and parks and recreation. The business-type activities of the Village of Gilberts include waterworks and sewerage operations.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The Village of Gilberts, like other local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All of the funds of the Village of Gilberts can be divided into three categories: governmental funds, proprietary funds, and fiduciary funds.

Governmental Funds

Governmental funds are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. However, governmental fund financial statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating the Village of Gilberts' near-term financing requirements.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances provide a reconciliation to facilitate the comparison between governmental funds and governmental activities.

The Village of Gilberts maintains five individual governmental funds. Information is presented separately in the governmental funds balance sheet and in the governmental funds statement of revenues, expenditures, and changes in fund balances for the General Fund and TIF #2 Funds, which are considered major funds. Data from the other three governmental funds are combined into a single, aggregated presentation. Individual fund data for each of these nonmajor governmental funds is provided in the form of combining statements elsewhere in this report.

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

USING THIS ANNUAL REPORT – Continued

Governmental Funds – Continued

The Village of Gilberts adopts an annual appropriated budget for the General Fund. The Village also prepares a working budget to monitor day-to-day operations.

Proprietary Funds

The Village of Gilberts maintains only one proprietary fund, an enterprise fund. Enterprise funds are used to report the functions presented as business-type activities in the government-wide financial statements. The Village of Gilberts utilizes an enterprise fund to account for its water and wastewater utility operations. The proprietary fund financial statements provide financial information for the Utility Fund, which is considered to be a major fund of the Village of Gilberts.

Fiduciary Funds

Fiduciary funds are used to account for resources held for the benefit of parties outside the government. Fiduciary funds are not reflected in the government-wide financial statements because the resources of those funds are not available to support the Village of Gilberts' own programs. The basis of accounting used for fiduciary funds is much like that used for proprietary funds.

Notes to the Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements.

Other Information

In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information concerning the Village of Gilberts' employee pension obligations and the budgetary comparison schedule for the General Fund. The combining statements referred to earlier in connection with non-major governmental funds and internal service funds are presented immediately following the required supplementary information on pensions.

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

USING THIS ANNUAL REPORT – Continued

GOVERNMENT-WIDE FINANCIAL ANALYSIS

Net position may serve over time as a useful indicator of a government's financial position. The following tables show that in the case of the Village of Gilberts, assets/deferred outflows exceeded liabilities/deferred inflows by \$64.4 million.

	Net Position					
	Governmental Activities		Business-Type Activities		Totals	
	2021	2020	2021	2020	2021	2020
Current & Other Assets	\$ 11,928,238	9,755,075	6,269,260	5,829,091	18,197,498	15,584,166
Capital Assets	43,921,582	44,907,185	15,107,853	15,504,920	59,029,435	60,412,105
Total Assets	55,849,820	54,662,260	21,377,113	21,334,011	77,226,933	75,996,271
Def. Outflows	850,920	1,226,109	558,555	90,610	1,409,475	1,316,719
Total Assets/ Def. Outflows	56,700,740	55,888,369	21,935,668	21,424,621	78,636,408	77,312,990
Long-Term Debt	7,120,143	9,232,490	1,015,718	617,780	8,135,861	9,850,270
Other Liabilities	1,808,559	1,282,319	621,603	617,716	2,430,162	1,900,035
Total Liabilities	8,928,702	10,514,809	1,637,321	1,235,496	10,566,023	11,750,305
Def. Inflows	3,580,171	3,012,774	75,137	38,987	3,655,308	3,051,761
Total Liabilities/ Def. Inflows	12,508,873	13,527,583	1,712,458	1,274,483	14,221,331	14,802,066
Net Position						
Net Investment in Capital Assets	37,440,886	37,692,010	14,730,145	15,101,878	52,171,031	52,793,888
Restricted	2,833,658	1,745,896	-	-	2,833,658	1,745,896
Unrestricted	3,917,323	2,922,880	5,493,065	5,048,260	9,410,388	7,971,140
Total Net Position	44,191,867	42,360,786	20,223,210	20,150,138	64,415,077	62,510,924

The Village of Gilberts' investment in capital assets (for example, land, buildings, machinery, and equipment), less any related debt used to acquire those assets that is still outstanding is the largest portion of the Village's net position at 81.0% of total net position. The Village of Gilberts uses these capital assets to provide services to citizens. Because these assets are physical improvements, they cannot be liquidated and are not available for future spending. Although the Village of Gilberts' investment in its capital assets is reported net of related debt, other sources are needed to repay outstanding debt since the capital assets themselves cannot be liquidated to cover these liabilities.

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

GOVERNMENT-WIDE FINANCIAL ANALYSIS – continued

An additional portion, or 4.4%, of the Village of Gilberts' net position represents resources that are subject to external restrictions on how they may be used. The remaining 14.6%, or \$9,410,388, represents unrestricted net position and may be used to meet the government's ongoing obligations to citizens and creditors.

	Change in Net Position					
	Governmental Activities		Business-Type Activities		Totals	
	2021	2020	2021	2020	2021	2020
Revenues						
Program Revenues						
Charges for Services	\$ 1,272,609	1,309,264	1,873,731	1,730,800	3,146,340	3,040,064
Operating Grants/Contributions	1,000,590	547,362	-	-	1,000,590	547,362
General Revenues						
Taxes						
Property Taxes	2,363,021	2,095,786	-	-	2,363,021	2,095,786
Utility Taxes	382,431	384,272	-	-	382,431	384,272
Intergovernmental						
Income Taxes	788,590	745,576	-	-	788,590	745,576
Replacement Taxes	375	397	-	-	375	397
Sales and Use Taxes	989,839	527,987	-	-	989,839	527,987
Other General Revenues	220,057	362,230	29,678	118,903	249,735	481,133
Total Revenues	<u>7,017,512</u>	<u>5,972,874</u>	<u>1,903,409</u>	<u>1,849,703</u>	<u>8,920,921</u>	<u>7,822,577</u>
Expenses						
General Government	1,759,180	2,109,537	-	-	1,759,180	2,109,537
Public Safety	1,742,561	1,519,146	-	-	1,742,561	1,519,146
Public Works	1,321,169	1,174,086	-	-	1,321,169	1,174,086
Parks and Recreation	34,745	56,386	-	-	34,745	56,386
Interest on Long-Term Debt	328,776	367,341	-	-	328,776	367,341
Utility	-	-	1,830,337	1,752,878	1,830,337	1,752,878
Total Expenses	<u>5,186,431</u>	<u>5,226,496</u>	<u>1,830,337</u>	<u>1,752,878</u>	<u>7,016,768</u>	<u>6,979,374</u>
Change in Net Position	1,831,081	746,378	73,072	96,825	1,904,153	843,203
Net Position - Beginning	<u>42,360,786</u>	<u>41,614,408</u>	<u>20,150,138</u>	<u>20,053,313</u>	<u>62,510,924</u>	<u>61,667,721</u>
Net Position- Ending	<u>44,191,867</u>	<u>42,360,786</u>	<u>20,223,210</u>	<u>20,150,138</u>	<u>64,415,077</u>	<u>62,510,924</u>

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

GOVERNMENT-WIDE FINANCIAL ANALYSIS – Continued

Net position of the Village's governmental activities had an increase from the prior year due to an increase in revenues and slight decreases in expenses for the year. Revenues for the governmental activities totaled \$7.0 million which is a 17.5% increase due to higher amounts of operating grants, property taxes, income taxes and sales and uses taxes being received. Expenses for the governmental activities totaled \$5.2 million and decreased just slightly from the prior year by 0.8%. Expenses for governmental activities included \$1,081,948 of depreciation expense.

Net position of the business-type activities increased by less than one percent or \$73,072 from the prior year. Revenues for the business-type activities totaled \$1.9 million along with expenses for the business-type activities of \$1.8 million which includes \$489,199 of depreciation expense.

Revenues for the Village as a whole totaled \$8,920,921 (\$7,822,577 in the prior year), while expenses for the Village as a whole totaled \$7,016,768 (\$6,979,374 in the prior year).

Governmental Activities

Revenues for governmental activities this year were \$7,017,512. The cost of all governmental activities this year was \$5,186,431. The largest percentage of governmental expenses was to fund general government activities (33.9% of the \$5.2 million in total expenses for the governmental activities).

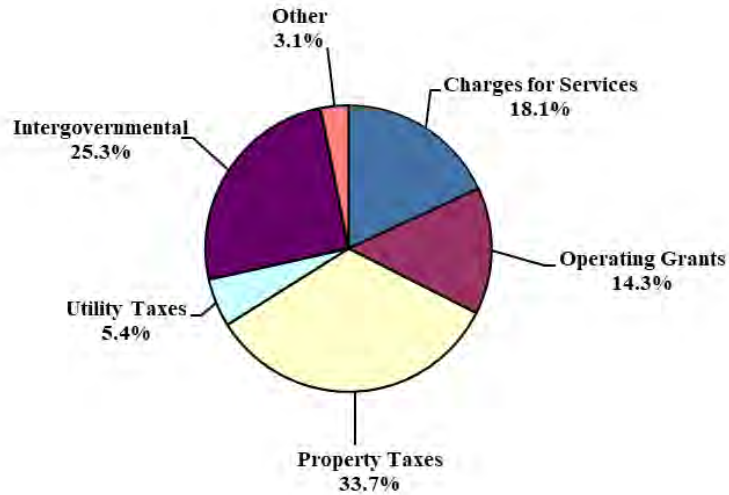
The following table graphically depicts the major revenue sources of the Village of Gilberts. The graph depicts very clearly the reliance of intergovernmental revenues, property taxes and charges for services to fund governmental activities. It also clearly identifies the smaller percentage the Village of Gilberts receives from utility taxes and other revenue sources. Except for property taxes, there was a small decline in most categories.

VILLAGE OF GILBERTS, ILLINOIS

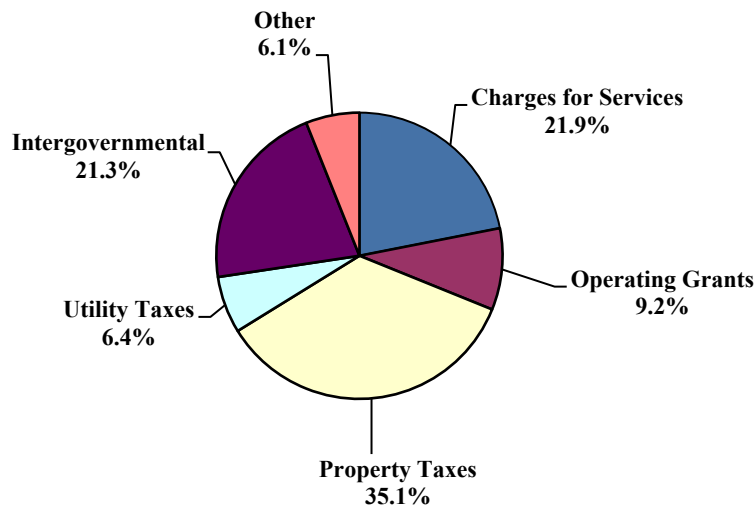
Management's Discussion and Analysis
April 30, 2021

GOVERNMENT-WIDE FINANCIAL ANALYSIS – Continued

Revenues by Source - Governmental Activities
at April 30, 2021



Revenues by Source - Governmental Activities
at April 30, 2020



Property taxes increased \$267,235 from 2020 to 2021 and sales and use taxes increased \$461,852 from 2020 to 2021. Income taxes increased during the year, as well. The increase in operating grants/contributions is due to additional grants received.

VILLAGE OF GILBERTS, ILLINOIS

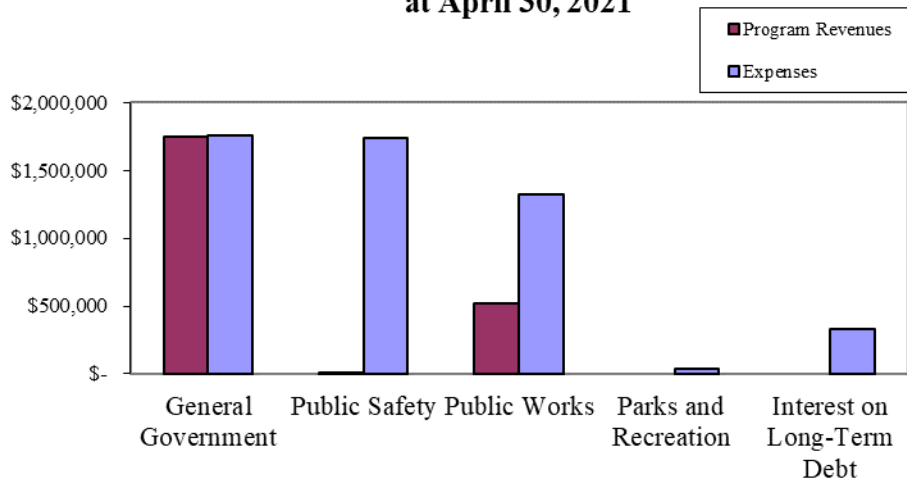
**Management’s Discussion and Analysis
April 30, 2021**

GOVERNMENT-WIDE FINANCIAL ANALYSIS – Continued

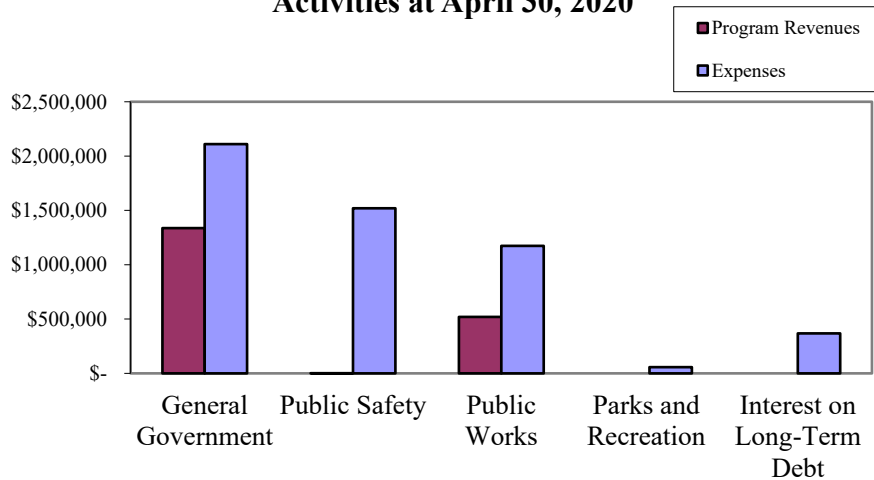
Governmental Activities – Continued

The ‘Expenses and Program Revenues’ Table identifies those governmental functions where program expenses greatly exceed revenues. For fiscal year 2021, the largest area where expenses exceeded program revenues was in the public safety function and was 99.9 percent. There were nominal changes over the two-year period in all categories except General Government.

**Expenses and Program Revenues - Governmental Activities
at April 30, 2021**



**Expenses and Program Revenues - Governmental
Activities at April 30, 2020**



VILLAGE OF GILBERTS, ILLINOIS

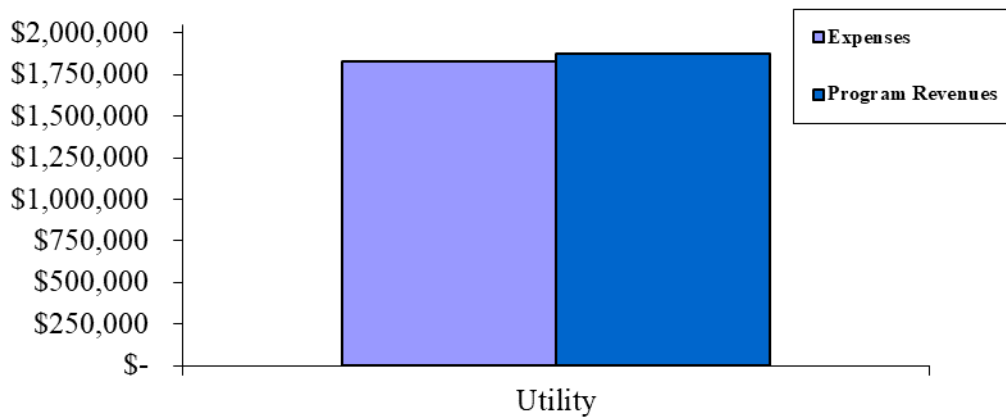
Management’s Discussion and Analysis
April 30, 2021

GOVERNMENT-WIDE FINANCIAL ANALYSIS – Continued

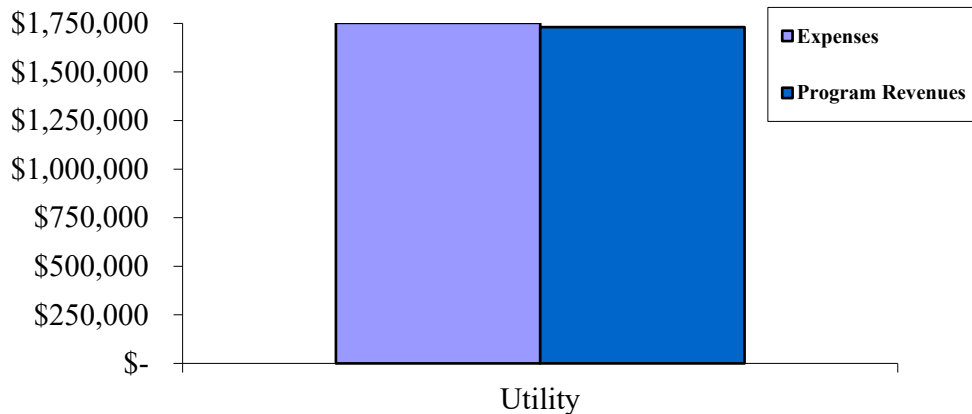
Business-Type Activities

Revenues for the business-type activities totaled \$1,903,409 for the year, while expenses totaled \$1,830,337 for the year (including depreciation expense of \$489,199). The following chart ‘Expenses and Program Revenues – Business-Type Activities’ shows expenses exceeding revenue for the business-type activities. There were no major repairs during the fiscal year. Excluding depreciation expense, revenues exceeded expenses by \$562,271.

Expenses and Program Revenues - Business-Type Activities at
April 30, 2021



Expenses and Program Revenues - Business-Type Activities at
April 30, 2020



VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

FINANCIAL ANALYSIS OF THE GOVERNMENT'S FUNDS

As noted earlier, the Village uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

Governmental funds

The focus of the Village's governmental funds is to provide information on near-term inflows, outflows, and balances of spendable resources. In particular, unassigned fund balance may serve as a useful measure of a government's net resources available for spending at the end of the fiscal year.

As of the end of the current fiscal year, the governmental funds reported combined ending fund balances of \$8.6 million, which is an increase of \$2.0 million from last year's total of \$6.6 million.

The General Fund reported an ending fund balance of \$5,806,349, an increase of 20.0% or \$967,875. This increase was due to lower expenditures and higher revenue than anticipated. Ending unassigned fund balance in the General Fund of \$2,697,125 represents 68.1% or approximately 8 months of operating expenditures.

The TIF #2 Fund, also a major fund, reported an increase of \$207,657 in fund balance, resulting in ending fund balance of \$569,085. Fund balance is restricted for future qualifying TIF #2 expenditures. Revenues for the year totaled \$973,442, including \$942,069 in incremental taxes. Expenditures in the fund totaled \$765,785, which are predominantly made up of principal and interest costs on the 2014 Tax Increment Revenue Notes. The notes are scheduled to be repaid on November 1, 2034.

Proprietary funds

The Village's proprietary fund provides the same type of information found in the government-wide financial statements, but in more detail.

The Village reports the Utility Fund as a major proprietary fund. This fund accounts for the provision of potable water and wastewater treatment services to the residents of the Village. All activities necessary to provide such services are accounted for in this fund, including, but not limited to, administration, operations and maintenance, financing and related debt service, billing and collection.

The Utility Fund net position increased by less than one percent from the prior year or \$73,072.

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

GENERAL FUND BUDGETARY HIGHLIGHTS

The Village made two amendments to the original budgeted expenditures for the General Fund to reflect the spending of the Village more accurately. General Fund actual revenues for the year totaled \$4,966,738 compared to final budgeted revenues of \$4,822,161. The major portion of this increase was due to higher than anticipated intergovernmental revenues.

The General Fund actual expenditures for the year were less than budgeted by \$477,231 (\$3,963,418 actual compared to \$4,440,649 final budgeted). The general government and public safety functions were all lower than budgeted expenditures by \$120,932 and \$3,788, respectively, as management's awareness of budgetary constraints lead to reduced spending. Capital outlay expenditures were budgeted at \$498,096 for the year, with actual expenditures of \$129,174.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The Village's investment in capital assets for its governmental and business type activities as of April 30, 2021 was \$59.0 million (net of accumulated depreciation). This investment in capital assets includes land, land improvements, buildings and improvements, vehicles, machinery and equipment, park facilities, roads, sidewalks, and bridges.

	Capital Assets - Net of Accumulated Depreciation					
	Governmental Activities		Business-Type Activities		Totals	
	2021	2020	2021	2020	2021	2020
Land	\$ 25,584,853	25,584,853	937,200	937,200	26,522,053	26,522,053
Land Improvements	1,105,365	1,193,815	-	-	1,105,365	1,193,815
Buildings and Structures	1,174,225	1,215,169	7,805,769	8,004,315	8,979,994	9,219,484
Machinery & Equipment	205,443	179,433	-	-	205,443	179,433
Infrastructure	15,851,696	16,733,915	6,364,884	6,563,405	22,216,580	23,297,320
Totals	43,921,582	44,907,185	15,107,853	15,504,920	59,029,435	60,412,105

Additional information on the Village's capital assets can be found in Note 3 to the financial statements.

VILLAGE OF GILBERTS, ILLINOIS

Management's Discussion and Analysis April 30, 2021

CAPITAL ASSETS AND DEBT ADMINISTRATION – Continued

Debt Administration

At year-end, the Village had total debt of \$6,858,404 as compared to \$7,618,217 the previous year. The following is a comparative statement of outstanding debt:

	Long-Term Debt Outstanding					
	Governmental Activities		Business-Type Activities		Totals	
	2021	2020	2021	2020	2021	2020
Installment Notes Payable	\$ 491,396	516,883	-	-	491,396	516,883
IEPA Loan	-	-	377,708	403,042	377,708	403,042
General Obligation Bonds	225,000	481,592	-	-	225,000	481,592
Tax Increment Revenue Note Payable	5,764,300	6,216,700	-	-	5,764,300	6,216,700
	<u>6,480,696</u>	<u>7,215,175</u>	<u>377,708</u>	<u>403,042</u>	<u>6,858,404</u>	<u>7,618,217</u>

Additional information on the Village's debt can be found in Note 3 to the financial statements.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

The Village's elected and appointed officials considered many factors when setting the fiscal year 2021 budget, tax rates, and fees that will be charged for its governmental and business-type activities. One of those factors is the economy. The Village is faced with a similar economic environment as many of the other local municipalities are faced with, including inflation, unemployment rates, and a slow residential housing market. Budget expenditures for 2022 are expected to remain approximately the same; 2021 being \$4.34 million and 2022 projected at \$4.5 million in the General Fund.

In March 2020, the World Health Organization declared the COVID-19 virus a public health emergency. As of the date of this report, the extent of the impact of COVID-19 on the Village's operations and financial position cannot be determined.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Village of Gilberts' finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional information should be directed to Office of the Finance Director, Village of Gilberts, 87 Galligan Road, Gilberts, IL 60136.

BASIC FINANCIAL STATEMENTS

The basic financial Statements include integrated sets of financial statements as required by the GASB. The sets of statements include:

- Government-Wide Financial Statements
- Fund Financial Statements

Governmental Funds

Proprietary Fund

Fiduciary Funds

In addition, the notes to the financial statements are included to provide information that is essential to a user's understanding of the basic financial statements.

VILLAGE OF GILBERTS, ILLINOIS

Statement of Net Position
April 30, 2021

See Following Page

VILLAGE OF GILBERTS, ILLINOIS

**Statement of Net Position
April 30, 2021**

	Governmental Activities	Business-Type Activities	Totals
ASSETS			
Current Assets			
Cash and Cash Equivalents	\$ 7,811,924	6,095,666	13,907,590
Receivables - Net of Allowances			
Property Taxes	2,365,665	-	2,365,665
Accounts	916,443	786,662	1,703,105
Tap on Fees	-	1,007	1,007
Internal Balances	636,409	(636,409)	-
Deposits - Insurance	124,327	-	124,327
Prepays	73,470	22,334	95,804
Total Current Assets	<u>11,928,238</u>	<u>6,269,260</u>	<u>18,197,498</u>
Noncurrent Assets			
Capital Assets			
Nondepreciable	25,584,853	937,200	26,522,053
Depreciable	44,518,196	22,257,225	66,775,421
Accumulated Depreciation	(26,181,467)	(8,086,572)	(34,268,039)
Total Noncurrent Assets	<u>43,921,582</u>	<u>15,107,853</u>	<u>59,029,435</u>
Total Assets	<u>55,849,820</u>	<u>21,377,113</u>	<u>77,226,933</u>
DEFERRED OUTFLOWS OF RESOURCES			
Deferred Items - IMRF	119,917	78,555	198,472
Deferred Items - Police Pension	731,003	-	731,003
Deferred Items - ARO	-	480,000	480,000
Total Deferred Outflows of Resources	<u>850,920</u>	<u>558,555</u>	<u>1,409,475</u>
Total Assets and Deferred Outflows of Resources	<u>56,700,740</u>	<u>21,935,668</u>	<u>78,636,408</u>

The notes to the financial statements are an integral part of this statement.

	Governmental Activities	Business-Type Activities	Totals
LIABILITIES			
Current Liabilities			
Accounts Payable	\$ 132,194	70,687	202,881
Accrued Payroll	20,476	7,653	28,129
Accrued Interest Payable	147,858	-	147,858
Deposits Payable	268,308	-	268,308
Other Payables	517,372	517,372	1,034,744
Due to Other Governments	938	-	938
Current Portion of Long-Term Liabilities	721,413	25,891	747,304
Total Current Liabilities	<u>1,808,559</u>	<u>621,603</u>	<u>2,430,162</u>
Noncurrent Liabilities			
Compensated Absences Payable	20,069	258	20,327
Net Pension Liability - IMRF	280,240	183,578	463,818
Net Pension Liability - Police Pension	1,055,534	-	1,055,534
Asset Retirement Obligation	-	480,000	480,000
Tax Increment Revenue Note Payable	5,764,300	-	5,764,300
IEPA Loan Payable	-	351,882	351,882
Total Noncurrent Liabilities	<u>7,120,143</u>	<u>1,015,718</u>	<u>8,135,861</u>
Total Liabilities	<u>8,928,702</u>	<u>1,637,321</u>	<u>10,566,023</u>
DEFERRED INFLOWS OF RESOURCES			
Deferred Items - IMRF	114,701	75,137	189,838
Deferred Items - Police Pension	1,099,805	-	1,099,805
Property Taxes	2,365,665	-	2,365,665
Total Deferred Inflows of Resources	<u>3,580,171</u>	<u>75,137</u>	<u>3,655,308</u>
Total Liabilities and Deferred Inflows of Resources	<u>12,508,873</u>	<u>1,712,458</u>	<u>14,221,331</u>
NET POSITION			
Net Investment in Capital Assets	37,440,886	14,730,145	52,171,031
Restricted - Public Safety	16,722	-	16,722
Restricted - Community Days	11,344	-	11,344
Restricted - Highways and Streets Road Improvement	1,333,902	-	1,333,902
Restricted - Capital Projects	1,471,690	-	1,471,690
Unrestricted	3,917,323	5,493,065	9,410,388
Total Net Position	<u>44,191,867</u>	<u>20,223,210</u>	<u>64,415,077</u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

**Statement of Activities
For the Fiscal Year Ended April 30, 2021**

	Expenses	Program Revenues		
		Charges for Services	Operating Grants/ Contributions	Capital Grants/ Contributions
Governmental Activities				
General Government	\$ 1,759,180	1,272,389	479,479	-
Public Safety	1,742,561	220	-	-
Public Works	1,321,169	-	521,111	-
Parks and Recreation	34,745	-	-	-
Interest on Long-Term Debt	328,776	-	-	-
Total Governmental Activities	5,186,431	1,272,609	1,000,590	-
Business-Type Activities				
Utility	1,830,337	1,873,731	-	-
Total Primary Government	7,016,768	3,146,340	1,000,590	-

General Revenues
Taxes
 Property Taxes
 Utility Taxes
Intergovernmental - Unrestricted
 Income Taxes
 Sales and Use Taxes
 Replacement Taxes
Investment Income
Miscellaneous

Change in Net Position

Net Position - Beginning

Net Position - Ending

The notes to the financial statements are an integral part of this statement.

Net (Expenses)/Revenues		
Primary Government		
Governmental Activities	Business-Type Activities	Totals
(7,312)	-	(7,312)
(1,742,341)	-	(1,742,341)
(800,058)	-	(800,058)
(34,745)	-	(34,745)
(328,776)	-	(328,776)
(2,913,232)	-	(2,913,232)
-	43,394	43,394
(2,913,232)	43,394	(2,869,838)
2,363,021	-	2,363,021
382,431	-	382,431
788,590	-	788,590
989,839	-	989,839
375	-	375
42,558	29,678	72,236
177,499	-	177,499
4,744,313	29,678	4,773,991
1,831,081	73,072	1,904,153
42,360,786	20,150,138	62,510,924
44,191,867	20,223,210	64,415,077

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

**Balance Sheet - Governmental Funds
April 30, 2021**

	General	Capital Projects TIF #2	Nonmajor	Totals
ASSETS				
Cash and Investments	\$ 5,224,450	489,717	2,097,757	7,811,924
Receivables - Net of Allowances				
Property Taxes	1,262,157	885,989	217,519	2,365,665
Accounts	840,779	1,331	74,333	916,443
Due from Other Funds	636,409	78,037	75,761	790,207
Deposits - Insurance	124,327	-	-	124,327
Prepays	73,470	-	-	73,470
Total Assets	<u>8,161,592</u>	<u>1,455,074</u>	<u>2,465,370</u>	<u>12,082,036</u>
LIABILITIES				
Accounts Payable	132,194	-	-	132,194
Accrued Payroll	20,476	-	-	20,476
Deposits Payable	268,308	-	-	268,308
Other Payables	517,372	-	-	517,372
Due to Other Funds	153,798	-	-	153,798
Due to Other Governments	938	-	-	938
Total Liabilities	<u>1,093,086</u>	<u>-</u>	<u>-</u>	<u>1,093,086</u>
DEFERRED INFLOWS OF RESOURCES				
Property Taxes	1,262,157	885,989	217,519	2,365,665
Total Liabilities and Deferred Inflows of Resources	<u>2,355,243</u>	<u>885,989</u>	<u>217,519</u>	<u>3,458,751</u>
FUND BALANCES				
Nonspendable	73,470	-	-	73,470
Restricted	16,722	569,085	2,247,851	2,833,658
Committed	3,019,032	-	-	3,019,032
Unassigned	2,697,125	-	-	2,697,125
Total Fund Balances	<u>5,806,349</u>	<u>569,085</u>	<u>2,247,851</u>	<u>8,623,285</u>
Total Liabilities, Deferred Inflows of Resources and Fund Balances	<u>8,161,592</u>	<u>1,455,074</u>	<u>2,465,370</u>	<u>12,082,036</u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

**Reconciliation of Total Governmental Fund Balance to
Net Position - Governmental Activities**

April 30, 2021

Total Governmental Fund Balances	\$ 8,623,285
Amounts reported for governmental activities in the Statement of Net Position are different because:	
Capital assets used in governmental activities are not financial resources and therefore, are not reported in the funds.	43,921,582
Deferred outflows (inflows) of resources related to the pensions not reported in the funds.	
Deferred Items - IMRF	5,216
Deferred Items - Police Pension	(368,802)
Long-term liabilities are not due and payable in the current period and therefore are not reported in the funds.	
Compensated Absences Payable	(25,086)
Net Pension Liability - IMRF	(280,240)
Net Pension Liability - Police Pension	(1,055,534)
General Obligation Bonds Payable	(225,000)
Tax Increment Revenue Note Payable	(5,764,300)
Installment Notes Payable	(491,396)
Accrued Interest Payable	<u>(147,858)</u>
Net Position of Governmental Activities	<u><u>44,191,867</u></u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds
For the Fiscal Year Ended April 30, 2021

	General	Capital Projects TIF #2	Nonmajor	Totals
Revenues				
Taxes	\$ 1,605,057	942,069	198,326	2,745,452
Licenses, Permits and Fees	132,485	-	-	132,485
Intergovernmental	1,937,115	-	842,279	2,779,394
Charges for Services	1,115,518	-	-	1,115,518
Fines and Forfeitures	24,606	-	-	24,606
Investment Income	12,013	768	29,777	42,558
Miscellaneous	139,944	30,605	6,950	177,499
Total Revenues	4,966,738	973,442	1,077,332	7,017,512
Expenditures				
Current				
General Government	809,692	2,550	794	813,036
Public Safety	1,683,322	-	-	1,683,322
Public Works	1,223,423	-	-	1,223,423
Parks and Recreation	34,745	-	-	34,745
Capital Outlay	129,174	-	-	129,174
Debt Service				
Principal Retirement	67,079	452,400	215,000	734,479
Interest and Fiscal Charges	15,983	310,835	17,600	344,418
Total Expenditures	3,963,418	765,785	233,394	4,962,597
Excess (Deficiency) of Revenues Over (Under) Expenditures	1,003,320	207,657	843,938	2,054,915
Other Financing Sources (Uses)				
Transfers In	59,742	-	95,187	154,929
Transfers Out	(95,187)	-	(59,742)	(154,929)
	(35,445)	-	35,445	-
Net Change in Fund Balances	967,875	207,657	879,383	2,054,915
Fund Balances - Beginning	4,838,474	361,428	1,368,468	6,568,370
Fund Balances - Ending	5,806,349	569,085	2,247,851	8,623,285

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

Reconciliation of the Statement of Revenues, Expenditures and Changes in Fund Balances
to the Statement of Activities - Governmental Activities

For the Fiscal Year Ended April 30, 2021

Net Change in Fund Balances - Total Governmental Funds \$ 2,054,915

Amounts reported for governmental activities in the Statement of Activities
are different because:

Governmental funds report capital outlays as expenditures. However, in the
Statement of Activities the cost of those assets is allocated over their estimated
useful lives and reported as depreciation expense.

Capital Outlay	96,345
Depreciation Expense	(1,081,948)

The net effect of deferred outflows (inflows) of resources related to the pensions
not reported in the funds.

Change in Deferred Items - IMRF	(78,873)
Change in Deferred Items - Police Pension	(852,804)

The issuance of long-term debt provides current financial resources to
governmental funds, while the repayment of the principal on long-term
debt consumes the current financial resources of the governmental funds.

Change in Compensated Absences Payable	(1,129)
Change in Net Pension Liability - IMRF	107,611
Change in Net Pension Liability - Police Pension	836,843
Retirement of Debt	734,479

Changes to accrued interest on long-term debt in the Statement of Activities
do not require the use of current financial resources and, therefore, are not
reported as expenditures in the governmental funds.

15,642

Changes in Net Position of Governmental Activities

1,831,081

VILLAGE OF GILBERTS, ILLINOIS

Statement of Net Position - Proprietary Fund

April 30, 2021

	Business-Type Activities
	<u>Utility</u>
ASSETS	
Current Assets	
Cash and Investments	\$ 6,095,666
Receivables - Net of Allowances	
Accounts - Customer	786,662
Tap on Fees - Old Town	1,007
Prepays	22,334
Total Current Assets	<u>6,905,669</u>
Noncurrent Assets	
Capital Assets	
Nondepreciable	937,200
Depreciable	22,257,225
Accumulated Depreciation	<u>(8,086,572)</u>
Total Noncurrent Assets	<u>15,107,853</u>
Total Assets	<u>22,013,522</u>
DEFERRED OUTFLOWS OF RESOURCES	
Deferred Items - IMRF	78,555
Deferred Items - ARO	480,000
Total Deferred Outflows of Resources	<u>558,555</u>
Total Assets and Deferred Outflows of Resources	<u>22,572,077</u>

The notes to the financial statements are an integral part of this statement.

		<u>Business-Type Activities Utility</u>
LIABILITIES		
Current Liabilities		
Accounts Payable		\$ 70,687
Accrued Payroll		7,653
Other Payables		517,372
Due to Other Funds		636,409
Compensated Absences		65
IEPA Loan Payable		25,826
Total Current Liabilities		<u>1,258,012</u>
Noncurrent Liabilities		
Compensated Absences		258
Net Pension Liability - IMRF		183,578
Asset Retirement Obligation		480,000
IEPA Loan Payable		351,882
Total Noncurrent Liabilities		<u>1,015,718</u>
Total Liabilities		<u>2,273,730</u>
DEFERRED INFLOWS OF RESOURCES		
Deferred Items - IMRF		<u>75,137</u>
Total Liabilities and Deferred Inflows of Resources		<u>2,348,867</u>
NET POSITION		
Net Investment in Capital Assets		14,730,145
Committed - Capital Projects		307,154
Unrestricted		<u>5,185,911</u>
Total Net Position		<u><u>20,223,210</u></u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

Statement of Revenues, Expenses and Changes in Net Position - Proprietary Fund
For the Fiscal Year Ended April 30, 2021

	<u>Business-Type Activities Utility</u>
Operating Revenues	
Charges for Services	\$ 1,834,026
Sales of Water Meters	10,925
Other Operating Revenues	27,379
Total Operating Revenues	<u>1,872,330</u>
Operating Expenses	
Operations	
Water	736,668
Wastewater	596,813
Depreciation	489,199
Total Operating Expenses	<u>1,822,680</u>
Operating Income	<u>49,650</u>
Nonoperating Revenues (Expenses)	
Investment Income	29,678
Tap-On Fees	1,401
Interest Expense	(7,657)
	<u>23,422</u>
Change in Net Position	73,072
Net Position - Beginning	<u>20,150,138</u>
Net Position - Ending	<u><u>20,223,210</u></u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

Statement of Cash Flows - Proprietary Fund
For the Fiscal Year Ended April 30, 2021

	Business-Type Activities
	<u>Utility</u>
Cash Flows from Operating Activities	
Receipts from Customers and Users	\$ 1,442,319
Payments to Suppliers	(3,562)
Payments to Employees	(361,827)
	<u>1,076,930</u>
Cash Flows from Capital and Related Financing Activities	
Purchase of Capital Assets	(92,132)
Interest on Installment Loan	(7,657)
Principal Paid on Installment Loan	(25,334)
	<u>(125,123)</u>
Cash Flows from Investing Activities	
Interest Received	29,678
	<u>29,678</u>
Net Change in Cash and Cash Equivalents	981,485
Cash and Cash Equivalents - Beginning	<u>5,114,181</u>
Cash and Cash Equivalents - Ending	<u><u>6,095,666</u></u>
Reconciliation of Operating Income to Net Cash	
Provided (Used) by Operating Activities	
Operating Income	49,650
Adjustments to Reconcile Operating Income (Loss)	
Income to Net Cash Provided by	
(Used in) Operating Activities:	
Other Income	1,401
Depreciation Expense	489,199
(Increase) Decrease in Current Assets	(431,412)
Increase (Decrease) in Current Liabilities	968,092
	<u>968,092</u>
Net Cash Provided by Operating Activities	<u><u>1,076,930</u></u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

**Statement of Fiduciary Net Position
April 30, 2021**

	<u>Pension Trust</u> <u>Police Pension</u>	<u>Custodial</u> <u>Special</u> <u>Service Areas</u>
ASSETS		
Cash and Cash Equivalents	\$ 352,636	8,455,365
Investments		
U.S. Treasury Securities	899,223	-
U.S. Agency Securities	336,683	-
Corporate Bonds	987,483	-
Mutual Funds	2,429,342	-
Receivables - Net of Allowances		
Accrued Interest	12,220	-
Prepays	<u>2,303</u>	<u>-</u>
	5,019,890	8,455,365
LIABILITIES		
Accounts Payable	<u>2,316</u>	<u>-</u>
NET POSITION		
Net Position Restricted	<u><u>5,017,574</u></u>	<u><u>8,455,365</u></u>

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

**Statement of Changes in Fiduciary Net Position
For the Fiscal Year Ended April 30, 2021**

	Pension Trust Police Pension	Custodial Special Service Areas
Additions		
Contributions - Employer	\$ 364,908	-
Contributions - Plan Members	81,759	-
Property Taxes	-	2,351,307
Miscellaneous	-	235,736
Total Contributions	446,667	2,587,043
Investment Income		
Interest Earned	107,389	239,264
Net Change in Fair Value	709,388	-
	816,777	239,264
Less Investment Expenses	(19,698)	-
Net Investment Income	797,079	239,264
Total Additions	1,243,746	2,826,307
Deductions		
Administration	24,332	1,665,445
Refunds	32,112	-
Professional Services	-	531,167
Debt Service		
Principal and Interest	-	2,342,590
Total Deductions	56,444	4,539,202
Change in Fiduciary Net Position	1,187,302	(1,712,895)
Net Position Restricted for		
Beginning		
Pensions	3,830,272	-
Individuals, Organizations, and Other Governments	-	10,168,260
	3,830,272	10,168,260
Ending	5,017,574	8,455,365

The notes to the financial statements are an integral part of this statement.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Village of Gilberts (Village), Illinois, incorporated in 1890, is a municipal corporation governed by an elected president and six-member Board of Trustees. The Village's major operations include police safety, highway and street maintenance and reconstruction, building code enforcement, public improvements, economic development, planning and zoning, water and sanitation, and general administrative services.

The government-wide financial statements are prepared in accordance with generally accepted accounting principles (GAAP). The Governmental Accounting Standards Board (GASB) is responsible for establishing GAAP for state and local governments through its pronouncements (Statements and Interpretations). The more significant of the Village's accounting policies established in GAAP and used by the Village are described below.

REPORTING ENTITY

The Village's financial reporting entity comprises the following:

Primary Government:	Village of Gilberts
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In determining the financial reporting entity, the Village complies with the provisions of GASB Statement No. 61, "The Financial Reporting Omnibus – an Amendment of GASB Statements No. 14 and No. 34," and includes all component units that have a significant operational or financial relationship with the Village. Based upon the criteria set forth in the GASB Statement No. 61, there are no component units included in the reporting entity.

Police Pension Employees Retirement System

The Village's sworn police employees participate in the Police Pension Employees Retirement System (PPERS). PPERS functions for the benefit of these employees and is governed by a five-member pension board. The pension board consists of two members appointed by the Village President, one elected member by pension beneficiaries and two elected members are active police employees. The participants are required to contribute a percentage of salary as established by state statute and the Village is obligated to fund all remaining PPERS costs based upon actuarial valuations. The State of Illinois is authorized to establish benefit levels and the Village is authorized to approve the actuarial assumptions used in the determination of contribution levels. Although it is legally separate from the Village, the PPERS is reported as if it were part of the primary government because its sole purpose is to provide retirement benefits for the Village's police employees. The PPERS is reported as a pension trust fund.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

BASIS OF PRESENTATION

Government-Wide Statements

The Village's basic financial statements include both government-wide (reporting the Village as a whole) and fund financial statements (reporting the Village's major funds). Both the government-wide and fund financial statements categorize primary activities as either governmental or business-type. The Village's general government, public safety, public works, and parks and recreation services are classified as governmental activities. The Village's utility services are classified as business-type activities.

In the government-wide Statement of Net Position, both the governmental and business-type activities columns are: (a) presented on a consolidated basis by column, and (b) reported on a full accrual, economic resource basis, which recognizes all long-term assets and receivables as well as long-term debt and obligations. The Village's net position is reported in three parts: net invested in capital assets; restricted; and unrestricted. The Village first utilizes restricted resources to finance qualifying activities.

The government-wide Statement of Activities reports both the gross and net cost of each of the Village's functions and business-type activities (general government, public safety, public works, parks and recreation, utility, etc.). The functions are supported by general government revenues (property, sales and use taxes, certain intergovernmental revenues, fines, permits and charges, etc.). The Statement of Activities reduces gross expenses (including depreciation) by related program revenues, which include 1) charges to customers or applicants who purchase, use or directly benefit from goods, services or privileges provided by a given function or segment and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment.

The net costs (by function or business-type activity) are normally covered by general revenue (property taxes, sales and use taxes, intergovernmental revenues, investment income, etc.).

The Village does not allocate indirect costs. An administrative service fee is charged by the General Fund to the other operating funds that is eliminated like a reimbursement (reducing the revenue and expense in the General Fund) to recover the direct costs of General Fund services provided (finance, personnel, purchasing, legal, technology management, etc.).

This government-wide focus is more on the sustainability of the Village as an entity and the change in the Village's net position resulting from the current year's activities.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

BASIS OF PRESENTATION – Continued

Fund Financial Statements

The financial transactions of the Village are reported in individual funds in the fund financial statements. Each fund is accounted for by providing a separate set of self-balancing accounts that comprises its assets/deferred outflows, liabilities/deferred inflows, fund equity, revenues and expenditures/expenses. Funds are organized into three major categories: governmental, proprietary, and fiduciary. The emphasis in fund financial statements is on the major funds in either the governmental or business-type activities categories. Nonmajor funds by category are summarized into a single column. GASB Statement No. 34 sets forth minimum criteria (percentage of the assets/deferred outflows, liabilities/deferred inflows, revenues or expenditures/expenses of either fund category or the governmental and enterprise combined) for the determination of major funds. The Village electively added funds, as major funds, which either had debt outstanding or specific community focus. The nonmajor funds are combined in a column in the fund financial statements. A fund is considered major if it is the primary operating fund of the Village or meets the following criteria:

Total assets/deferred outflows, liabilities/deferred inflows, revenues, or expenditures/expenses of that individual governmental or enterprise fund are at least 10 percent of the corresponding total for all funds of that category or type; and

Total assets/deferred outflows, liabilities/deferred inflows, revenues, or expenditures/expenses of the individual governmental fund or enterprise fund are at least 5 percent of the corresponding total for all governmental and enterprise funds combined.

The various funds are reported by generic classification within the financial statements. The following fund types are used by the Village:

Governmental Funds

The focus of the governmental funds' measurement (in the fund statements) is upon determination of financial position and changes in financial position (sources, uses, and balances of financial resources) rather than upon net income. The following is a description of the governmental funds of the Village:

General Fund is the general operating fund of the Village. It is used to account for all financial resources except those required to be accounted for in another fund. The General Fund is a major fund.

Special revenue funds are used to account for the proceeds of specific revenue sources that are legally restricted to expenditures for specified purposes. The Village maintains two nonmajor special revenue funds, the Motor Fuel Tax Fund and the Community Days Fund.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

BASIS OF PRESENTATION – Continued

Fund Financial Statements – Continued

Governmental Funds – Continued

Capital projects funds are used to account for financial resources to be used for the acquisition or construction of major capital facilities (other than those financed by business-type/proprietary funds). The Village maintains one major capital projects fund, the TIF #2 Fund, which is used to account for activities associated with the redevelopment within the Tax Increment Financing District #2. The Village also maintains two nonmajor capital project funds, the TIF #1 Fund and the Road Improvement Fund.

Proprietary Funds

The focus of proprietary fund measurement is upon determination of operating income, changes in net position, financial position, and cash flows. The generally accepted accounting principles applicable are those similar to businesses in the private sector. The following is a description of the proprietary fund of the Village:

Enterprise funds are required to account for operations for which a fee is charged to external users for goods or services and the activity (a) is financed with debt that is solely secured by a pledge of the net revenues, (b) has third party requirements that the cost of providing services, including capital costs, be recovered with fees and charges or (c) establishes fees and charges based on a pricing policy designed to recover similar costs.

The Village maintains one major enterprise fund, the Utility Fund, which is used to account for the provision of water and wastewater treatment services to the residents of the Village. All activities necessary to provide such services are accounted for in this fund, including, but not limited to, administration, operations and maintenance, financing and related debt service, billing and collection.

Fiduciary Funds

Fiduciary funds are used to report assets held in a trustee or custodial capacity for others and therefore are not available to support Village programs. The reporting focus is on net position and changes in net position and is reported using accounting principles similar to proprietary funds.

Pension trust funds are used to account for assets held in a trustee capacity for pension benefit payments. The Police Pension Fund accounts for the accumulation of resources to be used for disability and retirement annuity payments to employees covered by the plan.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

BASIS OF PRESENTATION – Continued

Fund Financial Statements – Continued

Fiduciary Funds – Continued

Custodial funds are used to account for assets held by the Village in a purely custodial capacity. The Special Services Area #9 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued. The Special Services Area #15 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued. The Special Services Area #24 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued. The Special Services Area #25 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued.

The Village's fiduciary funds are presented in the fiduciary fund financial statements by type (pension trust and custodial). Since by definition these assets are being held for the benefit of a third party (other local governments, private parties, pension participants, etc.) and cannot be used to address activities or obligations of the Village, these funds are not incorporated into the government-wide statements.

MEASUREMENT FOCUS AND BASIS OF ACCOUNTING

Measurement focus is a term used to describe "which" transactions are recorded within the various financial statements. Basis of accounting refers to "when" transactions are recorded regardless of the measurement focus applied.

Measurement Focus

On the government-wide Statement of Net Position and the Statement of Activities, both governmental and business-type activities are presented using the economic resources measurement focus as defined below.

In the fund financial statements, the "current financial resources" measurement focus or the "economic resources" measurement focus is used as appropriate.

All governmental funds utilize a "current financial resources" measurement focus. Only current financial assets/deferred outflows and liabilities/deferred inflows are generally included on their balance sheets. Their operating statements present sources and uses of available spendable financial resources during a given period. These funds use fund balance as their measure of available spendable financial resources at the end of the period.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

MEASUREMENT FOCUS AND BASIS OF ACCOUNTING – Continued

Measurement Focus – Continued

All proprietary, pension trust, and custodial funds utilize an “economic resources” measurement focus. The accounting objectives of this measurement focus are the determination of operating income, changes in net position (or cost recovery), financial position, and cash flows. All assets/deferred outflows and liabilities/deferred inflows (whether current or noncurrent) associated with their activities are reported. Proprietary and pension trust fund equity is classified as net position.

Custodial funds are not involved in the measurement of results of operations; therefore, measurement focus is not applicable to them.

Basis of Accounting

In the government-wide Statement of Net Position and Statement of Activities, both governmental and business-type activities are presented using the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recorded when the liability/deferred inflow is incurred or economic asset used. Revenues, expenses, gains, losses, assets, and liabilities/deferred inflows resulting from exchange and exchange-like transactions are recognized when the exchange takes place.

In the fund financial statements, governmental funds are presented on the modified accrual basis of accounting. Under this modified accrual basis of accounting, revenues are recognized when “measurable and available.” Measurable means knowing or being able to reasonably estimate the amount. Available means collectible within the current period or within sixty days after year-end. The Village recognizes property taxes when they become both measurable and available in accordance with GASB Codification Section P70.

A sixty-day availability period is used for revenue recognition for all other governmental fund revenues. Expenditures (including capital outlay) are recorded when the related fund liability is incurred, except for general obligation bond principal and interest which are recognized when due.

In applying the susceptible to accrual concept under the modified accrual basis, those revenues susceptible to accrual are property taxes, sales and use taxes, franchise taxes, licenses, interest revenue, and charges for services. All other revenues are not susceptible to accrual because generally they are not measurable until received in cash.

All proprietary, pension trust and custodial funds utilize the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recorded when the liability is incurred or economic asset used.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

MEASUREMENT FOCUS AND BASIS OF ACCOUNTING – Continued

Basis of Accounting – Continued

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the Village's enterprise funds are charges to customers for sales and services. The Village also recognizes as operating revenue the portion of tap fees intended to recover the cost of connecting new customers to the system. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

ASSETS/DEFERRED OUTFLOWS, LIABILITIES/DEFERRED INFLOWS, AND NET POSITIONS OR EQUITY

Cash and Investments

Cash and cash equivalents on the Statement of Net Position are considered to be cash on hand, demand deposits, cash with fiscal agent. For the purpose of the proprietary funds "Statement of Cash Flows," cash and cash equivalents are considered to be cash on hand, demand deposits, cash with fiscal agent, and all highly liquid investments with an original maturity of three months or less.

Investments are generally reported at fair value. Short-term investments are reported at cost, which approximates fair value. For investments, the Village categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

Receivables

In the government-wide financial statements, receivables consist of all revenues earned at year-end and not yet received. Allowances for uncollectible accounts receivable are based upon historical trends and the periodic aging of accounts receivable. Major receivables balances for governmental activities include property taxes, sales and use taxes, franchise taxes, and grants. Business-type activities report utility charges as their major receivables.

Prepays

Prepays are valued at cost, which approximates market. The cost of governmental fund-type prepaids are recorded as expenditures when consumed rather than when purchased. Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaids in both the government-wide and fund financial statements.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

ASSETS/DEFERRED OUTFLOWS, LIABILITIES/DEFERRED INFLOWS, AND NET POSITIONS OR EQUITY – Continued

Interfund Receivables, Payables and Activity

Interfund activity is reported as loans, services provided, reimbursements or transfers. Loans are reported as interfund receivables and payables as appropriate and are subject to elimination upon consolidation. Services provided, deemed to be at market or near market rates, are treated as revenues and expenditures/expenses. Reimbursements are when one fund incurs a cost, charges the appropriate benefiting fund and reduces its related cost as a reimbursement. All other interfund transactions are treated as transfers. Transfers between governmental or proprietary funds are netted as part of the reconciliation to the government-wide financial statements.

Capital Assets

Capital assets purchased or acquired with an original cost of \$10,000 or more, depending on asset class, are reported at historical cost or estimated historical cost. Contributed assets are reported at acquisition value as of the date received. Additions, improvements and other capital outlays that significantly extend the useful life of an asset are capitalized. Other costs incurred for repairs and maintenance are expensed as incurred.

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. General capital assets are long-lived assets of the Village as a whole. Infrastructure such as streets, traffic signals and signs are capitalized. The valuation basis for general capital assets are historical cost, or where historical cost is not available, estimated historical cost based on replacement costs.

Capital assets in the proprietary funds are capitalized in the fund in which they are utilized. The valuation bases for proprietary fund capital assets are the same as those used for the general capital assets. Donated capital assets are capitalized at estimated acquisition value on the date donated.

Depreciation on all assets is computed and recorded using the straight-line method of depreciation over the following estimated useful lives:

Land Improvements	15 - 20 Years
Buildings and Structures	10 - 45 Years
Machinery and Equipment	3 - 30 Years
Infrastructure	20 - 50 Years

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

ASSETS/DEFERRED OUTFLOWS, LIABILITIES/DEFERRED INFLOWS, AND NET POSITIONS OR EQUITY – Continued

Compensated Absences

The Village accrues accumulated unpaid vacation and associated employee-related costs when earned (or estimated to be earned) by the employee. In accordance with GASB Statement No. 16, no liability is recorded for nonvesting accumulation rights to receive sick pay benefits. However, a liability is recognized for that portion of accumulated sick leave that is estimated to be taken as “terminal leave” prior to retirement.

All vacation pay is accrued when incurred in the government-wide and proprietary fund financial statements. A liability for these amounts is reported in the governmental funds only if they have matured, for example, as a result of employee resignations and retirements.

Deferred Outflows/Inflows of Resources

Deferred outflow/inflow of resources represents an acquisition/reduction of net position that applies to a future period and therefore will not be recognized as an outflow of resources (expense)/inflow of resources (revenue) until that future time.

Long-Term Obligations

In the government-wide financial statements, and proprietary fund types in the fund financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities, business-type activities, or proprietary fund type Statement of Net Position. Bond premiums and discounts are deferred and amortized over the life of the bonds using the effective interest method. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs are reported as expenses at the time of issuance.

In the fund financial statements, governmental fund types recognize bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums received on debt issuances are reported as other financing sources while discounts on debt issuances are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES – Continued

ASSETS/DEFERRED OUTFLOWS, LIABILITIES/DEFERRED INFLOWS, AND NET POSITIONS OR EQUITY – Continued

Net Position

In the government-wide financial statements, equity is classified as net position and displayed in three components:

Net Investment in Capital Assets – Consists of capital assets including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.

Restricted – Consists of net position with constraints placed on the use either by (1) external groups such as creditors, grantors, contributors, or laws or regulations of other governments; or (2) law through constitutional provisions or enabling legislations.

Unrestricted – All other net positions balances that do not meet the definition of “restricted” or “net invested in capital assets.”

NOTE 2 – STEWARDSHIP, COMPLIANCE AND ACCOUNTABILITY

BUDGETARY INFORMATION

Budgets are adopted on a basis consistent with generally accepted accounting principles. The level of control where expenditures may not exceed the budget is the fund level of activity. All annual budgets lapse at fiscal year-end.

All departments of the Village submit requests for budgets to the Finance Department so that a budget may be prepared. The budget is prepared by fund, function, and activity, and includes information on the past year, current year estimates, and requested budgets for the next fiscal year.

The proposed budget is presented to the governing body for review. The Board holds public hearings and may add to, subtract from, or change budgeted amounts, but may not change the form of the budget.

Management is authorized to transfer budgeted amounts between departments within any fund; however, any revisions that alter the total expenditures of any fund must be approved by the Board. Expenditures may not legally exceed budgeted appropriations at the fund level. During the year, supplementary appropriations were necessary.

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 2 – STEWARDSHIP, COMPLIANCE AND ACCOUNTABILITY – Continued

EXCESS OF ACTUAL EXPENDITURES OVER BUDGET IN INDIVIDUAL FUNDS

The following funds had an excess of actual expenditures over budget as of the date of this report:

Fund	Excess
TIF #2	\$ 148,276
Police Pension	38,444

NOTE 3 – DETAIL NOTES ON ALL FUNDS

DEPOSITS AND INVESTMENTS

The Village maintains a cash and investment pool that is available for use by all funds except the pension trust fund. Each fund type's portion of this pool is displayed on the financial statements as "cash and investments." In addition, investments are separately held by several of the Village's funds.

Permitted Deposits and Investments – Statutes authorize the Village to make deposits/invest in commercial banks, savings and loan institutions, obligations of the U.S. Treasury and U.S. Agencies, obligations of States and their political subdivisions, credit union shares, repurchase agreements, commercial paper rated within the three highest classifications by at least two standard rating services, and the Illinois Funds. Pension funds may also invest in certain non-U.S. obligations, mortgages, veteran's loans, life insurance company contracts, money market mutual funds and common and preferred stocks.

The deposits and investments of the Pension Fund are held separately from those of other Village funds. Statutes authorize the Pension Fund to make deposits/invest in interest bearing direct obligations of the United States of America; obligations that are fully guaranteed or insured as to the payment of principal and interest by the United States of America; bonds, notes, debentures, or similar obligations of agencies of the United States of America; savings accounts or certificates of deposit issued by banks or savings and loan associations chartered by the United States of America or by the State of Illinois, to the extent that the deposits are insured by the agencies or instrumentalities of the federal government; credit unions, to the extent that the deposits are insured by the agencies or instrumentalities of the federal government; State of Illinois bonds; pooled accounts managed by the Illinois Funds Market Fund (Formerly known as IPTIP, Illinois Public Treasurer's Investment Pool), or by banks, their subsidiaries or holding companies, in accordance with the laws of the State of Illinois; bonds or tax anticipation warrants of any county, township, or municipal corporation of the State of Illinois; direct obligations of the State of Israel; money market mutual funds managed by investment companies that are registered under the Federal Investment Company Act of 1940 and the Illinois Securities Law of 1953 and are diversified, open-ended management investment companies, provided the portfolio is limited to specified restrictions; general accounts of life insurance companies; and separate accounts of life insurance companies and mutual funds, the mutual funds must meet specific restrictions, provided the investment in separate accounts and mutual funds does not exceed ten percent of the Pension Fund's plan net position; and corporate bonds managed through an

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

DEPOSITS AND INVESTMENTS – Continued

investment advisor, rated as investment grade by one of the two largest rating services at the time of purchase. Pension Funds with plan net position of \$2.5 million or more may invest up to forty-five percent of plan net position in separate accounts of life insurance companies and mutual funds. Pension Funds with plan net position of at least \$5 million that have appointed an investment advisor, may through that investment advisor invest up to forty-five percent of the plan net position in common and preferred stocks that meet specific restrictions. In addition, Pension Funds with plan net position of at least \$10 million that have appointed an investment advisor, may invest up to fifty percent of its net position in common and preferred stocks and mutual funds that meet specific restrictions effective July 1, 2011 and up to fifty-five percent effective July 1, 2012.

Illinois Funds is an investment pool managed by the Illinois public Treasurer's Office which allows governments within the State to pool their funds for investment purposes. The Illinois Funds is not registered with the SEC as an investment company. Investments in Illinois Funds are valued at the share price, the price for which the investment could be sold.

Village – Interest Rate Risk, Credit Risk, Custodial Credit Risk and Concentration Risk

Deposits and Investments. At year-end, the carrying amount of the Village's deposits for governmental and business-type activities totaled \$4,826,872 and the bank balances totaled \$4,919,480. In addition, the Village has \$9,080,718 invested in the Illinois Funds at year-end, which are measured at net asset value determined by the pool.

Interest Rate Risk. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. In accordance with its investment policy, the Village limits its exposure to interest rate risk by structuring the portfolio to provide liquidity for short and long-term cash flow needs while providing a reasonable rate of return based on the current market. The maturity of the Village's investments in the Illinois Funds is less than one year.

Credit Risk. Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Village limits its exposure to credit risk by primarily investing in external investment pools. At year-end, the Village's investment in the Illinois Funds was rated AAAM by Standard & Poor's.

Custodial Credit Risk. In the case of deposits, this is the risk that in the event of a bank failure, the Village's deposits may not be returned to it. The Village's investment policy requires pledging of collateral for all bank balances in excess of federal depository insurance, with the collateral held by the Village, an independent third-party, or the Federal Reserve Bank in the Village's name. At year-end \$505,649 of the bank balance of the deposits was not covered by federal depository or equivalent insurance.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

DEPOSITS AND INVESTMENTS – Continued

Village – Interest Rate Risk, Credit Risk, Custodial Credit Risk and Concentration Risk – Continued

Custodial Credit Risk – Continued. For an investment, this is the risk that in the event of the failure of the counterparty, the Village will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Village's investment policy does not address this risk. To limit its exposure, the Village requires all security transactions that are exposed to custodial credit risk to be processed on a delivery versus payment (DVP) basis with the underlying investments held by an independent third-party custodian and evidenced by safekeeping receipts and a written custodial agreement. At year-end, the Village's investment in the Illinois Funds is not subject to custodial credit risk.

Concentration Risk. This is the risk of loss attributed to the magnitude of the Village's investment in a single issuer. The Village's investment policy requires diversification of investments to avoid unreasonable risk. Furthermore, concentration in short-term corporation obligations will not exceed 90% of the limit contained in Illinois law. At year-end, the Village does not have any investments over 5 percent of the total cash and investments portfolio (other than investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments).

Police Pension Fund – Interest Rate Risk, Credit Risk, Custodial Credit Risk and Concentration Risk

Deposits. At year-end, the carrying amount of the Police Pension Fund's deposits totaled \$352,636 and the bank balances totaled \$352,636.

Investments. The Fund has the following investment fair values and maturities:

Investment Type	Fair Value	Investment Maturities (in Years)			
		Less Than 1	1 to 5	6 to 10	More Than 10
U.S. Treasury Securities	\$ 899,223	180,413	488,835	229,975	-
U.S. Agency Securities	336,683	-	-	37,106	299,577
Corporate Bonds	987,483	140,531	412,998	426,057	7,897
	2,223,389	320,944	901,833	693,138	307,474

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements April 30, 2021

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

DEPOSITS AND INVESTMENTS – Continued

Police Pension Fund – Interest Rate Risk, Credit Risk, Custodial Credit Risk and Concentration Risk – Continued

Investments – Continued. The Fund has the following recurring fair value measurements as of April 30, 2021:

Investments by Fair Value Level	Total	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Debt Securities				
U.S. Treasury Securities	\$ 899,223	899,223	-	-
U.S. Agency Securities	336,683	-	336,683	-
Corporate Bonds	987,483	-	987,483	-
Equity Securities				
Mutual Funds	2,429,342	2,429,342	-	-
Total Investments by Fair Value Level	4,652,731	3,328,565	1,324,166	-

Debt Securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

Interest Rate Risk. In accordance with its investment policy, the Fund limits its exposure to interest rate risk by structuring the portfolio to provide liquidity for all reasonably anticipated operating requirements while providing a reasonable rate of return based on the current market.

Credit Risk. The Fund limits its exposure to credit risk by primarily investing in U.S. Treasuries and Agencies and equity mutual funds. At year-end, the funds invested in the Corporate Bonds are rated Aa2 to Baa3 by Moody's.

Custodial Credit Risk. The Fund's investment policy does not limit custodial credit risk for deposits. At year-end, the entire bank balance of deposits was covered by collateral, federal depository or equivalent insurance.

For investments, the Fund's investment policy requires all security transactions that are exposed to custodial credit risk to be processed on a delivery versus payment (DVP) basis with the underlying investments held by an independent third-party custodian and evidenced by safekeeping receipts.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

DEPOSITS AND INVESTMENTS – Continued

Police Pension Fund – Interest Rate Risk, Credit Risk, Custodial Credit Risk and Concentration Risk – Continued

Concentration Credit Risk. The Fund’s investment policy requires diversification of investment to avoid unreasonable risk but does not establish specific maximum portfolio percentages. Specifically, the fund’s investment policy states the following target asset allocation guidelines shall be followed: equities at 10%, fixed income securities at 85% and cash at 5%. At year end, the Fund’s investments are within range of the target allocations described above. In addition to the securities and fair values listed above, the Fund also has \$2,429,342 invested in mutual funds. At year-end, the Fund has no investments over 5 percent of net plan position available for retirement benefits (other than investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments).

The Fund’s investment policy in accordance with Illinois Compiled Statutes (ILCS) establishes the following target allocation across asset classes:

<u>Asset Class</u>	<u>Target</u>	<u>Long-Term Expected Real Rate of Return</u>
Fixed Income	55.0%	4.8%
Equities	45.0%	7.8%
Cash and Cash Equivalents	0.0%	0.0%

Illinois Compiled Statutes (ILCS) limit the Fund’s investments in equities, mutual funds and variable annuities to 65%. Securities in any one company should not exceed 5% of the total fund. The blended asset class is comprised of all other asset classes to allow for rebalancing the portfolio.

The long-term expected rate of return on the Fund’s investments was determined using an asset allocation study conducted by the Fund’s investment management consultant in May 2021 in which best-estimate ranges of expected future real rates of return (net of pension plan investment expense and inflation) were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding the expected inflation. Best estimates or arithmetic real rates of return for each major asset class included in the Fund’s target asset allocation as of April 30, 2021 are listed in the table above.

Rate of Return

For the year ended April 30, 2021, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 19.55%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

CAPITAL ASSETS

Governmental Activities

Governmental capital asset activity for the year was as follows:

	Beginning Balances	Increases	Decreases	Ending Balances
Nondepreciable Capital Assets				
Land	\$ 25,584,853	-	-	25,584,853
Depreciable Capital Assets				
Land Improvements	2,092,048	-	-	2,092,048
Buildings and Structures	2,184,371	-	-	2,184,371
Machinery and Equipment	1,573,760	96,345	-	1,670,105
Infrastructure	38,571,672	-	-	38,571,672
	<u>44,421,851</u>	<u>96,345</u>	<u>-</u>	<u>44,518,196</u>
Less Accumulated Depreciation				
Land Improvements	898,233	88,450	-	986,683
Buildings and Structures	969,202	40,944	-	1,010,146
Machinery and Equipment	1,394,327	70,335	-	1,464,662
Infrastructure	21,837,757	882,219	-	22,719,976
	<u>25,099,519</u>	<u>1,081,948</u>	<u>-</u>	<u>26,181,467</u>
Total Net Depreciable Capital Assets	<u>19,322,332</u>	<u>(985,603)</u>	<u>-</u>	<u>18,336,729</u>
Total Net Capital Assets	<u>44,907,185</u>	<u>(985,603)</u>	<u>-</u>	<u>43,921,582</u>

Depreciation expense was charged to governmental activities as follows:

General Government	\$ 973,753
Public Safety	43,278
Public Works	<u>64,917</u>
	<u>1,081,948</u>

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

CAPITAL ASSETS – Continued

Business-Type Activities

Business-type capital asset activity for the year was as follows:

	Beginning Balances	Increases	Decreases	Ending Balances
Nondepreciable Capital Assets				
Land	\$ 937,200	-	-	937,200
Depreciable Capital Assets				
Buildings and Structures	12,239,058	92,132	-	12,331,190
Infrastructure	9,926,035	-	-	9,926,035
	<u>22,165,093</u>	<u>92,132</u>	<u>-</u>	<u>22,257,225</u>
Less Accumulated Depreciation				
Buildings and Structures	4,234,743	290,678	-	4,525,421
Infrastructure	3,362,630	198,521	-	3,561,151
	<u>7,597,373</u>	<u>489,199</u>	<u>-</u>	<u>8,086,572</u>
 Total Net Depreciable Capital Assets	 <u>14,567,720</u>	 <u>(397,067)</u>	 <u>-</u>	 <u>14,170,653</u>
 Total Net Capital Assets	 <u>15,504,920</u>	 <u>(397,067)</u>	 <u>-</u>	 <u>15,107,853</u>

Depreciation expense was charged to business-type as follows:

Utility	<u>\$ 489,199</u>
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PROPERTY TAXES

Property taxes for 2020 attach as an enforceable lien on January 1 on property values assessed as of the same date. Taxes are levied by December of the subsequent fiscal year (by passage of a Tax Levy Ordinance). Tax bills are prepared by Kane County and are payable in two installments, on or about June 1 and September 1. The County collects such taxes and remits them periodically.

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

INTERFUND RECEIVABLES, PAYABLES, AND TRANSFERS

Interfund Balances

Interfund balances result from the time lag between when transactions are recorded in the accounting system and payments between funds are made. The composition of interfund balances as of the date of this report, is as follows:

<u>Receivable Fund</u>	<u>Payable Fund</u>	<u>Amount</u>
General	Utility	\$ 636,409
TIF #2	General	78,037
Nonmajor Governmental	General	<u>75,761</u>
		<u><u>790,207</u></u>

Interfund Transfers

Interfund transfers for the year consisted of the following:

<u>Transfer In</u>	<u>Transfer Out</u>	<u>Amount</u>
General	Nonmajor Governmental	\$ 59,742 (1)
Nonmajor Governmental	General	<u>95,187 (2)</u>
		<u><u>154,929</u></u>

Transfers are used to (1) move revenues from the fund that statute or budget requires to collect them to the fund that statute or budget requires to expend them and (2) to move unrestricted revenues collected in the General Fund to finance various programs accounted for in other funds in accordance with budgetary authorizations.

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

LONG-TERM DEBT

General Obligation Alternate Revenue Source Bonds

The Village issues bonds to provide funds for the acquisition and construction of major capital facilities. General obligation alternate revenue source bonds provide for the collection, segregation and distribution of certain income taxes received by the Village for the payment of principal and interest on the alternate revenue source bonds. General obligation alternate revenue source bonds outstanding are as follows:

Issue	Fund Debt Retired by	Beginning Balances	Issuances	Retirements	Ending Balances
\$356,656 Taxable General Obligation Alternate Revenue Source Bonds of 2010 - Due in annual installments of \$32,262 to \$41,592 plus interest of 1.15% to 4.80% through December 15, 2020.	General	\$ 41,592	-	41,592	-
\$1,975,000 General Obligation Alternate Revenue Source Bonds of 2011 - Due in annual installments of \$175,000 to \$225,000 plus interest of 2.00% to 4.00% through December 1, 2021.	Road Improvement	440,000	-	215,000	225,000
		481,592	-	256,592	225,000

Installment Notes Payable

The Village enters into installment notes to provide funds for the acquisition of capital assets. Installment notes currently outstanding are as follows:

Issue	Fund Debt Retired by	Beginning Balances	Issuances	Retirements	Ending Balances
\$593,824 Installment Note Payable of 2017 - Due in annual installments of \$42,126 to \$503,371 including interest at 3.25% through January 9, 2022.	General	\$ 516,883	-	25,487	491,396

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

LONG-TERM DEBT – Continued

Tax Increment Revenue Notes

The Village issued a tax increment revenue note that is dedicated to the development of the Prairie Business Park through Interstate Partners. The notes will be repaid only from the tax increment generated by the applicable tax increment financing district; therefore, no repayment schedule is available. The notes shall not be deemed to constitute an indebtedness or a loan against the general taxing powers or credit of the Village. Tax increment revenue notes currently outstanding are as follows:

Issue	Fund Debt Retired by	Beginning Balances	Issuances	Retirements	Ending Balances
\$7,100,000 Tax Increment Revenue Note A of 2014 - Due in annual installments equal to 90% of incremental property taxes received plus interest of 5.00% through November 1, 2034.	TIF #2	\$ 6,216,700	-	452,400	<u>5,764,300</u>

Illinois Environmental Protection Agency (IEPA) Loans Payable

The Village has entered into loan agreements with the IEPA to provide low interest financing for drinking water improvements. IEPA loans currently outstanding are as follows:

Issue	Fund Debt Retired by	Beginning Balances	Issuances	Retirements	Ending Balances
IEPA (L17-4866) Loan Payable of 2014 - due in semi-annual installments of \$16,495 including interest at 1.93% through April 10, 2034.	Utility	\$ 403,042	-	25,334	<u>377,708</u>

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

LONG-TERM DEBT – Continued

Asset Retirement Obligation

The Village has recognized an asset retirement obligation (ARO) and related deferred outflow of resources in connection with its obligation to seal and abandon various water wells at the end of their estimated useful lives in accordance with federal, state, and/or local requirements. The ARO was measured using actual historical costs for similar abandonments, adjusted for inflation through the end of the year. The estimated remaining useful lives of the water wells are 35 years.

Long-Term Liability Activity

Changes in long-term liabilities during the fiscal year were as follows:

Type of Debt	Beginning Balances	Additions	Deductions	Ending Balances	Amounts Due within One Year
Governmental Activities					
Compensated Absences	\$ 23,957	2,258	1,129	25,086	5,017
Net Pension Liability - IMRF	387,851	-	107,611	280,240	-
Net Pension Liability - Police Pension	1,892,377	-	836,843	1,055,534	-
General Obligation Bonds	481,592	-	256,592	225,000	225,000
Tax Increment Revenue Note Payable	6,216,700	-	452,400	5,764,300	-
Installment Notes Payable	516,883	-	25,487	491,396	491,396
	<u>9,519,360</u>	<u>2,258</u>	<u>1,680,062</u>	<u>7,841,556</u>	<u>721,413</u>
Business-Type Activities					
Compensated Absences	2,457	2,134	4,268	323	65
Net Pension Liability - IMRF	238,106	-	54,528	183,578	-
Asset Retirement Obligation	-	480,000	-	480,000	-
IEPA Loan Payable	403,042	-	25,334	377,708	25,826
	<u>643,605</u>	<u>482,134</u>	<u>84,130</u>	<u>1,041,609</u>	<u>25,891</u>

For governmental activities, the General Fund makes payments on the compensated absences, the net pension liabilities, and the installment notes payable. The General Fund and Road Improvement Fund make payments on the general obligation bonds. The TIF #2 Fund makes payments on the tax increment revenue note payable.

For business-type activities, the Utility Fund makes payments on the compensated absences, the net pension liability, asset retirement obligation, and the IEPA loan payable.

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

LONG-TERM DEBT – Continued

Debt Service Requirements to Maturity

The annual debt service requirements to maturity, including principal and interest, are as follows:

Fiscal Year	Governmental Activities				Business-Type Activities	
	General Obligation Bonds		Installment Notes		Installment Notes	
	Principal	Interest	Principal	Interest	Principal	Interest
2022	\$ 225,000	9,000	491,396	11,975	25,826	7,165
2023	-	-	-	-	26,326	6,665
2024	-	-	-	-	26,836	6,155
2025	-	-	-	-	27,357	5,634
2026	-	-	-	-	27,887	5,104
2027	-	-	-	-	28,428	4,563
2028	-	-	-	-	28,979	4,012
2029	-	-	-	-	29,542	3,449
2030	-	-	-	-	30,114	2,877
2031	-	-	-	-	30,698	2,293
2032	-	-	-	-	31,294	1,697
2033	-	-	-	-	31,901	1,090
2034	-	-	-	-	32,520	471
Totals	225,000	9,000	491,396	11,975	377,708	51,175

Noncommitment Debt

Special Service Area Bonds

Special service area bonds outstanding as of the date of this report totaled \$42,790,000. These bonds are not an obligation of the Village and are secured by the levy of annual tax on the real property within the special service area. The Village is in no way liable for repayment but is only acting as agent for the property owners in levying and collecting the tax and forwarding the collections to bondholders. Special service area bonds outstanding are comprised of the following as of April 30, 2021:

Special Service Area #9	\$ 12,055,000
Special Service Area #15	9,335,000
Special Service Area #24	8,279,000
Special Service Area #25	13,121,000
	<u>42,790,000</u>

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements April 30, 2021

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

LONG-TERM DEBT – Continued

Legal Debt Margin

Chapter 65, Section 5/8-5-1 of the Illinois Compiled Statutes provides “...no municipality having a population of less than 500,000 shall become indebted in any manner or for any purpose, to an amount, including existing indebtedness in the aggregate exceeding 8.625% on the value of the taxable property therein, to be ascertained by the last assessment for state and county purposes, previous to the incurring of the indebtedness or, until January 1, 1983, if greater, the sum that is produced by multiplying the municipality’s 1978 equalized assessed valuation by the debt limitation percentage in effect on January 1, 1979.”

Assessed Valuation - 2020 Levy	<u>\$ 239,230,731</u>
Legal Debt Limit - 8.625% of Assessed Value	20,633,651
Amount of Debt Applicable to Limit	
Installment Notes Payable	<u>491,396</u>
Legal Debt Margin	<u>20,142,255</u>

NET POSITION/ FUND BALANCE

Net Position Classifications

Net Investment in capital assets was comprised of the following as of April 30, 2021:

Governmental Activities	
Capital Assets - Net of Accumulated Depreciation	\$ 43,921,582
Less Capital Related Debt:	
General Obligation ARS Bonds of 2011	(225,000)
Installment Note Payable of 2017	(491,396)
Tax Increment Revenue Note of 2014	<u>(5,764,300)</u>
Net Investment in Capital Assets	<u>37,440,886</u>
Business-Type Activities	
Capital Assets - Net of Accumulated Depreciation	15,107,853
Less Capital Related Debt:	
IEPA Loan Payable of 2014	<u>(377,708)</u>
Net Investment in Capital Assets	<u>14,730,145</u>

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

NET POSITION/ FUND BALANCE – Continued

Fund Balance Classifications

The following is a schedule of fund balance classifications for the governmental funds as of the date of this report:

	General	<u>Projects</u> TIF #2	Nonmajor	Totals
Fund Balances				
Nonspendable				
Prepays	\$ 73,470	-	-	73,470
Restricted				
Drug Forfeiture	16,722	-	-	16,722
Community Days	-	-	11,344	11,344
Highways and Streets				
Road Improvement	-	-	1,333,902	1,333,902
Capital Projects	-	569,085	902,605	1,471,690
	<u>16,722</u>	<u>569,085</u>	<u>2,247,851</u>	<u>2,833,658</u>
Committed				
Designated Reserves	1,335,485	-	-	1,335,485
EDUI	29,879	-	-	29,879
Community Days	11,295	-	-	11,295
Highways and Streets				
Road Improvement	413,397	-	-	413,397
Capital Projects	1,228,976	-	-	1,228,976
	<u>3,019,032</u>	<u>-</u>	<u>-</u>	<u>3,019,032</u>
Unassigned	<u>2,697,125</u>	<u>-</u>	<u>-</u>	<u>2,697,125</u>
Total Fund Balances	<u>5,806,349</u>	<u>569,085</u>	<u>2,247,851</u>	<u>8,623,285</u>

In the governmental fund financial statements, the Village considers restricted amounts to have been spent when an expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available. The Village first utilizes committed, then assigned and then unassigned fund balance when an expenditure is incurred for purposes for which all three unrestricted fund balances are available.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 3 – DETAIL NOTES ON ALL FUNDS – Continued

NET POSITION/ FUND BALANCE – Continued

Fund Balance Classifications – Continued

Nonspendable Fund Balance. Consists of resources that cannot be spent because they are either: a) not in a spendable form; or b) legally or contractually required to be maintained intact.

Restricted Fund Balance. Consists of resources that are restricted to specific purposes, that is, when constraints placed on the use of resources are either: a) externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments; or b) imposed by law through constitutional provisions or enabling legislation.

Committed Fund Balance. Consists of resources constrained (issuance of an ordinance) to specific purposes by the government itself, using its highest level of decision-making authority, the Board of Trustees; to be reported as committed, amounts cannot be used for any other purpose unless the government takes the same highest-level action to remove or change the constraint.

Assigned Fund Balance. Consists of amounts that are constrained by the Board of Trustees' intent to be used for specific purposes but are neither restricted nor committed. Intent is expressed by a) the Board of Trustees itself or b) a body or official to which the Board of Trustees has delegated the authority to assign amounts to be used for specific purposes. The Village's highest level of decision-making authority is the Board of Trustees, who is authorized to assign amounts to a specific purpose.

Unassigned Fund Balance. Consists of residual net resources of a fund that has not been restricted, committed, or assigned within the General Fund and deficit fund balances of other governmental funds.

Minimum Fund Balance Policy. The Village's policy manual states that the General Fund should maintain a minimum unrestricted fund balance equal to no less than three months and no more than six months of budgeted operating expenditures. Fund balances in excess of said levels may be transferred to other funds or the capital projects at the discretion of the Board.

NOTE 4 – OTHER INFORMATION

RISK MANAGEMENT

The Village is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; natural disasters; employee health; and injuries to the Village's employees. In order to protect against these risks, the Village is a member of the Intergovernmental Personnel Benefit Cooperative (IPBC) and also purchases private insurance.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

RISK MANAGEMENT – Continued

Intergovernmental Personnel Benefit Cooperative (IPBC)

Risks for medical and death benefits for employees and retirees are provided for through the Village's participation in the Intergovernmental Personnel Benefit Cooperative (IPBC). IPBC acts as an administrative agency to receive, process and pay such claims as may come within the benefit program of each member. IPBC maintains specific reinsurance coverage for claims in excess of \$50,000 per individual employee participant. The Village pays premiums to IPBC based upon current employee participation and its prior experience factor with the pool. Current year overages or underages for participation in the pool are adjusted into subsequent years' experience factor for premiums. The Village enrolled in IPBC beginning April 1, 2014. Settlements did not exceed insurance coverage in any of the past three fiscal years.

CONTINGENT LIABILITIES

Financial Impact from COVID-19

In March 2020, the World Health Organization declared the COVID-19 virus a public health emergency. As of the date of this report, the extent of the impact of COVID-19 on the Village's operations and financial position cannot be determined.

Litigation

The Village is a defendant in various lawsuits. Although the outcome of these lawsuits is not presently determinable, in the opinion of the Village's attorney, the resolution of these matters will not have a material adverse effect on the financial condition of the Village.

Grants

Amounts received or receivable from grantor agencies are subject to audit and adjustment by grantor agencies, principally the federal government. Any disallowed claims, including amounts already collected, may constitute a liability of the applicable funds. The amount, if any, of expenditures which may be disallowed by the grantor cannot be determined at this time although the Village expects such amounts, if any, to be immaterial.

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS

The Village contributes to three defined benefit pension plans, the Illinois Municipal Retirement Fund (IMRF), a defined benefit agent multiple-employer public employee retirement system, the Sheriff's Law Enforcement Personnel Fund (SLEP), which is administered by the IMRF, and the Police Pension Plan that is a single-employer pension plan. Separate financial statements for the Police Pension Plan can be obtained by writing the Village at 87 Galligan Road, Gilberts, Illinois 60136. IMRF does issue a publicly available financial report that includes financial statements and required supplementary information for the plan as a whole, but not by individual employer. That report may be obtained on-line at www.imrf.org.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

The benefit, benefit levels, employee contributions, and employer contributions are governed by Illinois Compiled Statutes (ILCS) and can only be amended by the Illinois General Assembly.

The aggregate amount of pension expense recognized for the two pension plans is:

	Pension Expenses	Net Pension Liabilities	Deferred Outflows	Deferred Inflows
IMRF	\$ 74,740	463,818	198,472	189,838
Police Pension	380,869	1,055,534	731,003	1,099,805
	<u>455,609</u>	<u>1,519,352</u>	<u>929,475</u>	<u>1,289,643</u>

Illinois Municipal Retirement Fund (IMRF)

Plan Descriptions

Plan Administration. All employees (other than those covered by the Police Pension Plan) hired in positions that meet or exceed the prescribed annual hourly standard must be enrolled in IMRF as participating members. The plan is accounted for on the economic resources measurement focus and the accrual basis of accounting. Employer and employee contributions are recognized when earned in the year that the contributions are required, benefits and refunds are recognized as an expense and liability when due and payable.

Benefits Provided. IMRF has three benefit plans. The vast majority of IMRF members participate in the Regular Plan (RP). The Sheriff's Law Enforcement Personnel (SLEP) plan is for sheriffs, deputy sheriffs, and selected police chiefs. Counties could adopt the Elected County Official (ECO) plan for officials elected prior to August 8, 2011 (the ECO plan was closed to new participants after that date).

IMRF provides two tiers of pension benefits. Employees hired *before* January 1, 2011, are eligible for Tier 1 benefits. Tier 1 employees are vested for pension benefits when they have at least eight years of qualifying service credit. Tier 1 employees who retire at age 55 (at reduced benefits) or after age 60 (at full benefits) with eight years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1-2/3% of the final rate of earnings for the first 15 years of service credit, plus 2% for each year of service credit after 15 years to a maximum of 75% of their final rate of earnings. Final rate of earnings is the highest total earnings during any consecutive 48 months within the last 10 years of service, divided by 48. Under Tier 1, the pension is increased by 3% of the original amount on January 1 every year after retirement.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Illinois Municipal Retirement Fund (IMRF) – Continued

Plan Descriptions – Continued

Benefits Provided – Continued. Employees hired *on or after* January 1, 2011, are eligible for Tier 2 benefits. For Tier 2 employees, pension benefits vest after ten years of service. Participating employees who retire at age 62 (at reduced benefits) or after age 67 (at full benefits) with ten years of service are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1-2/3% of the final rate of earnings for the first 15 years of service credit, plus 2% for each year of service credit after 15 years to a maximum of 75% of their final rate of earnings. Final rate of earnings is the highest total earnings during any 96 consecutive months within the last 10 years of service, divided by 96. Under Tier 2, the pension is increased on January 1 every year after retirement, upon reaching age 67, by the *lesser* of:

- 3% of the original pension amount, or
- 1/2 of the increase in the Consumer Price Index of the original pension amount.

Plan Membership. As of December 31, 2020, the measurement date, the following employees were covered by the benefit terms:

Inactive Plan Members Currently Receiving Benefits	11
Inactive Plan Members Entitled to but not yet Receiving Benefits	14
Active Plan Members	<u>17</u>
Total	<u><u>42</u></u>

Contributions. As set by statute, the Village's Regular Plan Members are required to contribute 4.50% of their annual covered salary. The statute requires employers to contribute the amount necessary, in addition to member contributions, to finance the retirement coverage of its own employees. For the year-ended April 30, 2021, the Village's contribution was 12.08% of covered payroll.

Net Pension Liability. The Village's net pension liability was measured as of December 31, 2020. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Illinois Municipal Retirement Fund (IMRF) – Continued

Plan Descriptions – Continued

Actuarial Assumptions. The total pension liability was determined by an actuarial valuation performed, as of December 31, 2020, using the following actuarial methods and assumptions:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Fair Value
Actuarial Assumptions	
Interest Rate	7.25%
Salary Increases	2.85% to 13.75%
Cost of Living Adjustments	2.25%
Inflation	2.25%

For nondisabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense, and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return to the target asset allocation percentage and adding expected inflation. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Illinois Municipal Retirement Fund (IMRF) – Continued

Plan Descriptions – Continued

Actuarial Assumptions – Continued.

<u>Asset Class</u>	<u>Target</u>	<u>Long-Term Expected Real Rate of Return</u>
Fixed Income	28.00%	1.30%
Domestic Equities	37.00%	5.00%
International Equities	18.00%	6.00%
Real Estate	9.00%	6.20%
Blended	7.00%	2.85% - 6.95%
Cash and Cash Equivalents	1.00%	0.70%

Discount Rate

The discount rate used to measure the total pension liability was 7.25%, the same as prior valuation. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that Village contributions will be made at rates equal to the difference between the actuarially determined contribution rates and the member rate. Based on those assumptions, the Fund's fiduciary net position was projected to be available to make all project future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all period of projected benefit payments to determine the total pension liability.

Discount Rate Sensitivity

The following is a sensitivity analysis of the net pension liability to changes in the discount rate. The table below presents the net pension liability of the Village calculated using the discount rate as well as what the Village's net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	<u>1% Decrease (6.25%)</u>	<u>Current Discount Rate (7.25%)</u>	<u>1% Increase (8.25%)</u>
Net Pension Liability	\$ 841,663	463,818	159,427

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Illinois Municipal Retirement Fund (IMRF) – Continued

Changes in the Net Pension Liability

	Total Pension Liability (A)	Plan Fiduciary Net Position (B)	Net Pension Liability (A) - (B)
Balances at December 31, 2019	\$ 2,600,992	1,975,035	625,957
Changes for the Year:			
Service Cost	86,660	-	86,660
Interest on the Total Pension Liability	187,350	-	187,350
Changes of Benefit Terms	-	-	-
Difference Between Expected and Actual Experience of the Total Pension Liability	46,429	-	46,429
Changes of Assumptions	(42,428)	-	(42,428)
Contributions - Employer	-	104,929	(104,929)
Contributions - Employees	-	40,016	(40,016)
Net Investment Income	-	270,992	(270,992)
Benefit Payments, including Refunds of Employee Contributions	(120,363)	(120,363)	-
Other (Net Transfer)	-	24,213	(24,213)
Net Changes	157,648	319,787	(162,139)
Balances at December 31, 2020	2,758,640	2,294,822	463,818

Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions

For the year ended April 30, 2021, the Village recognized pension expense of \$74,740. At April 30, 2021, the Village reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Illinois Municipal Retirement Fund (IMRF) – Continued

Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions – Continued

	Deferred Outflows of Resources	Deferred Inflows of Resources	Totals
Difference Between Expected and Actual Experience	\$ 132,959	(750)	132,209
Change in Assumptions	23,348	(42,565)	(19,217)
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	-	(146,523)	(146,523)
Total Pension Expense to be Recognized in Future Periods	156,307	(189,838)	(33,531)
Pension Contributions Made Subsequent to the Measurement Date	42,165	-	42,165
Total Deferred Amounts Related to IMRF	<u>198,472</u>	<u>(189,838)</u>	<u>8,634</u>

\$42,165 reported as deferred outflows of resources related to pensions resulting from employer contributions subsequent to the measurement date and will be recognized as a reduction of the net pension liability in the reporting year ended April 30, 2022. Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future periods as follows:

Fiscal Year	Net Deferred Outflows (Inflows) of Resources
2022	\$ 18,887
2023	16,732
2024	(44,030)
2025	(25,120)
2026	-
Thereafter	-
Total	<u>(33,531)</u>

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Police Pension Plan

Plan Descriptions

Plan Administration. The Police Pension Plan is a single-employer defined benefit pension plan that covers all sworn police personnel. The defined benefits and employee and minimum employer contribution levels are governed by Illinois Compiled Statutes (40 ILCS 5/3-1) and may be amended only by the Illinois legislature. The Village accounts for the Fund as a pension trust fund. The Fund is governed by a five-member pension board. The pension board consists of two members appointed by the Village President, one elected member by pension beneficiaries and two elected members are active police employees.

Plan Membership. At April 30, 2021, the measurement date, membership consisted of the following:

Inactive Plan Members Currently Receiving Benefits	-
Inactive Plan Members Entitled to but not yet Receiving Benefits	2
Active Plan Members	<u>9</u>
Total	<u><u>11</u></u>

Benefits Provided. The following is a summary of the Police Pension Plan as provided for in Illinois State Statutes.

The Police Pension Plan provides retirement benefits through two tiers of benefits as well as death and disability benefits. Covered employees hired before January 1, 2011 (Tier 1), attaining the age of 50 or older with 20 or more years of creditable service are entitled to receive an annual retirement benefit of ½ of the salary attached to the rank held on the last day of service, or for one year prior to the last day, whichever is greater. The annual benefit shall be increased by 2.5 percent of such salary for each additional year of service over 20 years up to 30 years, to a maximum of 75 percent of such salary. Employees with at least eight years but less than 20 years of credited service may retire at or after age 60 and receive a reduced benefit. The monthly benefit of a police officer who retired with 20 or more years of service after January 1, 1977 shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least 55 years, by 3 percent of the original pension and 3 percent compounded annually thereafter.

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Police Pension Plan – Continued

Plan Descriptions – Continued

Benefits Provided – Continued. Covered employees hired on or after January 1, 2011 (Tier 2), attaining the age of 55 or older with 10 or more years of creditable service are entitled to receive an annual retirement benefit equal to the average monthly salary obtained by dividing the total salary of the police officer during the 48 consecutive months of service within the last 60 months of service in which the total salary was the highest by the number of months of service in that period. Police officer salary for the pension purposes is capped at \$106,800, plus the lesser of ½ of the annual change in the Consumer Price Index or 3 percent compounded. The annual benefit shall be increased by 2.5 percent of such a salary for each additional year of service over 20 years up to 30 years to a maximum of 75 percent of such salary. Employees with at least 10 years may retire at or after age 50 and receive a reduced benefit (i.e., ½ percent for each month under 55). The monthly benefit of a Tier 2 police officer shall be increased annually at age 60 on the January 1st after the police officer retires, or the first anniversary of the pension starting date, whichever is later. Noncompounding increases occur annually, each January thereafter. The increase is the lesser of 3 percent or ½ of the change in the Consumer Price Index for the proceeding calendar year.

Contributions. Covered employees are required to contribute 9.91% of their base salary to the Police Pension Plan. If an employee leaves covered employment with less than 20 years of service, accumulated employee contributions may be refunded without accumulated interest. The Village is required to contribute the remaining amounts necessary to finance the plan and the administrative costs as actuarially determined by an enrolled actuary. However, effective January 1, 2011, ILCS requires the Village to contribute a minimum amount annually calculated using the projected unit credit actuarial cost method that will result in the funding of 90% of the past service cost by the year 2040. For the year-ended April 30, 2021, the Village's contribution was 49.48% of covered payroll.

Concentrations. At year-end, the Pension Plan does not have any investments over 5 percent of net plan position available for retirement benefits (other than investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments).

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Police Pension Plan – Continued

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation performed, as of April 30, 2021, using the following actuarial methods and assumptions:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Fair Value
Actuarial Assumptions	
Interest Rate	5.00%
Salary Increases	3.75% - 6.27%
Cost of Living Adjustments	3.25%
Inflation	2.25%

Mortality rates were based on the assumption study prepared by an independent actuary for police in 2016. These rates are experience weighted with the raw rates as developed in the RP-2014 study, with blue collar adjustment and improved generationally using MP-2016 improvement rates.

Discount Rate

The discount rate used to measure the total pension liability was 5.00%, the same as the prior valuation. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that Village contributions will be made at rates equal to the difference between the actuarially determined contribution rates and the member rate. Based on those assumptions, the Fund's fiduciary net position was projected to be available to make all project future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all period of projected benefit payments to determine the total pension liability.

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Police Pension Plan – Continued

Discount Rate Sensitivity

The following is a sensitive analysis of the net pension liability to changes in the discount rate. The table below presents the net pension liability of the Village calculated using the discount rate as well as what the Village’s net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease (4.00%)	Current Discount Rate (5.00%)	1% Increase (6.00%)
Net Pension Liability	\$ 2,238,229	1,055,534	123,088

Changes in the Net Pension Liability

	Total Pension Liability (A)	Plan Fiduciary Net Position (B)	Net Pension Liability (A) - (B)
Balances at April 30, 2020	\$ 5,722,649	3,830,272	1,892,377
Changes for the Year:			
Service Cost	364,331	-	364,331
Interest on the Total Pension Liability	272,576	-	272,576
Changes of Benefit Terms	-	-	-
Difference Between Expected and Actual Experience of the Total Pension Liability	(254,336)	-	(254,336)
Changes of Assumptions	-	-	-
Contributions - Employer	-	364,908	(364,908)
Contributions - Employees	-	81,759	(81,759)
Net Investment Income	-	797,079	(797,079)
Benefit Payments, including Refunds of Employee Contributions	(32,112)	(32,112)	-
Administrative Expense	-	(24,332)	24,332
Net Changes	350,459	1,187,302	(836,843)
Balances at April 30, 2021	6,073,108	5,017,574	1,055,534

VILLAGE OF GILBERTS, ILLINOIS

**Notes to the Financial Statements
April 30, 2021**

NOTE 4 – OTHER INFORMATION – Continued

EMPLOYEE RETIREMENT SYSTEM – DEFINED BENEFIT PENSION PLANS – Continued

Police Pension Plan – Continued

Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions

For the year ended April 30, 2021, the Village recognized pension expense of \$380,869. At April 30, 2021, the Village reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Totals
Difference Between Expected and Actual Experience	\$ 191,758	(692,824)	(501,066)
Change in Assumptions	539,245	(53,943)	485,302
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	-	(353,038)	(353,038)
Total Deferred Amounts Related to Police Pension	<u>731,003</u>	<u>(1,099,805)</u>	<u>(368,802)</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future periods as follows:

Fiscal Year	Net Deferred Outflows/ (Inflows) of Resources
2022	\$ (9,805)
2023	(28,057)
2024	(35,610)
2025	(71,805)
2026	(61,775)
Thereafter	<u>(161,750)</u>
Total	<u>(368,802)</u>

VILLAGE OF GILBERTS, ILLINOIS

Notes to the Financial Statements

April 30, 2021

NOTE 4 – OTHER INFORMATION – Continued

OTHER POST-EMPLOYMENT BENEFITS

The Village has evaluated its potential other post-employment benefits liability. Former employees who choose to retain their rights to health insurance through the Village are required to pay 100% of the current premium. However, there is minimal participation. As the Village provides no explicit benefit, and there is minimal participation, there is no material implicit subsidy to calculate in accordance with GASB Statement No. 75, *Accounting and Financial Reporting for Post-Employment Benefits Other Than Pensions*. Therefore, the Village has not recorded a liability as of April 30, 2021.

SUBSEQUENT EVENTS

American Rescue Plan Act

On March 11, 2021, the American Rescue Plan Act of 2021 was signed into law. This act provides \$350 billion in funding for local governments. The Village has been allocated \$1,097,885 to be received in two installments. On September 1, 2021 the Village received their first installment of \$548,943.

General Obligation Alternate Revenue Source Bonds

On August 24, 2021, the Village issued \$4,090,000 of General Obligation Alternate Revenue Source Bonds, due in annual installments of \$215,000 to \$315,000, plus interest at 2.00% through December 15, 2036.

REQUIRED SUPPLEMENTARY INFORMATION

Required supplementary information includes financial information and disclosures that are required by the GASB but are not considered a part of the basic financial statements. Such information includes:

- Schedule of Employer Contributions
 Illinois Municipal Retirement Fund
 Police Pension Fund

- Schedule of Changes in the Employer's Net Pension Liability
 Illinois Municipal Retirement Fund
 Police Pension Fund

- Schedule of Investment Returns
 Police Pension Fund

- Budgetary Comparison Schedule
 General Fund

Notes to the Required Supplementary Information

Budgetary Information – Budgets are adopted on a basis consistent with generally accepted accounting principles.

VILLAGE OF GILBERTS, ILLINOIS

Illinois Municipal Retirement Fund

**Required Supplementary Information
Schedule of Employer Contributions
April 30, 2021**

Fiscal Year	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Excess/ (Deficiency)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2016	\$ 87,686	\$ 87,686	\$ -	\$ 757,867	11.57%
2017	95,277	95,277	-	779,682	12.22%
2018	98,289	98,289	-	880,602	11.16%
2019	85,056	85,056	-	818,460	10.39%
2020	99,509	99,509	-	905,103	10.99%
2021	109,801	109,801	-	909,216	12.08%

Notes to the Required Supplementary Information:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level % Pay (Closed)
Remaining Amortization Period	23 Years
Asset Valuation Method	5-Year Smoothed Fair Value
Inflation	2.50%
Salary Increases	3.35% - 14.25%
Investment Rate of Return	7.25%
Retirement Age	See the Notes to the Financial Statements
Mortality	IMRF specific mortality table was used with fully generational projection scale MP-2017 (base year 2015).

Note: This schedule is intended to show information for ten years. Information for additional years will be displayed as it becomes available.

VILLAGE OF GILBERTS, ILLINOIS

Police Pension Fund

**Required Supplementary Information
Schedule of Employer Contributions
April 30, 2021**

Fiscal Year	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Excess/ (Deficiency)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2015	\$ 113,747	\$ 113,747	\$ -	\$ 504,182	22.56%
2016	117,040	117,040	-	534,657	21.89%
2017	246,974	246,974	-	581,519	42.47%
2018	280,479	305,825	25,346	601,872	50.81%
2019	304,899	313,356	8,457	686,778	45.63%
2020	390,789	390,789	-	649,719	60.15%
2021	364,908	364,908	-	737,429	49.48%

Notes to the Required Supplementary Information:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level % Pay (Closed)
Remaining Amortization Period	21 Years
Asset Valuation Method	5-Year Smoothed Fair Value
Inflation	2.50%
Salary Increases	4.00% - 6.52%
Investment Rate of Return	5.00%
Retirement Age	Illinois Police retirement rates capped at age 65
Mortality	RP-2014 Adjusted for Plan Status, Collar, and Illinois Public Pension Data, as Appropriate

Note: This schedule is intended to show information for ten years. Information for additional years will be displayed as it becomes available.

VILLAGE OF GILBERTS, ILLINOIS

Illinois Municipal Retirement Fund

**Required Supplementary Information
Schedule of Changes in the Employer's Net Pension Liability
April 30, 2021**

	<u>12/31/15</u>
Total Pension Liability	
Service Cost	\$ 81,971
Interest	120,854
Differences Between Expected and Actual Experience	(23,388)
Change of Assumptions	-
Benefit Payments, Including Refunds of Member Contributions	<u>(49,643)</u>
Net Change in Total Pension Liability	129,794
Total Pension Liability - Beginning	<u>1,603,868</u>
Total Pension Liability - Ending	<u><u>1,733,662</u></u>
Plan Fiduciary Net Position	
Contributions - Employer	\$ 87,686
Contributions - Members	34,104
Net Investment Income	5,645
Benefit Payments, Including Refunds of Member Contributions	(49,643)
Other (Net Transfer)	<u>17,661</u>
Net Change in Plan Fiduciary Net Position	95,453
Plan Net Position - Beginning	<u>1,092,978</u>
Plan Net Position - Ending	<u><u>1,188,431</u></u>
Employer's Net Pension Liability	<u><u>\$ 545,231</u></u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	68.55%
Covered Payroll	\$ 757,867
Employer's Net Pension Liability as a Percentage of Covered Payroll	71.94%

Note: This schedule is intended to show information for ten years. Information for additional years will be displayed as it becomes available.

12/31/16	12/31/17	12/31/18	12/31/19	12/31/20
84,420	93,844	86,851	82,507	86,660
130,568	138,526	153,023	169,314	187,350
(57,450)	107,819	72,437	105,276	46,429
(9,228)	(72,806)	75,092	-	(42,428)
(51,249)	(61,267)	(79,924)	(100,423)	(120,363)
97,061	206,116	307,479	256,674	157,648
1,733,662	1,830,723	2,036,839	2,344,318	2,600,992
1,830,723	2,036,839	2,344,318	2,600,992	2,758,640
95,277	100,932	86,380	86,131	104,929
35,086	39,702	36,987	39,235	40,016
83,491	223,247	(78,057)	292,594	270,992
(51,249)	(61,267)	(79,924)	(100,423)	(120,363)
1,434	(15,627)	32,343	20,312	24,213
164,039	286,987	(2,271)	337,849	319,787
1,188,431	1,352,470	1,639,457	1,637,186	1,975,035
1,352,470	1,639,457	1,637,186	1,975,035	2,294,822
478,253	397,382	707,132	625,957	463,818
73.88%	80.49%	69.84%	75.93%	83.19%
779,682	882,275	821,881	849,420	889,236
61.34%	45.04%	86.04%	73.69%	52.16%

VILLAGE OF GILBERTS, ILLINOIS

Police Pension Fund

**Required Supplementary Information
Schedule of Changes in the Employer's Net Pension Liability
April 30, 2021**

	<u>4/30/15</u>
Total Pension Liability	
Service Cost	\$ 150,500
Interest	148,353
Change of Benefit Terms	-
Differences Between Expected and Actual Experience	(133,722)
Change of Assumptions	164,527
Benefit Payments, Including Refunds of Member Contributions	<u>(33,536)</u>
Net Change in Total Pension Liability	296,122
Total Pension Liability - Beginning	<u>2,136,101</u>
Total Pension Liability - Ending	<u><u>2,432,223</u></u>
Plan Fiduciary Net Position	
Contributions - Employer	\$ 113,747
Contributions - Members	49,223
Net Investment Income	28,068
Benefit Payments, Including Refunds of Member Contributions	<u>(33,536)</u>
Administrative Expense	<u>(8,476)</u>
Net Change in Plan Fiduciary Net Position	149,026
Plan Net Position - Beginning	<u>1,506,811</u>
Plan Net Position - Ending	<u><u>1,655,837</u></u>
Employer's Net Pension Liability	<u><u>\$ 776,386</u></u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	68.08%
Covered Payroll	\$ 504,182
Employer's Net Pension Liability as a Percentage of Covered Payroll	153.99%

Note: This schedule is intended to show information for ten years. Information for additional years will be displayed as it becomes available.

4/30/16	4/30/17	4/30/18	4/30/19	4/30/20	4/30/21
219,498	245,683	257,967	334,220	321,355	364,331
121,611	199,363	214,917	237,365	277,852	272,576
-	-	-	-	26,127	-
55,076	(20,342)	(23,927)	241,487	(554,971)	(254,336)
1,158,843	(113,618)	-	-	98,570	-
-	-	-	-	(6,650)	(32,112)
1,555,028	311,086	448,957	813,072	162,283	350,459
2,432,223	3,987,251	4,298,337	4,747,294	5,560,366	5,722,649
3,987,251	4,298,337	4,747,294	5,560,366	5,722,649	6,073,108
117,040	246,974	305,825	313,356	390,789	364,908
52,985	55,531	62,308	58,730	452,286	81,759
13,528	36,415	25,278	97,985	19,679	797,079
-	-	-	-	(6,650)	(32,112)
(8,099)	(16,276)	(14,167)	(9,238)	(19,844)	(24,332)
175,454	322,644	379,244	460,833	836,260	1,187,302
1,655,837	1,831,291	2,153,935	2,533,179	2,994,012	3,830,272
1,831,291	2,153,935	2,533,179	2,994,012	3,830,272	5,017,574
2,155,960	2,144,402	2,214,115	2,566,354	1,892,377	1,055,534
45.93%	50.11%	53.36%	53.85%	66.93%	82.62%
534,657	581,519	601,872	686,778	649,719	737,429
403.24%	368.76%	367.87%	373.68%	291.26%	143.14%

VILLAGE OF GILBERTS, ILLINOIS

Police Pension Fund

**Required Supplementary Information
Schedule of Investment Returns
April 30, 2021**

Fiscal Year	Annual Money- Weighted Rate of Return, Net of Investment Expense
2015	1.80%
2016	0.77%
2017	1.84%
2018	1.06%
2019	3.66%
2020	3.85%
2021	19.55%

Note:

This schedule is intended to show information for ten years. Information for additional years will be displayed as it becomes available.

VILLAGE OF GILBERTS, ILLINOIS

General Fund

Schedule of Revenues, Expenditures and Changes in Fund Balance - Budget and Actual
For the Fiscal Year Ended April 30, 2021

	Budget		Actual
	Original	Final	
Revenues			
Taxes	\$ 1,579,177	1,579,177	1,605,057
Licenses, Permits and Fees	81,237	81,237	132,485
Intergovernmental	1,194,579	1,669,901	1,937,115
Charges for Services	1,061,948	1,061,948	1,115,518
Fines and Forfeits	32,400	32,400	24,606
Investment Income	80,009	80,009	12,013
Miscellaneous	317,489	317,489	139,944
Total Revenues	<u>4,346,839</u>	<u>4,822,161</u>	<u>4,966,738</u>
Expenditures			
General Government	916,081	930,624	809,692
Public Safety	1,668,470	1,687,110	1,683,322
Public Works	1,154,017	1,180,799	1,223,423
Parks and Recreation	57,781	58,306	34,745
Capital Outlay	461,096	498,096	129,174
Debt Service			
Principal Retirement	67,079	67,079	67,079
Interest and Fiscal Charges	18,635	18,635	15,983
Total Expenditures	<u>4,343,159</u>	<u>4,440,649</u>	<u>3,963,418</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	<u>3,680</u>	<u>381,512</u>	<u>1,003,320</u>
Other Financing Sources (Uses)			
Transfers In	-	-	59,742
Transfers (Out)	-	-	(95,187)
	<u>-</u>	<u>-</u>	<u>(35,445)</u>
Net Change in Fund Balance	<u>3,680</u>	<u>381,512</u>	967,875
Fund Balance - Beginning			<u>4,838,474</u>
Fund Balance - Ending			<u>5,806,349</u>

OTHER SUPPLEMENTARY INFORMATION

Other supplementary information includes financial statements and schedules not required by the GASB, nor a part of the basic financial statements, but are presented for purposes of additional analysis.

Such statements and schedules include:

- Budgetary Comparison and Individual Fund Schedules – Major Governmental Funds
 - General Fund
 - TIF #2 – Capital Projects Fund
- Combining Statements – Nonmajor Governmental Funds
- Individual Fund Schedules – Nonmajor Governmental Funds
 - Motor Fuel Tax – Special Revenue Fund
 - Community Days – Special Revenue Fund
 - TIF #1 – Capital Projects Fund
- Budgetary Comparison Schedule – Enterprise Fund
- Budgetary Comparison Schedule – Pension Trust Fund
- Combining Statement of Statement of Fiduciary Net Postion - Custodial Funds
- Combining Statement of Statement of Changes in Fiduciary Net Postion - Custodial Funds
- Consolidated Year-End Financial Report

INDIVIDUAL FUND DESCRIPTIONS

GENERAL FUND

The General Fund accounts for all financial resources except those required to be accounted for in another fund.

SPECIAL REVENUE FUNDS

The Special Revenue Funds are used to account for the proceeds of specific revenue sources (other than fiduciary funds or capital projects funds) that are legally restricted to expenditure for specified purposes.

Motor Fuel Tax Fund

The Motor Fuel Tax Fund is used to account for state shared motor fuel tax revenues that are legally restricted to maintenance and construction of streets, sidewalks, alleys and traffic signals.

Community Days Fund

The Community Days Fund is used to account for the activity associated with the Village's annual Gilberts Community Days event.

CAPITAL PROJECTS FUNDS

The Capital Projects Funds are used to account for all resources used for the acquisition of capital assets by the Village, except those financed by Proprietary and Trust Funds, including general and infrastructure capital assets.

TIF #2 Fund

The TIF #2 Fund is used to account for activities associated with the redevelopment within the Tax Increment Financing District #2.

TIF #1 Fund

The TIF #1 Fund is used to account for activities associated with improvements within the Tax Increment Financing District #1.

Road Improvement Fund

The Road Improvement Fund is used to account for activities associated with improvements to the roads within the Village.

INDIVIDUAL FUND DESCRIPTIONS

ENTERPRISE FUND

Enterprise Funds are used to account for operations that are financed and operated in a manner similar to private business enterprises where the intent is that costs of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or where it has been decided that periodic determination of revenues earned, expenses incurred and/or net income is appropriate for capital maintenance, public policy, management control, accountability or other purpose.

Utility Fund

The Utility Fund is used to account for the provision of water and wastewater treatment services to the residents of the Village. All activities necessary to provide such services are accounted for in this fund, including, but not limited to, administration, operations and maintenance, financing and related debt service, billing and collection.

FIDUCIARY FUNDS

PENSION TRUST FUND

Police Pension Fund

Pension Trust Funds are set up for the purpose of accounting for money received from nonenterprise fund sources and held by a governmental unit in the capacity of trustee for individuals, entities and nonpublic organizations.

CUSTODIAL FUNDS

Special Services Area #9 Fund

The Special Services Area #9 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued.

Special Services Area #15 Fund

The Special Services Area #15 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued.

Special Services Area #24 Fund

The Special Services Area #24 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued.

Special Services Area #25 Fund

The Special Services Area #25 Fund is used to account for debt service payments made by property holders relative to Special Service Area Bonds issued.

VILLAGE OF GILBERTS, ILLINOIS

General Fund

**Schedule of Revenues - Budget and Actual
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Taxes			
Property - General	\$ 1,223,000	1,223,000	1,222,626
Utility - Communications	100,000	100,000	81,639
Utility - Electric	179,515	179,515	195,239
Utility - Gas	76,662	76,662	105,553
Total Taxes	1,579,177	1,579,177	1,605,057
Licenses, Permits and Fees			
Liquor Licenses	13,870	13,870	5,950
Pulltabs and Jar Games License	880	880	893
Business Licenses	4,423	4,423	5,100
ZBA/Planning Commission Hearings	-	-	1,000
Recycling	2,500	2,500	-
Vacant Building Registration	700	700	600
Raffle	60	60	60
Food Vendor Registration	-	-	200
Oversize Vehicle	2,500	2,500	5,068
Building Permits	26,288	26,288	86,351
Building Permits - Developer	20,250	20,250	13,613
Contractor Permits	9,766	9,766	13,650
Total Licenses, Permits and Fees	81,237	81,237	132,485
Intergovernmental			
State Income Tax	686,180	686,180	788,590
Replacement Tax	294	294	375
State Sales and Use Tax	503,948	503,948	668,671
Grants	4,157	479,479	479,479
Total Intergovernmental	1,194,579	1,669,901	1,937,115

VILLAGE OF GILBERTS, ILLINOIS

General Fund

**Schedule of Revenues - Budget and Actual - Continued
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Charges for Services			
Cable Franchise Fees	\$ 77,598	77,598	80,769
Refuse Removal Services	826,800	826,800	901,818
Police Reports	380	380	220
Impact Fees	91,170	91,170	69,708
Antenna Rental	65,380	65,380	62,788
Pavilion Rental	620	620	215
Total Charges for Services	1,061,948	1,061,948	1,115,518
Fines and Forfeitures			
Fines - Court	21,000	21,000	13,691
Police Enhanced DUI	8,100	8,100	5,000
Other	3,300	3,300	5,915
Total Fines and Forfeitures	32,400	32,400	24,606
Investment Income			
Interest	80,009	80,009	12,013
Miscellaneous			
Miscellaneous Income	317,489	317,489	139,944
Total Revenues	4,346,839	4,822,161	4,966,738

VILLAGE OF GILBERTS, ILLINOIS

General Fund

**Schedule of Expenditures - Budget and Actual
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
General Government			
Administration			
Salaries and Wages	\$ 310,968	305,504	244,200
Benefits	138,816	137,617	132,061
Contractual Services	318,107	318,107	264,695
Commodities	3,900	3,900	4,019
Miscellaneous	7,530	27,530	34,006
	<u>779,321</u>	<u>792,658</u>	<u>678,981</u>
Building			
Salaries and Wages	86,561	87,526	86,213
Benefits	11,489	11,730	11,691
Contractual Services	35,610	35,610	31,916
Commodities	3,100	3,100	891
	<u>136,760</u>	<u>137,966</u>	<u>130,711</u>
Total General Government	<u>916,081</u>	<u>930,624</u>	<u>809,692</u>
Public Safety			
Police			
Salaries and Wages	878,079	878,079	903,607
Benefits	569,884	568,524	566,898
Contractual Services	178,207	178,207	163,976
Commodities	40,700	40,700	32,072
Miscellaneous	1,600	21,600	16,769
	<u>1,668,470</u>	<u>1,687,110</u>	<u>1,683,322</u>
Total Public Safety	<u>1,668,470</u>	<u>1,687,110</u>	<u>1,683,322</u>
Public Works			
Salaries and Wages	225,559	231,942	247,560
Benefits	94,628	95,027	89,055
Contractual Services	743,030	743,030	822,737
Commodities	90,800	90,800	61,542
Miscellaneous	-	20,000	2,529
	<u>1,154,017</u>	<u>1,180,799</u>	<u>1,223,423</u>
Total Public Works	<u>1,154,017</u>	<u>1,180,799</u>	<u>1,223,423</u>

VILLAGE OF GILBERTS, ILLINOIS

General Fund

Schedule of Expenditures - Budget and Actual - Continued
For the Fiscal Year Ended April 30, 2021

	Budget		Actual
	Original	Final	
Parks and Recreation			
Salaries and Wages	\$ 25,625	26,112	7,917
Benefits	1,961	1,999	606
Contractual Services	26,795	26,795	24,585
Commodities	3,400	3,400	1,538
Miscellaneous	-	-	99
Total Parks and Recreation	57,781	58,306	34,745
Capital Outlay			
General Government	212,494	212,494	15,344
Public Safety	39,000	76,000	50,341
Public Works	91,000	91,000	62,960
Parks and Recreation	118,602	118,602	529
Total Capital Outlay	461,096	498,096	129,174
Debt Service			
Principal Retirement	67,079	67,079	67,079
Interest and Fiscal Charges	18,635	18,635	15,983
Total Debt Service	85,714	85,714	83,062
Total Expenditures	4,343,159	4,440,649	3,963,418

VILLAGE OF GILBERTS, ILLINOIS

TIF #2 - Capital Projects Fund

**Schedule of Revenues, Expenditures and Changes in Fund Balance
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Revenues			
Taxes			
Property Taxes	\$ 717,000	717,000	942,069
Investment Income	1,300	1,300	768
Miscellaneous	-	-	30,605
Total Revenues	<u>718,300</u>	<u>718,300</u>	<u>973,442</u>
Expenditures			
General Government			
Contractual Services	9,974	9,974	2,550
Debt Service			
Principal Retirement	452,400	452,400	452,400
Interest and Fiscal Charges	155,135	155,135	310,835
Total Expenditures	<u>617,509</u>	<u>617,509</u>	<u>765,785</u>
Net Change in Fund Balance	<u>100,791</u>	<u>100,791</u>	207,657
Fund Balance - Beginning			<u>361,428</u>
Fund Balance - Ending			<u><u>569,085</u></u>

VILLAGE OF GILBERTS, ILLINOIS

Nonmajor Governmental Funds

Combining Balance Sheet

April 30, 2021

	Special Revenue		Capital Projects		Totals
	Motor Fuel Tax	Community Days	TIF #1	Road Improvement	
ASSETS					
Cash and Investments	\$ 1,311,240	11,294	361,826	413,397	2,097,757
Receivables - Net of Allowances					
Property Taxes	-	-	217,519	-	217,519
Accounts	22,662	50	-	51,621	74,333
Due from Other Funds	-	-	75,761	-	75,761
Total Assets	1,333,902	11,344	655,106	465,018	2,465,370
DEFERRED INFLOWS OF RESOURCES					
Property Taxes	-	-	217,519	-	217,519
FUND BALANCES					
Restricted - Highways and Streets	1,333,902	-	-	-	1,333,902
Restricted - Community Days	-	11,344	-	-	11,344
Restricted - Capital Projects	-	-	437,587	465,018	902,605
Total Fund Balances	1,333,902	11,344	437,587	465,018	2,247,851
Total Deferred Inflows of Resources and Fund Balances	1,333,902	11,344	655,106	465,018	2,465,370

VILLAGE OF GILBERTS, ILLINOIS

Nonmajor Governmental Funds

**Combining Statement of Revenues, Expenditures and Changes in Fund Balances
For the Fiscal Year Ended April 30, 2021**

	Special Revenue		Capital Projects		Totals
	Motor Fuel Tax	Community Days	TIF #1	Road Improvement	
Revenues					
Taxes	\$ -	-	189,443	8,883	198,326
Intergovernmental	521,111	-	-	321,168	842,279
Investment Income	1,928	-	470	27,379	29,777
Miscellaneous	-	6,950	-	-	6,950
Total Revenues	523,039	6,950	189,913	357,430	1,077,332
Expenditures					
General Government	-	794	-	-	794
Debt Service					
Principal Retirement	-	-	-	215,000	215,000
Interest and Fiscal Charges	-	-	-	17,600	17,600
Total Expenditures	-	794	-	232,600	233,394
Excess (Deficiency) of Revenues Over (Under) Expenditures	523,039	6,156	189,913	124,830	843,938
Other Financing Sources (Uses)					
Transfers In	-	-	-	95,187	95,187
Transfers Out	(59,742)	-	-	-	(59,742)
	(59,742)	-	-	95,187	35,445
Net Change in Fund Balances	463,297	6,156	189,913	220,017	879,383
Fund Balances - Beginning	870,605	5,188	247,674	245,001	1,368,468
Fund Balances - Ending	1,333,902	11,344	437,587	465,018	2,247,851

VILLAGE OF GILBERTS, ILLINOIS

Motor Fuel Tax - Special Revenue Fund

**Schedule of Revenues, Expenditures and Changes in Fund Balance
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Revenues			
Intergovernmental			
Motor Fuel Tax Allotments	\$ 279,000	279,000	521,111
Investment Income	15,150	15,150	1,928
Total Revenues	<u>294,150</u>	<u>294,150</u>	<u>523,039</u>
Expenditures			
Capital Outlay	<u>-</u>	<u>-</u>	<u>-</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	294,150	294,150	523,039
Other Financing (Uses)			
Transfers Out	<u>(70,000)</u>	<u>(70,000)</u>	<u>(59,742)</u>
Net Change in Fund Balance	<u>224,150</u>	<u>224,150</u>	463,297
Fund Balance - Beginning			<u>870,605</u>
Fund Balance - Ending			<u>1,333,902</u>

VILLAGE OF GILBERTS, ILLINOIS

Community Days - Special Revenue Fund

**Schedule of Revenues, Expenditures and Changes in Fund Balance
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Revenues			
Miscellaneous	\$ 45,400	45,400	6,950
Expenditures			
General Government			
Contractual Services	44,685	44,685	794
Net Change in Fund Balance	<u>715</u>	<u>715</u>	6,156
Fund Balance - Beginning			<u>5,188</u>
Fund Balance - Ending			<u>11,344</u>

VILLAGE OF GILBERTS, ILLINOIS

TIF #1 - Capital Projects Fund

**Schedule of Revenues, Expenditures and Changes in Fund Balance
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Revenues			
Taxes			
Property Taxes	\$ 140,500	140,500	189,443
Investment Income	600	600	470
Total Revenues	<u>141,100</u>	<u>141,100</u>	<u>189,913</u>
Expenditures			
General Government			
Contractual Services	-	-	-
Net Change in Fund Balance	<u>141,100</u>	<u>141,100</u>	189,913
Fund Balance - Beginning			<u>247,674</u>
Fund Balance - Ending			<u><u>437,587</u></u>

VILLAGE OF GILBERTS, ILLINOIS

Road Improvement - Capital Projects Fund

Schedule of Revenues, Expenditures and Changes in Fund Balance
For the Fiscal Year Ended April 30, 2021

	Budget		Actual
	Original	Final	
Revenues			
Taxes			
Property Taxes	\$ 7,397	7,397	8,883
Intergovernmental			
State Sales and Use Tax	258,869	258,869	321,168
Investment Income	30,000	30,000	27,379
Total Revenues	<u>296,266</u>	<u>296,266</u>	<u>357,430</u>
Expenditures			
Debt Service			
Principal Retirement	215,000	215,000	215,000
Interest and Fiscal Charges	17,600	17,600	17,600
Total Expenditures	<u>232,600</u>	<u>232,600</u>	<u>232,600</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	63,666	63,666	124,830
Other Financing Sources			
Transfers In	<u>129,098</u>	<u>129,098</u>	<u>95,187</u>
Net Change in Fund Balance	<u>192,764</u>	<u>192,764</u>	220,017
Fund Balance - Beginning			<u>245,001</u>
Fund Balance - Ending			<u>465,018</u>

VILLAGE OF GILBERTS, ILLINOIS

Utility - Enterprise Fund

**Schedule of Revenues, Expenses and Changes in Net Position - Budget and Actual
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Operating Revenues			
Charges for Services	\$ 1,609,000	1,609,000	1,834,026
Sales of Water Meters	7,050	7,050	10,925
Other Operating Revenues	584,600	584,600	27,379
Total Operating Revenues	<u>2,200,650</u>	<u>2,200,650</u>	<u>1,872,330</u>
Operating Expenses			
Operations			
Water	1,369,016	1,391,787	736,668
Wastewater	741,689	742,623	596,813
Total Operating Expenses	<u>2,110,705</u>	<u>2,134,410</u>	<u>1,333,481</u>
Operating Income	<u>89,945</u>	<u>66,240</u>	<u>538,849</u>
Nonoperating Revenues (Expenses)			
Investment Income	65,000	65,000	29,678
Tap-On Fees	9,500	9,500	1,401
Principal Retirement	(25,334)	(25,334)	-
Interest Expense	(7,657)	(7,657)	(7,657)
	<u>41,509</u>	<u>41,509</u>	<u>23,422</u>
Budgetary Net Income Before GAAP Item	<u>131,454</u>	<u>107,749</u>	562,271
GAAP Item - Depreciation			<u>(489,199)</u>
Change in Net Position			73,072
Net Position - Beginning			<u>20,150,138</u>
Net Position - Ending			<u>20,223,210</u>

VILLAGE OF GILBERTS, ILLINOIS

Utility - Enterprise Fund

**Schedule of Operating Expenses - Budget and Actual
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Operations			
Water			
Salaries and Wages	\$ 171,815	174,193	172,437
Benefits	76,772	77,165	85,310
Contractual Services	1,029,198	1,029,198	403,388
Commodities	91,231	91,231	62,597
Miscellaneous	-	20,000	12,936
Total Water	1,369,016	1,391,787	736,668
Wastewater			
Salaries and Wages	186,909	187,730	189,390
Benefits	80,737	80,850	69,080
Contractual Services	405,893	405,893	292,769
Commodities	68,150	68,150	45,574
Total Wastewater	741,689	742,623	596,813
Total Operations	2,110,705	2,134,410	1,333,481

VILLAGE OF GILBERTS, ILLINOIS

Police Pension Fund - Pension Trust

**Schedule of Changes in Fiduciary Net Position - Budget and Actual
For the Fiscal Year Ended April 30, 2021**

	Budget		Actual
	Original	Final	
Additions			
Contributions - Employer	\$ 364,908	364,908	364,908
Contributions - Plan Members	60,000	60,000	81,759
Total Contributions	424,908	424,908	446,667
Investment Income			
Interest Earned	-	-	107,389
Net Change in Fair Value	20,000	20,000	709,388
	20,000	20,000	816,777
Less Investment Expenses	(10,000)	(10,000)	(19,698)
Net Investment Income	10,000	10,000	797,079
Total Additions	434,908	434,908	1,243,746
Deductions			
Administration	18,000	18,000	24,332
Refunds	-	-	32,112
Total Deductions	18,000	18,000	56,444
Change in Fiduciary Net Position	416,908	416,908	1,187,302
Net Position Restricted for Pensions			
Beginning			3,830,272
Ending			5,017,574

VILLAGE OF GILBERTS, ILLINOIS

Special Service Area Funds - Custodial

Combining Statement of Fiduciary Net Position

April 30, 2021

	Special Service Area #9	Special Service Area #15	Special Service Area #24	Special Service Area #25	Totals
ASSETS					
Cash and Investments	\$ 1,794,798	1,100,004	193,424	5,367,139	8,455,365
NET POSITION					
Net Position Restricted	1,794,798	1,100,004	193,424	5,367,139	8,455,365

VILLAGE OF GILBERTS, ILLINOIS

Special Service Area Funds - Custodial

**Combining Statement of Changes in Fiduciary Net Position
For the Fiscal Year Ended April 30, 2021**

	Special Service Area #9	Special Service Area #15	Special Service Area #24	Special Service Area #25	Totals
Additions					
Property Taxes	\$ 1,550,036	801,242	29	-	2,351,307
Investment Income	441	2,912	234,777	1,134	239,264
Miscellaneous	-	-	235,736	-	235,736
Total Additions	<u>1,550,477</u>	<u>804,154</u>	<u>470,542</u>	<u>1,134</u>	<u>2,826,307</u>
Deductions					
Administration	25,246	15,062	20,065	1,605,072	1,665,445
Professional Services	290,825	236,842	3,500	-	531,167
Debt Service					
Principal and Interest	1,295,825	601,769	444,996	-	2,342,590
Total Deductions	<u>1,611,896</u>	<u>853,673</u>	<u>468,561</u>	<u>1,605,072</u>	<u>4,539,202</u>
Change in Fiduciary Net Position	(61,419)	(49,519)	1,981	(1,603,938)	(1,712,895)
Net Position Restricted for Individuals, Organizations, and Other Governments					
Beginning	<u>1,856,217</u>	<u>1,149,523</u>	<u>191,443</u>	<u>6,971,077</u>	<u>10,168,260</u>
Ending	<u>1,794,798</u>	<u>1,100,004</u>	<u>193,424</u>	<u>5,367,139</u>	<u>8,455,365</u>

VILLAGE OF GILBERTS, ILLINOIS

**Consolidated Year-End Financial Report
April 30, 2021**

CSFA #	Program Name	State	Federal	Other	Total
494-00-0967	High-Growth Cities Program	\$ 48,137	-	-	48,137
494-00-1488	Motor Fuel Tax Program	11,605	-	-	11,605
	Other Grant Programs and Activities	-	475,322	4,157	479,479
	All Other Costs Not Allocated	-	-	6,477,547	6,477,547
	Totals	<u>59,742</u>	<u>475,322</u>	<u>6,481,704</u>	<u>7,016,768</u>



REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENTAL AUDITING STANDARDS

October 11, 2021

The Honorable Village President
Members of the Board of Trustees
Village of Gilberts, Illinois

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Village of Gilberts, Illinois, as of and for the year ended April 30, 2021, and the related notes to the financial statements, which collectively comprise the Village’s basic financial statements, and have issued our report thereon dated October 11, 2021.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Village’s internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Village’s internal control. Accordingly, we do not express an opinion on the effectiveness of the Village’s internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Village’s financial statements will not be prevented or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Village's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Village's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Village's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Lauterbach & Amen, LLP
LAUTERBACH & AMEN, LLP

SUPPLEMENTAL SCHEDULES

VILLAGE OF GILBERTS, ILLINOIS

Schedule of Long-Term Debt Requirements

**General Obligation Alternate Revenue Source Bonds of 2011
April 30, 2021**

Date of Issue	August 15, 2011
Date of Maturity	December 1, 2021
Authorized Issue	\$1,975,000
Denomination of Bonds	\$5,000
Interest Rates	2.00% - 4.00%
Interest Dates	June 1 and December 1
Principal Maturity Date	December 1
Payable at	Amalgamated Bank of Chicago

CURRENT AND LONG-TERM PRINCIPAL AND INTEREST REQUIREMENTS

Fiscal Year	Requirements			Interest Due on			
	Principal	Interest	Totals	Jun. 1	Amount	Dec. 1	Amount
2022	<u>\$ 225,000</u>	<u>9,000</u>	<u>234,000</u>	2021	<u>4,500</u>	2021	<u>4,500</u>

VILLAGE OF GILBERTS, ILLINOIS

Schedule of Long-Term Debt Requirements

**Installment Note Payable of 2017
April 30, 2021**

Date of Issue	January 9, 2012
Date of Maturity	January 9, 2022
Principal Amount	\$593,824
Interest Rate	3.25%
Interest Dates	9th of Each Month
Principal Maturity Dates Payable at	9th of Each Month Union National Bank

CURRENT AND LONG-TERM PRINCIPAL AND INTEREST REQUIREMENTS

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>	<u>Totals</u>
2022	\$ 491,396	11,975	503,371

VILLAGE OF GILBERTS, ILLINOIS

Schedule of Long-Term Debt Requirements

**IEPA (L17-4866) Loan Payable of 2014
April 30, 2021**

Date of Issue	April 10, 2015
Date of Maturity	April 10, 2034
Authorized Issue	\$522,662
Denomination of Bonds	\$5,000
Interest Rate	1.93%
Interest Dates	October 10 and April 10
Principal Maturity Date	April 10
Payable at	Illinois Environmental Protection Agency

CURRENT AND LONG-TERM PRINCIPAL AND INTEREST REQUIREMENTS

Fiscal Year	Requirements			Interest Due on			
	Principal	Interest	Totals	Oct. 10	Amount	Apr. 10	Amount
2022	\$ 25,826	7,165	32,991	2021	3,645	2022	3,520
2023	26,326	6,665	32,991	2022	3,396	2023	3,269
2024	26,836	6,155	32,991	2023	3,142	2024	3,013
2025	27,357	5,634	32,991	2024	2,883	2025	2,751
2026	27,887	5,104	32,991	2025	2,619	2026	2,485
2027	28,428	4,563	32,991	2026	2,350	2027	2,213
2028	28,979	4,012	32,991	2027	2,075	2028	1,937
2029	29,542	3,449	32,991	2028	1,796	2029	1,653
2030	30,114	2,877	32,991	2029	1,510	2030	1,367
2031	30,698	2,293	32,991	2030	1,220	2031	1,073
2032	31,294	1,697	32,991	2031	924	2032	773
2033	31,901	1,090	32,991	2032	622	2033	468
2034	32,520	471	32,991	2033	314	2034	157
	<u>377,708</u>	<u>51,175</u>	<u>428,883</u>		<u>26,496</u>		<u>24,679</u>

STATISTICAL SECTION (Unaudited)

This part of the comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Village's overall financial health.

Financial Trends

These schedules contain trend information to help the reader understand how the Village's financial performance and well-being have changed over time.

Revenue Capacity

These schedules contain information to help the reader assess the Village's most significant local revenue sources.

Debt Capacity

These schedules present information to help the reader assess the affordability of the Village's current levels of outstanding debt and the Village's ability to issue additional debt in the future.

Demographic and Economic Information

These schedules offer demographic and economic indicators to help the reader understand the environment within which the Village's financial activities take place.

Operating Information

These schedules contain service and infrastructure data to help the reader understand how the information in the Village's financial report relates to the services the Village provides and the activities it performs.

VILLAGE OF GILBERTS, ILLINOIS

Net Position by Component - Last Ten Fiscal Years*
April 30, 2021 (Unaudited)

	2012	2013	2014
Governmental Activities			
Net Investment in Capital Assets	\$ 44,202,537	43,563,176	42,863,643
Restricted	2,625,289	2,723,864	2,878,238
Unrestricted	88,641	561,746	1,346,579
Total Governmental Activities Net Position	46,916,467	46,848,786	47,088,460
Business-Type Activities			
Net Investment in Capital Assets	18,376,762	18,055,760	17,866,099
Unrestricted	2,800,301	3,028,960	3,148,649
Total Business-Type Activities Net Position	21,177,063	21,084,720	21,014,748
Primary Government			
Net Investment in Capital Assets	62,579,299	61,618,936	60,729,742
Restricted	2,625,289	2,723,864	2,878,238
Unrestricted	2,888,942	3,590,706	4,495,228
Total Primary Government Net Position	68,093,530	67,933,506	68,103,208

* Accrual Basis of Accounting

Data Source: Village Records

2015	2016	2017	2018	2019	2020	2021
43,154,673	42,295,178	39,409,855	38,821,056	38,228,679	37,692,010	37,440,886
1,854,665	2,821,922	3,616,075	4,833,443	4,405,457	1,745,896	2,834,658
1,804,220	(2,382,364)	130,438	(319,089)	(989,826)	2,922,880	3,917,323
46,813,558	42,734,736	43,156,368	43,335,410	41,644,310	42,360,786	44,192,867
17,282,018	16,834,144	16,442,566	15,991,640	15,558,480	15,101,878	14,730,145
3,089,550	3,146,666	3,531,368	4,079,675	4,494,833	5,048,260	5,493,065
20,371,568	19,980,810	19,973,934	20,071,315	20,053,313	20,150,138	20,223,210
60,436,691	59,129,322	55,852,421	54,812,696	53,787,159	52,793,888	52,171,031
1,854,665	2,821,922	3,616,075	4,833,443	4,405,457	1,745,896	2,834,658
4,893,770	764,302	3,661,806	3,760,586	3,505,007	7,971,140	9,410,388
67,185,126	62,715,546	63,130,302	63,406,725	61,697,623	62,510,924	64,416,077

VILLAGE OF GILBERTS, ILLINOIS

Changes in Net Position - Last Ten Fiscal Years*
April 30, 2021 (Unaudited)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Expenses										
Governmental Activities										
General Government	\$ 1,801,758	1,831,654	2,187,002	3,269,423	9,571,335	1,895,748	2,032,082	1,919,539	2,109,537	1,759,180
Public Safety	1,309,823	1,265,648	1,371,625	1,343,362	1,674,079	1,627,273	1,661,470	1,834,380	1,519,146	1,742,561
Public Works	811,006	890,430	949,598	1,015,222	946,645	952,705	1,024,810	3,013,817	1,174,086	1,321,169
Parks and Recreation	33,550	25,094	29,762	14,433	46,010	67,649	49,264	31,126	56,386	34,745
Interest on Long-Term Debt	47,571	92,707	85,674	81,620	511,720	447,680	400,460	384,462	367,341	328,776
Total Governmental Activities	4,003,708	4,105,533	4,623,661	5,724,060	12,749,789	4,991,055	5,168,086	7,183,324	5,226,496	5,186,431
Business-Type Activities										
Utility	1,464,386	1,355,060	1,435,310	1,463,286	1,707,481	1,750,744	1,762,783	1,714,951	1,752,878	1,830,337
Total Primary Government	5,468,094	5,460,593	6,058,971	7,187,346	14,457,270	6,741,799	6,930,869	8,898,275	6,979,374	7,016,768
Program Revenues										
Governmental Activities										
Charges for Services										
General Government	1,154,509	1,112,989	1,168,243	1,094,229	1,405,678	1,693,644	1,328,458	1,301,738	1,308,869	1,272,389
Public Safety	170	215	245	370	290	300	310	355	395	220
Operating Grants/Contributions	221,036	228,177	571,448	712,209	200,479	220,231	201,472	216,569	547,362	1,000,590
Capital Grants/Contributions	676,552	-	-	-	4,682,521	-	-	-	-	-
Total Governmental Activities	2,052,267	1,341,381	1,739,936	1,806,808	6,288,968	1,914,175	1,530,240	1,518,662	1,856,626	2,273,199
Business-Type Activities										
Charges for Services	1,205,048	1,260,335	1,224,460	1,197,017	1,305,417	1,681,690	1,794,185	1,597,665	1,730,800	1,873,731
Utility	-	-	-	170,238	-	-	-	-	-	-
Capital Grants/Contributions	1,205,048	1,260,335	1,224,460	1,367,255	1,305,417	1,681,690	1,794,185	1,597,665	1,730,800	1,873,731
Total Primary Government	3,257,315	2,601,716	2,964,396	3,174,063	7,594,385	3,595,865	3,324,425	3,116,327	3,587,426	4,146,930
Net (Expenses) Revenues										
Governmental Activities	\$ (1,951,441)	(2,764,152)	(2,883,725)	(3,917,252)	(6,460,821)	(3,076,880)	(3,637,846)	(5,664,662)	(3,369,870)	(2,913,232)
Business-Type Activities	(259,338)	(94,725)	(210,850)	(96,031)	(402,064)	(69,054)	31,402	(117,286)	(22,078)	43,394

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Primary Government										
Net (Expenses) Revenues	(2,210,779)	(2,858,877)	(3,094,575)	(4,013,283)	(6,862,885)	(3,145,934)	(3,606,444)	(5,781,948)	(3,391,948)	(2,869,838)
General Revenues and Other Changes in Net Position										
Governmental Activities										
Taxes										
Property Taxes	943,158	935,382	975,625	1,098,562	1,373,173	1,569,714	1,781,156	1,895,839	2,095,786	2,363,021
Utility Taxes	447,782	552,070	486,113	462,055	410,296	419,928	410,825	423,078	384,272	382,431
Intergovernmental - Unrestricted										
Income Taxes	555,599	619,939	670,332	673,692	733,112	650,236	623,801	667,875	745,576	788,590
Sales and Use Taxes	293,396	470,508	477,322	548,767	598,855	672,627	726,301	712,414	527,987	989,839
Replacement Taxes	304	301	345	251	341	305	292	301	397	375
Investment Income	20,573	23,141	18,574	42,482	87,159	71,803	66,684	119,583	155,908	42,558
Miscellaneous	56,018	95,130	495,088	241,817	181,905	113,899	207,829	154,472	206,322	177,499
Transfers	-	-	-	574,724	-	-	-	-	-	-
Total Governmental Activities	2,316,830	2,696,471	3,123,399	3,642,350	3,384,841	3,498,512	3,816,888	3,973,562	4,116,248	4,744,313
Business-Type Activities										
Investment Income	1,392	2,382	140,878	27,575	81,743	62,178	65,979	99,284	118,903	29,678
Transfers	-	-	-	(574,724)	-	-	-	-	-	-
Total Business-Type Activities	1,392	2,382	140,878	(547,149)	81,743	62,178	65,979	99,284	118,903	29,678
Total Primary Government	2,318,222	2,698,853	3,264,277	3,095,201	3,466,584	3,560,690	3,882,867	4,072,846	4,235,151	4,773,991
Changes in Net Position										
Governmental Activities	365,389	(67,681)	239,674	(274,902)	(3,075,980)	421,632	179,042	(1,691,100)	746,378	1,831,081
Business-Type Activities	(257,946)	(92,343)	(69,972)	(643,180)	(320,321)	(6,876)	97,381	(18,002)	96,825	73,072
Total Primary Government	107,443	(160,024)	169,702	(918,082)	(3,396,301)	414,756	276,423	(1,709,102)	843,203	1,904,153

* Accrual Basis of Accounting

Data Source: Village Records

VILLAGE OF GILBERTS, ILLINOIS

Fund Balances of Governmental Funds - Last Ten Fiscal Years*
April 30, 2021 (Unaudited)

	2012	2013	2014
General Fund			
Nonspendable	\$ 47,161	51,289	52,120
Restricted	1,654,180	1,902,510	2,015,774
Committed	-	-	-
Unassigned	702,133	1,160,786	1,921,913
Total General Fund	<u>2,403,474</u>	<u>3,114,585</u>	<u>3,989,807</u>
All Other Governmental Funds			
Nonspendable	-	-	-
Restricted	971,109	821,354	862,464
Unassigned	(574,724)	(574,724)	(574,724)
Total All Other Governmental Funds	<u>396,385</u>	<u>246,630</u>	<u>287,740</u>
Total Governmental Funds	<u><u>2,799,859</u></u>	<u><u>3,361,215</u></u>	<u><u>4,277,547</u></u>

* Modified Accrual Basis of Accounting

Data Source: Village Records

2015	2016	2017	2018	2019	2020	2021
44,038	48,023	49,928	49,928	49,928	49,928	73,470
1,223,868	2,202,748	2,832,643	3,731,641	2,915,178	16,705	16,722
-	-	-	-	-	2,382,848	3,019,032
1,808,952	1,500,146	1,782,517	1,472,817	1,071,514	2,388,993	2,697,125
3,076,858	3,750,917	4,665,088	5,254,386	4,036,620	4,838,474	5,806,349
-	-	-	-	10,374	705	-
630,797	619,174	783,432	1,101,802	1,490,279	1,729,191	2,816,936
-	-	-	-	-	-	-
630,797	619,174	783,432	1,101,802	1,500,653	1,729,896	2,816,936
3,707,655	4,370,091	5,448,520	6,356,188	5,537,273	6,568,370	8,623,285

VILLAGE OF GILBERTS, ILLINOIS

Changes in Fund Balances of Governmental Funds - Last Ten Fiscal Years*
April 30, 2021 (Unaudited)

	2012	2013	2014
Revenues			
Taxes	\$ 1,390,940	1,487,452	1,461,738
Licenses, Permits and Fees	166,014	127,331	192,768
Intergovernmental	1,070,335	1,318,925	1,719,447
Charges for Services	904,612	878,778	882,590
Fines and Forfeitures	84,053	107,095	93,130
Investment Income	20,573	23,141	18,574
Contribution Revenue	-	-	-
Miscellaneous	56,018	95,130	495,088
Total Revenues	3,692,545	4,037,852	4,863,335
Expenditures			
General Government	3,578,316	913,990	1,304,372
Public Safety	1,236,297	1,235,342	1,332,082
Public Works	784,690	824,506	884,502
Parks and Recreation	33,550	25,094	29,762
Capital Outlay	71,921	149,183	32,818
Debt Service			
Principal Retirement	76,741	287,920	276,940
Interest and Fiscal Charges	61,819	111,461	90,310
Total Expenditures	5,843,334	3,547,496	3,950,786
Excess (Deficiency) of Revenues Over (Under) Expenditures	(2,150,789)	490,356	912,549
Other Financing Sources (Uses)			
Debt Issuance	2,672,939	71,000	-
Payment to Escrow Agent	(699,309)	249,061	-
Premium on Debt Issuance	53,524	(249,061)	-
Proceeds from Sale of Capital Assets	-	-	3,783
Transfers In	659,539	-	174,414
Transfers Out	(659,539)	-	(174,414)
Total Other Financing Sources (Uses)	2,027,154	71,000	3,783
Net Change in Fund Balances	(123,635)	561,356	916,332
Debt Service as a Percentage of Noncapital Expenditures	5.43%	11.71%	9.37%

* Modified Accrual Basis of Accounting

Data Source: Village Records

2015	2016	2017	2018	2019	2020	2021
1,560,617	1,783,469	1,989,642	2,191,981	2,318,917	2,480,058	2,745,452
115,705	161,056	263,796	134,988	134,652	140,499	132,485
1,934,919	1,532,787	1,543,399	1,551,866	1,597,159	1,821,322	2,779,394
906,973	1,183,907	1,388,805	1,147,898	1,139,042	1,137,773	1,115,518
71,921	61,005	41,343	45,882	28,399	30,992	24,606
42,482	87,159	71,803	66,684	119,583	155,908	42,558
-	181,905	-	-	-	-	-
241,817	-	113,899	207,829	154,472	206,322	177,499
4,874,434	4,991,288	5,412,687	5,347,128	5,492,224	5,972,874	7,017,512
2,013,871	7,988,913	921,364	1,024,599	874,073	1,140,258	813,036
1,303,596	1,255,078	1,386,741	1,441,510	1,534,364	1,654,391	1,683,322
955,868	898,011	884,635	980,281	2,946,614	1,002,401	1,223,423
14,433	46,010	67,649	49,264	31,126	56,386	34,745
1,398,908	554,430	318,524	57,398	29,185	128,146	129,174
251,817	322,611	926,363	485,560	502,188	551,797	734,479
83,758	367,777	422,806	409,219	393,589	378,496	344,418
6,022,251	11,432,830	4,928,082	4,447,831	6,311,139	4,911,875	4,962,597
(1,147,817)	(6,441,542)	484,605	899,297	(818,915)	1,060,999	2,054,915
-	7,100,000	593,824	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
3,201	3,978	-	8,371	-	-	-
786,430	135,341	134,131	-	-	566,897	154,929
(211,706)	(135,341)	(134,131)	-	-	(566,897)	(154,929)
577,925	7,103,978	593,824	8,371	-	-	-
(569,892)	662,436	1,078,429	907,668	(818,915)	1,060,999	2,054,915
6.72%	10.38%	28.97%	20.34%	14.25%	18.94%	22.17%

VILLAGE OF GILBERTS, ILLINOIS

**Assessed Value and Actual Value of Taxable Property - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

Fiscal Year	Tax Levy Year	Residential Property	Farm	Commercial Property
2012	2011	\$ 185,096,470	\$ 1,478,830	\$ 2,326,629
2013	2012	169,166,456	1,277,555	1,753,254
2014	2013	151,810,388	1,244,970	1,481,300
2015	2014	151,653,242	1,262,919	1,441,290
2016	2015	155,417,136	1,267,419	1,673,054
2017	2016	168,993,085	1,335,562	1,739,941
2018	2017	187,024,808	1,249,711	1,821,957
2019	2018	200,180,711	1,197,969	1,945,444
2020	2019	211,958,115	1,278,527	2,002,441
2021	2020	222,385,248	865,650	1,967,243

Data Source: Office of the County Clerk

Industrial Property	Railroad Property	Less: Tax-Exempt Property	Total Taxable Assessed Value	Total Direct Tax Rate
\$ 13,338,359	\$ 180,516	\$ -	\$ 202,420,804	0.4535
12,130,836	204,254	-	184,532,355	0.5212
11,007,720	252,407	-	165,796,785	0.6023
10,636,221	263,210	-	165,256,882	0.6219
11,170,837	316,108	-	169,844,554	0.6154
11,881,791	321,645	-	184,272,024	0.5806
12,167,830	328,164	-	202,592,470	0.5645
12,410,500	352,644	-	216,087,268	0.5500
12,771,375	385,018	-	228,395,476	0.5358
13,611,169	401,421	-	239,230,731	0.5276

VILLAGE OF GILBERTS, ILLINOIS

**Direct and Overlapping Property Tax Rates - Last Ten Tax Levy Years
April 30, 2021 (Unaudited)**

	2011	2012	2013	2014
Village Direct Rates				
General	0.3838	0.4676	0.5344	0.5511
Police Pension	0.0697	0.0535	0.0679	0.0708
Total Direct Rates	0.4535	0.5212	0.6023	0.6219
Overlapping Rates				
Dundee Township Library	0.1582	0.1811	0.2061	0.2171
School District #300	4.7987	5.6752	6.3182	6.7211
Kane County	0.3990	0.4336	0.4623	0.4684
Rutland Township Fire	0.5451	0.6267	0.7148	0.7459
Community College #509	0.4454	0.5215	0.5707	0.6076
Other	0.9854	1.0957	1.2569	1.4155
Total Direct and Overlapping Rates	7.7853	9.0550	10.1313	10.7974

Data Source: Office of the County Clerk

Note: Rates are per \$1,000 of Assessed Value

2015	2016	2017	2018	2019	2020
0.5449	0.4321	0.4148	0.3691	0.3760	0.3576
0.0705	0.1485	0.1496	0.1808	0.1598	0.1700
0.6154	0.5806	0.5645	0.5500	0.5358	0.5276
0.2095	0.1941	0.1864	0.1798	0.1737	0.1705
6.5437	6.1397	5.8763	5.6964	5.7890	5.3822
0.4473	0.4201	0.4025	0.3877	0.3739	0.3618
0.7258	0.6824	0.6649	0.6447	0.6332	0.6202
0.5609	0.5296	0.4999	0.5075	0.4865	0.4439
1.2543	1.1128	0.2608	0.2551	0.2848	0.2371
10.3569	9.6592	8.4553	8.2210	8.2769	7.7433

VILLAGE OF GILBERTS, ILLINOIS

**Principal Property Tax Payers - Current Fiscal Year and Nine Fiscal Years Ago
April 30, 2021 (Unaudited)**

Taxpayer	2021			2012		
	Taxable Assessed Value	Rank	Percentage of Total Village Taxable Assessed Value	Taxable Assessed Value	Rank	Percentage of Total Village Taxable Assessed Value
CHILCOTT LLC	\$ 5,425,637	1	2.27%			
CICF I IL 1 B03 LLC	4,632,870	2	1.94%			
Sola Paragon LLC 389 Sola Dr	943,298	3	0.39%			
Glogovsky Real Estate LLC	749,925	4	0.31%			
Waitcus Trust	724,262	5	0.30%	\$ 520,248	6	0.26%
Hayden Properties	550,082	6	0.23%			
Tinks Ink LLC	461,847	7	0.19%	453,387	7	0.22%
Gilberts & Groves LLC	461,447	8	0.19%			
RESI LLC	411,872	9	0.17%	402,252	9	0.20%
96 Center LLC	399,960	10	0.17%			
Eagles - Watch City Eerie #1047				401,972	10	0.20%
	<u>14,761,200</u>		<u>6.17%</u>	<u>1,777,859</u>		<u>0.88%</u>
Equalized Assessed Value	<u>239,230,731</u>			<u>202,420,804</u>		

Data Source: Office of the County Clerk Tax Extension. Any information available for 9 years ago is presented.

VILLAGE OF GILBERTS, ILLINOIS

**Property Tax Levies and Collections - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

Fiscal Year	Tax Levy Year	Taxes Levied for the Fiscal Year	Collected within the Fiscal Year of the Levy		Collections in Subsequent Years	Total Collections to Date	
			Amount	Percentage of Levy		Amount	Percentage of Levy
2012	2010	\$ 887,288	\$ 882,754	99.49%	\$ 1,268	\$ 884,022	99.63%
2013	2011	918,059	917,981	99.99%	23	918,004	99.99%
2014	2012	961,764	955,966	99.40%	-	955,966	99.40%
2015	2013	998,528	996,569	99.80%	-	996,569	99.80%
2016	2014	1,027,699	1,024,211	99.66%	-	1,024,211	99.66%
2017	2015	1,045,274	1,045,274	100.00%	-	1,045,274	100.00%
2018	2016	1,069,847	1,068,205	99.85%	-	1,068,205	99.85%
2019	2017	1,143,574	1,143,436	99.99%	-	1,143,436	99.99%
2020	2018	1,188,394	1,185,265	99.74%	-	1,185,265	99.74%
2021	2019	1,223,721	1,222,557	99.90%	-	1,222,557	99.90%

Data Source: Office of the County Clerk

VILLAGE OF GILBERTS, ILLINOIS

**Ratios of Outstanding Debt by Type - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

Fiscal Year	Governmental Activities			Business-Type	Total Primary Government	Percentage of Personal Income (1)	Percentage of Equalized Assessed Value (2)	Per Capita (1)
	Alternate Revenue Bonds	Tax Increment Revenue Note	Installment Notes Payable	Activities IEPA Loan				
2012	\$ 2,299,311	\$ -	\$ 756,236	\$ -	\$ 3,055,547	1.39%	1.51%	444.18
2013	2,062,049	-	776,578	-	2,838,627	1.04%	1.54%	386.94
2014	1,854,304	-	707,383	-	2,561,687	0.93%	1.55%	341.65
2015	1,640,855	-	669,015	522,662	2,832,532	1.03%	1.71%	381.08
2016	1,421,536	7,036,300	629,423	499,648	9,586,907	3.55%	5.64%	1,255.16
2017	1,196,153	6,970,100	588,467	476,188	9,230,908	3.53%	5.01%	1,195.09
2018	964,496	6,739,300	565,364	452,273	8,721,433	3.23%	4.30%	1,117.13
2019	726,373	6,499,100	541,499	427,894	8,194,866	3.14%	3.79%	1,041.41
2020	481,592	6,216,700	516,883	403,042	7,618,217	2.49%	3.34%	943.32
2021	225,000	5,764,300	491,396	337,708	6,818,404	2.59%	2.85%	815.01

Note: Details regarding the Village's outstanding debt can be found in the notes to the financial statements.
There are no debt service reserves available for future debt service payments.

(1) See the Schedule of Demographic and Economic Statistics for personal income and population data.

(2) See the Assessed Value and Actual Value of Taxable Property Schedule for Equalized Assessed Value data.

VILLAGE OF GILBERTS, ILLINOIS

Ratios of General Bonded Debt Outstanding - Last Ten Fiscal Years April 30, 2021 (Unaudited)

Fiscal Year	General Obligation Bonds	Less: Amounts Available for Debt Service	Total	Percentage of Equalized Assessed Value (1)	Per Capita (2)
2012	\$ 2,299,311	\$ -	\$ 2,299,311	1.25%	\$ 313.43
2013	2,062,049	-	2,062,049	1.24%	281.09
2014	1,854,304	-	1,854,304	1.12%	247.31
2015	1,640,855	-	1,640,855	0.99%	220.75
2016	1,421,536	-	1,421,536	0.84%	186.11
2017	1,196,153	-	1,196,153	0.65%	154.86
2018	964,496	-	964,496	0.48%	123.54
2019	726,373	-	726,373	0.34%	92.31
2020	481,592	-	481,592	0.21%	59.63
2021	225,000	-	225,000	0.09%	26.89

Data Source: Village Records

Note: Details regarding the Village's outstanding debt can be found in the notes to the financial statements.

(1) See the Ratios of Outstanding Debt by Type Schedule for Equalized Assessed Value data (Actual Taxable Value of Property).

(2) See the Demographic and Economic Statistics Schedule for the Per Capita Income data.

VILLAGE OF GILBERTS, ILLINOIS

**Schedule of Direct and Overlapping Governmental Activities Debt
April 30, 2021 (Unaudited)**

Governmental Unit	Gross Debt	Percentage of Debt Applicable to Village (1)	Village's Share of Debt
Village	\$ 6,480,696	100.000%	\$ 6,480,696
Overlapping Debt			
Kane County	56,603,195	1.48%	837,727
Kane County Forest Preserve	23,144,507	1.48%	342,539
Dundee Township	1,446,057	0.58%	8,387
Dundee Township Park District	-	1.35%	-
Community College District No. 509	38,526,393	1.61%	620,275
School District No. 300	155,553,716	6.10%	9,488,777
School District No. 158	17,188,048	0.05%	8,594
Gilberts Special Service Area #9	1,630,012	100.00%	1,630,012
Gilberts Special Service Area #15	850,004	100.00%	850,004
Gilberts Special Service Area #24	502,136	100.00%	502,136
Total Overlapping Debt	295,444,068		14,288,451
Total Direct and Overlapping Debt	301,924,764		20,769,147

Data Source: County Tax Extension Department

(1) Determined by ratio of assessed valuation of property subject to taxation in the Village to valuation of property subject to taxation in overlapping unit.

VILLAGE OF GILBERTS, ILLINOIS

**Schedule of Legal Debt Margin - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

	2012	2013	2014
Legal Debt Limit	\$ 17,478,279	15,928,929	14,320,068
Total Net Debt Applicable to Limit	755,890	776,578	707,383
Legal Debt Margin	16,722,389	15,152,351	13,612,685
Total Net Debt Applicable to the Limit as a Percentage of Debt Limit	4.32%	4.88%	4.94%

Data Source: Village Records

2015	2016	2017	2018	2019	2020	2021
14,253,406	14,649,093	15,893,462	17,473,601	18,637,527	19,699,110	20,633,651
669,015	629,423	588,467	565,364	541,499	516,883	491,396
13,584,391	14,019,670	15,304,995	16,908,237	18,096,028	19,182,227	20,142,255
4.69%	4.30%	3.70%	3.24%	2.91%	2.62%	2.38%

Legal Debt Margin Calculation for Fiscal Year 2021

Assessed Value - 2020 Levy	<u>\$ 239,230,731</u>
Bonded Debt Limit - 8.625% of Assessed Value	20,633,651
Amount of Debt Applicable to Limit	<u>491,396</u>
Legal Debt Margin	<u>20,142,255</u>

VILLAGE OF GILBERTS, ILLINOIS

Demographic and Economic Statistics - Last Ten Fiscal Years April 30, 2021 (Unaudited)

Fiscal Year	Population	Personal Income	Per Capita Personal Income	Unemployment Rate
2012	6,879	\$ 219,426,342	\$ 31,898	4.75%
2013	7,336	271,989,536	37,076	8.70%
2014	7,498	275,296,568	36,716	6.60%
2015	7,433	275,296,568	35,661	5.00%
2016	7,638	269,674,866	35,307	4.60%
2017	7,724	261,187,060	33,815	4.60%
2018	7,807	269,873,613	34,568	4.50%
2019	7,869	261,272,734	33,203	4.60%
2020	8,076	305,959,260	37,885	5.30%
2021	8,366	263,041,597	31,442	6.10%

Data Source: Illinois Department of Employment Security (IDES), US Census Bureau

VILLAGE OF GILBERTS, ILLINOIS

**Principal Employers - Current Fiscal Year and Nine Fiscal Years Ago
April 30, 2021 (Unaudited)**

Employer	2020*			2011		
	Employees	Rank	Percentage of Total Village Employment	Employees	Rank	Percentage of Total Village Employment
Scurto	251	1	6.27%	250	1	22.26%
R. M. Sellergren	223	2	5.57%			
Midwest Integrated Companies	152	3	3.80%			
Community District 300	90	4	2.25%			
MAX Maintenance Solutions	46	5	1.15%			
Safety Socket LLC	40	6	1.00%			
Selee Corp.	40	7	1.00%			
Suburban Plastics Co.	38	8	0.95%			
R. Cleveland Corp.	35	9	0.87%			
Forming Concepts, Inc.	30	10	0.75%	27	9	2.40%
J.S. Reimer Products				75	2	6.68%
Elgin Recycling				59	3	5.25%
Champion Environmental				55	4	4.90%
Vidal Landscaping				48	5	4.27%
West End Recycling				34	6	3.03%
Engineered Ceramics				30	7	2.67%
Harmony Metal				28	8	2.49%
Everest Excavating				19	10	1.69%
	<u>945</u>		<u>23.61%</u>	<u>625</u>		<u>55.65%</u>

Data Source: Village Community Development Department Records and U.S. Census Bureau.

*2021 data is currently not available, therefore, 2020 data has been presented.

VILLAGE OF GILBERTS, ILLINOIS

**Full-Time Equivalent Village Government Employees by Function - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

Function	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
General Government										
Administration - Full-Time	3	3	3	3	3	3	3	2	2	2
Administration - Part-Time	2	2	2	1	1	1	1	2	1	2
Finance	1	1	2	2	2	2	2	2	2	2
Building and Zoning - Full-Time	2	2	2	2	2	2	2	2	2	1
Building and Zoning - Part-Time	-	-	-	-	-	-	-	-	-	1
Public Safety										
Police										
Officers - Full-Time	8	8	8	8	8	8	8	8	9	9
Officers - Part-Time	9	12	11	11	10	10	10	12	7	7
Civilians - Part-Time	-	-	1	1	1	1	1	1	1	1
Public Works										
Other - Full-Time	2	2	2	2	2	2	3	3	3	3
Other - Part-Time	2	1	1	1	1	1	1	1	1	1
Utility										
Other - Full-Time	3	4	4	4	4	4	4	5	5	5
Other - Part-Time	-	-	-	-	-	1	1	-	-	-
Totals	32	35	36	35	34	35	36	38	33	34

Data Source: Village Records

VILLAGE OF GILBERTS, ILLINOIS

**Operating Indicators by Function/Program - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

Function/Program	2012	2013	2014
General Government			
Business Licenses	72	82	104
Liquor Licenses	8	8	9
Public Safety			
Police			
Part I Crimes	46	41	48
Part II Crimes	145	113	108
Physical Arrests	125	134	96
Parking Violations	66	87	105
Traffic Violations	1,217	1,256	1,133
Public Works			
Parkway Trees Trimmed	300	452	315
Street Resurfacing (Miles)	6	-	-
Potholes Repaired	50	50	78
Utility			
Number of Metered Accounts	1,732	1,650	1,749
Number of Hydrants Flushed/Inspected	318	318	318
New Connections	33	26	40
Water Average Daily Consumption	493,000	525,000	467,000
Average Daily Sewage Treatment	416,000	409,000	406,000

Data Source: Various Village Departments

2015	2016	2017	2018	2019	2020	2021
132	60	86	44	111	92	118
8	7	7	9	11	11	8
24	21	31	45	23	36	37
82	89	105	114	128	187	289
67	60	57	35	34	39	35
37	57	37	163	102	100	117
1,526	1,339	1,330	1,406	947	853	592
200	150	175	75	85	120	213
-	1	-	3	2	1	-
90	110	120	120	130	125	172
1,777	1,780	1,865	1,930	1,955	2,018	2,018
384	384	384	384	384	384	384
17	8	108	33	25	25	-
447,417	501,000	500,000	520,000	458,000	456,250	484,000
408,417	481,000	431,000	458,000	478,000	492,670	422,000

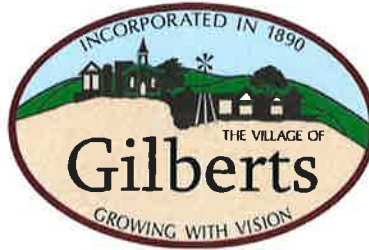
VILLAGE OF GILBERTS, ILLINOIS

**Capital Asset Statistics by Function/Program - Last Ten Fiscal Years
April 30, 2021 (Unaudited)**

Function/Program	2012	2013	2014
Public Safety			
Police			
Stations	1	1	1
Patrol Units	11	11	11
Public Works			
Streets (Miles)	31	31	31
Streetlights	155	155	155
Traffic Signals	5	5	5
Utility			
Water Mains (Miles)	37	37	37
Fire Hydrants	316	316	316
Sanitary Sewers (Miles)	31	31	31
Storm Sewers (Miles)	30	30	30

Data Source: Various Village Departments

2015	2016	2017	2018	2019	2020	2021
1	1	1	1	1	1	1
10	10	10	10	10	10	10
31	32	32	32	32	32	32
195	205	205	205	205	205	205
5	5	5	5	5	5	5
37	37	37	37	37	37	37
384	384	384	384	384	384	284
37	37	37	37	37	37	37
37	37	37	37	37	37	37



**MINUTES FOR VILLAGE OF GILBERTS
BOARD OF TRUSTEES MEETING
Village Hall: 87 Galligan Road, Gilberts, IL 60136
Meeting Minutes
Tuesday, October 5, 2021**

1. CALL TO ORDER / PLEDGE OF ALLEGIANCE

President Zambetti called the meeting to order at 7:00 p.m. He proceeded to lead those present in the Pledge of Allegiance.

2. ROLL CALL / ESTABLISH QUORUM

Village Clerk Courtney Baker called the roll. Roll call: Members present: Trustees Corbett, Allen, Hacker, Coats, and Redfield. Trustees LeClercq was absent. Others present: Village Administrator Brian Bourdeau and Public Works Director Aaron Grosskopf.

3. PUBLIC COMMENT

There were no public comments at this time.

4. CONSENT AGENDA

- A. A Motion to Minutes from the September 21, 2021 Village Board Meeting
- B. A Motion to approve Bills and Payroll dated October 5, 2021
- C. A Motion to approve the Calendar Year 2022 Village of Gilberts Meeting Calendar

President Zambetti asked if any of the board members had any consent agenda items they wished to remove for separate consideration. After hearing none, asked for a motion to approve.

A Motion was made by Trustee Allen and seconded by Trustee Coats to Approve Consent Agenda items A-C as Presented. Roll call vote: Trustees Corbett, Allen, Hacker, Coats, and Redfield voted Aye. 0-nays, 0-abstained. Motion carried.

5. ITEMS FOR APPROVAL

- A. A Resolution Authorizing Approval of an Agreement with Jetco Ltd. For Maintenance and Painting of the Indian Trails Water Tower in an Aggregate Amount Not to Exceed \$231,490 – Director Grosskopf advised the Board that there are two color options for the Board to consider as well as two logo design options. Trustee Allen provided a suggestion for the painting of the water tower.

Since the consensus of the Board was not to include the logo on the water tower, but to just have writing, the final dollar amount for the contract could be lowered to \$215,000. The Board's final direction was to have Staff find out the cost of having script lettering instead of block lettering rather than having the Village logo painted. Staff was instructed to follow up with the Board on their findings.

A Motion was made by Trustee Allen and seconded by Trustee Corbett to Approve Resolution 23-2021, a Resolution Authorizing Approval of an Agreement with Jetco Ltd. For Maintenance and Painting of the Indian Trails Water Tower in an Aggregate Amount Not to Exceed \$215,000. Roll call vote: Trustees Allen, Hacker, Coats, Redfield, and Corbett voted Aye. 0-nays, 0-abstained. Motion carried.

6. ITEMS FOR DISCUSSION

A. Discussion and Presentation of Waitcus Park Equipment – Director Grosskopf provided a brief overview of the proposed equipment for Waitcus Park. Director Grosskopf recommended the addition of rubber mulch instead of wood mulch as well as presented three playgroup equipment options. The general consensus of the Board was to go with rubber mulch for its durability and the third playground option as it has more amenities for older children. Administrator Bourdeau advised that Staff would be bringing forward a resolution at the October 19th meeting to authorize the purchase of this equipment. Director Grosskopf advised that it would take 8-12 weeks for delivery and installation would take place next spring.

7. STAFF REPORTS

Administrator Bourdeau

- A consultant will be assisting in review the Village's 15+ year old comprehensive plan in order to update it in the near future.
- There will be a MFT expenditure resolution at the October 19th meeting as well as resolutions for the phone replacement program.
- Administrator Bourdeau and Building Inspector Swedberg are currently working on options for the building department for next year, specifically, if the position will be filled or if the Village should hire a building consultant.
- IL Tollway Update: The update to the noise study is done and is going through an internal review at the tollway.
- Staff filed the DCEO Tourism and Festival grant paperwork last week.
- Trustee Allen asked if there would be any way to utilize the COVID funding for water infrastructure. Administrator Bourdeau stated that he would look into this and follow up.

Director Grosskopf

- Public Works Laborer Mike Ream retired last week and the replacement Laborer is anticipated to start on October 18th.

Clerk Baker

- There have been six registrations for the Halloween House Decorating Contest so far.

8. TRUSTEES' REPORTS

Trustee Allen

- Bisons Baseball has installed flagpoles and banners at the ballfields.

9. PRESIDENTS' REPORT

President Zambetti advised the Board that the Village Board Meeting Calendar for next year will not have any regularly scheduled Committee of the Whole Meetings. This is to consolidate items into two meetings a month to more effectively manage the Board and Staff's time. Special Committee of the Whole meetings can always be scheduled on an as-needed basis.

10. EXECUTIVE SESSION

An executive session did not take place.

11. ADJOURNMENT

There being no further public business to discuss, **a Motion was made by Trustee Allen and seconded by Trustee Coats to adjourn from the public meeting at 7:46 pm.** Voice vote carried unanimously.

Respectfully submitted,



Courtney Baker
Village Clerk

Department: 00 GENERAL FUND

AMALGAMATED BANK OF CHICAGO	TIF NOTE INTEREST	288,215.00
AMALGAMATED BANK OF CHICAGO	TIF NOTE PRINCIPAL	428,100.00
ANCEL GLINK, P.C.	ESCROWS PAYABLE	1,200.00
JSR PROPERTIES, LTD	TIF NOTE INTEREST	28,314.53
JSR PROPERTIES, LTD	TIF NOTE PRINCIPAL	234,400.00
ROBINSON ENGINEERING, LTD.	ESCROWS PAYABLE	38,881.25
Total: 00 GENERAL FUND		1,019,110.78

Department: 01 ADMINISTRATIVE

ANCEL GLINK, P.C.	LEGAL EXPENSE	6,200.00
CARD SERVICES	OPERATING EXPENSE	24.99
CARD SERVICES	DUES	159.00
CARD SERVICES	COMMUNITY RELATIONS	227.23
CARD SERVICES	OFFICE SUPPLIES	213.96
CARD SERVICES	EMPLOYEE ENGAGEMENT	75.89
CARDUNAL OFFICE SUPPLY	OFFICE SUPPLIES	122.26
CURRENT TECHNOLOGIES, INC.	CONTRACTUAL SERVICES	3,539.75
MARCO TECHNOLOGIES LLC	RENTAL-EQUIPMENT	425.00
MARCO TECHNOLOGIES LLC	CONTRACTUAL SERVICES	95.47
PITNEY BOWES	POSTAGE	24.22
ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	556.87
ROBINSON ENGINEERING, LTD.	CONTRACTUAL SERVICES	336.00
VERIZON WIRELESS	COMMUNICATIONS	215.76
WILSON CONSULTING	CAPITAL EQUIPMENT	1,820.00
Total: 01 ADMINISTRATIVE		14,036.40

Department: 02 POLICE

ACTION AUTO WORKS INC	MAINTENANCE VEHICLES	221.10
CARD SERVICES	OPERATING EXPENSE	209.95
CARD SERVICES	PRINTING	45.99
CARD SERVICES	SMALL TOOLS AND EQUIPMENT	56.21
CARD SERVICES	MAINTENANCE BUILDING	69.76
CARD SERVICES	COMMUNITY RELATIONS	390.00
CURRENT TECHNOLOGIES, INC.	MAINTENANCE EQUIPMENT	198.96
GILBERTS GUNS USA	TRAINING EXPENSE	260.00
GOLDEN GRAPHICS	UNIFORMS	105.00
MARCO TECHNOLOGIES LLC	CONTRACTUAL SERVICES	75.71
MCHENRY COUNTY CLERK	DUES	10.00
NORTH EAST MULTI-REGIONAL	TRAINING EXPENSE	460.00
NORTHWEST POLICE ACADEMY	DUES	75.00
P.F. PETTIBONE & CO.	UNIFORMS	14.00
ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	368.94
SAFETY VISION	MAINTENANCE EQUIPMENT	227.80
STEPHEN D. TOUSEY LAW OFFICE	LEGAL EXPENSE	400.00
SWIFT WASH, LLC	CONTRACTUAL SERVICES	121.50
VERIZON WIRELESS	COMMUNICATIONS	212.00
WRIGHT EXPRESS FSC	GASOLINE & OIL	1,922.78
Total: 02 POLICE		5,444.70

Department: 03 PUBLIC WORKS

AEP ENERGY	STREETLIGHTING	1,481.20
CARDUNAL OFFICE SUPPLY	SMALL TOOLS AND EQUIPMENT	38.60
CLARKE ENVIRONMENTAL MOSQUITO	CONTRACTUAL SERVICES	2,051.00
FVA TREE SERVICE & LANDSCAPING	MAINTENANCE STREETS	1,500.00
MCCANN INDUSTRIES, INC.	CAPITAL EQUIPMENT	72,353.00
MENARDS - CARPENTERSVILLE	MAINTENANCE STREETS	44.90
MEYER SIGNS, INC	MAINTENANCE VEHICLES	224.00
ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	182.06

ROBINSON ENGINEERING, LTD.	MAINTENANCE STREETS	2,000.00
VERIZON WIRELESS	COMMUNICATIONS	176.73
WRIGHT EXPRESS FSC	GASOLINE & OIL	853.00
Total: 03 PUBLIC WORKS		80,904.49

Department: 04 BUILDING

MARCO TECHNOLOGIES LLC	CONTRACTUAL SERVICES	381.67
ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	200.04
VERIZON WIRELESS	COMMUNICATIONS	58.93
WRIGHT EXPRESS FSC	GASOLINE & OIL	86.56
Total: 04 BUILDING		727.20

Department: 06 PARKS

ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	235.75
Total: 06 PARKS		235.75

Department: 08 GARBAGE HAULING

MDC ENVIRONMENTAL SVCS.	GARBAGE HAULING EXPENSE	58,848.45
Total: 08 GARBAGE HAULING		58,848.45

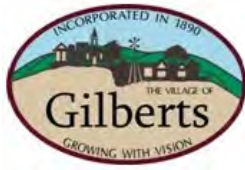
Department: 10 WATER SYSTEMS

CARD SERVICES	POSTAGE	90.15
CARDUNAL OFFICE SUPPLY	OFFICE SUPPLIES	38.61
MARCO TECHNOLOGIES LLC	CONTRACTUAL SERVICES	68.17
MDC ENVIRONMENTAL SVCS.	CONTRACTUAL SERVICES	476.20
MENARDS - CARPENTERSVILLE	SMALL TOOLS AND EQUIPMENT	64.96
PDC LABORATORIES, INC	LABORATORY TESTING	260.00
ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	541.15
ROBINSON ENGINEERING, LTD.	ENGINEERING SERVICES	2,366.25
USA BLUEBOOK	LAB SUPPLIES & EQUIPMENT	(630.71)
VERIZON WIRELESS	COMMUNICATIONS	203.26
VIKING CHEMICAL COMPANY	CHEMICALS	1,014.80
WRIGHT EXPRESS FSC	GASOLINE & OIL	178.99
Total: 10 WATER SYSTEMS		4,671.83

Department: 20 WASTEWATER SYSTEMS

ALEXANDER CHEMICAL CORPORATION	CHEMICALS	7,375.18
CARDUNAL OFFICE SUPPLY	OFFICE SUPPLIES	38.61
MARCO TECHNOLOGIES LLC	CONTRACTUAL SERVICES	68.17
MCMASTER-CARR SUPPLY COMPANY	SMALL TOOLS AND EQUIPMENT	(67.52)
MENARDS - CARPENTERSVILLE	LAB SUPPLIES & EQUIPMENT	2.82
MENARDS - CARPENTERSVILLE	MAINTENANCE PARTS & MATERIALS	112.02
ROBINSON ENGINEERING, LTD.	COMMUNICATIONS	228.33
ROBINSON ENGINEERING, LTD.	ENGINEERING SERVICES	1,018.75
SUBURBAN LABORATORIES	LABORATORY TESTING	6,932.00
VERIZON WIRELESS	COMMUNICATIONS	203.26
WRIGHT EXPRESS FSC	GASOLINE & OIL	178.99
Total: 20 WASTEWATER SYSTEMS		16,090.61

*** GRAND TOTAL *** 1,200,070.21



Village of Gilberts
Village Hall
87 Galligan Road, Gilberts, Illinois 60136
Ph. 847-428-2861 Fax: 847-428-2955
www.villageofgilberts.com

Memorandum

TO: Village President Zambetti and Village Board of Trustees
CC: Brian Bourdeau, Village Administrator
FROM: Taunya Fischer, Finance Director
DATE: October 14, 2021
SUBJECT: September 30, 2021 Treasurer's Report

Here is a brief snapshot of the Village's Budget vs. Actual as of September 30, 2021 for the General and Water Funds.

General Fund	Budget	Actual	% BDGT Used
Revenues	4,459,748.00	3,405,778.64	76%
Expenditures	4,451,615.00	1,765,665.60	40%
Net of Rev & Exp	8,133.00	1,640,113.04	

Water Fund	Budget	Actual	% BDGT Used
Revenues	2,210,350.00	720,677.99	33%
Expenditures	1,975,669.00	850,557.91	43%
Net of Rev & Exp	234,681.00	(129,879.92)	

The percent of fiscal year completed for this report is 42%. The General Fund revenues are at 75%, which is expected due to the property tax receipts continuing to come in and the first American Recovery Plan Act (ARPA) funds distribution; expenditures are at 40%; Water Fund revenues are at 33% and expenditures are at 43%. Looking at all funds, village-wide revenues are at 111% due to the receipt of the bond proceeds as well as ARPA funds; expenditures are at 35%. When the budget is amended to include the bonds and ARPA funds the revenue percentage will be more accurately reflected.

Also included in this report for September 30, 2021 are:

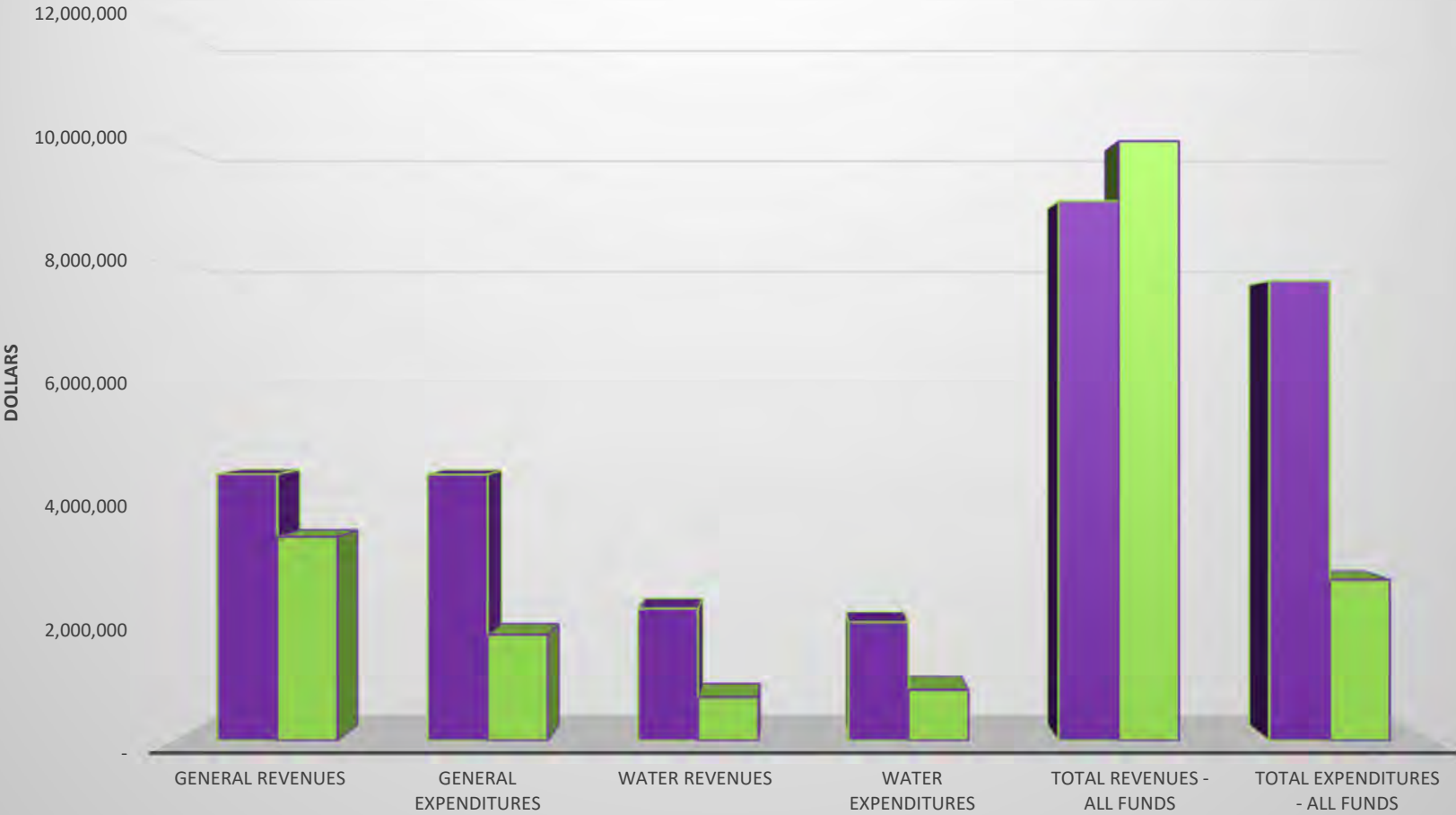
Revenue and Expense Budget vs. 09/30/21 YTD chart

Summary – All Funds report

Detail – All Funds report

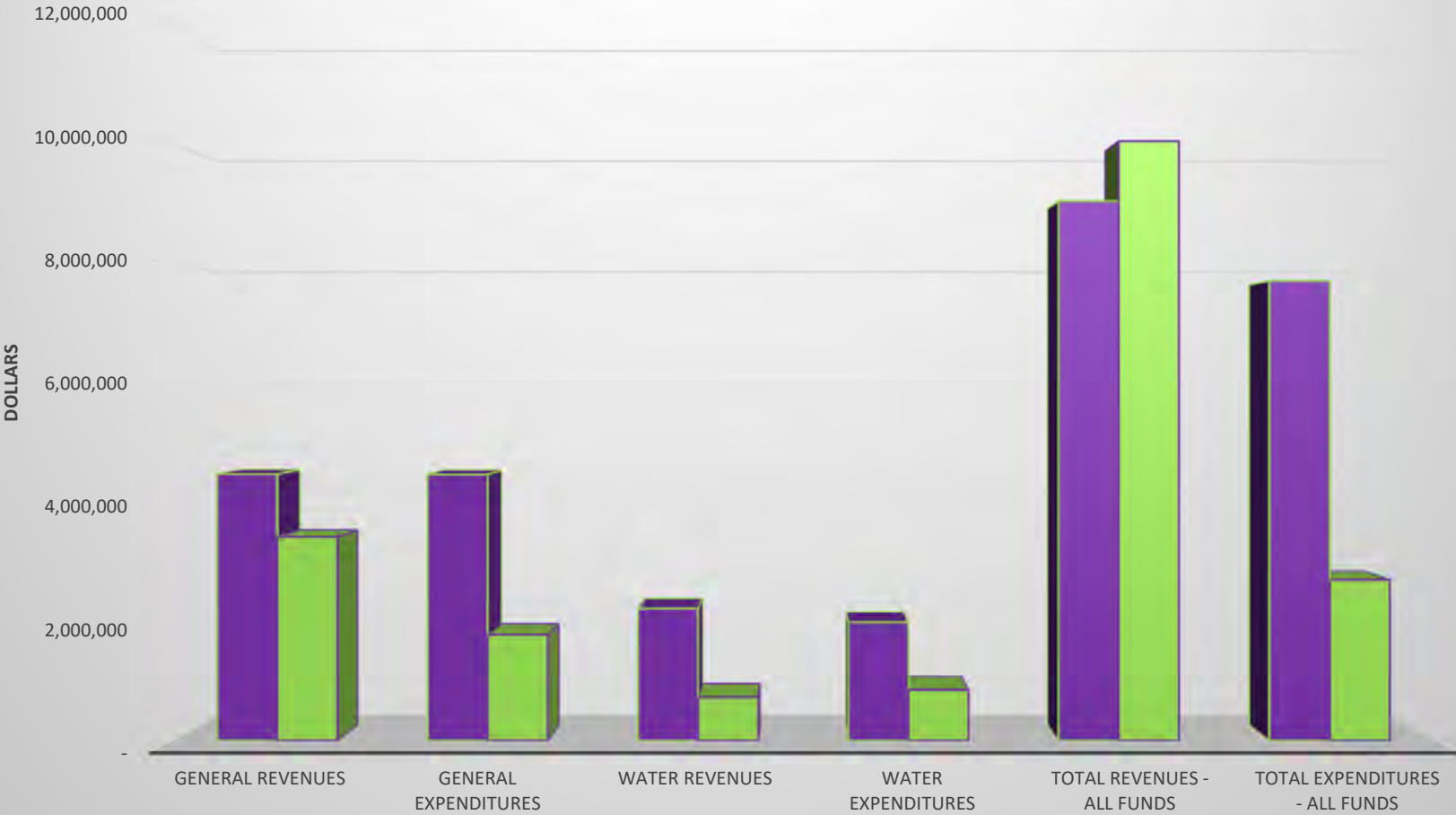
Respectfully submitted,
Taunya Fischer, Finance Director

VILLAGE OF GILBERTS REVENUE vs. EXPENDITURES BUDGET 2021-2022 vs. YTD 09/30/2021



	GENERAL REVENUES	GENERAL EXPENDITURES	WATER REVENUES	WATER EXPENDITURES	TOTAL REVENUES - ALL FUNDS	TOTAL EXPENDITURES - ALL FUNDS
■ 2021-22 BUDGET	4,459,748.00	4,451,615.00	2,210,350.00	1,975,669.00	9,044,479.00	7,709,175.00
■ YTD AS OF 09/30/2021	3,405,778.64	1,765,665.60	720,677.99	850,557.91	10,049,989.37	2,687,108.91

VILLAGE OF GILBERTS REVENUE vs. EXPENDITURES BUDGET 2021-2022 vs. YTD 09/30/2021



	GENERAL REVENUES	GENERAL EXPENDITURES	WATER REVENUES	WATER EXPENDITURES	TOTAL REVENUES - ALL FUNDS	TOTAL EXPENDITURES - ALL FUNDS
■ 2021-22 BUDGET	4,459,748.00	4,451,615.00	2,210,350.00	1,975,669.00	9,044,479.00	7,709,175.00
■ YTD AS OF 09/30/2021	3,405,778.64	1,765,665.60	720,677.99	850,557.91	10,049,989.37	2,687,108.91

REVENUE AND EXPENDITURE REPORT FOR GILBERTS VILLAGE
PERIOD ENDING 09/30/2021 - DETAIL
% Fiscal Year Completed: 41.92

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		
				MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
Fund 01 - GENERAL FUND						
Revenues						
Dept 00 - GENERAL FUND						
01-00-3010	PROPERTY TAX	1,289,930.00	1,185,920.38	498,572.62	104,009.62	92
01-00-3020	PERSONAL PROPERTY REPL TAX	300.00	231.33	-	68.67	77
01-00-3030	TAX-SALES	281,960.00	199,972.56	41,561.58	81,987.44	71
01-00-3040	TAX-STATE INCOME	766,493.00	413,612.71	54,027.51	352,880.29	54
01-00-3041	STATE LOCAL USE TAX	300,050.00	102,467.54	21,799.50	197,582.46	34
01-00-3043	CANNABIS USE TAX	6,137.00	4,083.95	855.64	2,053.05	67
01-00-3060	LICENSE-LIQUOR	11,900.00	900.00	-	11,000.00	8
01-00-3090	PULLTABS & JAR GAMES TAX	848.00	673.54	-	174.46	79
01-00-3100	FEE-BUSINESS REGISTRATION	3,800.00	3,975.00	50.00	(175.00)	105
01-00-3110	FEE-CABLE FRANCHISE	62,350.00	25,664.98	-	36,685.02	41
01-00-3140	UTIL TAX-ELECTRIC	169,450.00	85,380.51	22,062.94	84,069.49	50
01-00-3150	ULT TAX-GAS	75,000.00	35,954.36	5,239.96	39,045.64	48
01-00-3160	CONTRACTOR REGISTRATION	10,000.00	3,890.00	660.00	6,110.00	39
01-00-3180	ULIT TAX-COMMUNICATIONS	85,000.00	28,272.53	5,939.32	56,727.47	33
01-00-3200	ZBA/PLAN.COMM. HEARINGS	-	1,500.00	(500.00)	(1,500.00)	100
01-00-3210	MISCELLANEOUS INCOME	5,000.00	51,897.85	932.96	(46,897.85)	1038
01-00-3211	PLANNED USE OF FUND RESERVES	190,245.00	-	-	190,245.00	0
01-00-3220	FINES-COURT	15,000.00	11,103.93	2,697.53	3,896.07	74
01-00-3230	FINES-OTHER	2,400.00	2,425.00	1,725.00	(25.00)	101
01-00-3240	FINES-CODE BUILDING	-	100.00	100.00	(100.00)	100
01-00-3250	FEES-BUILDING PERMITS	26,288.00	140,278.32	60,926.00	(113,990.32)	534
01-00-3260	OVERWT/SIZE PERMIT FEE	3,500.00	3,180.00	300.00	320.00	91
01-00-3280	FEES-BUILDING PERMITS-PASS THRU	15,188.00	4,850.00	2,100.00	10,338.00	32
01-00-3290	RECYCLING LICENSE	2,500.00	-	-	2,500.00	0
01-00-3330	PARK PAVILION RENTAL	175.00	645.00	120.00	(470.00)	369
01-00-3400	CD INTEREST	3,000.00	103.76	-	2,896.24	3
01-00-3410	INTEREST EARNED	550.00	567.14	201.52	(17.14)	103

GL NUMBER	DESCRIPTION	ACTIVITY FOR				
		2021-22 BUDGET	YTD BALANCE 09/30/2021	MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
01-00-3440	PARK IMPACT FEES	42,420.00	79,440.00	39,720.00	(37,020.00)	187
01-00-3451	GILBERTS POLICE REPORT REQUEST	200.00	165.00	25.00	35.00	83
01-00-3460	MUNICIPAL UTILITY IMPACT FEE	7,500.00	-	-	7,500.00	0
01-00-3470	INTEREST EARNED - ILLINOIS FUNDS	8,800.00	373.68	-	8,426.32	4
01-00-3480	ANTENNA RENTAL	65,380.00	27,241.55	5,448.31	38,138.45	42
01-00-3500	GRANT REVENUE	5,334.00	548,942.72	548,942.72	(543,608.72)	10291
01-00-3530	VACANT BUILDING REGISTRATION	380.00	-	-	380.00	0
01-00-3540	RAFFLE LICENSE	70.00	-	-	70.00	0
01-00-3550	FOOD VENDOR REGISTRATION	-	15.00	15.00	(15.00)	100
01-00-3560	GARBAGE HAULER LICENSE	800.00	-	-	800.00	0
01-00-3580	VIDEO GAMING	65,000.00	67,621.32	14,466.75	(2,621.32)	104
01-00-3590	VIDEO GAMING LICENSE	1,050.00	-	-	1,050.00	0
01-00-3630	MUNICIPAL IMPACT FEE	41,250.00	31,014.16	15,534.32	10,235.84	75
Total Dept 00 - GENERAL FUND		3,565,248.00	3,062,463.82	1,343,524.18	502,784.18	86
Dept 07 - ENHANCED DUI PROGRAM						
01-07-3007	ENHANCED DUI- DUI TOWING	1,000.00	-	-	1,000.00	0
01-07-3017	ENHANCED DUI - VEHICLE SEIZURE	3,000.00	2,000.00	-	1,000.00	67
Total Dept 07 - ENHANCED DUI PROGRAM		4,000.00	2,000.00	-	2,000.00	50
Dept 08 - GARBAGE HAULING						
01-08-3018	GARBAGE REVENUE	847,000.00	325,597.31	37,465.57	521,402.69	38
01-08-3028	FRANCHISE REVENUE -GARBAGE	39,000.00	13,904.55	-	25,095.45	36
01-08-3080	LATE FEES	4,500.00	1,812.96	39.97	2,687.04	40
Total Dept 08 - GARBAGE HAULING		890,500.00	341,314.82	37,505.54	549,185.18	38
TOTAL REVENUES		4,459,748.00	3,405,778.64	1,381,029.72	1,053,969.36	76

Expenditures

Dept 01 - ADMINISTRATIVE

01-01-5010	WAGES-BOARD	24,000.00	9,875.00	2,000.00	14,125.00	41
01-01-5020	WAGES-PLANNING AND ZBA	2,100.00	225.00	-	1,875.00	11
01-01-5030	WAGES-GENERAL	290,405.00	117,122.46	32,316.67	173,282.54	40
01-01-5032	WAGES - OVERTIME	1,000.00	-	-	1,000.00	0
01-01-5040	FICA	17,471.00	7,631.79	2,076.05	9,839.21	44
01-01-5050	MEDICARE	4,086.00	1,784.88	485.52	2,301.12	44

GL NUMBER	DESCRIPTION	ACTIVITY FOR				
		2021-22 BUDGET	YTD BALANCE 09/30/2021	MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
01-01-5051	STATE UNEMPL TAX	8,000.00	1,531.82	626.05	6,468.18	19
01-01-5052	IMRF	36,238.00	13,721.32	3,936.81	22,516.68	38
01-01-5054	GROUP HEALTH INS	43,579.00	17,625.29	3,529.01	25,953.71	40
01-01-5056	WORKER'S COMP INS	36,172.00	-	-	36,172.00	0
01-01-5060	OPERATING EXPENSE	3,500.00	336.03	14.99	3,163.97	10
01-01-5070	DUES	6,930.00	5,001.25	-	1,928.75	72
01-01-5080	LEGAL NOTICES	1,500.00	837.20	267.95	662.80	56
01-01-5090	COMMUNICATIONS	8,352.00	3,808.48	834.23	4,543.52	46
01-01-5100	POSTAGE	2,300.00	816.80	200.00	1,483.20	36
01-01-5110	PRINTING	7,100.00	-	-	7,100.00	0
01-01-5150	COMMUNITY RELATIONS	7,130.00	1,566.07	750.00	5,563.93	22
01-01-5170	PUBLICATIONS/BROCHURES	120.00	-	-	120.00	0
01-01-5190	RENTAL-EQUIPMENT	6,000.00	1,542.82	425.00	4,457.18	26
01-01-5200	OFFICE SUPPLIES	3,500.00	3,968.23	578.84	(468.23)	113
01-01-5210	NISRA EXPENSE	900.00	-	-	900.00	0
01-01-5220	LEGAL LITIGATION	8,000.00	-	-	8,000.00	0
01-01-5230	LEGAL EXPENSE	65,000.00	32,136.67	9,160.50	32,863.33	49
01-01-5234	UTILITY IMPACT EXPENSE - FIBER	4,500.00	-	-	4,500.00	0
01-01-5240	ACCOUNTING SERVICES	25,000.00	17,680.00	-	7,320.00	71
01-01-5252	STORM WATER MGMT. PROFESSIONAL	10,000.00	-	-	10,000.00	0
01-01-5270	BANK FEES	175.00	-	-	175.00	0
01-01-5310	INSURANCE LIABILITY	33,872.00	-	-	33,872.00	0
01-01-5320	INSURANCE VEHICLES & EQUIP.	13,370.00	-	-	13,370.00	0
01-01-5360	ENGINEERING SERVICES	15,800.00	7,505.00	-	8,295.00	48
01-01-5400	MAINTENANCE EQUIPMENT	600.00	-	-	600.00	0
01-01-5410	MAINTENANCE BUILDING	7,935.00	923.65	82.51	7,011.35	12
01-01-5450	CONTRACTUAL SERVICES	28,872.00	15,233.77	4,923.68	13,638.23	53
01-01-5480	CAPITAL EQUIPMENT	40,245.00	1,680.00	-	38,565.00	4
01-01-5491	EMPLOYEE ENGAGEMENT	1,515.00	902.74	550.00	612.26	60
01-01-5560	VILLAGE PLANNER SERVICES	15,000.00	-	-	15,000.00	0
01-01-5580	TRAINING EXPENSE	14,005.00	600.00	600.00	13,405.00	4
01-01-5661	73 INDUSTRIAL PRINCIPAL	25,000.00	13,004.18	4,358.44	11,995.82	52
01-01-5671	73 INDUSTRIAL INTEREST	17,000.00	8,059.06	2,662.64	8,940.94	47
01-01-8500	TRANSFERS OUT	900.00	-	-	900.00	0
Total Dept 01 - ADMINISTRATIVE		837,172.00	285,119.51	70,378.89	552,052.49	34

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		
				MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
Dept 02 - POLICE						
01-02-5030	WAGES-POLICE	842,618.00	355,460.60	95,220.37	487,157.40	42
01-02-5031	WAGES - HOLIDAY WORKED	25,000.00	6,925.35	2,686.44	18,074.65	28
01-02-5032	WAGES - OVERTIME	15,000.00	18,939.01	3,741.75	(3,939.01)	126
01-02-5040	FICA	54,661.00	22,950.76	6,163.20	31,710.24	42
01-02-5050	MEDICARE	12,784.00	5,367.48	1,441.37	7,416.52	42
01-02-5052	IMRF	3,599.00	1,506.36	551.85	2,092.64	42
01-02-5054	GROUP HEALTH INS	130,055.00	46,980.76	9,549.40	83,074.24	36
01-02-5058	UNIFORMS	13,100.00	7,907.59	709.34	5,192.41	60
01-02-5060	OPERATING EXPENSE	5,750.00	708.97	-	5,041.03	12
01-02-5070	DUES	3,645.00	2,330.00	-	1,315.00	64
01-02-5080	LEGAL NOTICES	300.00	158.30	-	141.70	53
01-02-5090	COMMUNICATIONS	10,000.00	3,847.81	832.35	6,152.19	38
01-02-5110	PRINTING	500.00	94.46	-	405.54	19
01-02-5170	PUBLICATIONS/BROCHURES	150.00	106.00	-	44.00	71
01-02-5180	SMALL TOOLS AND EQUIPMENT	500.00	-	-	500.00	0
01-02-5200	OFFICE SUPPLIES	2,000.00	1,861.81	336.24	138.19	93
01-02-5230	LEGAL EXPENSE	5,500.00	2,000.00	400.00	3,500.00	36
01-02-5300	DISPATCHING	86,571.00	84,771.00	-	1,800.00	98
01-02-5370	GASOLINE & OIL	28,000.00	8,091.27	2,076.64	19,908.73	29
01-02-5390	MAINTENANCE VEHICLES	24,150.00	11,156.03	54.95	12,993.97	46
01-02-5400	MAINTENANCE EQUIPMENT	3,000.00	872.58	25.98	2,127.42	29
01-02-5410	MAINTENANCE BUILDING	7,560.00	2,702.18	151.87	4,857.82	36
01-02-5450	CONTRACTUAL SERVICES	13,637.00	6,501.01	1,689.73	7,135.99	48
01-02-5480	CAPITAL EQUIPMENT	47,000.00	-	-	47,000.00	0
01-02-5570	COMMUNITY RELATIONS	1,500.00	521.10	521.10	978.90	35
01-02-5580	TRAINING EXPENSE	12,500.00	5,005.40	200.00	7,494.60	40
Total Dept 02 - POLICE		1,349,080.00	596,765.83	126,352.58	752,314.17	44
Dept 03 - PUBLIC WORKS						
01-03-5030	WAGES-PPW	236,602.00	100,171.88	20,299.90	136,430.12	42
01-03-5032	WAGES - OVERTIME	14,000.00	154.27	-	13,845.73	1
01-03-5040	FICA	15,538.00	5,869.46	1,086.85	9,668.54	38
01-03-5050	MEDICARE	3,634.00	1,163.08	44.55	2,470.92	32

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR		% BDGT
		BUDGET	09/30/2021	MONTH 09/30/2021	AVAILABLE BALANCE	USED
01-03-5052	IMRF	32,228.00	12,580.89	3,434.49	19,647.11	39
01-03-5054	GROUP HEALTH INS	42,289.00	17,022.86	3,369.74	25,266.14	40
01-03-5058	UNIFORMS	1,500.00	-	-	1,500.00	0
01-03-5060	OPERATING EXPENSE	1,150.00	779.26	395.98	370.74	68
01-03-5070	DUES	360.00	360.00	-	-	100
01-03-5090	COMMUNICATIONS	4,000.00	1,574.85	360.48	2,425.15	39
01-03-5180	SMALL TOOLS AND EQUIPMENT	2,500.00	939.40	122.92	1,560.60	38
01-03-5190	RENTAL-EQUIPMENT	1,500.00	368.00	-	1,132.00	25
01-03-5251	NPDES PERMITS	3,000.00	1,000.00	-	2,000.00	33
01-03-5260	STREETLIGHTING	38,100.00	14,950.21	2,076.42	23,149.79	39
01-03-5370	GASOLINE & OIL	14,000.00	3,960.41	1,096.49	10,039.59	28
01-03-5380	SIGNS EXPENSE	12,500.00	11,271.87	10,600.70	1,228.13	90
01-03-5390	MAINTENANCE VEHICLES	20,000.00	11,751.18	125.00	8,248.82	59
01-03-5400	MAINTENANCE EQUIPMENT	10,000.00	4,526.88	2,859.32	5,473.12	45
01-03-5410	MAINTENANCE BUILDING	1,600.00	1,691.86	-	(91.86)	106
01-03-5420	MAINTENANCE STREETS	28,000.00	5,696.42	4,259.60	22,303.58	20
01-03-5440	MAINTENANCE GROUNDS	3,000.00	468.44	-	2,531.56	16
01-03-5441	TREE/SIDEWALK REPLACEMENT	2,500.00	1,210.96	702.48	1,289.04	48
01-03-5450	CONTRACTUAL SERVICES	36,518.00	12,064.70	5,168.70	24,453.30	33
01-03-5461	WEATHER SIREN MAINTENANCE	2,500.00	-	-	2,500.00	0
01-03-5480	CAPITAL EQUIPMENT	175,000.00	85,910.00	11,460.00	89,090.00	49
01-03-5580	TRAINING EXPENSE	3,000.00	182.50	-	2,817.50	6
Total Dept 03 - PUBLIC WORKS		705,019.00	295,669.38	67,463.62	409,349.62	42
Dept 04 - BUILDING						
01-04-5030	WAGES-BUILDING	91,574.00	39,037.48	10,263.12	52,536.52	43
01-04-5040	FICA	5,678.00	2,408.85	634.06	3,269.15	42
01-04-5050	MEDICARE	1,328.00	563.36	148.29	764.64	42
01-04-5052	IMRF	5,621.00	2,329.30	638.73	3,291.70	41
01-04-5054	GROUP HEALTH INS	-	16.50	3.30	(16.50)	100
01-04-5058	UNIFORMS	200.00	-	-	200.00	0
01-04-5070	DUES	360.00	-	-	360.00	0
01-04-5090	COMMUNICATIONS	3,000.00	1,201.22	265.36	1,798.78	40
01-04-5110	PRINTING	10,770.00	-	-	10,770.00	0
01-04-5200	OFFICE SUPPLIES	1,000.00	33.20	-	966.80	3

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		AVAILABLE BALANCE	% BDGT USED
				MONTH 09/30/2021			
01-04-5250	BUILDING PERMIT EXPENSE	2,000.00	-	-		2,000.00	0
01-04-5280	BUILDING PERMIT EXPENSE-PASS THRU	22,000.00	15,068.50	10,935.00		6,931.50	68
01-04-5370	GASOLINE & OIL	1,000.00	365.49	117.02		634.51	37
01-04-5390	MAINTENANCE VEHICLES	2,000.00	-	-		2,000.00	0
01-04-5450	CONTRACTUAL SERVICES	5,500.00	1,487.55	366.07		4,012.45	27
01-04-5580	TRAINING EXPENSE	1,000.00	-	-		1,000.00	0
Total Dept 04 - BUILDING		153,031.00	62,511.45	23,370.95		90,519.55	41
Dept 06 - PARKS							
01-06-5030	REG WAGES	27,717.00	10,081.71	10,081.71		17,635.29	36
01-06-5040	FICA	1,719.00	752.50	752.50		966.50	44
01-06-5050	MEDICARE	402.00	385.62	385.62		16.38	96
01-06-5060	OPERATING EXPENSE	250.00	-	-		250.00	0
01-06-5090	COMMUNICATIONS	2,520.00	1,071.82	217.85		1,448.18	43
01-06-5120	UTILITIES	4,200.00	6,567.13	2,750.19		(2,367.13)	156
01-06-5190	RENTAL-EQUIPMENT	2,500.00	-	-		2,500.00	0
01-06-5211	MAINTENANCE SUPPLIES	1,300.00	595.00	-		705.00	46
01-06-5350	MINOR PARK PROJECTS	1,200.00	-	-		1,200.00	0
01-06-5370	GASOLINE & OIL	600.00	-	-		600.00	0
01-06-5391	MAINTENANCE-SPORTS/PLAYGROUND EQUIP.	500.00	740.98	122.98		(240.98)	148
01-06-5400	MAINTENANCE EQUIPMENT	6,100.00	1,328.25	278.87		4,771.75	22
01-06-5410	MAINTENANCE BUILDING	5,700.00	3,709.28	-		1,990.72	65
01-06-5440	MAINTENANCE GROUNDS	2,000.00	761.93	139.98		1,238.07	38
01-06-5450	CONTRACTUAL SERVICES	4,750.00	-	-		4,750.00	0
01-06-5480	CAPITAL EQUIPMENT	142,000.00	-	-		142,000.00	0
Total Dept 06 - PARKS		203,458.00	25,994.22	14,729.70		177,463.78	13
Dept 07 - ENHANCED DUI PROGRAM							
01-07-5030	WAGES-ENHANCED DUI	8,000.00	-	-		8,000.00	0
01-07-5040	FICA	500.00	-	-		500.00	0
01-07-5050	MEDICARE	116.00	-	-		116.00	0
01-07-5180	SMALL TOOLS AND EQUIPMENT	2,500.00	-	-		2,500.00	0
Total Dept 07 - ENHANCED DUI PROGRAM		11,116.00	-	-		11,116.00	0

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR	AVAILABLE	% BDGT
		BUDGET	09/30/2021	MONTH	BALANCE	USED
				09/30/2021		
Dept 08 - GARBAGE HAULING						
01-08-5068	GARBAGE HAULING EXPENSE	660,000.00	278,074.40	55,508.36	381,925.60	42
01-08-5078	ADMINISTRATIVE COSTS	27,000.00	-	-	27,000.00	0
01-08-8500	TRANSFERS OUT	90,000.00	-	-	90,000.00	0
Total Dept 08 - GARBAGE HAULING		777,000.00	278,074.40	55,508.36	498,925.60	36
Dept 89 - GPD DOWN STATE PENSION FUND						
01-89-5621	GPD DOWNSTATE PENSION FUND	415,739.00	221,530.81	-	194,208.19	53
Total Dept 89 - GPD DOWN STATE PENSION FUND		415,739.00	221,530.81	-	194,208.19	53
TOTAL EXPENDITURES		4,451,615.00	1,765,665.60	357,804.10	2,685,949.40	40
Fund 01 - GENERAL FUND:						
TOTAL REVENUES		4,459,748.00	3,405,778.64	1,381,029.72	1,053,969.36	76
TOTAL EXPENDITURES		4,451,615.00	1,765,665.60	357,804.10	2,685,949.40	40
NET OF REVENUES & EXPENDITURES		8,133.00	1,640,113.04	1,023,225.62	(1,631,980.04)	

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		AVAILABLE BALANCE	% BDGT USED
				MONTH 09/30/2021			
Fund 11 - COMMUNITY DAYS							
Revenues							
Dept 00 - GENERAL FUND							
11-00-3015	COMMUNITY DAYS DONATIONS	14,000.00	-	-	-	14,000.00	0
11-00-3210	OTHER INCOME	17,000.00	-	-	-	17,000.00	0
11-00-3520	VENDOR FEES	3,500.00	-	-	-	3,500.00	0
11-00-3980	BEVERAGE SALES	12,000.00	-	-	-	12,000.00	0
11-00-8100	TRANSFERS IN	900.00	-	-	-	900.00	0
Total Dept 00 - GENERAL FUND		47,400.00	-	-	-	47,400.00	0
TOTAL REVENUES		47,400.00	-	-	-	47,400.00	0
Expenditures							
Dept 00 - GENERAL FUND							
11-00-5060	BEVERAGE OPERATIONS	8,466.00	-	-	-	8,466.00	0
11-00-5070	PERMITS & LICENSES	55.00	-	-	-	55.00	0
11-00-5079	ADVERTISING / MARKETING	3,670.00	19.95	19.95		3,650.05	1
11-00-5130	MISCELLANEOUS EXPENSES	410.00	-	-	-	410.00	0
11-00-5159	ENTERTAINMENT	29,625.00	-	-	-	29,625.00	0
11-00-5610	EQUIPMENT & SERVICES	3,900.00	-	-	-	3,900.00	0
Total Dept 00 - GENERAL FUND		46,126.00	19.95	19.95		46,106.05	0
TOTAL EXPENDITURES		46,126.00	19.95	19.95		46,106.05	0
Fund 11 - COMMUNITY DAYS:							
TOTAL REVENUES		47,400.00	-	-		47,400.00	0
TOTAL EXPENDITURES		46,126.00	19.95	19.95		46,106.05	0
NET OF REVENUES & EXPENDITURES		1,274.00	(19.95)	(19.95)		1,293.95	

GL NUMBER	DESCRIPTION	ACTIVITY FOR				
		2021-22 BUDGET	YTD BALANCE 09/30/2021	MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
Fund 12 - INFRASTRUCTURE FUND						
Revenues						
Dept 00 - GENERAL FUND						
12-00-3011	BOND PROCEEDS	-	4,203,380.35	-	(4,203,380.35)	100
12-00-3031	NON HOME RULE 1% SALES TAX	258,000.00	181,699.19	38,808.07	76,300.81	70
12-00-3050	TAX-ROAD AND BRIDGE	7,600.00	8,527.54	3,370.36	(927.54)	112
12-00-3390	SSA#24 BOND INTEREST	100.00	13,689.50	13,689.50	(13,589.50)	13690
12-00-3410	INTEREST EARNED	-	442.11	345.50	(442.11)	100
12-00-8100	TRANSFERS IN	90,000.00	-	-	90,000.00	0
Total Dept 00 - GENERAL FUND		355,700.00	4,407,738.69	56,213.43	(4,052,038.69)	1239
TOTAL REVENUES		355,700.00	4,407,738.69	56,213.43	(4,052,038.69)	1239
Expenditures						
Dept 00 - GENERAL FUND						
12-00-5360	ENGINEERING SERVICES	20,000.00	-	-	20,000.00	0
12-00-5490	GO BOND PRINCIPAL	225,000.00	-	-	225,000.00	0
12-00-5491	GO BOND INTEREST	9,000.00	4,658.33	158.33	4,341.67	52
Total Dept 00 - GENERAL FUND		254,000.00	4,658.33	158.33	249,341.67	2
TOTAL EXPENDITURES		254,000.00	4,658.33	158.33	249,341.67	2
Fund 12 - INFRASTRUCTURE FUND:						
TOTAL REVENUES		355,700.00	4,407,738.69	56,213.43	(4,052,038.69)	1239
TOTAL EXPENDITURES		254,000.00	4,658.33	158.33	249,341.67	2
NET OF REVENUES & EXPENDITURES		101,700.00	4,403,080.36	56,055.10	(4,301,380.36)	

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		
				MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
Fund 20 - WATER SYSTEM						
Revenues						
Dept 00 - GENERAL FUND						
20-00-3022	INCOME - WASTEWATER	750,000.00	313,013.73	39,106.35	436,986.27	42
20-00-3032	INCOME - WATER	850,000.00	352,384.61	44,051.54	497,615.39	41
20-00-3080	LATE FEES	20,000.00	7,505.15	217.85	12,494.85	38
20-00-3210	MISCELLANEOUS INCOME	-	70.48	-	(70.48)	100
20-00-3211	PLANNED USE OF FUND RESERVES	549,500.00	-	-	549,500.00	0
20-00-3310	FEE-TAP-ON - WATER	1,700.00	-	-	1,700.00	0
20-00-3360	METER SALES	7,050.00	31,924.64	15,962.32	(24,874.64)	453
20-00-3390	SSA#24 BOND INTEREST	100.00	13,689.51	13,689.49	(13,589.51)	13690
20-00-3400	CD INTEREST	4,000.00	131.03	-	3,868.97	3
20-00-3410	INTEREST EARNED	24,000.00	1,805.59	109.89	22,194.41	8
20-00-3470	INTEREST EARNED - ILLINOIS FUNDS	4,000.00	153.25	-	3,846.75	4
Total Dept 00 - GENERAL FUND		2,210,350.00	720,677.99	113,137.44	1,489,672.01	33
TOTAL REVENUES		2,210,350.00	720,677.99	113,137.44	1,489,672.01	33
Expenditures						
Dept 10 - WATER SYSTEMS						
20-10-5030	REG. WAGES	188,223.00	78,001.42	19,509.81	110,221.58	41
20-10-5032	WAGES - OVERTIME	7,000.00	-	-	7,000.00	0
20-10-5040	FICA	11,831.00	4,565.66	1,161.85	7,265.34	39
20-10-5050	MEDICARE	2,767.00	1,067.78	271.73	1,699.22	39
20-10-5052	IMRF	24,540.00	9,781.31	2,446.51	14,758.69	40
20-10-5054	GROUP HEALTH INS	40,873.00	15,515.09	2,932.29	25,357.91	38
20-10-5056	WORKER'S COMP INS	15,502.00	-	-	15,502.00	0
20-10-5058	UNIFORMS	1,000.00	400.00	-	600.00	40
20-10-5070	DUES	450.00	424.92	-	25.08	94
20-10-5080	LEGAL NOTICES	100.00	-	-	100.00	0
20-10-5090	COMMUNICATIONS	7,600.00	3,098.91	679.97	4,501.09	41
20-10-5091	JULIE LOCATE SUPPLIES	500.00	-	-	500.00	0
20-10-5100	POSTAGE	3,250.00	1,301.18	459.68	1,948.82	40
20-10-5110	PRINTING	2,900.00	1,203.56	346.09	1,696.44	42
20-10-5120	UTILITIES	94,000.00	30,594.12	7,620.71	63,405.88	33

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR		% BDGT
		BUDGET	09/30/2021	MONTH	AVAILABLE	USED
				09/30/2021	BALANCE	
20-10-5180	SMALL TOOLS AND EQUIPMENT	6,000.00	1,562.80	421.00	4,437.20	26
20-10-5190	RENTAL-EQUIPMENT	500.00	-	-	500.00	0
20-10-5200	OFFICE SUPPLIES	1,000.00	120.46	84.87	879.54	12
20-10-5213	OUTSIDE SERVICES	10,000.00	-	-	10,000.00	0
20-10-5262	LAB SUPPLIES & EQUIPMENT	8,000.00	7,199.02	1,012.34	800.98	90
20-10-5281	CHEMICALS	28,600.00	8,935.91	-	19,664.09	31
20-10-5301	MAINT SUPPLIES-JANTORIAL	450.00	200.00	-	250.00	44
20-10-5310	INSURANCE LIABILITY	21,656.00	-	-	21,656.00	0
20-10-5320	INSURANCE VEHICLES & EQUIP.	8,548.00	-	-	8,548.00	0
20-10-5360	ENGINEERING SERVICES	10,000.00	-	-	10,000.00	0
20-10-5370	GASOLINE & OIL	3,000.00	1,155.33	268.79	1,844.67	39
20-10-5381	MAINTENANCE PARTS & MATERIALS	10,000.00	2,218.87	-	7,781.13	22
20-10-5390	MAINTENANCE VEHICLES	3,500.00	223.97	-	3,276.03	6
20-10-5410	MAINTENANCE BUILDING	2,000.00	286.58	124.30	1,713.42	14
20-10-5431	HYDRANT MAINTENANCE	5,000.00	-	-	5,000.00	0
20-10-5450	CONTRACTUAL SERVICES	58,103.00	43,277.14	1,357.09	14,825.86	74
20-10-5480	CAPITAL EQUIPMENT	554,500.00	335,350.96	333,389.00	219,149.04	60
20-10-5510	WATER METERS	31,185.00	22,859.53	-	8,325.47	73
20-10-5520	LABORATORY TESTING	10,000.00	6,006.86	1,414.20	3,993.14	60
20-10-5580	TRAINING EXPENSE	3,300.00	28.00	28.00	3,272.00	1
20-10-5601	REPAIRS-WATER DISTRIBUTION SYS.	10,000.00	-	-	10,000.00	0
20-10-5652	BRINE HAULING EXPENSES	40,000.00	11,874.42	2,965.53	28,125.58	30
20-10-5662	IEPA LOAN-PRINCIPAL	25,826.00	12,850.53	-	12,975.47	50
20-10-5672	IEPA LOAN - INTEREST	7,156.00	3,644.88	-	3,511.12	51
Total Dept 10 - WATER SYSTEMS		1,258,860.00	603,749.21	376,493.76	655,110.79	48
Dept 20 - WASTEWATER SYSTEMS						
20-20-5030	WAGES	179,346.00	71,940.46	16,003.90	107,405.54	40
20-20-5032	WAGES - OVERTIME	7,000.00	-	-	7,000.00	0
20-20-5040	FICA	11,554.00	4,245.99	958.70	7,308.01	37
20-20-5050	MEDICARE	2,703.00	993.02	224.20	1,709.98	37
20-20-5052	IMRF	23,964.00	9,021.34	2,006.88	14,942.66	38
20-20-5054	GROUP HEALTH INS	34,731.00	12,610.42	2,175.62	22,120.58	36
20-20-5058	UNIFORMS	800.00	400.00	-	400.00	50
20-20-5090	COMMUNICATIONS	3,800.00	1,577.86	365.22	2,222.14	42

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR		% BDGT
		BUDGET	09/30/2021	MONTH	AVAILABLE	USED
				09/30/2021	BALANCE	
20-20-5091	JULIE LOCATE SUPPLIES	400.00	-	-	400.00	0
20-20-5100	POSTAGE	3,250.00	1,287.83	450.70	1,962.17	40
20-20-5110	PRINTING	2,900.00	1,203.57	346.09	1,696.43	42
20-20-5120	UTILITIES	126,000.00	45,745.88	8,628.83	80,254.12	36
20-20-5180	SMALL TOOLS AND EQUIPMENT	2,500.00	420.99	420.99	2,079.01	17
20-20-5190	RENTAL-EQUIPMENT	1,500.00	900.00	-	600.00	60
20-20-5200	OFFICE SUPPLIES	1,000.00	73.66	33.74	926.34	7
20-20-5213	OUTSIDE SERVICES	15,000.00	-	-	15,000.00	0
20-20-5251	NPDES PERMITS	20,000.00	17,500.00	-	2,500.00	88
20-20-5262	LAB SUPPLIES & EQUIPMENT	8,500.00	2,331.00	706.06	6,169.00	27
20-20-5281	CHEMICALS	35,000.00	12,837.60	7,589.06	22,162.40	37
20-20-5301	MAINT SUPPLIES-JANITORIAL	450.00	200.00	-	250.00	44
20-20-5360	ENGINEERING SERVICES	10,000.00	-	-	10,000.00	0
20-20-5370	GASOLINE & OIL	4,000.00	1,155.33	268.79	2,844.67	29
20-20-5381	MAINTENANCE PARTS & MATERIALS	15,000.00	1,360.56	-	13,639.44	9
20-20-5390	MAINTENANCE VEHICLES	4,000.00	207.91	-	3,792.09	5
20-20-5410	MAINTENANCE BUILDING	1,000.00	271.58	124.30	728.42	27
20-20-5450	CONTRACTUAL SERVICES	63,311.00	49,558.43	5,484.59	13,752.57	78
20-20-5480	CAPITAL EQUIPMENT	66,300.00	1,961.96	-	64,338.04	3
20-20-5520	LABORATORY TESTING	30,000.00	-	-	30,000.00	0
20-20-5580	TRAINING EXPENSE	2,800.00	603.00	28.00	2,197.00	22
20-20-5602	REPAIRS-W/WATER COLLECTION SYS.	10,000.00	-	-	10,000.00	0
20-20-5660	COLLECTION SYS. PUMP MAINT.	30,000.00	8,400.31	-	21,599.69	28
Total Dept 20 - WASTEWATER SYSTEMS		716,809.00	246,808.70	45,815.67	470,000.30	34
TOTAL EXPENDITURES		1,975,669.00	850,557.91	422,309.43	1,125,111.09	43
Fund 20 - WATER SYSTEM:						
TOTAL REVENUES		2,210,350.00	720,677.99	113,137.44	1,489,672.01	33
TOTAL EXPENDITURES		1,975,669.00	850,557.91	422,309.43	1,125,111.09	43
NET OF REVENUES & EXPENDITURES		234,681.00	(129,879.92)	(309,171.99)	364,560.92	

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR	AVAILABLE	% BDGT
		BUDGET	09/30/2021	MONTH	BALANCE	USED

Fund 30 - MFT						
Revenues						
Dept 00 - GENERAL FUND						
30-00-3410	INTEREST EARNED	120.00	169.46	87.10	(49.46)	141
30-00-3450	MOTOR FUEL TAX	415,954.00	191,499.88	24,820.78	224,454.12	46
30-00-3470	INTEREST EARNED - ILLINOIS FUNDS	2,000.00	76.89	-	1,923.11	4
Total Dept 00 - GENERAL FUND		418,074.00	191,746.23	24,907.88	226,327.77	46
TOTAL REVENUES		418,074.00	191,746.23	24,907.88	226,327.77	46
Expenditures						
Dept 00 - GENERAL FUND						
30-00-5462	MFT RESOLUTION	75,000.00	-	-	75,000.00	0
Total Dept 00 - GENERAL FUND		75,000.00	-	-	75,000.00	0
TOTAL EXPENDITURES		75,000.00	-	-	75,000.00	0
Fund 30 - MFT:						
TOTAL REVENUES		418,074.00	191,746.23	24,907.88	226,327.77	46
TOTAL EXPENDITURES		75,000.00	-	-	75,000.00	0
NET OF REVENUES & EXPENDITURES		343,074.00	191,746.23	24,907.88	151,327.77	

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR		% BDGT
		BUDGET	09/30/2021	MONTH	AVAILABLE	USED

Fund 31 - PERFORMANCE BOND						
Revenues						
Dept 00 - GENERAL FUND						
31-00-3410	INTEREST EARNED	413.00	19.03	3.20	393.97	5
Total Dept 00 - GENERAL FUND		413.00	19.03	3.20	393.97	5
TOTAL REVENUES		413.00	19.03	3.20	393.97	5
Fund 31 - PERFORMANCE BOND:						
TOTAL REVENUES		413.00	19.03	3.20	393.97	5
TOTAL EXPENDITURES		-	-	-	-	0
NET OF REVENUES & EXPENDITURES		413.00	19.03	3.20	393.97	

GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR	AVAILABLE	% BDGT
		BUDGET	09/30/2021	MONTH	BALANCE	USED

Fund 34 - TIF#1 CENTRAL REDEVELOPMENT						
Revenues						
Dept 00 - GENERAL FUND						
34-00-3010	PROPERTY TAX	178,659.00	168,386.13	47,916.67	10,272.87	94
34-00-3410	INTEREST EARNED	365.00	267.11	47.31	97.89	73
Total Dept 00 - GENERAL FUND		179,024.00	168,653.24	47,963.98	10,370.76	94
TOTAL REVENUES		179,024.00	168,653.24	47,963.98	10,370.76	94
Expenditures						
Dept 00 - GENERAL FUND						
34-00-5061	ADMINISTRATIVE FEES	1,000.00	-	-	1,000.00	0
Total Dept 00 - GENERAL FUND		1,000.00	-	-	1,000.00	0
TOTAL EXPENDITURES		1,000.00	-	-	1,000.00	0
Fund 34 - TIF#1 CENTRAL REDEVELOPMENT:						
TOTAL REVENUES		179,024.00	168,653.24	47,963.98	10,370.76	94
TOTAL EXPENDITURES		1,000.00	-	-	1,000.00	0
NET OF REVENUES & EXPENDITURES		178,024.00	168,653.24	47,963.98	9,370.76	

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		% BDGT USED
				MONTH 09/30/2021	AVAILABLE BALANCE	
Fund 35 - TIF#2 HIGGINS ROAD IND. PARK						
Revenues						
Dept 00 - GENERAL FUND						
35-00-3010	PROPERTY TAX	894,966.00	859,064.78	427,023.52	35,901.22	96
35-00-3410	INTEREST EARNED	650.00	389.11	102.69	260.89	60
Total Dept 00 - GENERAL FUND		895,616.00	859,453.89	427,126.21	36,162.11	96
TOTAL REVENUES		895,616.00	859,453.89	427,126.21	36,162.11	96
Expenditures						
Dept 00 - GENERAL FUND						
35-00-5061	ADMINISTRATIVE FEES	10,550.00	550.00	-	10,000.00	5
35-00-5071	TIF NOTE INTEREST	288,215.00	-	-	288,215.00	0
35-00-5081	TIF NOTE PRINCIPAL	517,000.00	-	-	517,000.00	0
Total Dept 00 - GENERAL FUND		815,765.00	550.00	-	815,215.00	0
TOTAL EXPENDITURES		815,765.00	550.00	-	815,215.00	0
Fund 35 - TIF#2 HIGGINS ROAD IND. PARK:						
TOTAL REVENUES		895,616.00	859,453.89	427,126.21	36,162.11	96
TOTAL EXPENDITURES		815,765.00	550.00	-	815,215.00	0
NET OF REVENUES & EXPENDITURES		79,851.00	858,903.89	427,126.21	(779,052.89)	

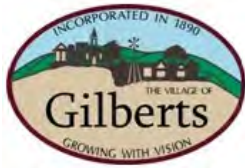
GL NUMBER	DESCRIPTION	2021-22	YTD BALANCE	ACTIVITY FOR	AVAILABLE	% BDGT
		BUDGET	09/30/2021	MONTH	BALANCE	USED

Fund 40 - DRUG FORFEITURE PD ACCOUNT						
Revenues						
Dept 00 - GENERAL FUND						
40-00-3410	INTEREST EARNED	15.00	8.38	4.22	6.62	56
Total Dept 00 - GENERAL FUND		15.00	8.38	4.22	6.62	56
TOTAL REVENUES		15.00	8.38	4.22	6.62	56
Fund 40 - DRUG FORFEITURE PD ACCOUNT:						
TOTAL REVENUES		15.00	8.38	4.22	6.62	56
TOTAL EXPENDITURES		-	-	-	-	0
NET OF REVENUES & EXPENDITURES		15.00	8.38	4.22	6.62	

GL NUMBER	DESCRIPTION	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR		% BDGT USED
				MONTH 09/30/2021	AVAILABLE BALANCE	
Fund 43 - POLICE PENSION FUND						
Revenues						
Dept 00 - GENERAL FUND						
43-00-3421	UNREALIZED GAIN/LOSS	-	41,902.89	(109,082.92)	(41,902.89)	100
43-00-3490	EMPLOYER CONTRIBUTIONS	415,739.00	221,530.81	-	194,208.19	53
43-00-3491	EMPLOYEE CONTRIBUTIONS	62,400.00	32,479.58	9,138.24	29,920.42	52
Total Dept 00 - GENERAL FUND		478,139.00	295,913.28	(99,944.68)	182,225.72	62
TOTAL REVENUES		478,139.00	295,913.28	(99,944.68)	182,225.72	62
Expenditures						
Dept 00 - GENERAL FUND						
43-00-5321	PROFESSIONAL FEES	-	8,768.62	1,578.37	(8,768.62)	100
43-00-5509	PENSION EXPENSES	90,000.00	56,888.50	15,000.00	33,111.50	63
Total Dept 00 - GENERAL FUND		90,000.00	65,657.12	16,578.37	24,342.88	73
TOTAL EXPENDITURES		90,000.00	65,657.12	16,578.37	24,342.88	73
Fund 43 - POLICE PENSION FUND:						
TOTAL REVENUES		478,139.00	295,913.28	(99,944.68)	182,225.72	62
TOTAL EXPENDITURES		90,000.00	65,657.12	16,578.37	24,342.88	73
NET OF REVENUES & EXPENDITURES		388,139.00	230,256.16	(116,523.05)	157,882.84	
TOTAL REVENUES - ALL FUNDS		9,044,479.00	10,049,989.37	1,950,441.40	(1,005,510.37)	111
TOTAL EXPENDITURES - ALL FUNDS		7,709,175.00	2,687,108.91	796,870.18	5,022,066.09	35
NET OF REVENUES & EXPENDITURES		1,335,304.00	7,362,880.46	1,153,571.22	(6,027,576.46)	

REVENUE AND EXPENDITURE REPORT FOR GILBERTS VILLAGE
PERIOD ENDING 09/30/2021 - SUMMARY
% Fiscal Year Completed: 41.92

GL NUMBER	2021-22 BUDGET	YTD BALANCE 09/30/2021	ACTIVITY FOR MONTH 09/30/2021	AVAILABLE BALANCE	% BDGT USED
Fund 01 - GENERAL FUND:					
TOTAL REVENUES	4,459,748.00	3,405,778.64	1,381,029.72	1,053,969.36	76
TOTAL EXPENDITURES	4,451,615.00	1,765,665.60	357,804.10	2,685,949.40	40
NET OF REVENUES & EXPENDITURES	8,133.00	1,640,113.04	1,023,225.62	(1,631,980.04)	
Fund 11 - COMMUNITY DAYS:					
TOTAL REVENUES	47,400.00	-	-	47,400.00	0
TOTAL EXPENDITURES	46,126.00	19.95	19.95	46,106.05	0
NET OF REVENUES & EXPENDITURES	1,274.00	(19.95)	(19.95)	1,293.95	
Fund 12 - INFRASTRUCTURE FUND:					
TOTAL REVENUES	355,700.00	4,407,738.69	56,213.43	(4,052,038.69)	1239
TOTAL EXPENDITURES	254,000.00	4,658.33	158.33	249,341.67	2
NET OF REVENUES & EXPENDITURES	101,700.00	4,403,080.36	56,055.10	(4,301,380.36)	
Fund 20 - WATER SYSTEM:					
TOTAL REVENUES	2,210,350.00	720,677.99	113,137.44	1,489,672.01	33
TOTAL EXPENDITURES	1,975,669.00	850,557.91	422,309.43	1,125,111.09	43
NET OF REVENUES & EXPENDITURES	234,681.00	(129,879.92)	(309,171.99)	364,560.92	
Fund 30 - MFT:					
TOTAL REVENUES	418,074.00	191,746.23	24,907.88	226,327.77	46
TOTAL EXPENDITURES	75,000.00	-	-	75,000.00	0
NET OF REVENUES & EXPENDITURES	343,074.00	191,746.23	24,907.88	151,327.77	
Fund 31 - PERFORMANCE BOND:					
TOTAL REVENUES	413.00	19.03	3.20	393.97	5
TOTAL EXPENDITURES	-	-	-	-	0
NET OF REVENUES & EXPENDITURES	413.00	19.03	3.20	393.97	
Fund 34 - TIF#1 CENTRAL REDEVELOPMENT:					
TOTAL REVENUES	179,024.00	168,653.24	47,963.98	10,370.76	94
TOTAL EXPENDITURES	1,000.00	-	-	1,000.00	0
NET OF REVENUES & EXPENDITURES	178,024.00	168,653.24	47,963.98	9,370.76	
Fund 35 - TIF#2 HIGGINS ROAD IND. PARK:					
TOTAL REVENUES	895,616.00	859,453.89	427,126.21	36,162.11	96
TOTAL EXPENDITURES	815,765.00	550.00	-	815,215.00	0
NET OF REVENUES & EXPENDITURES	79,851.00	858,903.89	427,126.21	(779,052.89)	
Fund 40 - DRUG FORFEITURE PD ACCOUNT:					
TOTAL REVENUES	15.00	8.38	4.22	6.62	56
TOTAL EXPENDITURES	-	-	-	-	0
NET OF REVENUES & EXPENDITURES	15.00	8.38	4.22	6.62	
Fund 43 - POLICE PENSION FUND:					
TOTAL REVENUES	478,139.00	295,913.28	(99,944.68)	182,225.72	62
TOTAL EXPENDITURES	90,000.00	65,657.12	16,578.37	24,342.88	73
NET OF REVENUES & EXPENDITURES	388,139.00	230,256.16	(116,523.05)	157,882.84	
TOTAL REVENUES - ALL FUNDS	9,044,479.00	10,049,989.37	1,950,441.40	(1,005,510.37)	111
TOTAL EXPENDITURES - ALL FUNDS	7,709,175.00	2,687,108.91	796,870.18	5,022,066.09	35
NET OF REVENUES & EXPENDITURES	1,335,304.00	7,362,880.46	1,153,571.22	(6,027,576.46)	



Village of Gilberts
Village Hall
87 Galligan Road, Gilberts, Illinois 60136
Ph. 847-428-2861 Fax: 847-428-2955
www.villageofgilberts.com

To: President Zambetti & Board of Trustees
From: Brian Bourdeau, Village Administrator
Aaron Grosskopf, Public Works Director
Date: October 19, 2021 Board Meeting
Re: Item 5.D: Approval of a Resolution for the Purchase of Loose Black Rubber Mulch from Rubbercycle for Town Center and Waitcus Parks

Background:

As part of the budgeting process, the Village Board approved the replacement of wood fiber mulch for \$12,000 with black rubber mulch at the Town Center Playground. This replacement was the first year of a multiple-year capital plan item to replace wood fiber with rubber mulch for all the Village's three playground areas.

As part of the equipment replacement at Waitcus Park, the Village Board had an opportunity to preemptively replace the wood fiber mulch at the playground area before initially scheduled. At the Village Board Meeting of October 5, 2021, the Board voted to utilize funding for rubber mulch instead of the initially quoted wood fiber mulch.

With both of these changeovers complete, the Village will spend less money over the long-term, without replacing wood fiber mulch every 2-3 years at all three playground locations. Since the rubber mulch does not deteriorate, the Village will only be responsible for "topping off" the rubber mulch every 5-6 years.

Both quotes for rubber mulch are provided through Sourcewell Contract #03011. With the use of the Sourcewell Joint Purchasing program, no waiver of competitive bidding is needed.

Summary:

Town Center Park:

Attached, the Village Board will find a quote for replacing wood fiber mulch at Town Center Park. The removal of the old woodchips, prep work and installation of the rubber mulch will all be handled by the Village's Public Works crews. ADA standards for all Village Playgrounds require a 6" depth of rubber mulch to meet fall height safety criteria. The Village will utilize the new skid steer to remove the old mulch, place the required amount of fill to bring the playground to 6" from the top level of playground border, then place in the rubber mulch.

Waitcus Park

As part of the discussion on the Waitcus Park Playground, the Village staff brought forward an option for the Board's consideration regarding substituting the wood fiber mulch for rubber mulch.

The Village Board opted to pursue this option. Attached, we have a quote for the rubber mulch price. The total price is \$7,270.00, which is around \$1,900.00 over the quoted cost of around \$5,200.00 for wood fiber material. This is under the initially estimated increase that Village staff presented to the Board at the October 5, 2021 meeting.

Conclusion:

Attached you will find a quote to replace the wood fiber mulch at Town Center Park, as well as one for rubber mulch at the newly revitalized Waitcus Park.

Village staff is seeking the approval from the Village Board to expend funds from account 01-06-5480 (Capital Equipment) in a not-to-exceed amount of \$19,265.00 to Rubbercycle for the purchase of rubber mulch for Town Center and Waitcus Parks.

VILLAGE OF GILBERTS

RESOLUTION 24-2021

A RESOLUTION AUTHORIZING APPROVAL OF AN AGREEMENT WITH RUBBERCYCLE FOR THE PURCHASE OF RUBBER MULCH FOR TOWN CENTER AND WAITCUS PARKS IN AN AMOUNT NOT TO EXCEED \$19,625

WHEREAS, the Village of Gilberts (“Village”) has three Village Parks with playground equipment; and

WHEREAS, the each of the park playground surfaces is covered with wood fiber mulch; and

WHEREAS, funds were included in the FY2022 Budget as part of a multi-year capital expenditure for the removal and replacement of wood fiber mulch with rubber mulch at all Village Parks; and

WHEREAS, the Village obtained pricing through the Sourcewell joint-purchasing cooperative (contract #03011).

THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF GILBERTS, ILLINOIS, as follows:

Section 1. Recitals. The recitals set forth above are hereby incorporated into and made a part of this Resolution as though set forth in this Section 1.

Section 2. Approval; Authorization. The Village Board of Trustees hereby authorizes the Village Administrator to execute agreements and other necessary documents with Rubbercycle for the purchase of rubber mulch for Town Center and Waitcus Parks in an amount not-to-exceed \$19,625.

Section 3. Effective Date. This Resolution shall be in full force and effect after its approval in the manner provided by law.

PASSED BY VOTE OF THE BOARD OF TRUSTEES of the Village of Gilberts, Kane County, Illinois, this ____ day of _____ 2021.

	<u>Ayes</u>	<u>Nays</u>	<u>Absent</u>	<u>Abstain</u>
Trustee Dave LeClercq	_____	_____	_____	_____
Trustee Dan Corbett	_____	_____	_____	_____

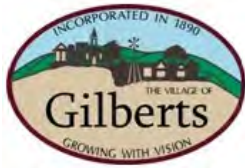
Trustee Justin Redfield	_____	_____	_____	_____
Trustee Jeanne Allen	_____	_____	_____	_____
Trustee Lou Hacker	_____	_____	_____	_____
Trustee Brandon Coats	_____	_____	_____	_____
President Guy Zambetti	_____	_____	_____	_____

APPROVED THIS _____ DAY OF _____, 2021

Village President, Guy Zambetti

(SEAL)

ATTEST: _____
Courtney Baker, Village Clerk



Village of Gilberts

Village Hall
87 Galligan Road, Gilberts, Illinois 60136
Ph. 847-428-2861 Fax: 847-428-2955
www.villageofgilberts.com

To: President Zambetti & Board of Trustees

From: Brian Bourdeau, Village Administrator
Aaron Grosskopf, Public Works Director

Date: October 19, 2021 Village Board Meeting

Re: Item 5.E: Approval of Agreements for the Purchase of Waitcus Park Playground Equipment from Cunningham Recreation and Installation from All Surface Installers.

Background:

In August of 2020, Village staff brought forward a memo for board discussion revolving around the future of Waitcus Park. Two new playground designs were brought forward, along with an exploration of revitalizing the old playground equipment. Along with these playgrounds, specific improvements and other items were suggested, and many have been completed. Some improvements that have been completed at Waitcus Park include the following:

1. Replacement of old railroad ties around the parking lot and entering the pavilion.
2. We have added new gravel to the parking lot, with more to come once the work is completed.
3. Removal of the bench and sandbox. The bench will be placed back into the park when the rest of the work begins.
4. Drainage in the left field of the baseball diamond located at Waitcus park has been improved. The water now drains as it should into the pond to the west of the field.
5. Public Works has added limestone screenings to the Baseball Field to improve its playability.

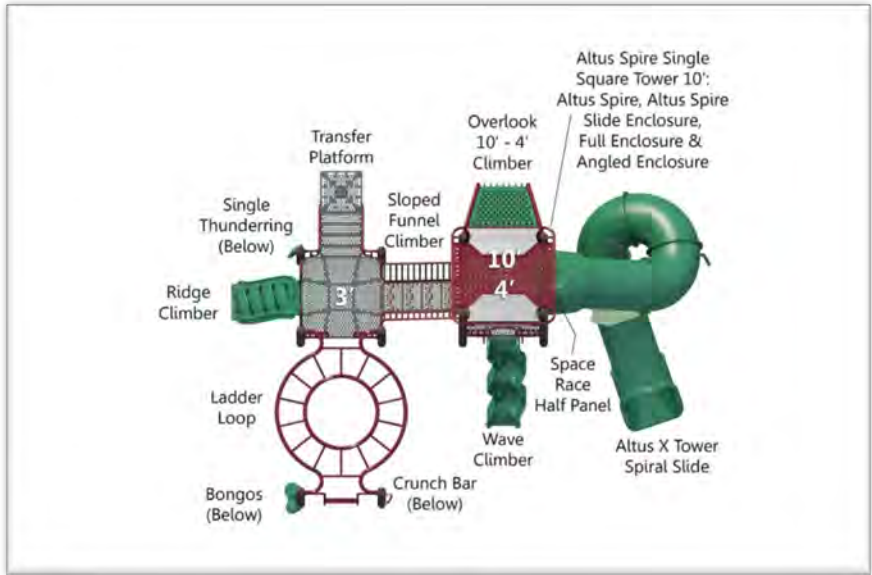
In August the Village Board elected to postpone the purchase of equipment at Waitcus Park until the FY 2021-2021 with an increased budget. The Village Board also elected to utilize some of the funding set aside in FY 2020-2021 to complete some minor improvements mentioned above. The current budget is set at \$45,000 for the playground equipment, installation and playground surfacing.

In an effort to maximize cost savings while maintaining a high work quality and effectiveness for the project, the Village's Public Works Staff will be performing the removal of the old playground equipment. The old equipment will be stored offsite, with a future plan of having it be declared surplus and selling via GovDeals. The Public Works Department will also handle the removal of the retaining wall to the point that drainage work inside the site of the future playground can be completed. The installation contractor will have the responsibility of replacing the retaining wall after the work is completed and stacking the remaining block on a pallet to be left for Public Works. The Public Works Department will also handle the installation of the ADA approved rubber mulch which is included in a separate resolution for the purchase of rubber mulch but noted in this memo.

Summary:

Selected Playground: Flex Spire

The selected playground at the October 5, 2021 Board Meeting was the Flex Spire. This is the largest of the three playgrounds and has a good balance of options for kids aged 5-12. Also included, but not pictured, is a swing set which will match the color scheme of the playground pictured below. The new playground will be a two-piece structure park which can be seen in the site layout provided by the contractor attached to this memo. The Village will be receiving the equipment in 12-16 weeks; therefore, we are anticipating a spring installation. All work in the Village's scope will be completed before the installation begins.



The total price for this playground including installation will come to \$52,866.20. This does not include the rubber mulch purchase which will be on a separate resolution in the total amount of \$7,270.00. This would bring to total playground amount to \$60,136.20.

Funding:

The original budgeted amount for this project is \$45,000.00 which included playground equipment, mulch, and installation. The total cost for the project including the rubber mulch will be \$60,136.20. Village staff will bring forward a budget amendment at a later date to account for the additional funding. There is currently enough fund balance to cover the additional cost of the

October 19, 2021 Board Meeting- Purchase of Waitcus Park Equipment and Installation

playground equipment and rubber mulch. As stated earlier the rubber mulch purchase will be made with a separate resolution and is not included in this memo.

Pricing Table

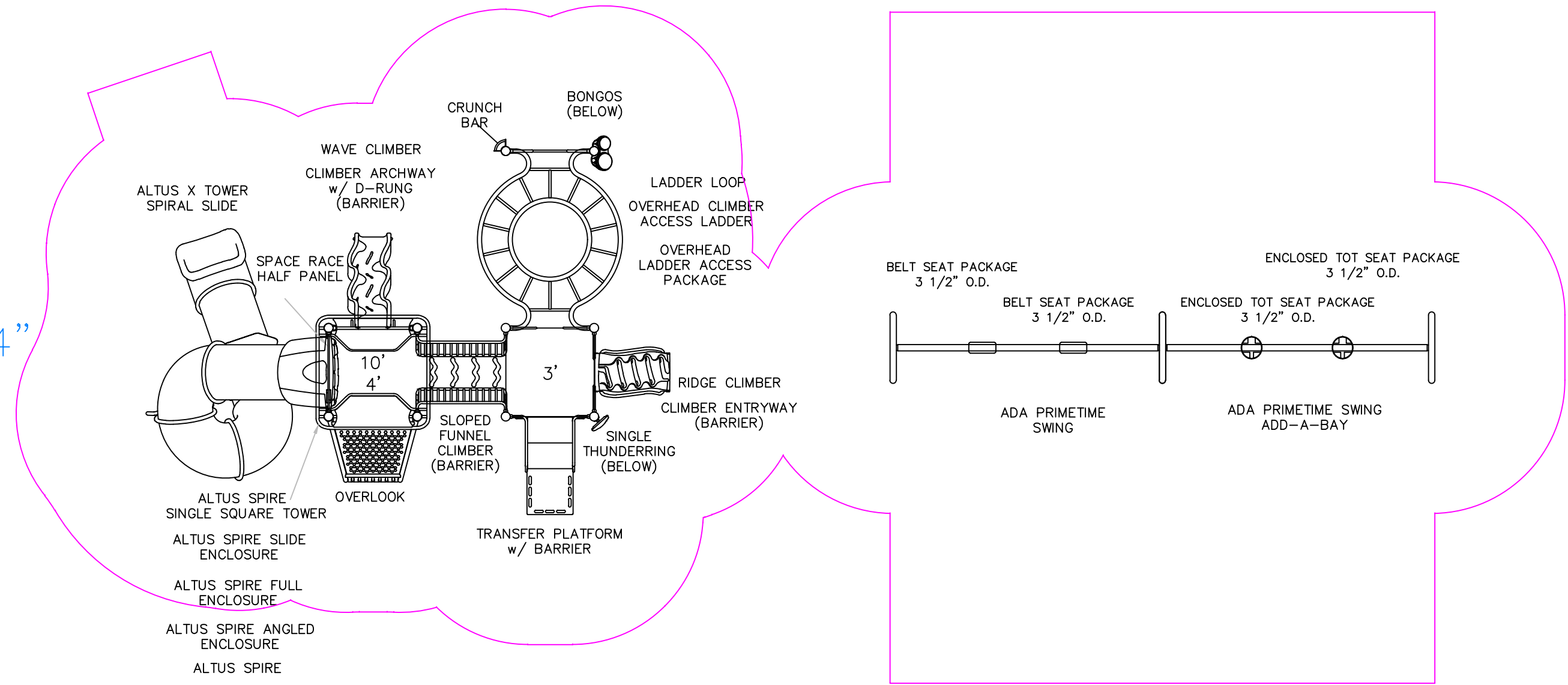
	Equipment	Installation	Total
Playground and Installation	\$36,226.20	\$16,640.00	\$52,866.20

Conclusion:

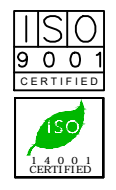
Village Staff is seeking approval of the attached Resolution to proceed forward with the purchase and installation of the Waitcus Park playground equipment from account 01-06-5480 (Capital Equipment) in an aggregate not-to-exceed amount of \$52,866.20 from Cunningham Recreation and All Surface Installers.

71'-4"

31'-4"



GameTime
 A PLAYCORE Company
 150 PlayCore Drive SE
 Fort Payne, AL 35967
 www.gametime.com



Flex Spire
 Village of Gilberts
 Gilberts, IL
 Representative
 Cunningham Recreation

This play equipment is recommended for children ages
 5-12

Minimum Area Required:
 Scale: NTS
 This drawing can be scaled only when in an 11" x 17" format

IMPORTANT: Soft resilient surfacing should be placed in the use zones of all equipment, as specified for each type of equipment, and at depths to meet the critical fall heights as specified by the U.S. consumer Product Safety Commission, ASTM standard F 1487 and Canadian Standard CAN/CSA-Z-614

Drawn By:
 SA
 Date:
 9/30/21
 Drawing Name:
 157563-01-02



GameTime c/o Cunningham Recreation
 PO Box 240981
 Charlotte, NC 28224
 800.438.2780
 704.525.7356 FAX

10/07/2021
 Quote #157563-01-04

Village of Gilberts- GameT ime Grant- CWO- Flex Spire Revised

Village of Gilberts
 Attn: Aaron Grosskopf
 73 Industrial Dr.
 Gilberts, IL 60136
 Phone: 847-428-7057
 agrosskopf@villageofgilberts.com

Ship to Zip 60136

Quantity	Part #	Description	Unit Price	Amount
1	RDU	GameTime - PS21052- Flex Spire [Deck:Pvc:_____] [Accent:_____] [Roto Plastic:_____] [Basic:_____] [Deck:Pvc:_____] [Arch:_____] [Roto Plastic:_____] [2 Color HDPE:_____] [Accent 2:_____] [HDPE:_____]	\$43,509.00	\$43,509.00
		(2) 80000 -- 49" Sq Punched Steel Deck		
		(1) 81593 -- Ladder Loop Link		
		(1) 81664 -- Single Thunderring		
		(1) 81670 -- Crunch Bar		
		(1) 81699 -- Bongos		
		(1) 90029 -- 3' Transfer Platform W/Barrier		
		(1) 90207 -- Overhead Ladder Access Package		
		(2) 90267 -- 9' Upright, Alum		
		(4) 90268 -- 10' Upright, Alum		
		(1) 90366 -- Sloped Funnel Climber W/Barrier		
		(1) 90391 -- 3'-0" Overhead Climber Access Ladder		
		(1) 90545 -- 4' Wave Climber		
		(1) 90546 -- Climber Archway W/D-Ring & Barrier		
		(1) 90592 -- Ridge Climber (Single)		
		(1) 91209 -- Climber Entryway - Barrier		
		(1) 91583 -- Space Race Half Panel		
		(1) 91598 -- Overlook		
		(2) 4045RP -- Tower Extensions W/ Cap		
		(2) 5649RP -- 4'-0" Extension W/Cap		
		(1) 6056RP -- Altus X Tower Spiral Slide		
		(1) 153653 -- 49" Tube Section		
		(1) 153653 -- 49" Tube Section		
		(1) 160199 -- 90 Deg 30"W/15 Deg Flange		
		(1) 160199 -- 90 Deg 30"W/15 Deg Flange		



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Quantity	Part #	Description	Unit Price	Amount
		(1) 160199 -- 90 Deg 30"W/15 Deg Flange		
		(1) 160202 -- 24"St Sec 15 Deg Flange		
		(1) 203582 -- Tube Entrance Section		
		(1) 218855 -- 30" Exit Section		
		(1) 220108 -- FORMED FOOTBUCK 113 1/2" C/O		
		(1) 220110 -- FORMED FOOTBUCK 113 3/4" C/O		
		(1) 220112 -- FORMED FOOTBUCK 73 3/4" C/O		
		(1) 220112 -- FORMED FOOTBUCK 73 3/4" C/O		
		(1) 220120 -- SLIDE GUARD PLATE 37 13/16" C/O		
		(1) 301503 -- 7010-SUPPORT ASSY 36 1/4"		
		(1) 6056HW -- HDW - ALTUS X TOWER SP SL		
		(1) X18007 -- FOOTBUCK SADDLE 15DEG		
		(1) X18009 -- FOOTBUCK SADDLE 30DEG		
		(1) 6125RP -- Altus Spire Roof		
		(1) 6126RP -- Altus Spire Angled Enclosure		
		(1) 6127RP -- Altus Spire Slide Enclosure		
		(1) 6128RP -- Altus Spire Full Enclosure		
		(1) 6130RP -- Single Square Tower		
		(4) G90273 -- 15' Upright, Galv		
1	178749	GameTime - Owner's Kit	\$60.00	\$60.00
1	RDU	GameTime - Swings (2 Bays) [Basic: _____]	\$3,273.00	\$3,273.00
		(2) 8696 -- Encl Seat 3 1/2"(8696)		
		(2) 8910 -- Belt Seat 3 1/2"Od(8910)		
		(1) 12583 -- Ada Primetime Swing Frame, 3 1/2" Od		
		(1) 12584 -- Ada Primetime Swing Aab, 3 1/2" Od		



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10/07/2021
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Village of Gilberts- GameT ime Grant- CWO- Flex Spire Revised

Quantity	Part #	Description	Unit Price	Amount
1	2021 GT Grant	<p>MISC - Grant Rules and Limitations:-</p> <p>To qualify for up to 100% matching grant, list price of the qualifying playground system must exceed \$75,000, and payment in full must accompany your order. For play systems with a list price of less than \$75,000 and greater than \$15,000 with payment in full, GameTime playground grants are available with matching funds up to 75%. For play systems that exceed \$15,000, and purchased with credit terms, matching funds are available up to 60%. Matching funds are subject to rounding rules and may vary based on qualified purchase. No other offer, discount, or special programs can be used with this grant program. This special matching fund offer applies to PowerScape, PrimeTime, Xscape, and IONiX systems only. THRIVE (up to \$7,000), GTfit (up to \$7,000), Challenge Course (up to \$25,000), and KidCourse (up to \$25,000) are also eligible for funding from GameTime. Modern City adventure climbing systems are eligible for up \$20,000 in funding. All applications must be validated by the project administrator. GameTime reserves the right to decline any application for a GameTime grant. Orders accepted by GameTime must ship by December 31, 2021. GameTime will accept grant orders until November 2, 2021, or until all eligible funds are disbursed, whichever comes first. GameTime reserves the right to terminate this offer at any time without notice. GameTime playground grants can only be applied to additional GameTime purchases and only in conjunction with the original purchase. Standard policies and warranties as listed in the 2021 GameTime Playground Design Guide apply. Freight and applicable sales tax are extra and not included. Material surcharges apply.</p>		
Contract: OMNIA			Sub Total	\$46,842.00
			Discount	(\$18,898.58)
			Material Surcharge	\$6,562.65
			Freight	\$1,720.13
			Total	\$36,226.20

Comments

*MATERIALS ONLY: Quotation does not include any site work, off-loading, storage, safety surfacing, or installation.

*Taxes, if applicable, will be applied at the time of invoice. Please provide a copy of your tax exempt certificate to avoid the addition of taxes.

*Current lead times are 16-18 weeks for standard equipment

*Cash with Order (CWO) discount requires payment (in full), via check or money order, at the time of order.



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10/07/2021
Quote #157563-01-04

Village of Gilberts- GameTime Grant- CWO- Flex Spire Revised

GAMETIME - TERMS & CONDITIONS:

- **PRICING:** Due to volatile economic demand, pricing is valid for 30 days. Pricing is subject to change. Request updated pricing when purchasing from quotes more than 30 days old.
- **TERMS OF SALE:** For equipment & material purchases, Net 30 days from date of invoice for governmental agencies and those with approved credit. All others, full payment for equipment, taxes and freight up front. Balance for services & materials due upon completion or as otherwise negotiated upon credit application review. Pre-payment may be required for equipment orders totaling less than \$5,000. Payment by VISA, MasterCard, or AMEX is accepted. Checks should be made payable to Playcore Wisconsin, Inc. d/b/a GameTime unless otherwise directed.
- **CREDIT APPLICATION:** Required for all non-governmental agencies and those entities who have not purchased from GameTime within the previous twelve calendar months.
- **FINANCE CHARGE:** A 1.5% monthly finance charge (or maximum permitted by law) will be added to all invoices over 30 days past due.
- **CASH WITH ORDER DISCOUNT:** Orders for GameTime equipment paid in full at time of order via check or electronic funds transfer (EFT) are eligible for a 3% cash-with-order (CWO) discount.
- **ORDERS:** All orders shall be in writing by purchase order, signed quotation or similar documentation. Purchase orders must be made out to Playcore Wisconsin, Inc. d/b/a GameTime.
- **FREIGHT CHARGES:** Shipments shall be F.O.B. destination. Freight charges prepaid and added separately.
- **SHIPMENT:** Standard Lead time is 12-14 weeks (some items may take longer) after receipt and acceptance of purchase order, credit application, color selections and approved drawings or submittals.
- **PACKAGING:** All goods shall be packaged in accordance with acceptable commercial practices and marked to preclude confusion during unloading and handling.
- **RECEIPT OF GOODS:** Customer shall coordinate, receive, unload, inspect and provide written acceptance of shipment. Any damage to packaging or equipment must be noted when signing delivery ticket. If damages are noted, receiver must submit a claim to Cunningham Recreation within 15 Days. Receiver is also responsible for taking inventory of the shipment and reporting any concealed damage or discrepancy in quantities received within 60 days of receipt.
- **RETURNS:** Returns are only available on shipments delivered within the last 60 days. A 25% (min.) restocking fee will be deducted from any credit due. Customer is responsible for all packaging & shipping charges. Credit is based on condition of items upon return. All returns must be in unused and merchantable condition. GameTime reserves the right to deduct costs associated with restoring returned goods to merchantable condition. Uprights & custom products cannot be returned.
- **TAXES:** Sales tax is shown as a separate line item when included. A copy of your tax exemption certificate must be submitted at time of order or taxes will be added to your invoice.

SUPPLY ONLY:

- All items are quoted supply only.
- Installation services are not included.
- Customer is responsible for coordinating delivery, receipt, unloading, and inventory equipment.
- Missing or damaged equipment must be reported within 60 days of delivery.



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10/07/2021
Quote #157563-01-04

Village of Gilberts- GameT ime Grant- CWO- Flex Spire Revised

ACCEPTANCE OF QUOTATION:

Acceptance of this proposal indicates your agreement to the terms and conditions stated herein.

Accepted By (printed): _____ Title: _____

Telephone: _____ Fax: _____

P.O. Number: _____ Date: _____

Purchase Amount: \$36,226.20

SALES TAX EXEMPTION CERTIFICATE #: _____

(PLEASE PROVIDE A COPY OF CERTIFICATE)

Salesperson's Signature

Customer Signature

BILLING INFORMATION:

Bill to: _____

Contact: _____

Address: _____

Address: _____

City, State: _____ Zip: _____

Tel: _____ Fax: _____

E-mail: _____

SHIPPING INFORMATION:

Ship to: _____

Contact: _____

Address: _____

Address: _____

City, State: _____ Zip: _____

Tel: _____ Fax: _____

E-mail: _____



Installation Proposal

General Contractor / Owner:

Village of Gilberts
87 Galligan Rd
Gilberts IL 60136
Attn: Aaron Grosskopf

Project:

Waitcus Park
Playground
Revised

Date:

4/19/2021

Work to be performed:

This is a proposal for the installation of play equipment only, by Gametime. Village of Gilberts to perform removals of equipment and surfacing and existing border material. Our proposal is for the installation of a Gametime modular unit, 2 bay swing and reinstall paver block border.

Installation of Gametime unit, 2 bay arch swing and block borders

Opt 1. Surf's Up	\$ 12,280.00
Opt 2. Pyramid Peak	\$ 13,080.00
Opt 3. Flex Spire	\$ 16,640.00

Installation will be performed to the manufacturers specification. Any alterations by the general contractor or owner must be in writing, with an authorized signature.



Notice to Owner

All Surface Installers (ASI) will provide all labor, material, equipment and transportation, as stated, to complete the above said project. Any change orders or deviations from this Contract must be agreed to, in writing, by both Owner/Agent and **ASI**. The site for installation must be in the same condition as it was when this Contract was submitted to Owner/Agent. Any anticipated changes to site must be included in this Contract or additional costs may be added to render site workable. **ASI** will not be responsible for delays caused by weather conditions, acts of God or other events that are beyond their control.

Acceptance of Contract

The total price, specifications and conditions of this Contract are satisfactory and are hereby accepted. I authorize **All Surface Installers** to do the work as specified. By signing this Contract, I hereby affirm that I am the owner or authorized agent of this property and that I have legal authority to enter into this agreement. I also agree to the terms of the payment schedule listed below:

Payment Schedule:

\$ - Material & Labor Deposit Due with Signed Contract
Balance Due Upon Completion

Payments will be due as specified above. Any payments not received by the due date will be assessed a 2% late charge, assessed monthly. Any payments not received within 30 days of completion may be served with a lien notice and will be turned over to our collection agency/attorney for legal action. Owner/Agent agrees to pay all attorney's costs and collection fees for all sums not paid and outstanding.

We appreciate the opportunity to work with you. For acceptance please sign below.

Signature: _____

Date of Acceptance: _____

Authorized Signature: Ross Burns September 28, 2021

Note: This contract may be withdrawn if not accepted within 30 days.

VILLAGE OF GILBERTS

RESOLUTION 25-2021

A RESOLUTION AUTHORIZING APPROVAL OF AGREEMENTS WITH CUNNINGHAM RECREATION AND ALL SURFACE INSTALLERS FOR THE PURCHASE AND INSTALLATION OF PLAYGROUND EQUIPMENT AT WAITCUS PARK IN AN AGGREGATE AMOUNT NOT TO EXCEED \$52,867

WHEREAS, the Village of Gilberts (“Village”) has three Village Parks with playground equipment; and

WHEREAS, the Waitcus Park playground equipment has reached the end of its useful life; and

WHEREAS, funds were included in the FY2022 Budget for the removal and replacement of the playground equipment at Waitcus Park; and

WHEREAS, the Village obtained multiple quotes for the removal and replacement of the playground with the lowest quote, along with the opportunity for grant funding on the equipment, being provided by Cunningham Recreation with installation provided by All Surface Installers.

THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF GILBERTS, ILLINOIS, as follows:

Section 1. **Recitals.** The recitals set forth above are hereby incorporated into and made a part of this Resolution as though set forth in this Section 1.

Section 2. **Approval; Authorization.** The Village Board of Trustees hereby authorizes the Village Administrator to execute agreements and other necessary documents with Cunningham Recreation and All Surface Installers for the purchase and installation of playground equipment at Waitcus Park in an aggregate amount not-to-exceed \$52,867.

Section 3. **Waiver of Competitive Bidding.** To the extent any competitive bidding requirements apply to the agreements with Cunningham Recreation and All Surface Installers, such competitive bidding requirements are hereby waived pursuant to Section 8-9-1 of the Illinois Municipal Code (65 ILCS 5/8-9-1).

Section 4. **Effective Date.** This Resolution shall be in full force and effect after its approval in the manner provided by law.

PASSED BY VOTE OF THE BOARD OF TRUSTEES of the Village of Gilberts, Kane County, Illinois, this ____ day of _____ 2021.

	<u>Ayes</u>	<u>Nays</u>	<u>Absent</u>	<u>Abstain</u>
Trustee Dave LeClercq	_____	_____	_____	_____
Trustee Dan Corbett	_____	_____	_____	_____
Trustee Justin Redfield	_____	_____	_____	_____
Trustee Jeanne Allen	_____	_____	_____	_____
Trustee Lou Hacker	_____	_____	_____	_____
Trustee Brandon Coats	_____	_____	_____	_____
President Guy Zambetti	_____	_____	_____	_____

APPROVED THIS ____ DAY OF _____, 2021

Village President, Guy Zambetti

(SEAL)

ATTEST: _____
Courtney Baker, Village Clerk



Village of Gilberts

Village Hall
87 Galligan Road, Gilberts, Illinois 60136
Ph. 847-428-2861 Fax: 847-428-2955
www.villageofgilberts.com

To: President Zambetti & Board of Trustees
From: Brian Bourdeau, Village Administrator
Aaron Grosskopf, Public Works Director
Date: October 19, 2021 Board Meeting
Re: Item 5.F: Approval of MFT Resolution for the Timber Trails and Timber Glen Road Paving Project.

Summary:

As part of the Village's upcoming road program, we will be expending MFT dollars to partially fund the project, along with the approved General Obligation Bond (Alternate Revenue) (GO-ALT).

Attached you will find the MFT Resolution, in the amount of \$500,000.00. This will partially cover the cost of road paving for the Timber Trails and Timber Glen Subdivision. With the approval of this Resolution the Village will be able to submit the IDOT forms for initial review.

The unobligated balance in our MFT account as of October 1, 2021 was approximately \$1,400,000.00.



Resolution for Maintenance Under the Illinois Highway Code



Resolution Number	Resolution Type	Section Number
26-2021	Original	22-00000-00-GM

BE IT RESOLVED, by the President and Board of Trustees of the Village of Gilberts Illinois that there is hereby appropriated the sum of Five Hundred Thousand Dollars Dollars (\$500,000.00)

of Motor Fuel Tax funds for the purpose of maintaining streets and highways under the applicable provisions of Illinois Highway Code from 01/01/22 to 12/31/22.

BE IT FURTHER RESOLVED, that only those operations as listed and described on the approved Estimate of Maintenance Costs, including supplemental or revised estimates approved in connection with this resolution, are eligible for maintenance with Motor Fuel Tax funds during the period as specified above.

BE IT FURTHER RESOLVED, that Village of Gilberts shall submit within three months after the end of the maintenance period as stated above, to the Department of Transportation, on forms available from the Department, a certified statement showing expenditures and the balances remaining in the funds authorized for expenditure by the Department under this appropriation, and

BE IT FURTHER RESOLVED, that the Clerk is hereby directed to transmit four (4) certified originals of this resolution to the district office of the Department of Transportation.

I Courtney Baker Village Clerk in and for said Village of Gilberts in the State of Illinois, and keeper of the records and files thereof, as provided by statute, do hereby certify the foregoing to be a true, perfect and complete copy of a resolution adopted by the President and Board of Trustees of Gilberts at a meeting held on _____.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this _____ day of _____ Month, Year _____.

(SEAL)

Clerk Signature

APPROVED

Regional Engineer
 Department of Transportation



Maintenance Engineering to be Performed by a Consulting Engineer



Local Public Agency: Village of Gilberts; County: Kane; Section Number: 22-00000-00-GM

The services to be performed by the consulting engineer, pertaining to the various items of work included in the estimated cost of the maintenance operations (BLR 14222), shall consist of the following:

PRELIMINARY ENGINEERING shall include:

Investigation of the condition of the streets or highways for determination (in consultation with the local highway authority) of the maintenance operations to be included in the maintenance program; preparation of the maintenance resolution (BLR 14220 for municipalities and counties), maintenance estimate of cost and, if applicable, proposal; attendance at meetings of the governing body as may reasonably be required; attendance at public letting; preparation of the contract, quotations, and/or acceptance (BLR 12330) form. Also, preparation of the maintenance expenditure statement which must be submitted to IDOT within 3 months of the end of the maintenance period.

ENGINEERING INSPECTION shall include:

Furnishing the engineering field inspection, including preparation of payment estimate for contract, material proposal and/or deliver and install proposal and/or checking material invoices of those maintenance operations requiring engineering field inspection. For operations requiring material testing ensure the testing is completed by a qualified firm.

For furnishing preliminary engineering, the engineer will be paid a base fee PLUS a negotiated fee percentage. Only one base fee can be charged per maintenance period. For furnishing engineering inspection, the engineer will be paid a negotiated fee percentage. The negotiated preliminary engineering fee percentage for each maintenance group shown in the "Schedule of Fees" shall be applied to the total estimated costs of that group. The negotiated fee for engineering inspection for each maintenance group shall be applied to the total final cost of that group for the times which required engineering inspections. In no case shall this be construed to include supervision of the contractor operations.

SCHEDULE OF FEES

Total of all Maintenance Operations:

Base Fee selection: <= \$20,000 or > \$20,000 (checked) Base Fee = \$1,250.00

PLUS

Table with 6 columns: Maintenance Engineering Category, Preliminary Engineering (Maximum Fee %, Negotiated Fee %), Engineering Inspection (Maximum Fee %, Negotiated Fee %), and Operation(s) to be Inspected. Rows include categories I, IIA, IIB, III, IV and a specific entry for Resurfacing (Group IV).

The LPA certifies that the selection of the ENGINEER was performed in accordance with the Local Government Professional Service Selection Act 50 (ILCS 510/1-510/8) and procedures outlined in Chapter 5 of the DEPARTMENT's Bureau of Local Roads and Streets Manual.

BY: Local Public Agency Signature and Date fields. Title: Village Administrator

BY: Consulting Engineer Signature and Date fields. Title: Associate, Robinson Engineering Ltd. P.E. Seal and Date fields.

Approved: Regional Engineer, IDOT and Date fields.



Local Public Agency General Maintenance



Estimate of Maintenance Costs

Submission Type

Maintenance Period

Local Public Agency	County	Section Number	Beginning	Ending
Village of Gilberts	Kane	22-00000-00-GM	01/01/22	12/31/22

Maintenance Items

Maintenance Operation	Maint Eng Category	Insp. Req.	Material Categories/ Point of Delivery or Work Performed by an Outside Contractor	Unit	Quantity	Unit Cost	Cost	Total Maintenance Operation Cost
Resurfacing	IV	Yes	Outside Contractor					\$3,496,342.00
Total Operation Cost								\$3,496,342.00

Estimate of Maintenance Costs Summary

Maintenance	MFT Funds	RBI Funds	Other Funds	Estimated Costs
Local Public Agency Labor				
Local Public Agency Equipment				
Materials/Contracts(Non Bid Items)				
Materials/Deliver & Install/Materials Quotations (Bid Items)				
Formal Contract (Bid Items)	\$500,000.00		\$2,996,342.00	\$3,496,342.00
Maintenance Total	\$500,000.00		\$2,996,342.00	\$3,496,342.00

Estimated Maintenance Eng Costs Summary

Maintenance Engineering	MFT Funds	RBI Funds	Other Funds	Total Est Costs
Preliminary Engineering			\$174,817.10	\$174,817.10
Engineering Inspection			\$209,780.52	\$209,780.52
Material Testing			\$10,000.00	\$10,000.00
Advertising				
Bridge Inspection Engineering				
Maintenance Engineering Total			\$394,597.62	\$394,597.62
Total Estimated Maintenance	\$500,000.00		\$3,390,939.62	\$3,890,939.62

Remarks

Timber Trails Subdivision to be resurfaced

SUBMITTED

Local Public Agency Official Date

Title

County Engineer/Superintendent of Highways Date

APPROVED

Regional Engineer
 Department of Transportation Date



Village of Gilberts

Village Hall
87 Galligan Road, Gilberts, Illinois 60136
Ph. 847-428-2861 Fax: 847-428-2955
www.villageofgilberts.com

To: President Guy Zambetti and Board of Trustees
From: Riley Lynch, Management Analyst
Brian Bourdeau, Village Administrator
Date: October 19th, 2021 Village Board Meeting
Re: Item 6.A: Approval of a Resolution Authorizing an Agreement with B&B Networks for a new VoIP phone system and service.

Background & Summary

The Village's phone system is currently outdated and deteriorating in terms of service capability. The current system has no ability to transfer calls between department phones, cannot redirect calls to other buildings or numbers, and calls frequently include static feedback coming from the Village's end. Call quality to and from the Police Department is especially plagued with static that makes conversations difficult to understand. The emergency callbox outside of the Police Department has limited functionality, and while the emergency callbox at Town Center Park is functional, it utilizes a direct dialing feature that costs the Village an additional fee every month. Furthermore, there are no office phones in place at either the water or waste water treatment plants. Contact to the plants is made solely by Village issued cell phones.

A new village-wide phone system was budgeted for this fiscal year for the amount of \$30,000. To find a contractor for new phones, the Village created a Request for Proposal (RFP) packet and went out to bid on September 3rd and accepted bids until October 1st. In the morning on October 1st, the Village hosted a public opening which included 2 bids for a new phone system. Village staff analyzed both bids in relation to the type of solution presented, the system and equipment proposed, and the total cost of the solution after the first year and subsequent years. Based on this analysis, staff recommends moving forward with the proposal from B&B Networks for a premise-based Mitel MiVoice solution.

Project Details

The scope of the new phone system involves a transition to a VoIP system with updated hardware and additional compatibility for locations that need new wiring and places that have not had phones previously. The breakdown of the equipment and where they will go are as follows:

Location	Staff Phones	Conference Phones	Emergency Callboxes	Total at each Location
Village Hall	8	2	-	10
Police Department	8	-	1	9
Public Works/Finance/Building	8	1	-	9
Water Treatment Plant	2	-	-	2
Waste Water Treatment Plant	2	-	-	2
Town Center Park	-	-	1	1
Total Phones	28	3	2	33

The Staff phones at each location will consist of a mix between two different models of Mitel phones. 22 of the staff phones will be the MiVoice 6920 IP Phone model, and 6 of the staff phones will be the MiVoice 6930 IP Phone model. The 3 conference phones will be the Mitel 6970 IP Conference Phone. The emergency callboxes at the Police Department and Town Center will be single-button Viking E-1600-45A Enhanced Weather Protection callboxes. Each of these models are described in more detail in the product descriptions attached to this memo.

In addition to the hardware and phones, a second agreement provides services for Session Initiation Protocol (SIP) Trunking. SIP Trunking is the means by which the internet connects to the Villages existing fiber infrastructure and the phones themselves. Essentially, it's the carrier service for the new VoIP phone system. Utilizing this service enables less reliance on analog lines which allows the Village to implement new phones and lines as it grows. Relying on the current Primary Rate Interface (PRI) lines limits the Village's ability to add new lines and numbers in the future. SIP Trunking service is essential for a VoIP telecommunications system.

The proposal presented by B&B Networks accounts for 15 SIP Trunks (the call paths for inbound and outbound calling), 40 direct calling numbers (four of which are planned to be ported), unlimited local and long-distance calling, and 5 E911 address locators (1 for each village facility).

Application

When the new system comes online, the Village will utilize the main Village Hall phone number (847-428-2861) to direct calls to each Village facility and department, rather than needing to individually dial each building. When someone calls this number, an automated teller will provide options for the caller to select from to reach each department. An example of this could be "press 1 for the Public Works Department". The existing numbers for Public Works and the Police Department will still be retained and they will forward to the same automated teller to ease the transition for people who may have those numbers saved. This new phone system will also allow staff to transfer calls to and from each facility. Additionally, each staff phone will have a direct line or extension.

The hope is that with this new system, residents can better reach the department they're looking for and staff can better communicate and direct calls between each department.

Total Cost

The cost for the recommended solution and equipment with B&B Networks is \$25,097.46. The Resolution is presented with a 5% contingency for any unforeseen costs during implementation for a total of \$26,400. This price accounts for the equipment and nonrecurring costs for the phone system. Please note the price presented here is slightly different than the original response to the RFP because different device models were selected by staff to reduce costs further and maintain the desired functionality of the system.

After implementation of the phone system, the monthly phone bill will be about \$288.60 which is expected to be approximately \$250 less per month than what the Village currently pays.

Conclusion

Village staff recommends the Village Board of Trustees approve funds from account 01-01-5480 (Capital Equipment) in a not-to-exceed amount of \$26,400.00 to B&B Networks for equipment and labor to install a new Village-wide phone system, and for ongoing monthly service provision.

Attachments

- A. Product Descriptions
- B. Certificate of Publication for the VoIP System RFP
- C. Public Bid Opening Bid Tabulation Sheet
- D. B&B Networks RFP Bid Submission
- E. B&B Networks Final Proposal
- F. B&B Networks SIP Trunk Description
- G. B&B Networks SIP Trunk Service Proposal



MiVoice 6920 IP Phone

The MiVoice 6920 IP phone is designed from the ground up for the enterprise user who requires an exceptional HD audio experience via its unique voice optimized handset. It offers a large color LCD display, dual GigE, programmable personal keys and context-sensitive soft keys, support for both USB & Analog headsets.

- 3.5" QVGA (320x240 pixel) color display
- Speech optimized corded handset
- Programmable personal and Context sensitive soft keys
- Native DHSG/EHS analog headset support
- USB port for headsets and accessories

MiVoice 6930 IP Phone

The MiVoice 6930 IP phone commands the desktop with its large 4.3" color display, powerful crystal clear HD audio through the voice optimized handset, programmable personal keys, Bluetooth 4.1 with Mobile Integration, mobile phone USB charging point and choice of expansion modules makes the 6930 the choice of power users.



- 4.3" (480x272 pixel) color display
- Bluetooth 4.1
- Mobile Integration
- USB Mobile phone charging point
- Programmable personal and Context sensitive soft keys
- Speech optimized corded handset
- Support for optional Cordless handset
- Enhanced full-duplex speakerphone
- Highly customizable via optional accessories

6970 IP Conference Phone

A conference phone designed to make meetings easier.

Key Features

- 7" 800x400 Color Touch Display
- 96 programmable keys*
- 6 context-sensitive soft keys
- PoE power (802.3af)
- Bluetooth 4.1 enabled
- MobileLink feature
- One-touch Join Meeting
- 360° microphone pickups
- Mitel Hi-Q Audio Technology
- 2 USB ports



The Mitel 6970 IP Conference Phone designed to make meetings easier and more efficient. A large 7-inch color touch screen grants excellent visibility to an intuitive user interface for quick navigation to essential meeting information and functions. A tight integration with Mitel platforms, applications, call managers delivers a unique conference experience that will not be found with 3rd party devices. Built-in Bluetooth 4.1 and MobileLink grant you the ability to seamlessly pair with Bluetooth enabled audio devices and expand the capabilities of your mobile phone. Enjoy crystal clear audio with high definition speakers and 360° beam-forming microphones. With the Mitel 6970 IP Conference Phone, your entire meeting experience will be effortless.

ADA* Compliant Emergency Phones with Built-In Digital Voice Announcer

The 1600A Series ADA Compliant Emergency Phones are designed to provide quick and reliable handsfree communication for any standard analog telephone line or analog phone system station port. All 1600A Series phones meet ADA requirements for elevator/emergency telephones, and can be programmed from any touch tone phone. The phones can dial up to 5 programmable emergency numbers, as well as 2 central station numbers. In addition, the E-1600-20A and E-1600-52A feature a second "INFO" button that will dial up to 3 non-emergency numbers.

The 1600A Series phones can be programmed to automatically deliver a digital announcement to identify the location of the emergency call. Alternatively, a DTMF touch tone code may also be delivered. A "Call Connected" LED can be initiated manually or automatically. All programming parameters, including phone numbers and location numbers, are stored in non-volatile memory. All units are phone line powered, requiring no batteries or external power and are compatible with common Central Station Monitoring equipment.

For outdoor installations where the unit is exposed to precipitation or condensation, select 1600A Series phones are available with Enhanced Weather Protection (EWP). EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see DOD 859.



Features

- Automatic Noise Canceling (ANC) feature for clear audio in noisy environments
- Meets the latest ASME A17.1 code when used with the optional LV-1K Line Verification Panel, see DOD 246
- Meets ADA requirements for Emergency Phones:
 - Automatically lights the "Call Connected" LED
 - Transmits a unique location I.D. code or voice announcement
 - Grade 2 Braille label for the visually impaired
- Non-volatile digital voice announcer with 16 seconds of voice memory
- Advanced call progress detection
- Handsfree operation
- Phone line powered
- Non-volatile memory (no batteries required)
- Marine grade 316 stainless steel prevents corrosion on stainless models
- Dials up to 5 emergency numbers
- E-1600-20A and E-1600-52A dial up to 3 non-emergency "INFO" numbers
- Cycles through backup phone numbers on busy or no-answer
- Optional Enhanced Weather Protection (EWP). EWP products are designed to meet IP66 Ingress Protection Rating, see DOD 859
- Hangs up on CPC, silence, busy signal, dial tone, time-out or touch tone command
- Programmable to auto-answer on incoming calls
- Remotely programmable
- Extended temperature range (-15°F to 130°F)
- 16 different chassis or board only available
- Available in 42" tall tower phone model E-1600A-BLT-EWP (DOD 217)
- Central Station Monitoring capability (dials 2 numbers)
- Optional PB-100 Polling System available (DOD 232)
- Optional BLK-4-EWP strobe light kit available (DOD 654)
- Optional LC-6 Six Port Concentrator available (DOD 245)
- Optional LV-1K Line Verification Panel available (DOD 246)
- Optional E-1600A-MK-GNP Pedestal Mounting Kit (DOD 227)
- Optional PB-1 Panic Button Kit (DOD 233)
- Also available with VoIP interface, see DOD 255 for more information

Applications

- Elevators
- Parking ramps/lots
- Emergency pool phones
- ATM machines
- Area of refuge locations
- Lobbies
- Silent holdup alarm dialer using optional Panic Button Kit
- Entryways
- Campus emergency stations
- Roadside emergency stations
- Stadiums
- Convention centers

** Americans with Disabilities Act of 1992 contains federal regulations regarding elevator telephones (Public Law 101-336).*

www.VikingElectronics.com
Information: 715-386-8861

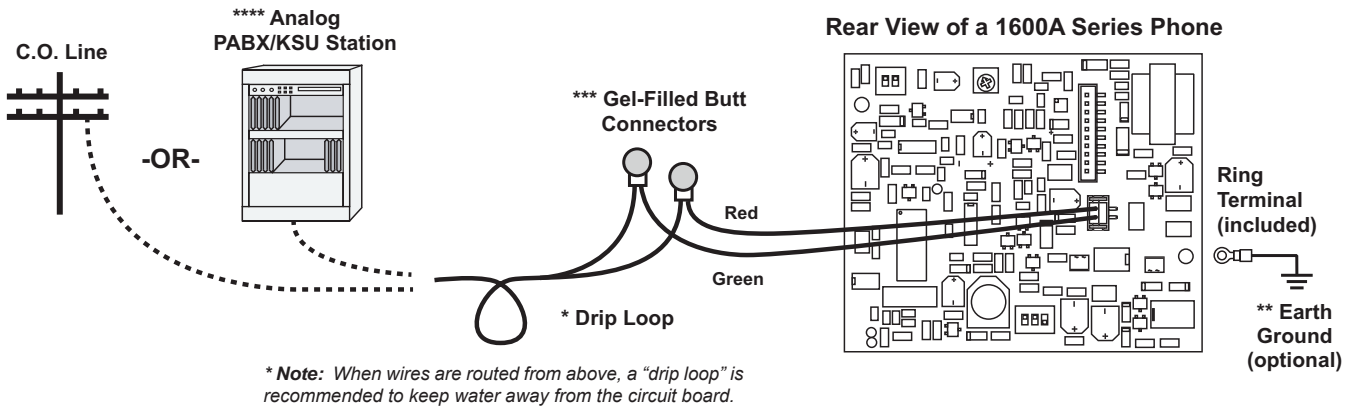
Specifications

Power: Telephone line powered. Minimum 24V DC talk battery voltage, with a minimum loop current of 20mA loop. Loop current may be boosted on low current lines with a Viking model **TBB-1B** Talk Battery Booster (DOD 632).
Dimensions: See Installation and Specifications
Operating Temperature: -15° F to 130° F (-26° C to 54° C)
Humidity - Standard Products: 5% to 95% non-condensing
Humidity - EWP Products: Up to 100%

CAUTION - When installing on an analog extension of a phone system: Some phone systems do not conform to analog telecom standards and might not be compatible with the 1600A Series emergency phones. For a detailed description of the telephone line specifications required for any of the 1600A Series phones, see DOD 869.

Wiring

⚠ IMPORTANT: Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges.



***** Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wire with a maximum insulation of 0.082 inches. Cut off bare wire ends prior to terminating.

****** Note:** When installing a line powered phone on a low voltage and/or low loop current phone system extension, a **TBB-1B** Talk Battery Booster may be required, see **DOD 632** for more info.

Installation and Specifications

The following sections show specifications and installation instructions for the different chassis in the 1600A Series.

⚠ IMPORTANT: Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges.

E-1600A / E-1600-40A / E-1600-45A / E-1600-60A / E-1600-65A

Dimensions: 5.25" x 4.0" x 2.0" (133 mm x 102 mm x 51 mm)

Shipping Weight: 2.5 lbs (1.13 kg)

Material: 0.062" thick (16 gauge) steel

Finish: E-1600A - Red powder paint

E-1600-40A - Red powder paint, no "EMERGENCY PHONE" verbiage

E-1600-45A - Yellow powder paint

E-1600-60A - Blue powder paint with "POLICE" verbiage

E-1600-65A - Blue powder paint

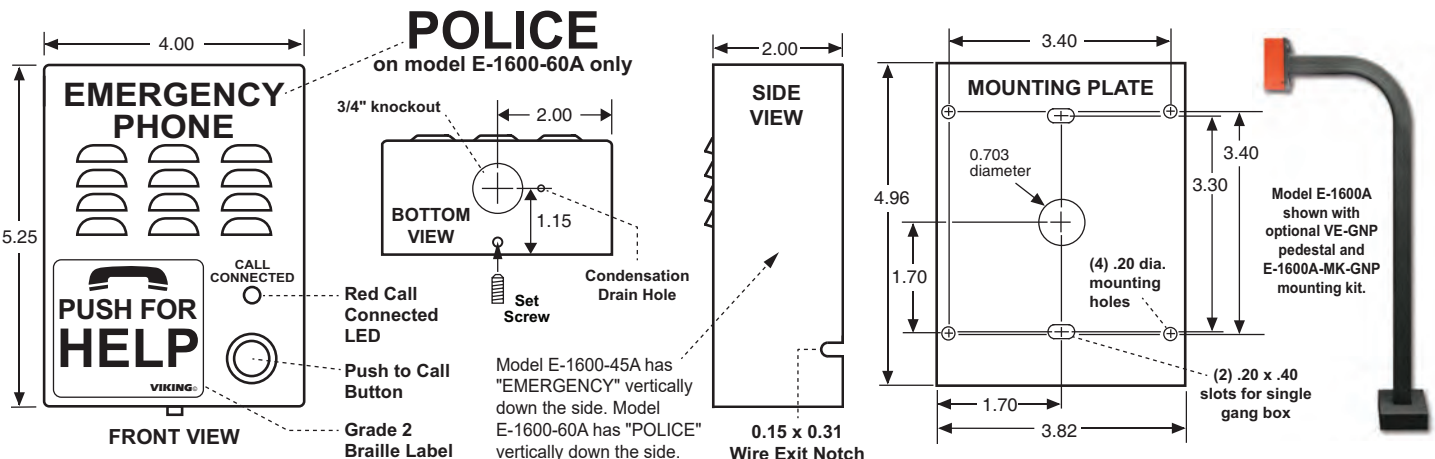
Connections: Gel-filled butt connectors

Mounting: Surface mount to walls, posts, single gang boxes or 4" x 4" electrical junction boxes, or recess mount in elevator phone boxes. Attach the mounting plate in desired location and connect the wires. Then, secure the phone to the mounting plate with the provided set screw.

Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more info on EWP, see **DOD 859**.

Note: For greater weather resistance, apply a bead of clear silicon caulking around the top edge and sides of the chassis.

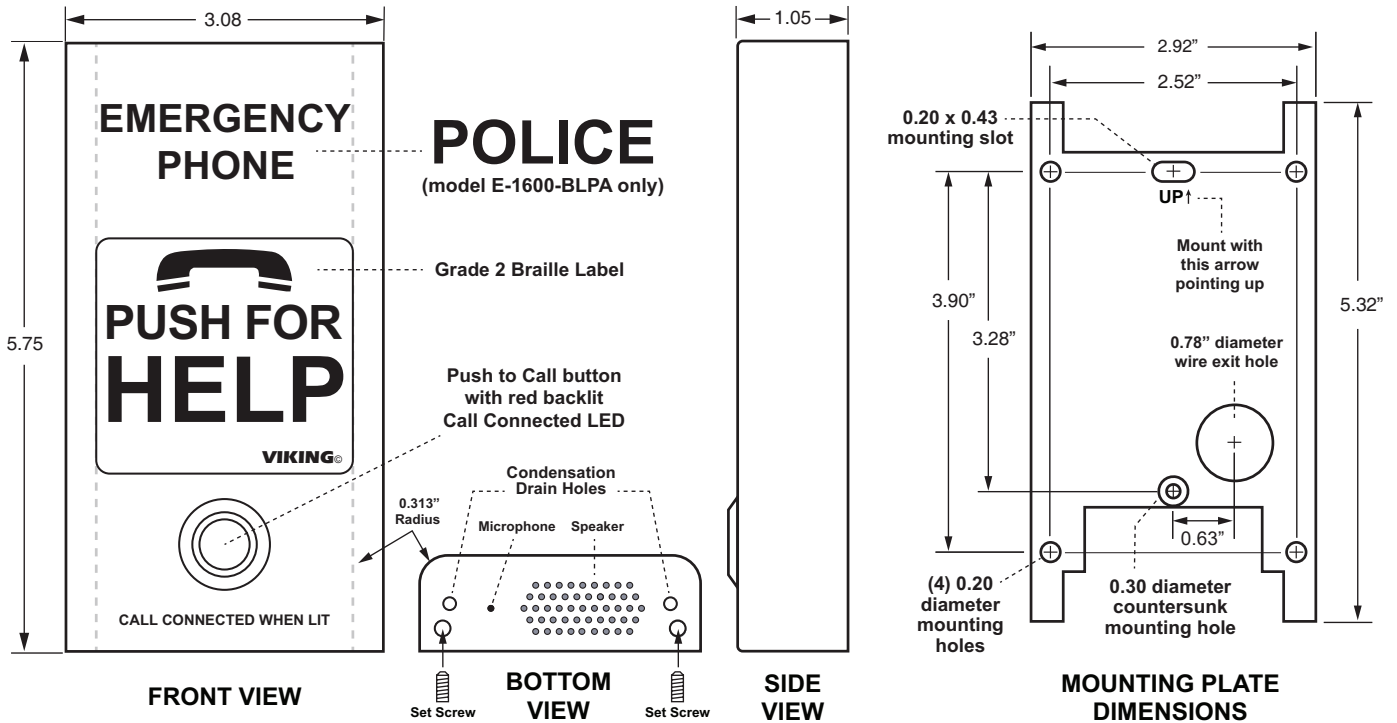
Optional Gooseneck Pedestal Mounting Kit: The E-1600A-MK-GNP Mounting Kit (**DOD 227**) allows you to mount the E-1600A, E-1600-40A, E-1600-45A, E-1600-60A or E-1600-65A to a Viking VE-GNP Gooseneck Pedestal (**DOD 424**).



E-1600-SSA / E-1600-RDA / E-1600-YLA / E-1600-BLA / E-1600-BLPA / E-1600-BKA

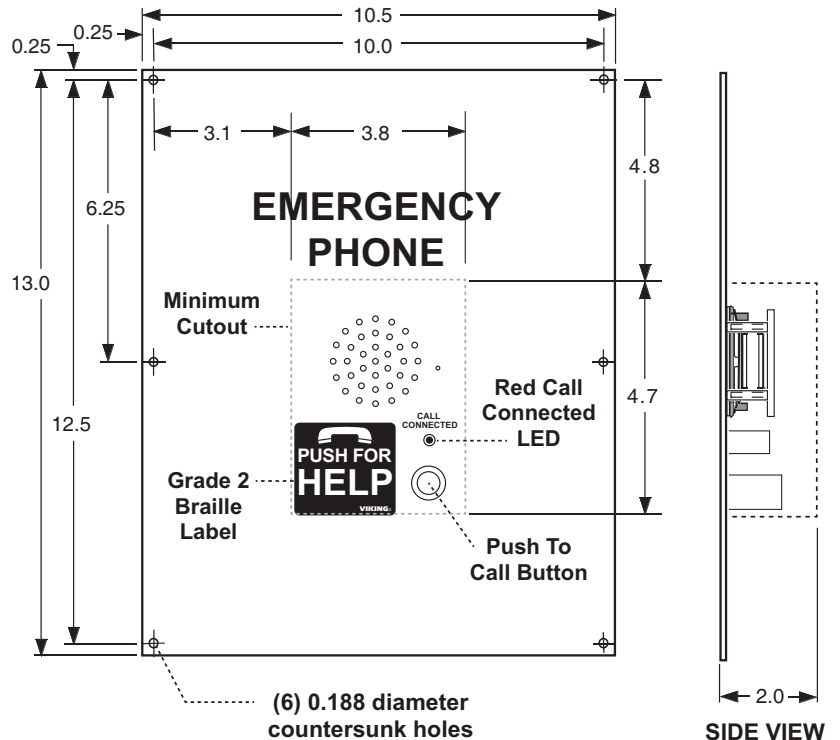
Dimensions: 5.75" x 3.08" x 1.05" (146 mm x 78 mm x 27 mm)
Shipping Weight: 2.5 lbs (1.3 kg)
Material / Finish E-1600-SSA only: 0.060" thick (16 gauge) marine grade 316 stainless steel with a #4 brushed finish
Material: 0.060" thick (16 gauge) 304 stainless steel
Finish: E-1600-RDA - Red fine texture powder paint
 E-1600-YLA - Yellow fine texture powder paint
 E-1600-BLA - Blue fine texture powder paint
 E-1600-BLPA - Blue fine texture powder paint with "POLICE" verbiage
 E-1600-BKA - Black fine texture powder paint

Connections: Gel-filled butt connectors
Mounting: Surface mount to walls, posts or single gang electrical boxes. Attach the mounting plate in desired location and connect the wires. Then, secure the phone to the mounting plate with provided 8-32 set screws.
Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more info on EWP, see **DOD 859**.
Note: For greater weather resistance, apply a bead of clear silicon caulking around the top edge and sides of the chassis.



E-1600-02A

Dimensions: 13" x 10.5" x 2" (330 mm x 267 mm x 51 mm)
Shipping Weight: 7 lbs (3.18 kg)
Connections: Gel-filled butt connectors
Material: 0.105" thick (12 gauge) brushed stainless steel
Mounting: Flush mount in elevator cabs, ATMs, stairwells, hallways, etc.
Suggested Hardware: (6) #8 x 3/4 flat head phillips sheet metal type A screws (not included)
Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see **DOD 859**.
Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate.



E-1600-03B

Dimensions: 7.22" x 5.36" x 1.55" (183 mm x 149 mm x 39 mm)

Material: 0.074" thick (14 gauge) marine grade 316 brushed stainless steel panel

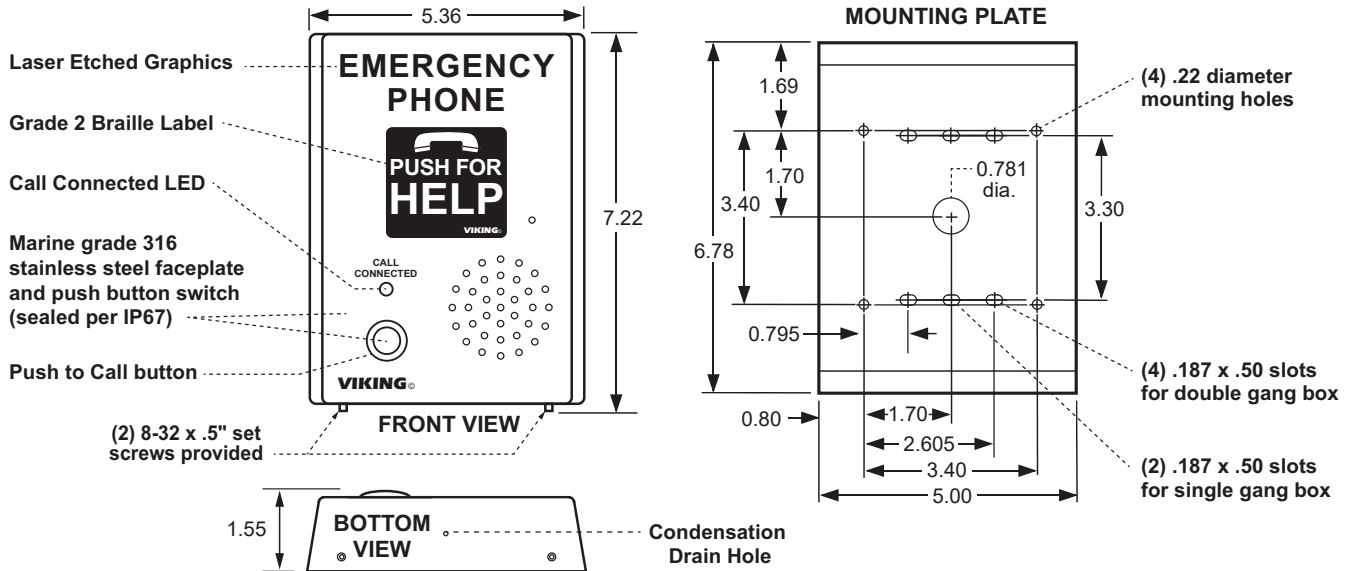
Shipping Weight: 3 lbs (1.36 kg)

Connections: Gel-filled butt connectors

Mounting: Surface mount to walls, posts, single gang boxes, double gang boxes or 4" x 4" electrical junction boxes, or recess mount in elevator phone boxes. Attach mounting plate in desired location. Attach wires then fasten cover to mounting plate with set screw.

Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see **DOD 859**.

Note: For greater weather resistance, apply a bead of clear silicon caulking around the top edge and sides of the chassis.



E-1600-20A

Dimensions: Overall - 5.0" x 5.0" x 2.25" (127 mm x 127 mm x 57 mm), Plastic Electrical Box - 4.0" x 4.0" x 2.14" (102 mm x 102 mm x 54 mm)

Shipping Weight: 2.12 lbs. (1 kg)

Front Panel Material: 0.074" (14 gauge) marine grade 316 brushed stainless steel

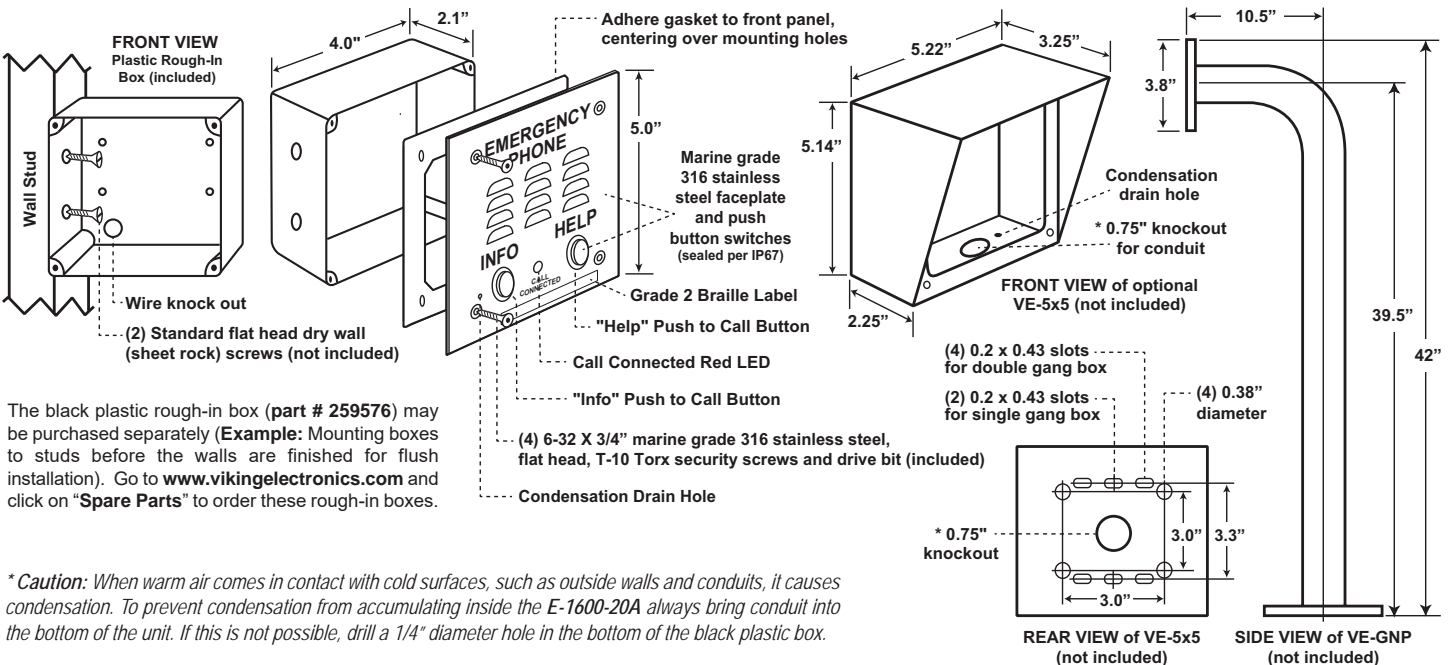
Connections: Gel-filled butt connectors

Mounting with Plastic Rough-In Box (included): Flush into walls, mounts to side of wall stud.

Mounting with Optional VE-5x5: Surface mount to walls, single gang boxes, double gang boxes, posts, or to a Viking VE-GNP Gooseneck pedestal (see options below).

Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see **DOD 859**.

Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate or VE-5x5.



*** Caution:** When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-1600-20A always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the black plastic box.

E-1600-30A

Dimensions: Overall - 5.0" x 5.0" x 2.25" (127 mm x 127 mm x 57 mm),
Plastic Electrical Box - 4.0" x 4.0" x 2.14" (102 mm x 102 mm x 54 mm)

Shipping Weight: 2.12 lbs. (1 kg)

Front Panel Material: 0.074" (14 gauge) marine grade 316 brushed stainless steel

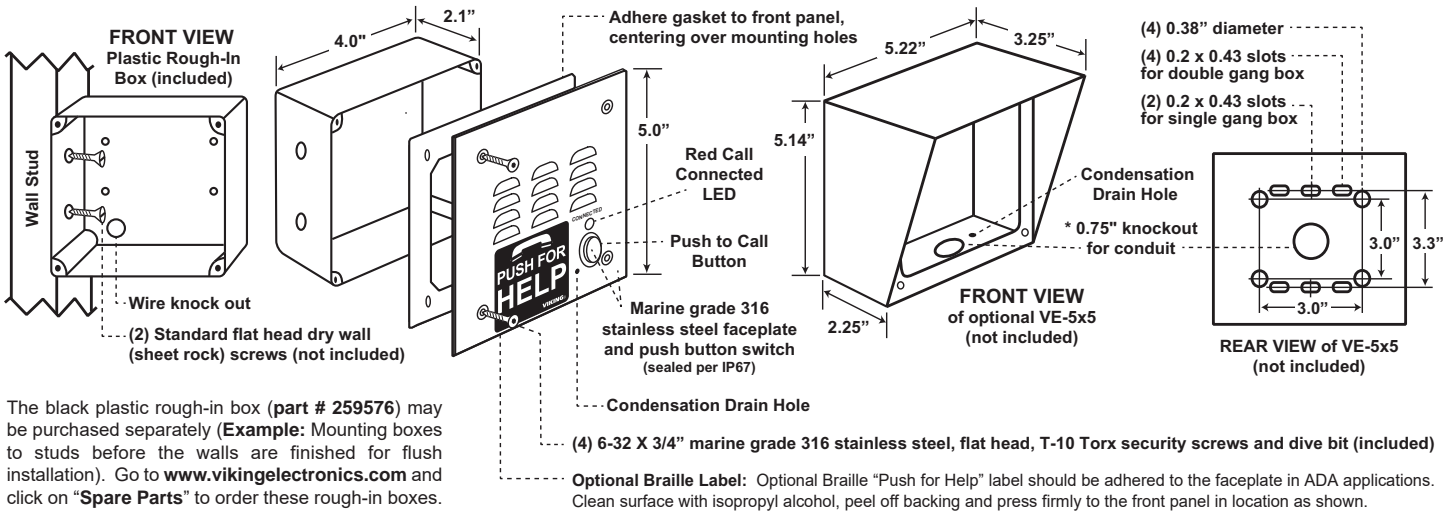
Connections: Gel-filled butt connectors

Mounting with Plastic Rough-In Box (included): Flush into walls, mounts to side of wall stud.

Mounting with Optional VE-5x5: Surface mount to walls, single gang boxes, double gang boxes, posts, or to a Viking VE-GNP Gooseneck pedestal.

Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see DOD 859.

Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate or VE-5x5.



The black plastic rough-in box (part # 259576) may be purchased separately (Example: Mounting boxes to studs before the walls are finished for flush installation). Go to www.vikingelectronics.com and click on "Spare Parts" to order these rough-in boxes.

Important: The E-1600-30A will NOT mount to a standard double gang box. If your application requires a double gang box, see model E-1600-32A.

*** Caution:** When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-1600-30A always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the black plastic box.

E-1600-32A

Dimensions: Overall - 5.0" x 5.0" x 2.25" (127 mm x 127 mm x 57 mm)

Shipping Weight: 2.12 lbs. (1 kg)

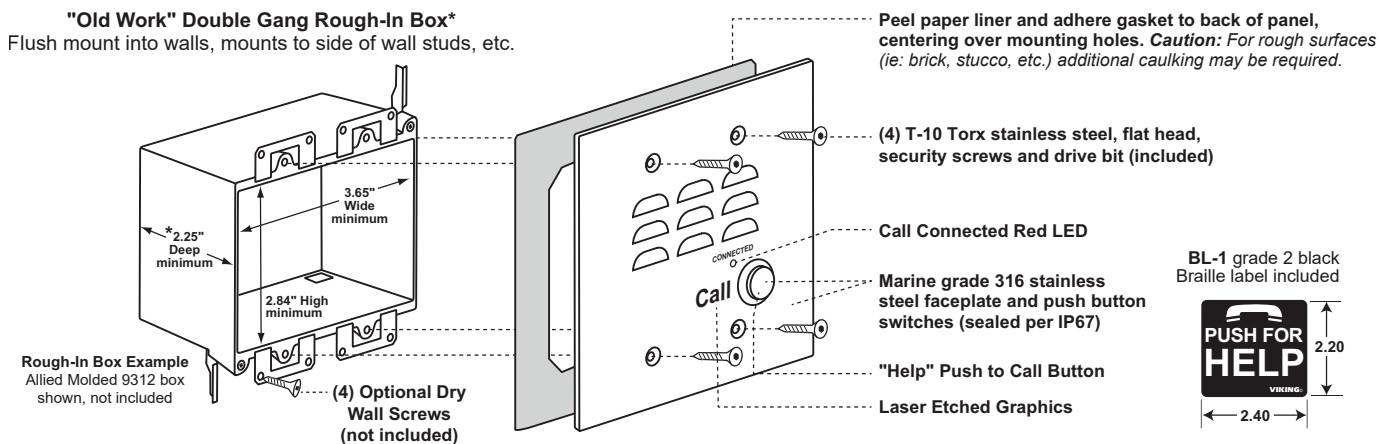
Front Panel Material: 0.074" (14 gauge) marine grade 316 brushed stainless steel

Connections: Gel-filled butt connectors

Mounting: Flush mount to a standard double gang electrical box with minimum dimensions of 3.65"W x 2.84"H x 2.25"D

Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see DOD 859.

Note: When mounting outside to rough or uneven surfaces (brick, stucco, etc.) apply a bead of clear silicone caulking around the top edge and sides of faceplate. For surface mount applications, use model E-1600-32A with a VE-5x5 surface mount box.



*** Caution:** Excessive wire length and/or using a rough-in box with inadequate depth can apply force to the circuit board causing physical damage.

Important: When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-1600-32A always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the double gang box.

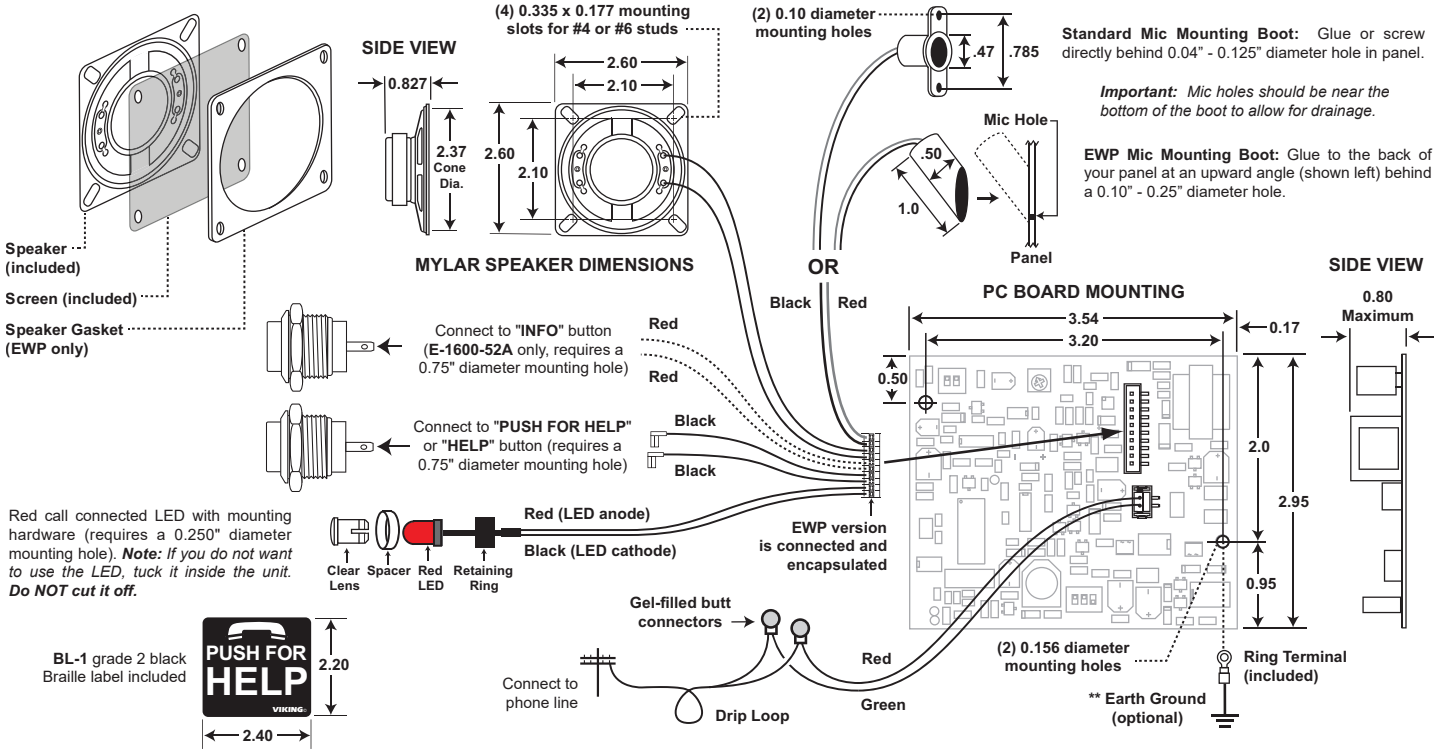
E-1600-50A / E-1600-52A

Note: This is a 1600A parts kit without chassis.

Shipping Weight: 1 lb (0.45 kg)

Connections: Gel-filled butt connectors

Optional Enhanced Weather Protection (EWP) Available*: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see DOD 859.



* Important: If installing the EWP version outdoors, apply a non-corrosive silicone to back side of LED and push button switches after making all connections and testing. Completely encapsulate exposed switch connections (terminals/stripped wires) and bare wire connections.

** Note: To increase surge protection, loosen the PCB mounting screw labeled \oplus (as shown) and fasten a wire with ring terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

E-1600-55A

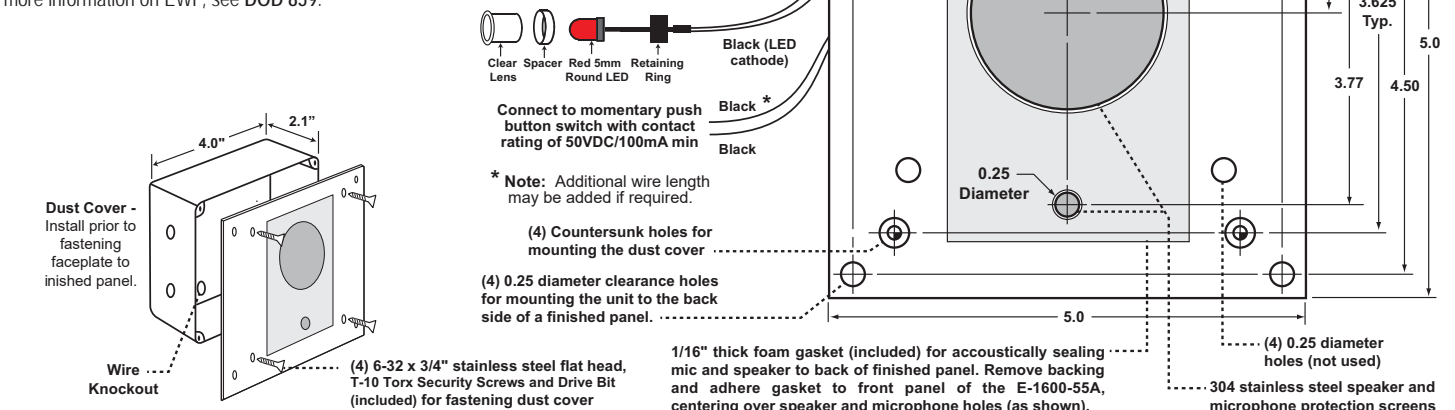
The E-1600-55A is a universal emergency phone kit for installing behind elevator panels, or an installation requiring a custom panel. The finished panel should provide: (4) studs (#6 diameter minimum) for mounting plate, audio holes for speaker and microphone, a momentary SPST push button switch and a 0.25" diameter mounting hole for the LED. Alternatively, the LED can be cut off and the wires connected to a integral switch with LED (often found in elevators). Note: An LED must be connected to the red and black wires for the phone to operate.

Shipping Weight: 1.6 lbs (0.73 kg)

Telco/Switch Connections: Gel-filled butt connectors

Material: 0.062" thick (16 gauge) zinc plated steel

Optional Enhanced Weather Protection (EWP) Available: EWP products are designed to meet IP66 standards and may feature foam rubber gaskets, sealed connections, gel-filled butt connectors, as well as potted circuit boards with internally sealed, field-adjustable trim pots and DIP switches for easy onsite programming. For more information on EWP, see DOD 859.



K-1600-EHFA

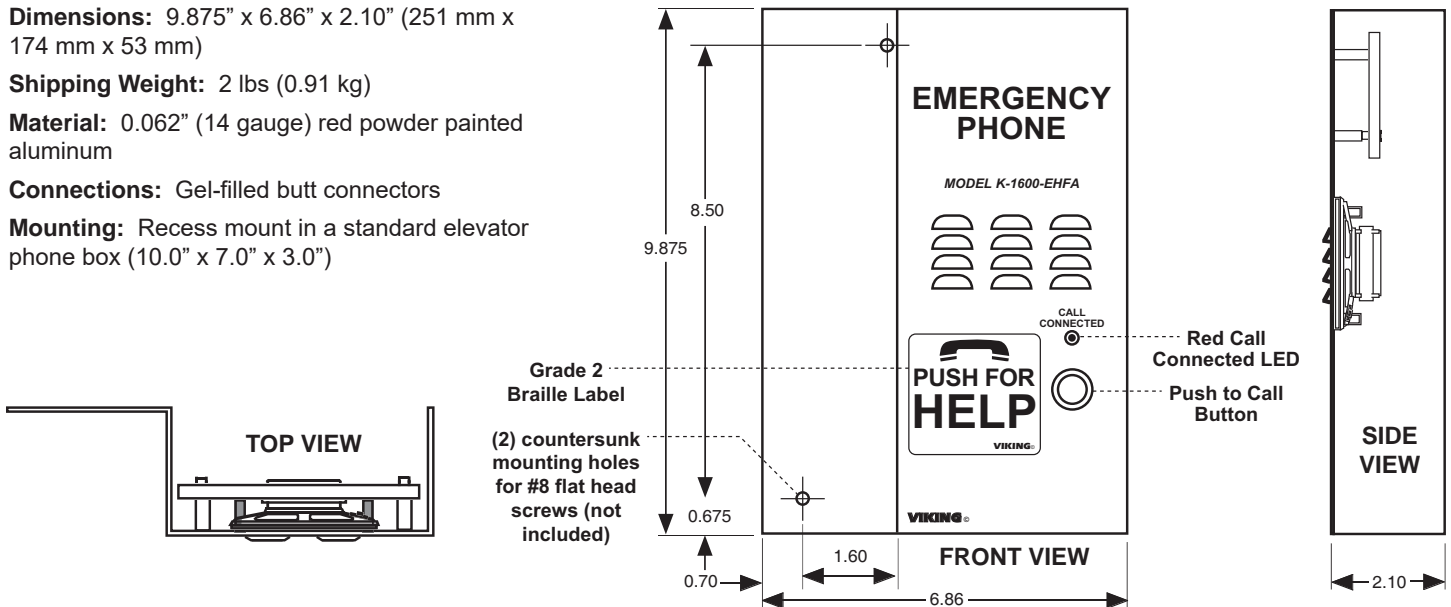
Dimensions: 9.875" x 6.86" x 2.10" (251 mm x 174 mm x 53 mm)

Shipping Weight: 2 lbs (0.91 kg)

Material: 0.062" (14 gauge) red powder painted aluminum

Connections: Gel-filled butt connectors

Mounting: Recess mount in a standard elevator phone box (10.0" x 7.0" x 3.0")



Programming

A. Accessing the Programming Mode

The **1600A Series** emergency phones can be programmed from any touch tone phone using a CO line, analog PABX/KSU station, or a **DLE-200B** Line Simulator. For more information on the **DLE-200B**, see **DOD 605**.

1. Using the Security Code

Step 1.	Move DIP switch 2 to the ON position (sets unit to answer incoming calls, see section J).
Step 2.	From a touch tone phone call the line attached to the 1600A Series phone.
Step 3.	When the 1600A Series phone answers, enter the 6-digit security code (factory set to 845464 , see section C). A double beep should then be heard indicating you have entered the programming mode.

2. Without the Security Code

Step 1.	Move DIP switch 2 to the ON position (sets unit to answer incoming calls, see section J).
Step 2.	Move DIP switch 3 to the OFF position (incoming calls enter Programming without security code, see section J).
Step 3.	From a touch tone phone call the line attached to the 1600A Series phone.
Step 4.	When the 1600A Series answers, a double beep will be heard and will automatically enter the programming mode.
Step 5.	When finished programming, move DIP switch 3 back to the ON position (see section J).

Warning: Failure to do step 5 above will cause the **1600A Series** phone to call Viking Technical Support instead of your programmed emergency number. See Section I, Assisted Programming.

B. Security Code (memory location #19)

The security code allows the user/installer to program the **1600A Series** phone while DIP switch **3** is in the **ON** (normal) position. The factory set security code is 845464 (V-I-K-I-N-G). It is recommended that the factory set security code be changed. **Example:** To store 123456 as the security code:

Step 1.	Access programming as shown in Programming section A.
Step 2.	Enter 123456 #19 .
Step 3.	Hang-up.

Enter Your Security Code Here:

								#19
--	--	--	--	--	--	--	--	------------

Note: The security code must be 6 digits and cannot include a * or a #.

C. Quick Programming Features

Description	Enter Digits	+	Memory Location
First emergency speed dial number	0-20 digits	then	#00
Second emergency speed dial number	0-20 digits	then	#01
Third emergency speed dial number	0-20 digits	then	#02
Fourth emergency speed dial number	0-20 digits	then	#03
Fifth emergency speed dial number	0-20 digits	then	#04
Central station receiver number	0-20 digits	then	#05
Central station voice number	0-20 digits	then	#06
First "Info" speed dial number (E-1600-20A / E-1600-52A only)	0-20 digits	then	#07
Second "Info" speed dial number (E-1600-20A / E-1600-52A only)	0-20 digits	then	#08
Third "Info" speed dial number (E-1600-20A / E-1600-52A only)	0-20 digits	then	#09
Voice announcer/miscellaneous options (factory set to 001210)	6 digits	then	#17
Timing/Dialing options (factory set to 234721)	6 digits	then	#18
Security code (factory set to 845464)	6 digits	then	#19
Identification number (factory cleared)	0-20 digits	then	#20
Second central station identification number (factory cleared)	0-20 digits	then	#21
To add a * at any point in the dialing string	**		
To add a # at any point in the dialing string	*#		
To add a four second pause at any point in the dialing string	*7		
To clear any speed dial number	(no digits)	then	#00 - #09
Diagnostic tones (used to check mic and speaker operation)	*0		
Exit programming and disconnect	#7		
Reset all programming to factory default settings	###		

Note: A double beep indicates a valid memory position, four beeps indicate an error.

D. Speed Dial Numbers

Note: Up to 20 digits can be stored in each dial position. Special features such as pause, mode change, touch tone * and # count as single digits.

1. Emergency Speed Dial Numbers (memory locations #00 - #04)

The emergency speed dial number programmed in location #00 is the number that is dialed when the "HELP" button is first pressed. Additional speed dial numbers will be dialed when there is no answer or a busy signal is detected and the next number redial features are activated. To program, enter the desired speed dial number followed by the location number (#00 - #04). To clear a speed dial location, simply enter the memory location (#00 - #04) alone. The 1600A Series phone is factory set with no speed dial number programmed.

To Program:	Enter:
*	**
#	*#
4 second pause	*7
0, 1, 2 9	0, 1, 2 9

2. "INFO" Speed Dial Numbers (E-1600-20A/52A Only) (memory locations #07 - #09)

The information speed dial number programmed in location #07 is the telephone or extension number that is dialed when the "INFO" button is first pressed. Additional information speed dial numbers will be dialed when there is no answer and the next number redial feature is activated. The E-1600-20A phone will cycle through the programmed speed dial numbers until answered. To program, enter the desired speed dial number followed by the location number (#07 - #09). To clear a speed dial location, simply enter the location (#07 - #09) alone.

3. Speed Dial Programming Examples

To Program the 1600A Series Phone...	Step 1	Step 2
...to store 555-1234 as the first emergency speed dial number	Access Programming (see page 6)	Enter digits: 5 5 5 1 2 3 4 # 0 0
...to store a touch tone 9, a four second pause, and then 333-4444 into the second "Info" speed dial memory position	Access Programming (see page 6)	Enter digits: 9 *7 3 3 3 4 4 4 4 # 0 8
...to clear the first emergency speed dial number	Access Programming (see page 6)	Enter digits: # 0 0

E. Identification Number (memory location #20)

The touch tone I.D. number (up to 20 digits) is used by emergency personnel to identify the location of the caller and is given out when the receiving party presses a touch tone *. The security office can display the number using a touch tone decoder. To program the I.D. number, enter the desired number followed by #20. **Example:** To store 333 as the I.D. number, enter: 3 3 3 # 2 0

F. Timing/Dialing Options (memory location #18)

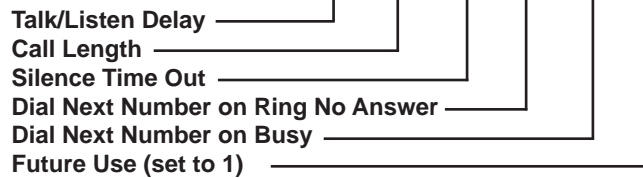
There are six positions in the timing/dialing options. To program these options, enter the six desired timing/dialing numbers followed by #18. The six available timing/dialing options are shown right:

Enter Timing/Dialing Settings Here:

A	B	C	D	E	F	#18

Dial: A + B + C + D + E + F + # + 1 + 8

Factory Default Setting: 2 + 3 + 4 + 7 + 2 + 1



Setting A - Talk/Listen Delay

This feature selects switching time between talk and listen modes (VOX switching time). Use chart at the right. * *Note: Factory default is 0.2 seconds.*

Touch Tone	Talk/Listen Delay
1	0.1 seconds
2	0.2 seconds*
3	0.3 seconds
4	0.4 seconds
5	0.5 seconds

Touch Tone	Talk/Listen Delay
6	0.6 seconds
7	0.7 seconds
8	0.8 seconds
9	0.9 seconds

Setting B - Call Length Time Out

This feature selects the maximum length of time that calls can be connected. Programmable in increments of 1 minute up to a maximum of 9 minutes (Touch Tones 1 - 9). Program 0 in this location to disable the call length time out. With the call length disabled, the 1600A Series phone must rely on a CPC signal, busy signal, silence or return to dial tone to hang-up. * *Note: The factory default is 3 minutes.*

Touch Tone	Call Length Time Out
0	Disabled
1	1 minute
2	2 minutes
3	3 minutes*
4	4 minutes

Touch Tone	Call Length Time Out
5	5 minutes
6	6 minutes
7	7 minutes
8	8 minutes
9	9 minutes

Setting C - Silence Time Out

This feature selects the length of time that calls will remain connected without voice activity. Programmable in increments of 10 seconds up to a maximum of 90 seconds (touch tones 1 - 9). To disable the silence time out, program 0 in this location. * *Note: The factory default is 40 seconds.*

Touch Tone	Silence Time Out
0	Disabled
1	10 seconds
2	20 seconds
3	30 seconds
4	40 seconds*

Touch Tone	Silence Time Out
5	50 seconds
6	60 seconds
7	70 seconds
8	80 seconds
9	90 seconds

Setting D - Dial Next Number on Ring No Answer

If enabled and a ring-no-answer is detected, the 1600A Series phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed. * *Note: Factory set to redial if not answered after 7 rings.*

Touch Tone	Setting D
1 or 0	Disabled*
2, 3, 4...9	Dials second number after 2, 3, 4...9 rings respectively

Setting E - Dial Next Number on Busy

If enabled and a busy is detected, the 1600A Series phone will dial the next programmed speed dial number, and continue to cycle through the numbers until a call is completed. * *Notes: This feature is enabled in the factory default setting. If the busy signal is interrupted with a promotional message, contact your central office to have it removed.*

Touch Tone	Setting E
1	Disabled
2	Enabled*

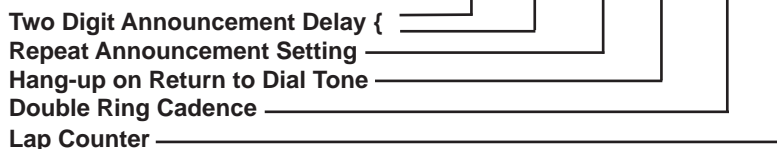
Setting F - Future Use (set to 1)

G. Voice Announcer/Miscellaneous Options (memory location #17)

The 1600A Series phones have a built-in non-volatile digital voice announcer that may be used to identify the location of the emergency phone call. The 16 seconds of digital record time is recorded remotely from a touch tone phone. Programming options are as follows:

Dial: A + B + C + D + E + F + # + 1 + 7

Factory Default Setting: 0 + 0 + 1 + 2 + 1 + 0



Enter Settings Here:

A	B	C	D	E	F	#17

Settings A and B - Announcement Delay

The 1600A Series phone is factory set to automatically start playing the voice announcement after it has determined the call has been answered. Alternately, the announcement may be programmed to play after a programmed amount of time, from 1 to 99 seconds after dialing. * *Note: If the announcement delay time is used, you must allow enough time for the 1600A series phone to detect ring-no-answer and busy signals when using the redial features. The factory default is set to play automatically.*

Touch Tone	Setting A / B
00	Play automatically
01-99	1-99 seconds*

Setting C - Repeat Announcement Option

The 1600A can be programmed to play the announcement from 1-9 times, or to continuously repeat the announcement every 8 seconds until a touch tone * is detected from the distant party. The call connected LED will turn on automatically after the announcement has stopped repeating. * **Note:** The factory default for the 1600A series phone is to play the voice announcement once (digit 1).

Touch Tone	Setting C
0	Repeat every 8 seconds
1-9	Play 1-9 times*

Setting D - Hang Up on Return to Dial Tone

If enabled and a return dial tone is detected, the 1600A will hang up.
* **Note:** The factory default setting is enabled.

Touch Tone	Setting D
1	Disabled
2	Enabled*

Setting E - Double Ring Cadence Mode

The 1600A Series phone can be programmed to recognize the double ring cadence that is typical of many phone systems. If the 1600A Series phone is connected to an extension that provides a double ring cadence, enabling this mode will allow for proper call progress detection. * **Note:** This feature is disabled in the factory default setting.

Touch Tone	Setting E
1	Disabled*
2	Enabled

Setting F - Lap Counter

With the lap counter disabled (factory setting), if the 1600A Series phone is programmed to dial the next number on ring-no-answer and/or busy signal (see page 8), the 1600A Series phone will continuously call its programmed phone numbers forever until the call is answered.

The lap counter is a programmable counter that determines how many times the 1600A Series phone will cycle through its list of up to 5 emergency number (or up to 3 "Info" phone numbers), before it stops the dialing process and hangs up. When all of the programmed phone numbers have been dialed, the lap counter is incremented and the dialing process repeats. When the lap counter has been met, the dialing process stops and the 1600A Series phone hangs up. * **Note:** This feature is disabled in the factory default setting.

Touch Tone	Setting F
0	Disabled*
1-9	Lap count: 1-9 times

H. Recording the Announcement

Step 1	Call into the 1600A Series phone with a touch tone phone and access the programming mode as shown on page 6.
Step 2	Enter *4, wait for the tone and then begin recording. Note: There are 16 seconds of record time is available.
Step 3	Enter any touch tone to stop the recording. Note: Playback is automatic.
Step 4	Enter *5 to review the announcement again.
Step 5	If you choose to not use a voice announcement, enter *3 to clear the recording.

Example: "Elevator number 1215, located in the Financial Building, needs assistance. Press the asterisk (*) key on your telephone to hear this announcement again."

I. Assisted Programming

When attempting to program the 1600A Series emergency phone, if the phone number of the line it is connected to is not known, the phone can be set to automatically call Viking technical support for assistance. With DIP switch 3 set to OFF (programming mode), pushing the CALL button will cause the 1600A Series phone to call Viking, whether it be connected directly to a CO line, or behind a "dial 9" PBX.

The 1600A Series phone will first dial 9, and then listen for second dial tone; if detected it will continue to dial Viking's assisted programming phone number. If a second dial tone is not detected, it then knows it is not behind a PBX, so it will momentarily hang up and then directly dial Viking's assisted programming phone number. Since this is a long distance phone call, the line must be capable of placing long distance calls for the call to go through. When finished programming, it is very important to set DIP switch 3 back to ON (normal operating mode), and place a test emergency call to be sure all programming was done properly.

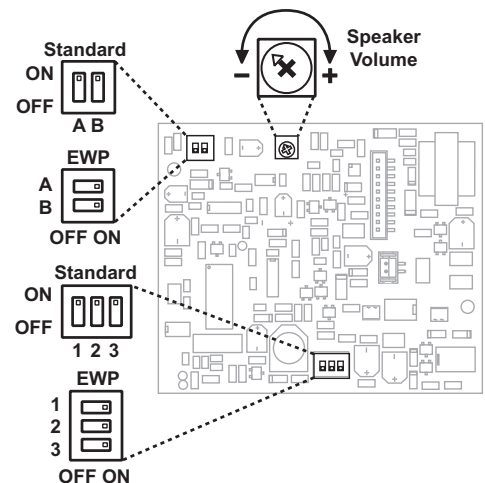
Warning: Failure to set DIP switch 3 back to ON when finished programming will cause the 1600A Series phone to call Viking Technical Support, instead of your programmed emergency number. Yet, as a fail-safe measure, after 3 calls to Viking, the unit will ignore switch 3 and dial its programmed phone numbers.

J. DIP Switch Programming/Speaker and Microphone Adjustments

A speaker volume POT is provided to increase or decrease the speakerphone volume. **Note:** The Microphone Sensitivity POT has been removed because the microphone sensitivity is now microprocessor controlled. This allows the mic gain to be automatically increased in a quiet environment, allowing the distant party to clearly hear even soft or distant sounds. The microprocessor will automatically reduce the mic sensitivity when the location becomes noisy. This Automatic Noise Canceling (ANC) feature will allow speakerphone two-way communications to continue to work properly, even when subjected to loud noise such as a diesel engine or traffic.

Switch A	Switch B	Description
ON	ON	Normal audio detection
OFF	OFF	Increase audio detect sensitivity for low level lines. Useful in applications in which voice or busy signals have trouble breaking over the speaker.

Switch	Position	Description
1	ON	"HELP" button alternately connects/disconnects calls (factory default)
1	OFF	"HELP" button connects calls only
2	ON	Incoming calls answered (factory setting)
2	OFF	Incoming calls are not answered
3	ON	Normal operation mode (factory setting)
3	OFF	Learn mode - Any incoming calls are automatically entered into the programming mode (no security code required). Use this option if you have forgotten your security code. Any outbound call will dial Viking Technical Support (see section I). Warning: When finished programming, set this switch back to the ON position, otherwise the 1600A Series phone will only call Viking Technical Support instead of your programmed emergency number.



K. Central Station Programming

The standard 1600A emergency phone is capable of communicating using the "Ademco Contact I.D.", "Ademco High Speed", "DTMF 4+1 Express", or the "DTMF 4+2 Express" formats. All formats use the programming memory location #20 to store the account code and alarm details.

1. Central Station Programming Features

a. Accessing the Programming Mode

Before programming, you must access the programming mode (see Programming section A).

b. Enabling/Disabling Central Station Mode

The 1600A Series emergency phone can be placed in the "Central Station Mode" by entering a central station phone number in position #05 while programming. To cancel the "Central Station Mode," clear position #05 by entering #05 only (see Programming section D).

To Program the 1600A Series Phone...	Step 1 (see page 6):	Step 2 - Enter Digits:
...to enable central station programming and dial 952-2567	Enter Programming	9 5 2 5 6 7 # 0 5
...to disable central station programming	Enter Programming	# 0 5

c. Ring No Answer

When the 1600A Series emergency phone is in the "Central Station Mode", it is best to have the ring no answer set to a minimum of three, because some receivers send a long tone after answering the line that sounds like a ring back. If the 1600A is set to a ring no answer of two, the phone will disconnect (see Programming section F).

d. Speed Dial Numbers

The 1600A Series phone can be programmed to dial a central station receiver only, or dial up to 5 voice numbers first, and if no answer, then dial the central station receiver. When calling the first numbers (memory positions #00-#04 (see Programming section D), the phone stays in "two-way talk mode" allowing two-way conversation. When calling the Central Station number (memory position #05), the phone is in a "listen only mode" in order to interpret the hand shake signals of the receiver.

A second central station number position has been provided in location #06 that is used when the central station receiver does not have a talk over mode. If a number is placed in position #05 and position #06 is cleared, the E-1600A will call the central station monitor receiver. One or two alarm messages can be sent to the receiver (see Operation section B, note 3). After the receiver sends a kiss-off, the E-1600A lights the "Call Connected" LED and goes into two-way talk mode. If numbers are in both positions #05 and #06, the E-1600A will call the receiver first, and after the kiss-off, will hang-up and redial the number in position #06 for two-way voice communication.

Note: If only a central station is to be dialed, the central station phone number must be preprogrammed in memory location #05 and memory locations #00-#04 must be cleared.

Location	Call Type
#00	Voice - Emergency
#01	Voice - Emergency
#02	Voice - Emergency
#03	Voice - Emergency
#04	Voice - Emergency
#05	Central Station Receiver
#06	Central Station Voice Line
#07	Voice - "Info" (E-1600-20A/52A only)
#08	Voice - "Info" (E-1600-20A/52A only)
#09	Voice - "Info" (E-1600-20A/52A only)

2. Central Station Formats

The following examples explain the receiver formats and how to properly program memory location #20. Each format starts with a four digit account code. This is the code that is assigned by your central station for billing purposes. You must access the programming mode before programming these features (see Programming section A). **Important:** If a number is shown, you must use that number. If an "X" is shown, use any appropriate number. **Note:** A second information alarm message can be sent to the receiver, for any receiver that requires two separate messages. The second alarm message is programmed in #21 location. For additional information about the second alarm message, see Operation section B.

Ademco Contact ID Format	XXXX	18	1	14000	XXX	#20
This DTMF format consists of a four digit account code, two digit message type, and a nine digit data field.	Account Code	Message Type	New Event	General Alarm	Number to identify phone	Memory Location
Enter Contact ID Settings Here:	_____	18	1	14000	_____	#20

Sometimes the central station receiver requires a secondary "listen-in to follow" code to be sent. This can be accomplished by programming memory location #21 as shown right. * Note: Set the account code and the identifier the same as memory location #20.	XXXX *Account Code	18 Message Type	1 New Event	60600 Listen-In to Follow	XXX *Number to identify phone	#21 Memory Location
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Ademco High Speed Format	XXXX	55	1	55555	7	#20
This DTMF format consists of a four digit account code, eight zone codes and one alarm type digit. With this format you can identify up to eight different phones by using a zone per phone. A "5" in a zone position means no alarm. The following example shows an alarm from the third phone.	Account Code	Idle Zones	Alarmed Zone	Idle Zones	Normal Alarm	Memory Location
Enter Ademco High Speed IP Settings Here:	_____	55	1	55555	7	#20

4+1 Express Format	XXXX	17	X	#20
This DTMF format consists of a four digit account code, two digit message type, and a single digit event code.	Account Code	Message Type	Event Code	Memory Location
Enter 4+1 Express ID Settings Here:	_____	17	___	#20

4+2 Express Format	XXXX	27	XX	#20
This DTMF format consists of a four digit account code, two digit message type, and a two digit event code.	Account Code	Message Type	Event Code	Memory Location
Enter 4+2 Express ID Settings Here:	_____	27	__	#20

Operation

A. Standard Operation

1. "HELP" Button

When the "HELP" button is pressed, the 1600A Series phone goes off-hook and dials a pre-programmed telephone number. The Call Connected LED momentarily flashes during tone or pulse dialing. In the event the line is busy or there is a ring-no-answer, the unit can be programmed to call additional phone numbers.

The phone then cycles through up to 5 pre-programmed emergency numbers until the call is answered. When the call is answered, the digital voice announcer will automatically play to identify the location of the emergency call. The phones are factory programmed to play the announcement once, and then automatically light the "Call Connected" LED to show that handsfree communication to emergency personnel is established. The * key will send the I.D. number (if programmed), and play the announcement again. The distant party will know the location of the emergency call by either the voice announcement or by decoding the touch tone I.D. number. Once the "Call Connected" LED is on, the # key can be used to force the phone to hang-up.

2. "INFO" Button (E-1600-20A and E-1600-52A Only)

When the "INFO" button is pressed (E-1600-20A and E-1600-52A only), the phone goes off-hook and dials the first "INFO" phone number programmed. If a busy signal is detected or the call goes unanswered, the phone will cycle through all three "INFO" phone numbers until the call is answered. When answered, handsfree communication is established. **Note:** The voice announcement is for Emergency/Help calls only and will not play on a call initiated from the "INFO" button.

B. Central Station Operation

After the "HELP" button on the 1600A Series phone has been pressed the 1600A Series phone will begin to dial. If a voice number is programmed in memory locations #00-#04, these numbers will be dialed first. Upon detecting a busy signal or after a preprogrammed ring delay the 1600A Series phone will hang-up and dial the central station phone number stored in memory location #05. When the central station receiver answers, it will send a handshake tone to the 1600A phone. Upon detecting the handshake tone, the 1600A Series phone will begin uploading the information stored in memory location #20. Once the 1600A Series emergency phone has sent the information stored in memory location #20, it waits for a "kiss-off" tone from the central station. When the "kiss-off" tone is received, the emergency phone turns on the call connected LED and goes into the "two-way talk mode" or hangs up and dials position #06 if programmed (see Note 3 below).

- Notes:**
1. The central station should have a "talk-over" feature that will allow a two-way conversation at this time. If your receiver does not support "talk-over", a voice phone number should be programmed into position #06.
 2. If the central station answers the call, sends the handshake tone, but does not send a "kiss off" tone after the information is sent, the 1600A resends the information three additional times, waiting for a "kiss-off" after each attempt. If "kiss-off" has not been received after the fourth attempt, the 1600A hangs up and dials position #05 again.
 3. The 1600A has the capability to send a second informational message to the receiver after the first "kiss-off" is received, but only if a second informational message is stored in memory location #21. After the first "kiss-off" is received, the 1600A sends the information stored in memory location #21. It then waits for a second "kiss-off" from the central station receiver. When the second "kiss-off" is received, the emergency phone turns on the call connected LED and goes into the "two-way talk mode" or hangs up and dials position #06 if programmed.

Warranty

IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, CONTACT VIKING TECHNICAL SUPPORT AT: 715-386-8666

Our Technical Support Department is available for assistance Monday to Friday 8:00am - 5:00pm central time. So we can give you better service, before you call please:

1. Know the model number, the serial number, and what software version you have (see serial label).
2. Have the Product Manual in front of you.
3. It is best if you are on site.

RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. The original product boxes are not designed for shipping - an overpack box is required to prevent damage in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to:
**VIKING ELECTRONICS
1531 INDUSTRIAL STREET
HUDSON, WI 54016**
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the RA number on the outside of each carton being returned.

RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (RA) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the RA number, return the approved equipment to your distributor. Please reference the RA number on the paperwork being shipped back with the unit(s), and also the outside of the shipping box. The original product boxes are not designed for shipping - an overpack box is required to prevent damage in transit. Once your distributor receives the package, they will replace the product over the counter at no charge. The distributor will then return the product to Viking using the same RA number.
4. The distributor will NOT exchange this product without first obtaining the RA number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.

TWO YEAR LIMITED WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of two years from the date of purchase from any authorized Viking distributor. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI, 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others. This warranty does not cover non-EWP products that have been exposed to wet or corrosive environments. This warranty does not cover stainless steel surfaces that have not been properly maintained.

NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

EXCLUSION OF CONSEQUENTIAL DAMAGES. VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.

EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY. WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS AGREEMENT WHICH PROVIDES FOR DISCLAIMER OF WARRANTIES, EXCLUSION OF CONSEQUENTIAL DAMAGES, AND EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY, ARE SEVERABLE FROM ANY OTHER PROVISION AND EACH PROVISION IS A SEPARABLE AND INDEPENDENT ELEMENT OF RISK ALLOCATION AND IS INTENDED TO BE ENFORCED AS SUCH.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the side of this equipment is a label that contains, among other information, a product identifier in the format US:AAEQ#TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive REN's on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAEQ#TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this 1600A Series phone does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the 1600A Series phone causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.

If trouble is experienced with the 1600A Series phone, for repair or warranty information, please contact:

Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 Phone: (715) 386-8666

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to Party Line Service is subject to State Tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

PART 15 LIMITATIONS

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Product Support: 715-386-8666

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, and its affiliates and/or subsidiaries assume no responsibility for errors and omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.



APPLICATION Note

TELECOM SOLUTIONS FOR THE 21ST CENTURY

1600A Series & E-30/E-30-EWP Telephone Line Specifications

March 10, 2003

1600A Series and E-30 Telephone Line Specifications for Operation



Important: This document must be used in combination with the **1600A Series** or **E-30 Technical Practice**.

Some phone systems do not conform to analog telecom standards and might not be compatible with the **1600A Series** emergency phones. Please check to make sure your phone system follows **ALL** of the specifications **A - E**

listed below. If you have further questions, please contact Viking Technical Support at 715-386-8666.

Specifications

A. Busy Signal for Automatic Disconnect / Dial Additional Numbers

Minimum Signal Level: -22dbm
Minimum Number of Busy Pulses: 7
Frequency Range: 300-2000 Hz

Standard Busy Cadence: Minimum: 450ms ON/OFF
Maximum: 550ms ON/OFF
Fast Busy Cadence: Minimum: 150ms ON/OFF
Maximum: 300ms ON/OFF

B. Ringback Signal for Dialing Additional Numbers

Minimum Signal Level: -22dbm
Frequency Range: 300-2000 Hz
Minimum Number of Rings: Programmable 2-9 or disabled

Ringback Cadence: Minimum: 1 sec ON, 1 sec OFF
Maximum: 2.5 secs ON, 5 secs OFF

C. CPC (Calling Party Control) Break for Automatic Disconnect

Note: CPC - Calling Party Control (Disconnect Supervision) is a short break in the line current in the called party's phone line when the calling party hangs up. Not available on PABX's.

Minimum CPC Length: 450ms

Maximum CPC Length: Unlimited

D. Return to Dial Tone for Automatic Disconnect

Minimum Signal Level: -22dbm

Frequency Range: 300-2000 Hz

E. Ring Signal for Automatic Answer

Minimum Ring Voltage at 20Hz: 30VAC RMS

Minimum Ring Voltage at 30Hz: 25VAC RMS

Product Support Line... 715.386.8666

Fax Back Line... 715.386.4345

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, and its affiliates and/or subsidiaries assume no responsibility for errors and omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.

LEGAL NOTICE

Official notice is hereby given that sealed proposals will be received at the Village of Gilberts, Village Hall, 87 Galligan Road, Gilberts, IL 60136 until 9:00 a.m. local time on October 1, 2021 and then publicly opened and read aloud for the following:

Village VoIP Telecommunications System

SCOPE OF WORK INCLUDES: Labor and materials to install a VoIP telephone system to serve the Village Hall, Police Department, Public Works/Finance building, Waste Water Treatment facility and the Water Treatment facility in accordance with the specifications.

A NON-MANDATORY PRE-BID MEETING & WALK-THROUGH WILL BE HELD ON SEPTEMBER 14, 2021 AT 9:00 A.M. CST AT THE VILLAGE OF GILBERTS, VILLAGE HALL, 87 GALLIGAN ROAD, GILBERTS, IL 60136.

The Contract Documents and Specifications may be obtained online at the Village of Gilberts Website: villageofgilberts.com. Proposers are responsible for checking daily for additional information and addenda related to this project at this website.

Any proposal submitted unsealed, unsigned or received subsequent to the aforementioned date, time, and methodology will be disqualified and returned to the respective bidder(s).

The Village reserves the right to reject any and all bids or any part thereof, to waive any irregularities or informalities in the bid submission and/or to award a contract in a manner best serving the interests of the Village. In submitting a bid, bidders acknowledge that they must, to the extent that it applies, comply with all requirements of the Illinois Prevailing Wage Act and all other applicable Illinois laws.

Dated: September 3, 2021

Riley Lynch, Village of Gilberts

Published in Daily Herald September 3, 2021 (4569647)

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DAILY HERALD**. That said **DAILY HERALD** is a secular newspaper and has been circulated daily in the Village(s) of

Algonquin, Antioch, Arlington Heights, Aurora, North Aurora, Bannockburn, Barrington, Barrington Hills, Lake Barrington, North Barrington, South Barrington, Bartlett, Batavia, Buffalo Grove, Burlington, Campton Hills, Carpentersville, Cary, Crystal Lake, Deerfield, Deer Park, Des Plaines, Elburn, East Dundee, Elgin, South Elgin, Elk Grove Village, Fox Lake, Fox River Grove, Franklin Park, Geneva, Gilberts, Glenview, Grayslake, Green Oaks, Gurnee, Hainesville, Hampshire, Hanover Park, Hawthorn Woods, Highland Park, Highwood, Hoffman Estates, Huntley, Inverness, Island Lake, Kildeer, Lake Bluff, Lake Forest, Lake in the Hills, Lake Villa, Lake Zurich, Libertyville, Lincolnshire, Lindenhurst, Long Grove, Melrose Park, Montgomery, Morton Grove, Mt. Prospect, Mundelein, Niles, Northbrook, Northfield, Northlake, Palatine, Park Ridge, Prospect Heights, River Grove, Riverwoods, Rolling Meadows, Rosemont, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, Schaumburg, Schiller Park, Sleepy Hollow, St. Charles, Streamwood, Sugar Grove, Third Lake, Tower Lakes, Vernon Hills, Volo, Wadsworth, Wauconda, Waukegan, West Dundee, Wheeling, Wildwood, Wilmette

County(ies) of Cook, Kane, Lake, McHenry

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the **DAILY HERALD** is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 09/03/2021 in said **DAILY HERALD**.

IN WITNESS WHEREOF, the undersigned, the said **PADDOCK PUBLICATIONS, Inc.**, has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.
DAILY HERALD NEWSPAPERS

BY *Daula Bartz*
Authorized Agent

Control # 4569647

Village of Gilberts

Open Bid Tabulations Sheet for the Village of Gilberts VoIP system RFP

Friday, October 1st, 2021.

<u>Vendor</u> Premise/Hosted	<u>B&B Networks</u> Premise	<u>Telcom Innovations Group</u> Hosted
Platform Manufacturer Platform System	Mitel MiVoice Business	Mitel Cloud Connect
<u>System Cost-Non-recurring</u>	-	-
Base System	\$18,929	
Installation	\$6,510	
ATAs		\$935
Performance Bond	\$190	
Shipping	\$0	\$75
Third party wiring	included	\$1,800
Third party 2 outdoor phones	included	\$1,400
1st Year Warranty	\$0	\$0
Base System Total	\$25,629	\$4,210
Optional		
Redundant call processor at Village Hall	\$2,752	na
Call Accounting	\$3,303	Included
<u>Recurring Costs</u>	-	-
Hosted Recurring Costs		
1st Year	\$0	\$9,360
2nd Year	\$0	\$9,360
3rd Year	\$0	\$9,360
4th Year	\$0	\$9,360
5th Year	\$0	\$9,360
5 Year Total Hosted Recurring Costs	\$0	\$46,800
Public Network Access Costs		
1st Year	\$3,000	\$0
2nd Year	\$3,000	\$0
3rd Year	\$3,000	\$0
4th Year	\$3,000	\$0
5th Year	\$3,000	\$0
5 Year Total Recurring Costs	\$15,000	\$0

Annual Maintenance Charges		
1st Year	\$0	\$0
2nd Year	\$1,864	\$0
3rd Year	\$2,503	\$0
4th Year	\$1,945	\$0
5th Year	\$2,590	\$0
5 Year Annual Maintenance Charges	\$8,902	\$0
1st Year System Cost	\$28,629	\$13,570
Total 5 Year System Cost	\$49,531	\$51,010



**Village of Gilberts
Executive Summary
Mitel MiVoice Business VoIP Solution**

B&B Networks, Inc and Mitel Networks are pleased to present for the Village of Gilberts consideration the Mitel MiVoice Business VOIP telephony solution. The Mitel MiVoice Business is a comprehensive VoIP solution providing a flexible and natively robust architecture. B&B Networks has been a single source provider of leading communications and network solutions for over eighteen (18) years.

As a new Mitel Gold partner, the B&B Networks team is comprised of over 125 years of collective Mitel experience in solution architecting, system implementation and on-going service. We have quickly gained the trust in servicing like Mitel deployments in the surrounding community. Ela Area Library, Aurora Public Library, District 300, St. Charles School District 303 and City of Waukegan to reference a few new business partners.

The Villages' RFP for VoIP outlined a single site configuration to serve the Village's five buildings with an option for redundant call processing at the Village Hall. The Village is also interested in moving to SIP trunking while maintaining a few back up analog trunks. A few new cable runs as well as a fifteen (15) minute UPS are required. Addendum # 1 added replacement weatherproof telephones for the Police Department and Town Center Park. B&B Networks opted out of proposing the Wireless LAN solution, as we would have engaged the current vendor as our sub-contractor. Per the questions and answer session making separate proposals is acceptable.

Optional applications include MiVoice Business Call Accounting, for reporting on system activity including general extension users and trunk resources and the above mentioned redundant call processor.

B&B Networks is in receipt of the RFP, Addendum #1, and Addendum #2.

The proposed design includes a single CX II controller equipped with with fifteen (15) SIP trunks and the associated MiVoice Border Gateway (MBG) which provides session border control and is a SIP aware firewall. The Mitel controller natively supports up to (6) POTs lines and (4) analog station connections.

The NuPoint voicemail is an application housed within the proposed Mitel MiCollab. A hardware server is included for the MiCollab. MiCollab can also be virtualized in VMWare or Hyper-V. The proposal features MiCollab unified communications and collaboration (UCC) licensing structure. Three core user types are available; the Deskbound User (Entry), the Power/Mobile User (Standard), and the Team-based/Project User (MiTeam). The proposal is configured with a combination of UCC Entry and UCC Standard. The Entry license entitlements include:

- full range of UC and communications features, including call control, click-to-call, visual voice mail, unified messaging, chat, and presence, dynamic status, and calendar integration
- multi-device linking (one number reach)(Twinning)
- desktop and web client
- add-on options for mobile client, softphone, and remote teleworker

UCC Standard license provides:

- builds upon Entry UCC with mobile client access, a softphone (can be used on mobile or desktop), and access to full conferencing and desktop collaboration, including ad-hock, scheduled and reoccurring conferences (Conference Bridge capabilities)
- teleworker enabled for two phones, primary and other



Using the RFP document as the guideline, we have equipped the Mitel MiVoice Business solution to support:

- (28) “Staff” IP Telephones (Model 6920)
- (3) “Conference Room” (Model 6930 plus S720 Bluetooth Speakerphone Saucer)
- (15) SIP Trunks
- (6) Trunk and (4) Analog Station ports (Native to Controller)
- (17) UCC Entry Licenses
- (4) UCC Standard Licenses (for 3 mobile users and 1 softphone user)
- (10) Enterprise Users (for phone only applications)
- (28) Voicemail Only users (25 Police personnel and 3 DID’s to Voicemail only)
- (5) Category 6 Cable Runs
- (1) Minuteman UPS for 15-minute run time on MiVB Controller and MiCollab Server
- (2) Weatherproof Outdoor Telephones
- (1) Wall Mount Kit 10 pack

In summary the B&B Networks solution includes:

- Mitel MiVoice Business with MiCollab for the Village
- Hardware servers to support MiCollab and MiVoice Border Gateway applications
- Licensing to support 31 telephones
- SIP Trunking
- The Controller natively supports 6 trunks and 4 analog station ports
- MiCollab-NuPoint Voice Mail 8 Ports
- Project management, programing, and installation
- Telephone Set Placement
- System Administration training for (3) Village staff
- Telephone end user training (1) days plus follow up
- Mitel One Year Standard Hardware Warranty and One Year Software Support

We hope you feel our solution provides a cost-effective, feature-rich solution for the Village of Gilberts and we look forward to further discussions as you evaluate the responses.

Respectfully submitted,

Sylvia Hasty
Account Executive

Paul Clayton
Vice President/General Manager



September 28, 2021

Village of Gilberts
Attn: Riley Lynch
87 Galligan Road
Gilberts, IL 60136

Dear Mr. Lynch,

Re: Manufacturer's Guarantee regarding the purchase of Mitel MiVoice Business (the "Product(s)")

In order to induce Village of Gilberts (the "**Customer**") to purchase certain communications or related products or systems, Mitel Networks, Inc. ("**Mitel**"), on behalf of its Authorized Partner, B & B Networks, Inc. hereinafter referred to as "**Authorized Partner**", hereby guarantees solely for the Mitel equipment purchased and installed on or before March 28, 2022 ("**Cutover**") that it will provide the following:

Mitel will stand behind the Authorized Partner and our Products by assuring spare parts availability and support for the sooner of five (5) years after manufacturer discontinuance or seven (7) years from Cutover. All commitments for continued support of the Products shall require Customer to maintain valid Mitel software assurance throughout the duration of this manufacturer guarantee.

The purchase of Products under this guarantee shall be subject to Mitel's standard manufacturer's hardware and software warranty. In addition to Mitel's standard warranty, Mitel also offers an extended five (5) year hardware warranty on select Mitel products, which may be purchased by Customer at an incremental cost. Current pricing and details of the extended warranty are available upon request.

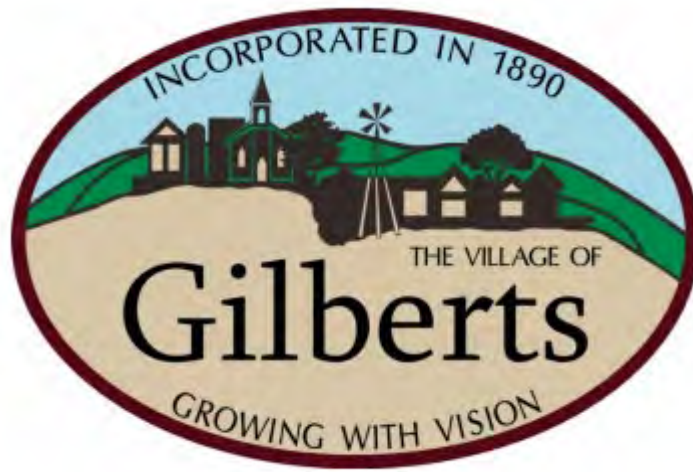
The foregoing guarantee is for the sole benefit of Customer, and Customer shall have a direct right of action against Mitel under this guarantee. Accordingly, Mitel hereby irrevocably submits to the jurisdiction of the Courts of the State of Arizona. Venue shall be Maricopa County.

Notwithstanding anything to the contrary hereinabove, Mitel shall in no way be responsible for any special, incidental, consequential, liquidated, exemplary or punitive damages not otherwise expressly agreed to and by executing this letter, Mitel is not expressing or implying further representations or warranties whatsoever.

Mitel is a global market leader in business communications, powering more than two billion business connections and trusted by some of the world's top performing organizations. We would be honored to have your business.

Sincerely,

Amy Lorey
Mitel Channel Account Manager



VILLAGE OF GILBERTS

87 Galligan Road, Gilberts, IL 60136

Request for Proposal Village VoIP Telecommunications System

September 3, 2021

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Village of Gilberts

87 Galligan Road, Gilberts, IL 60136

September 3, 2021

Dear Vendor:

Village of Gilberts is soliciting requests for proposals for a Village VoIP Telecommunications System. The purpose of this transmittal is to invite you to submit a proposal on the project and provide you with the necessary instructions, specifications and reply forms.

Questions should be submitted to Mr. Riley Lynch at rlynch@villageofgilberts.com no later than midnight on **September 23, 2021**. Questions after this date or those submitted verbally will not be answered.

Responses should address each individual section in the attached RFP, and should clearly identify the ability to meet each requirement. Responses should be detailed, yet concise, and allow for reasonable assessments regarding system capabilities.

A pre-proposal meeting will be held on **September 14, 2021, at 9:00 AM CT**, at the Village of Gilberts, Village Hall, 87 Galligan Road, Gilberts, IL.

Responses are to be submitted to Mr. Riley Lynch, 87 Galligan Road, Gilberts, IL 60136 no later than 9:00 AM CST on **October 1, 2021 at which time they will be publicly opened and read aloud**. Late responses will not be considered.

Included are the "General Conditions & Instructions to Vendors", a "Vendor Information Sheet" and Proposal Reply Sheets. Where required, each should be completed in detail, signed, and submitted with the proposal.

The Village Board reserves the right to reject any or all proposals, to waive irregularities and to accept that proposal which is considered to be in the best interests of the Village. This project will begin after Village Board approval in October/November, **2021**, and should be completed by **December 30, 2021**.

Sincerely,

Mr. Riley Lynch
Village of Gilberts

Attachments to the Proposals include:

- General Conditions & Instructions to Vendors
- Page 12 Request for Proposal Document
- Page 34 System Price Sheet Premise Based System and:
- Page 35 Premise System 60 Month Lease Cost
- Page 36 System Price Sheet Premise Based System Maintenance
- Page 37 System Price Sheet Hosted System
- Page 38 Itemized Unit Pricing
- Page 39 References
- Page 40 Vendor Information Sheet completed
- RFP Required Vendor Responses Document
- Manufacturer System Support Letter
- Manufacturer Vendor Certification Letter
- Other supporting documentation

Request for Proposal

Village VoIP Telecommunications System

GENERAL CONDITIONS & INSTRUCTIONS TO VENDORS

I. GENERAL

- A. All proposals must be submitted in a sealed package and labeled, "Sealed Proposal: VoIP Telephone System." Proposals received after the deadline will not be accepted. Proposals shall be sent by commercial carrier, or hand delivered to the address below no later than 9:00 A.M. CST on October 1, 2021. At which time the proposals will be publicly opened and read aloud. [Read and understood.](#)

Mr. Riley Lynch
Village of Gilberts
87 Galligan Road
Gilberts, IL 60136

- B. The full name and address of the proposer will be clearly marked on the outside of the package. The package must include: [Read and understood.](#)
- 1 printed, signed, original proposal and signed addenda (if any)
 - 1 original proposal
 - 1 Flash drive containing the following:
 - General Conditions & Instructions to Vendors
 - Page 12 Request for Proposal Document with Vendor Responses
 - Page 34 System Price Sheet Premise Based System and:
 - Page 35 Premise System 60 Month Lease Cost
 - Page 36 System Price Sheet Premise Based System Maintenance
 - Page 37 System Price Sheet Hosted System
 - Page 38 Itemized Unit Pricing
 - Page 39 References
 - Page 40 Vendor Information Sheet completed
 - Manufacturer System Support Letter
 - Manufacturer Vendor Certification Letter
 - Other supporting documentation

Sealed proposals should be delivered to: [Read and understood.](#)

Mr. Riley Lynch
Village of Gilberts
87 Galligan Road
Gilberts, IL 60136
rlynch@villageofgilberts.com

- C. Oral, telephone, telegraphic or facsimile transmitted proposal will not be accepted. [Read and understood.](#)
- D. The proposal shall contain the full name of the vendor and be signed by an authorized company representative who is legally qualified to sign such documents. Where required, each page of this proposal must be signed. [Read and understood.](#)
- E. Village of Gilberts is not subject to Federal Excise Tax or Illinois Retailer Occupational Tax. [Read and understood.](#)
- F. Prices quoted shall include all charges for packing, transportation, delivery to the Village's building and assembly as designated on the proposal. [Read and understood.](#)
- G. All interested vendors are encouraged to attend a vendor Pre-Proposal meeting on Tuesday, September 14, 2021, at 9:00 AM at Village of Gilberts Village Hall, 87 Galligan Road, Gilberts, Illinois, to visit the site of the proposed work, to familiarize themselves with the project, and to pose questions or request additional information. Any failure by the contractor to do so will not relieve them from responsibility for successfully performing the work. [Read and understood.](#)
- H. Questions should be submitted to Mr. Riley Lynch at rlynch@villageofgilberts.com no later than midnight on September 23, 2021. Questions after this date or those submitted verbally will not be answered. Answers will be provided via email. [Read and understood.](#)

II. ERRORS AND OMISSIONS

All proposals shall be submitted on the forms provided with each space properly completed. The special attention of vendors is directed to the policy that no claim for relief because of errors or omissions in the proposal will be considered, and vendors will be held strictly to the proposal as submitted. Should a vendor find any discrepancies in, or omissions from, any of the documents, or be in doubt as to their meanings, (s)he shall advise the Village via email to Mr. Riley Lynch at rlynch@villageofgilberts.com who will issue the necessary clarification to all prospective vendors by means of addendum. [Read and understood.](#)

III. FIRM PROPOSAL

All proposals will be considered to be firm through December 30, 2021. [Read and understood.](#)

IV. WITHDRAWAL OF PROPOSALS

Proposals may be withdrawn by letter, fax, or in person prior to the time and date established for the opening of proposals. [Read and understood.](#)

V. INVESTIGATION OF VENDORS

- A. Village of Gilberts Officials will make such investigation as is necessary to determine the ability of the vendor to fulfill proposal requirements. The vendor shall furnish such information as may be requested and shall be prepared to show completed installations of equipment, types of service or supplies similar to that included in this proposal. [Read and understood.](#)
- B. The Village Board reserves the right to reject any proposal if it is determined that the vendor is not properly qualified to carry out the obligations of the Contract. [Read and understood.](#)

VI. SUBCONTRACTORS

- A. The use of subcontractors must be listed in the proposal. The selected vendor assumes responsibility for all services offered in the bid, whether or not supplied by a subcontractor. [Read and understood.](#)
- B. Those submitting bids are advised that any person, company, business, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Village. [Read and understood.](#)
- C. The Village reserves the right to approve or deny any subcontractors for this project. Each proposing vendor must identify the name of and information (background and experience) about any subcontractors to be involved in this project. This includes a description of the work the subcontractor will perform. [Read and understood.](#) [Byrne Low Voltage Consulting LLC will be utilized to install the \(5\) cable runs required in](#)

the RFP. Steve Byrne is a former owner of B&B Networks, Inc. and has been deploying voice technologies for over 40 years.

VII. MODIFICATION

These documents shall constitute the entire agreement between the parties upon award of the contract. No change in, addition, or waiver of terms, conditions, and specifications shall be binding on the Village Board unless approved in writing by the Council. Any change, addition, or amendment of the terms shall be provided in an addendum to the RFP. [Read and understood.](#)

VII. RESERVATION OF RIGHTS BY THE VILLAGE

The Village Board reserves the right to reject any or all proposals, to waive irregularities and to accept that proposal which is considered to be in the best interest of the Village. Any such decision shall be considered final. [Read and understood.](#)

IX. SIGNATURE CONSTITUTES ACCEPTANCE

The signing of these proposal forms shall be construed as acceptance of all provisions contained therein. [Read and understood.](#)

X. CONTRACTS

The successful vendor will be required to enter into a contract incorporating the terms and conditions of this proposal. The work shall be performed and/or materials supplied in accordance with the specifications as indicated in the Proposal Specifications. At the completion of this project, the successful vendor must provide proof of ownership showing Village of Gilberts is the sole owner of record, and demonstrate that all warranty information is in the name of the Village, and is appropriately documented with the equipment manufacturer(s).

If, through any cause, the contracted firm fails to fulfill the obligations agreed to in a timely and proper manner, the Village shall have the right to terminate the contract by notifying the firm in writing and specifying a termination date not less than thirty (30) calendar days in advance. In such event, the contracted firm shall be entitled to just and equitable compensation for any satisfactory work completed. [Read and understood.](#)

XIII. EVALUATION & AWARD OF PROPOSAL

The Village Board reserves the right to reject any and all proposals, to waive any technicalities in the bidding and to award each item to different vendors or all items to a single vendor unless otherwise noted on proposal specifications.

The Village Board will authorize the release of purchase orders upon acceptance of proposals. In the event of pricing errors, the unit cost(s) listed will prevail and be considered accurate.

Village of Gilberts has a procedure and rubric by which proposals are reviewed; this approach allows the Village to evaluate the vendors based on the type of equipment proposed, the cost of their services and/or equipment, their ability to complete the work within a required amount of time, their past record in performing similar work and their ability to work with local staff. The following factors will be evaluated for each vendor that submits a proposal: [Read and understood](#).

1. Manufacturer Strength and Support

- a. Number of years in business
- b. Number of similar systems installed
- c. Market acceptance of system
- d. Financial strength/Business organization

2. Vendor Support and Strength

- a. Manufacturer support of the system proposed
- b. Number of trained certified technicians (on the proposed system)
- c. Service support structure
- d. Provisions for disaster recovery
- e. Quality of work
- f. References

3. System Configuration: The system design, including:

- a. Survivability
- b. Underlying technology
- c. System components
- d. System Growth: The ability to economically accommodate potential requirements for additional telephone instruments in the future.

4. System Features: The system's ability to provide the following capabilities were examined and evaluated.

- a. Ability to provide a unified system across multiple locations.
- b. Flexible Programming: The ability to select appropriate call coverage for each facility and, within the facility, each telephone instrument.
- c. The ability to program the system to meet the requirements established in the RFP after soliciting the input of Village staff.

5. Suitability of Telephone Instruments: Do the telephone instruments provide:

- a. Ease of use
- b. Flexibility of button programming
- c. Variety of instruments (speakerphone, display, additional buttons, etc.)
- d. Reasonable cost

6. System Administration: The ease with which Village staff can effectively manage the system

7. **Overall Cost:** The system cost components are:
 - a. **System Acquisition Cost:** The purchase price of all system hardware, its installation and programming. This cost also includes user training and minimum of one-year system warranty.
 - b. **Five Year System Cost:** The cost of the system over a period of 5 years. This includes vendor and manufacture support in the event of a system failure and keeping the system's software up-to-date. It also includes the cost of Telephone Company services.

XV. INSURANCE REQUIREMENTS

Contractor agrees to provide and keep force at all times during this Agreement, the following coverages: commercial General Liability Insurance including contractual liability coverage, with minimum limits of not less than one million dollars (\$1,000,000) per occurrence, and two million dollars (\$2,000,000) annual aggregate; Property Damage Insurance, if applicable; full Worker's Compensation Insurance, if applicable, equal to the statutory amount required by law; and Employers Liability Insurance, if applicable, with limits of not less than one million dollars (\$1,000,000). All insurance carriers providing the coverage set forth herein shall have a rating of A: VII as assigned by A.M. Best & Co. and satisfactory to the Village in its sole discretion. All certificates of insurance in connection herewith shall be furnished to the Village no later than seven (7) days prior to the commencement date of this agreement.

All insurance coverage provided by Contractor shall be primary coverage as to the Village. Any insurance or self-insurance maintained by the Village shall be excess of Contractor's insurance and shall not contribute with it.

The Village, its officers, agents and employees are to be covered as additional insureds under the General Liability insurance. The coverage shall contain no special limitation on the scope of protection afforded to the additional insureds. The policy and/or coverage shall also contain a "contractual liability" clause.

Should any of the above described policies be cancelled before the expiration date thereof, Contractor shall provide immediate notice to the Village. Such cancellation shall be grounds for the Village to immediately cancel this Agreement. [Read and understood.](#)

XX. LATE PROPOSALS

Proposals received after the time specified in the Request for Proposal will not be considered. **Responses must be submitted no later than 9:00 AM on October 1, 2021.** Late responses will not be considered. **Proposals submitted by any other means (facsimile, mail or via e-mail) will not be considered.** [Read and understood.](#)

VILLAGE OF GILBERTS
2021 VOIP TELECOMMUNICATIONS SYSTEM
REQUEST FOR PROPOSAL

1 INTRODUCTION

Village of Gilberts is interested in soliciting proposals from qualified providers of VoIP telephone systems for both on-premise and hosted solutions whose product offering meets or exceeds current Village requirements, and whose complete product offering provides a robust solution that will allow the Village to continue to leverage this investment well into the future as the needs of the Village continue to grow.

The specifications of this project are an integral part of the Village's formal Request for Proposal (RFP). All responders are required to review this document in detail and acknowledge their understanding of the technical aspects of this project in order to be considered a responsible Proposer.

The Village is considering either a Village-hosted (Premise-based) or a Vendor-hosted solution. The Village has no current preference for either option, but intends to select the best option and make a justifiable investment in a system that will deliver the greatest long-term value and the highest level of performance and support to the Village, its residents, employees, and suppliers worldwide. For Village-hosted solutions, the Village will consider either outright purchase, lease or other financing options. [Read and understood.](#)

1.1 RFP Definitions

The following definitions are used in the RFP: [Read and understood.](#)

- *Client or Village* refers to Village of Gilberts.
- *Vendor, Proposer, or Respondent* refers to a firm, company or organization submitting a proposal in response to this RFP.
- *VoIP Telephone System, Hosted VoIP Telephone System the telephone system, or system* means the solution that the successful Vendor(s) responding to this RFP will be responsible for providing.

1.2 Current System

The Village's telephone system is currently comprised of a Nortel, Norstar system and POTS service. [Read and understood.](#)

1.3 Network Infrastructure Configuration (WAN & Internet)

- A. The Village's network consists of 5 buildings/sites. Three sites are connected via private fiber (12 strand single-mode). The fiber connects the Village Hall to the Police Department building and to the Finance/Public Works building. Firetide 7020 radios provide a mesh network connecting both the Water Treatment Plant and the Waste Water Treatment facility to the Finance/Public Works building via antennae on each building directed to an antenna on the water tower located on the Water Treatment facilities' grounds. [Read and understood.](#)

1.4 Data Center [Read and understood.](#)

- A. The Primary Data Center (server room)/MDF is located within the Village Hall building. There are no IDFs in the Village Hall.
- B. There is a single IDF in each of the other buildings.

1.5 Data Network [Read and understood.](#)

- A. Current network has extreme high reliability of above 99.99%.
- B. The network is primarily used for data, video, and other cloud-based web applications.
- C. Current routers – none
- D. Current core switching – HP switches
- E. Current access switching – HP Office Connect 1920 POE switches
- F. There is existing Category 5 or better cabling to nearly every location
- G. Installation of new Category 6 cable will be required to identified locations (total of 5 new runs; 1 at Village Hall, 3 in the Police Department building and 1 in the Finance/Public Works building).

1.6 Logical Network [Read and understood.](#)

- A. Multiple VLANs are used on the network. Each building is segmented with multiple VLANs for better traffic management.
- B. TCP/IP is used on the LAN.

1.7 Scope of Work [Read and understood.](#)

A. The intended primary objectives of this project are:

- a. To better serve the community in a fiscally responsible and efficient manner by combining voice, video, data, web applications on an end to end network infrastructure.
- b. To improve the speed, mobility, and communication for staff members and the community by telephone.
- c. To improve life safety functions including Enhanced 911 services and emergency alerts and announcements.
- d. To provide uninterrupted and continuous service to constituents.
- e. To provide the capability to expand the services a telephone system offers.
- f. To share equipment and services between facilities, reducing cost and duplication.
- g. To replace outdated equipment which can no longer be adequately serviced.

B. The project encompasses the following:

- a. Assistance (collaboration with the Village's IT support company) with modification and configuration of the Village's data network to support a VoIP telecommunications system. [Read and understood.](#)
- b. Gathering end-user information to be used in programming the new system. [Read and understood.](#)
- c. Providing, programming, installing and connecting all equipment necessary to provide a fully functioning telephone telecommunications system that meets the Village's voice call processing requirements. [Read and understood.](#)
- d. Connecting the system and programming the system to external paging/intercom systems at the each building. [Read and understood.](#) [Per the Vendor meeting no overhead paging connection is required. Paging through phones is only requirement. With that being said the Mitel controller has an integrated Page port as well as \(6\) onboard native trunk ports that can be utilized to support an overhead paging solution in the future.](#)

- e. Connection to public network telephone services (SIP and POTS lines) or Internet service to hosted platform, test services. [Read and understood.](#)
- f. Conduct end-user and system administration training. [Read and understood.](#)
- g. Conduct system “failover” testing. [Read and understood. If failover option is selected.](#)
- h. Provide on-site “post-cutover” support. [Read and understood.](#)
- i. Removal and disposal of the existing telephone system equipment after the new system is installed. [Read and understood.](#)

1.8 Proposed System Locations [Read and understood.](#)

Building	Address
Village Hall	87 Galligan Road, Gilberts, IL 60136
Police Department	86 Railroad Street, Gilberts, IL 60136
Finance/Public Works Departments	75 Industrial Drive, Gilberts, IL 60136
Waste Water Treatment	320 Raymond Street, Gilberts, IL 60136
Water Treatment	320 Raymond Street, Gilberts, IL 60136

1.9 System Objectives

- A. Location transparency through a uniform dialing plan and seamless transfers. [Read and understood.](#)
- B. Direct calling to each building, all departments as well as selected staff members. [Read and understood.](#)
- C. Provide Enhanced 911 services by implementing Locator ID so that emergency responders will know the location from which a 911 call was placed within each building. [Read and understood. Mitel will pass “CESID” information from carrier.](#)
- D. Provide a uniform method of making emergency announcements throughout the Village. [Read and understood.](#)
- E. Provide a voice processing (voicemail, automated attendant, UC) system that is easy to use for both callers and staff. [Read and understood.](#)
- F. Program/Information Numbers through announcement mailboxes with individual DID numbers. [Read and understood. Per the RFP \(3\) Voicemail boxes with direct DID’s is provided.](#)
- G. Utilize an automated attendant to guide callers to the proper Village departments. [Read and understood.](#)
- H. Location survivability through near continuous service despite network or component failures [Read and understood. The Mitel solution supports native resiliency. The optional failover controller or a VMWare instance of Mitel call control would be required.](#)
- I. Use of the Village’s fiber-based LAN connecting the 3 Village facilities. [Read and understood.](#)
- J. Use of wireless radios (existing Firetide 7020s or new) to connect Finance/Public Works building to the Water Treatment Plant and the Wastewater Treatment Plant. [Read and understood.](#)
- K. Centralized system management which will facilitate changes to the system configuration at both sites from either site. [Read and understood.](#)

1.10 Implementation Time Frame

Implementation will be scheduled jointly by the successful vendor and the Village. Generally, the system will be cutover one building at a time over a pre-determined time frame. Assuming a contract is awarded by November 2021, installation must be complete by December 30, 2021. [Read and understood.](#)

2 MANUFACTURER

2.1 Manufacturer Information

- A. How many years has the manufacture provided telecommunications systems? [Mitel was founded in 1973.](#)
- B. Where is the manufacturer's headquarters location? [Ottawa, Ontario, Canada.](#)
- C. Where is the manufacturer's North American headquarters location; if different?
- D. What is the Manufacturer's market share of the system proposed? [Mitel is ranked #1 in Private Cloud worldwide \(premise\) and #2 in UcaaS worldwide.](#)
- E. How many systems (as proposed) are installed nationally? [70 million users worldwide.](#)
- F. What are the manufacturer's annual sales? [\\$1.3 Billion](#)
- G. How many people are employed by the manufacturer? [Globally, 3,800.](#)

2.2 Premise-based Systems

- A. State the system model, and software version of each system component. The system components must be the latest model and software releases available at the date of installation. Should new products and/or software be announced prior to installation the vendor is required to inform the Village of the new products. The Village shall maintain the right to substitute the new products for those proposed. The Vendor shall make any differences in cost known prior to the Village's decision on new software. [The Mitel MiVoice Business solution \(current version 9.2\) and MiCollab \(version 9.3\).](#)
- B. Provide the date the system was introduced. [The Mitel MiVoice Business is Mitel's original flagship product with over a 30-year history. First introduced as the SX 2000 a TDM PBX. The product has consistently evolved with migration strategies became the first VoIP offering in the marketplace. Today, MiVoice Business provides the foundation to building a flexible, real-time communications landscape that addresses the different needs of customers and employees. MiVoice Business delivers voice, messaging, mobility, presence, conferencing, collaboration and applications on a platform designed to meet the needs of businesses with 5 to 65,000 users on a single site or multi-site network](#)
- C. Manufacturer support. Provide a written statement from the manufacturer indicating the availability of parts for the expected ten (10) year useful life of the proposed system and that they will support the system including the potential circumstance if the Vendor's company were to fail or not fulfill maintenance obligations. Confirm attachment of the statement as part of the proposal. [Read and understood. Letter included in proposal response, Mitel will stand behind the Authorized Partner for five \(5\) years after manufacturer discontinuance or seven \(7\) years from Cutover.](#)
- D. Manufacturer's Warranty: Clearly state the warranty period on the system components during which service charges will not apply and what is covered. The period of the warranty will begin on the date of Village acceptance, not the cutover. [One Year for Hardware and Software. Acceptance should take place within 30 days of cut-over.](#)
- E. Provide the release date of the software proposed and the announced date of the next software release for the proposed system [Release 9.2 September 2021.](#)
- F. All equipment must meet or exceed required Quality of Service – 802.11 p & q standards. [Mitel utilizes 802.1p/q and DSCP for QOS.](#)

2.3 Hosted Systems **Not offered**

- A. State the underlying platform upon which the Hosted System is based. Hosted Systems must be based on a secure, hardened operating system (OS) that is not subject to virus, spyware, or other destructive software attacks. The operating system must be reliable and have an uptime rating of 99.95%
- B. Hosted telephone systems must be located in redundant and secure data facilities within the United States.

3 VENDOR

In order to ensure the Village will have the necessary information to select an appropriate vendor/system, the vendor must address each of the following issues:

3.1 Vendor Information

- A. The manufacturer of the proposed system must provide the Village written assurance that the vendor is an authorized distributor in good standing. Confirm that the letter is included with your proposal. [The Mitel manufacturer guarantee letter is included in the proposal.](#)
- B. Provide information on any certifications/designations (i.e. Gold, Platinum Dealer) issued by the manufacturer to your firm or members of your firm. [B&B Networks is a Mitel Gold Partner.](#)
- C. State the names of the principals in your company. [Guy Bradley, President.](#)
- D. Provide information concerning the number of years in business and; the number of years your company has been installing the proposed system. [B&B Networks has been installing voice communications for over \(18\) Years. Although we are a new Mitel partner, the sales and technical team bring over 125 years collective experience with certifications on the Mitel product offering.](#)
- E. State how many of the proposed system your company has installed that have four (4) or more separate locations networked together. [In our short tenure of partnering with Mitel, we have gained the trust of 20+ multi-location clients, we support on the MiVoice Business solution.](#)
- F. Provide three (3) references on the Reference Form provided. Acknowledge that this form has been completed. [Completed.](#)

3.2 Maintenance Support

- A. State the address of the service and repair center that will install the system and provide maintenance for the proposed system. [245 W. Roosevelt Road, Building 3, Suite 16 West Chicago, IL 60185](#)
- B. The vendor must be able to provide full system support including. [Read and Understood. B&B Networks can provide a full 24x7 maintenance and service experience.](#)
 - a. Regularly scheduled system maintenance
 - b. 24X7X365 Repair service options
 - c. Both On-site and Remote MAC (Moves, Adds and Changes) Service
 - d. System software upgrades
- C. In the event of a natural disaster, fire, or other catastrophe, indicate the interval to install a working system for the Village. Has your company either on a national or state basis been involved in this type of emergency? If yes, provide Customer reference. [Depending on the](#)

nature of the natural disaster, we could have working system within 24 to 48 hours. [B&B Networks](#) maintains core service spare components at our West Chicago facility. [B&B Networks](#) has not been involved in this type of emergency.

3.3 Financial Information

The provider, as a condition of award of the contract, must provide detailed financial information on the company and be available to meet with Village personnel to provide additional information, if required. [Read and understood.](#)

3.4 Complaints

The vendor must disclose any formal complaints filed and/or judgments made by their clients. [B&B Networks, Inc has no formal complaints or judgements to disclose.](#)

4 SYSTEM CONFIGURATION

The Vendor must include a narrative describing the proposed system design and the scope of services for the performance of this project. [Please refer to our Executive Overview in the proposal.](#)

4.1 System Definitions

- A. A Premise Based Unified Telecommunications System is defined as a system that is purchased or leased by the customer, and that is physically located “on site”. This means that the physical system equipment will be installed on the premises at Village of Gilberts where the telephones are used. Premises Based systems also require the purchase of external telecommunications services to make and receive calls via the PSTN. A Premises Based system may be managed by the customer, or could be managed by the Vendor, or both. [Read and understood. The Mitel MiVoice Business is configured as an on-premise solution. The call control software resides on a purpose-built Mitel controller. Alternatively, the core software can also be virtualized in the client data center.](#)
- B. A Hosted Telecommunications System is defined as system where the physical phone system equipment is installed in the “cloud” at a secure data facility, except for the individual telephones. Hosted systems are in essence “rented” or paid for on a monthly basis and the monthly fee includes all costs for the system functionality, voicemail, unified communications, telephone lines, DID numbers, full maintenance and complete support. The end customer is responsible only for basic administrative adds, moves & changes. [Read and understood.](#)

4.2 System Architecture

- A. For Premise Based Systems, the Primary Call Processor will be located at the Police Department building. Under normal circumstances, this processor will provide call-processing services for all locations. [Read and understood.](#)
- B. **Optional for Premise based systems:** the Village may wish that a redundant Call Processor be installed on dedicated server(s) provided by vendor at the Village Hall. Provide the cost (on the

Section 10 Price Page) to provide and deploy this processor as an optional cost of the proposed system. [Read and understood.](#)

- C. **All call processors must be supported by 15 minutes UPS.** The UPSs and batteries must be included in the cost of the system. [Read and understood.](#)
- D. SIP service will be installed at the Police Department building for Premise-based systems. The service will include 15 call paths. [Read and understood.](#)
- E. Hosted Systems: A “Hosted” system will require a “dedicated” connection from the Police Department building to the hosted system. The connection must be managed IP service such as MPLS, Switched Ethernet, or some other dedicated bandwidth with QoS capability that directly links the Hosted phones to the Hosted PBX to ensure no packet loss, no delays, and no transmission issues. [Read and understood.](#) **Not offered.**
- F. Optional for Hosted Systems: The Village may wish to install a back-up connection to the Hosted system that would be deployed in the event the primary connection fail. Utilizing the Village’s existing Internet connection to support this function may be acceptable. Provide the additional cost to deploy this (on the Section 10 Price Page). [Read and understood.](#) **Not offered.**
- G. Optional: the Village may wish to establish a wireless LAN connections from the Public Works/Finance building to the following locations: [Read and understood.](#) **Per the vendors meeting, not a requirement to propose a solution for the FireTide wireless LAN replacement. B&B Networks will not be offering a solution.**
 - a. Water Treatment Plant
 - b. Waste Water Treatment Plant
 - c. The cost of this option must be turn-key and include all installation and subsequent support including:
 - i. Exterior Point-to-Multipoint
 - ii. Unlicensed
 - iii. Minimum throughput: 50 Mbps
 - iv. Range: Minimum 10 miles
 - v. 100/1000 Ethernet interface
 - vi. Protocols supported: IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP
 - vii. VLAN support with 802.1p prioritization supporting QoS
 - viii. Latency <10ms
 - ix. Encryption
 - x. Mounting the antennas/radios on the existing water tower and on the roofs of 3 other buildings (Finance/Public Works, Wastewater Treatment and Water Treatment).
 - xi. Providing and installing necessary cables from the radios to the Village's network switches
- H. Telephone Locations and System Configuration: The table below identifies each Village facility and desired basic system configuration for each.

Building	Processor	Telco	Analog	Analog	Staff	Telephones	Total	DID w/ VM	Phones w/
			Trunk Ports	Station Ports		Conference	Telephones	no telephone	VM
Village Hall	none	none	2	2	8	2	10	1	6
Police Department	Primary	SIP-15 call paths	2	2	9	0	9	1	4
Public Works/Finance	none	none	2	2	8	1	9	1	6
Water Treatment	none	none	2	2	2	0	2	0	1
Waste Water Treatment	none	none	2	2	2	0	2	0	1
TOTAL					29	3	32	3	18

- I. The Village requires the following capabilities across the multi-site system [Read and understood](#).
- Uniform dialing plan
 - Centralized Voice Processing System
 - Centralized System Administration
 - Network (telco) services sharing between sites.
- J. One of the Village's consideration for a Hosted solution will be the system's ability to provide a connection with guaranteed QoS for the voice traffic going from the Police Department facility to the Hosted System (For Hosted Proposals only). [Read and understood](#). [Hosted solution not offered](#).
- K. All system components must be supported by an Uninterruptible Power Source (UPS) and be survivable for 30 minutes from a commercial power outage. Provide the electrical requirements of all system components. All telephones will be powered from the Village's PoE data switch ports. [Per the vendors conference Q&A session a 15 minute UPS is sufficient](#).
- L. The system must be scalable, capable of supporting additional telephones to accommodate growth at the Village's current locations as well as the ability to incorporate additional new locations into the system. Proposal must include all the requirements to expand the system to accommodate:
- a. Additional telephone instruments - [phone license \(UCC or Enterprise\), IP phone of choice, Poe port on data switch, cable if required](#).
 - b. An additional location (WAN connection) with 10 staff telephones and 2 POTS lines - [Mitel Controller \(support up to 6 POTs lines natively\), \(20\) phone licenses, IP phones of choice, Poe ports on data switch, cable if required, and labor time to program and install](#).
- M. The system must provide LDAP integration. The Village prefers the system be capable of integrating with its Active Directory to provide authentication for a web-based user interface, to eliminate the need for additional usernames/passwords. [Read and understood](#).
- N. Proposal must state any limitations on traffic handling capacity of the system; both internal and between sites. Describe what is necessary to raise the system's internal traffic handling capacity. [Then Mitel MiVoice Business is non-blocking for internal calls and has a maximum capacity of 200 IP trunks between any two controllers](#).
- O. Proposal must state the physical requirements of the proposed system. This is to include rack space, and electrical requirements, and air conditioning. [The Mitel controller requires 2U of rack space. The voice mail \(MiCollab-NuPoint\) is a 1 U rack mounted server. No special environmental conditions apply. The system is most comfortable in a general office environment with proper air flow and no extreme temperatures and humidity. The Mitel system does require the client to provide a dedicated circuit with separate neutral, separate ground and proper NEMA plug. Formal technical details for environmental conditions are included in the system description included in the proposal binder](#).
- P. Proposal must provide the following information for the system at each site (Premise-based solutions): [Item 4.2 H configuration table and Addendum #1 was utilized for the configuration of the premise-based solution](#).

- a. Number of telephones supported (hardware and licenses) 31 Total Telephones including conference phones. Licensing to Support:
 - (17) UCC Entry Users (phone, voicemail and UC desktop and twinning)
 - (4) UCC Standard User (phone, voicemail UC softphone/mobility)
 - (10) Enterprise User (phone only)
 - (28) Voicemail boxes with Unified Messaging (25 for staff without phones plus the 3 DID's to Voicemail application.

(21) UCC licenses were included rather than (18) for the phone plus voicemail users required in the RFP. Increasing the UCC count satisfied the requirement for an 8-port voicemail solution.
 - b. Number of simultaneous calls supported (15) SIP Trunks equipped and non-blocking for internal calls.
 - c. Premise based systems-Number of SIP Trunks/Call Paths supported (15)
 - d. Premise based systems-Number of business lines (POTS) supported (6)
 - e. Software limitations (i.e. number of extensions (actual and virtual) or other limitations) 150 devices (combined IP/ONS analog)
- Q. Premise Based Systems-Provide a complete software and hardware inventory of the systems proposed. An itemized proposal including hardware and software inventory included in the pricing section of the proposal.
- R. The Village requires that the system will provide "toll call" quality. 100% call completion and latency of 100 milliseconds or less is required. Mitel utilizes 802.1 p/q and DSCP for QOS. Latency is dependent on the network infrastructure.

4.3 Location Transparency

A primary requirement of the Village's telephone system is that it provides location transparency. Read and understood. Comply to all requested functionalities.

- A. Uniform 4-digit dialing to any telephone at any Village facility. This capability will be extended to all Village locations.
- B. The ability to transfer a call directly to any Village telephone at any location.
- C. The ability to forward calls (busy, no answer, all) to any other telephone in the Village.
- D. The ability to program call coverage between locations
- E. The system will include the ability to permit trunks terminated at one site to be used by another site should traffic exceed the capacity at the originating site or should the service at one site be disabled.
- F. The ability to access the external paging system of one building from the other building. An analog trunk port must be provided at each site to connect to the existing paging amplifiers. The telephone system must be connected to these and be programmed to access the paging systems from any telephone.

5 SYSTEM FEATURES

The proposed system must include the following features. Acknowledge whether or not the proposed system meets these required features.

5.1 System Features

- A. The proposed system will provide direct dialing to all staff specific departments. [Comply. Meets requirement.](#)
- B. Village staff must be able to distinguish calls for their department from calls to specific individuals. The system must be able to process these calls separately. [Call Flow. Comply. Meets requirement.](#)
- C. The system will include automatic call routing software to permit use of multiple trunk groups for outgoing calls. [Comply. Meets requirement.](#)
- D. The system must provide the ability to page multiple telephones simultaneously in conjunction with the building's external paging system (if one is installed). [State the number of telephones that can be paged simultaneously. Comply. Meets requirement. The Cxii Controller proposed can page up to 32 telephone simultaneously.](#)
- E. The system will be configured to require that "9" be dialed from all phones for access to outside dial tone for calls going over the Public Switched Telephone Network (PSTN). [Comply. Meets requirement.](#)
- F. Caller ID with Name (if provided by the carrier) must be provided on each call prior to answering the call. Caller ID should be passed with any call that is transferred; including calls processed by the Village's Automated Attendant. [Comply. Meets requirement.](#)
- G. The caller ID for Village telephones (the number people see when being called by Village staff) should be flexible and programmable by each station. [Comply. Meets requirement. \(Not available on a call by call basis\)](#)
- H. Each telephone must be able to receive multiple calls. The telephones should permit the user to place a call on hold and place another call in order to procure information related to the initial call. [Comply. Meets requirement.](#)
- I. The telephones should provide the means for call coverage positions and other selected telephones to observe if other staff are currently on the telephone (BLF-Busy Lamp Field). [Comply. Meets requirement. Available on programmable keys of telephone instrument and on equipped UC desktop clients \(licensing dependent\).](#)
- J. The system should permit an extension to be present at more than one location. Staff assigned positions in two buildings can be reached by utilizing a single extension number regardless of their location. [Comply. Meets requirement.](#)
- K. Users should be able to program their extension to appear with all its features temporarily at another telephone. This would be useful, for example, when someone moves from their desk to provide service at the service counter. [Comply. Meets requirement.](#)
- L. The system must provide programming to allow each telephone to have its own timer (number of rings) for the number of rings before a call will forward to voicemail or to another extension. Some positions will require more time to get to a call than others. [Comply. Meets requirement.](#)
- M. The system should provide the means to easily take a call back should it have been transferred to a phone that does not answer. [Comply. Meets requirement.](#)
- N. The system must include the ability to designate specific telephones for "hot desking" where a user can enter a code and their extension number to make the phone appear as their own. [Comply. Meets requirement.](#)
- O. The system should include the ability to integrate a mobile telephone with a user's desk telephone. This would permit staff who are often away from their desk to receive calls from residents, contractors and/or other Village staff [Comply. Meets requirement. Licensing dependent.](#)

- P. The system will have the capability to permit calls to be transferred to outside telephone numbers including “911”. [Comply](#). [Meets requirement](#).
- Q. Connectivity to KaneComm
- a. The system must be capable of programming calls to a specific DID number to be forwarded to an outside number. The forwarding must be “immediate” such that the call does not ring the system prior to being forwarded to the outside number (Police Department). The Village’s Police Department forwards calls to its non-emergency number (a DID number) to a specified telephone number at KaneComm after hours and under special circumstances. [Comply](#). [Meets requirement](#).
 - b. The system must have the capability to program a DID number to ring on multiple telephones as a unique appearance. A DID number could be assigned at the Police Department to receive calls solely from KaneComm. [Comply](#). [Meets requirement](#).
 - c. The system must provide the capability to program a specific key on multiple telephones to automatically dial an outside call to a DID provided by KaneComm. [Comply](#). [Meets requirement](#).
 - d. The system must provide the capability to have an analog phone automatically dial a specific DID number when it goes “off hook”. This may be used on a telephone instrument mounted on the outside of the Police Department for use during hours when the Police Department offices are closed. [Comply](#). [Meets requirement](#).
- R. Five party conference calling initiated by a single extension [Comply](#). [Meets requirement](#). [8 party is standard on the MiVoice Business solution](#).
- S. Ability to permit someone to place a call on hold (in “orbit” or “call park”) and allow it to be retrieved from any other telephone. The timer for parked calls to be recalled must be independent for the “on hold” recall timer. [Comply](#). [Meets requirement](#).
- T. Directed Call Pick-up [Comply](#). [Meets requirement](#).
- U. Group Call Pick-up [Comply](#). [Meets requirement](#).
- V. The proposed systems should provide “Music on Hold” via a built-in .wav file or a .wav file provided by the Village. [Comply](#). [Meets requirement](#). [Downloaded .wav files can be stored on the Mitel controller hard drive](#).
- W. Separate “Day 1” and “Day 2” modes for each entity (Village Hall, Police Department). “Day 1” modes will send calls to each building’s answering position telephones or daytime automated attendant. Incoming calls will be accepted during “Day 1” mode. “Day 2 mode” will send calls to each building’s answering position telephones or after hours automated attendant. [Comply](#). [Meets requirement](#).
- X. Callers reaching an automated attendant greeting must be able to dial an extension, access a dial by name directory or leave a message in a department voice mailbox. [Comply](#). [Meets requirement](#).
- Y. The system must support calling party name display for external and internal site-to-site calls. Caller ID to be displayed for all incoming calls (including new (second or third) call when off-hook on another call). [Comply](#). [Meets requirement](#). [State the number of characters displayed. Minimum 2 lines by 20 characters](#).
- Z. Outgoing caller ID programming must permit the following on a station-by-station basis:
- a. Send DID number [Comply](#). [Meets requirement](#).
 - b. Send Village’s main number or Department number [Comply](#). [Meets requirement](#).
 - c. Send DID number for “911” calls. [Comply](#). [Meets requirement](#).
- AA. Music-On-Hold: The system must permit the Village to easily upload audio files (.wav) directly into the system for use as music/message on hold and for recorded greetings to be used with Automated Attendant call trees and informational mailboxes. Please describe the proposed

system's ability to accommodate separate message/music on hold sources for each building and/or department and the process required to replace the message/music. [Comply. Meets requirement. The Mitel Controller supports an on-board standard Music on Hold/Page Interface. In addition,tenanting \(included\), a controller can play multiple MOH "recordings" which can be downloaded .wav files that are stored on the Mitel Controller hard drive.](#)

- BB. Optional: Call Accounting: Provide call accounting hardware, software, and any system interface requirements. Itemize costs associated with each site (i.e. storage devices and modems) in addition to the cost of the centralized processor. The cost of the system must include data base preparation and data entry as well as training on programming, report generation and system administration.
- a. State model, manufacturer and call record capacity. [MiVoice Business Call Accounting.](#)
 - b. How many systems of this type has your company installed? [Ten.](#)
 - c. The system must collect information on incoming calls to the Village including date, time, destination and caller ID. [Standard.](#)
 - d. The system must be able to generate hierarchical reports by individual station, department, site, total organization as well as various exception (duration, cost, frequency) reports. Reports organized by authorization code must also be available [Standard.](#)
 - e. Can the system be attached to a Wide Area Network? If so, please, please provide the additional cost, if any, of doing so. What resources are required of the network for this capability?

5.2 Voicemail and Unified Messaging

The Village requires an integrated voicemail system capable of supporting traditional voice messaging functions and unified messaging with Microsoft Outlook. Unified messaging is understood to be the combination of voice messages and email messages accessed through a common interface. At a minimum the new system requirements are:

- A. The voice processing system must provide a minimum of 8 ports at installation, and the expandable capacity of the voice mail system should be at least 12 ports and 256 hours of message storage. The system must support the ability for calls to Queue for available Ports should call demand exceed the capacity of the system. [Read and understood. The UCC licensing component has been sized to allow the MiCollab \(NuPoint\) voicemail solution to be configured for 8 ports.](#)
- B. For the proposed system must include licenses for 25 mailboxes and provide unified messaging for 20 of those. [Read and understood. All 25 mailboxes will be equipped for unified messaging.](#)
- C. A voice messaging system to be fully integrated with telephone system(s) at all locations (i.e. message waiting notification by Message Waiting lamp, transfer from the voice mail system to another telephone system extension, The system will permit callers to enter "0" to access a live operator and/or another extension particular to their location or default to the operator if the caller does not make an entry. [Read and understood. The Mitel MiVoice Business and Mitel MiCollab are fully integrated.](#)

- D. Unified messaging will be deployed with delivery of voice mail messages to users' email accounts. The voice mail message will be attached, as a file, to the email message. [Read and understood.](#)
- E. The voice mail system should be easy to use. The process of activating an alternate greeting so that callers receive accurate information about staff availability must be easy. [Read and understood. The Voice Mail speaks instructions for changing greetings.](#)
- F. The system should provide advance programming of Holiday greetings and have them play automatically on the prescribed dates. The system must include easy to use programming to change greetings should a special circumstance (closures due to weather) require it. [Read and understood. Standard functionality with Call Flow and Call Director.](#)
- G. A Web portal should be provided for users for access to voicemail messages. [Read and understood.](#)
- H. The process to transfer a call directly to a user's voicemail box without have to ring the telephone should be simple. Describe the steps necessary to complete this function. . [Read and understood. To transfer a call directly to a voice mailbox, the user simply dials the "pilot" number to the voicemail system, press*, enter extension number of person, and hang up to release the call. A "speed dial" key can be programmed with the transfer steps pre-configured. The person transferring the caller would only need to then dial the "xfer" to voice mail key plus the extension number then hang up.](#)
- I. The voice mail system will include the option to permit callers to leave a message or to enter a code that will send their call to a pre-specified telephone number. . [Read and understood.](#)
- J. The system will allow authorized users the ability to easily record a call to their voice mailbox. . [Read and understood. Recording starts after record action is taken.](#)
- K. The system must be able to provide separate message waiting notification for a "Department" voice mailbox and a "Personal" mailbox on a single telephone instrument. Describe how the proposed system would provide this. [Read and understood. The Mitel 6900 series IP telephones proposed, support multiple message wait lights on a single telephone. A personal or department DID line appearance can have separate, distinguishable message wait light. The personal message uses the message wait light on the telephone. The department light/notification would be a programmable button.](#)
- L. The voice processing system must be capable of supporting multiple "V" trees where callers can access information by selecting from menu items through several levels. [Read and understood. May require additional voicemail box license depending on desired V tree functionality.](#)
- M. The voice mail system must permit group messages to be delivered to multiple mailboxes. [Read and understood.](#)
- N. Automated Attendant must have the capability for "night answer," permitting dial by name, dialing an extension or leaving a message in a department voice mailbox. [Read and understood.](#)
- O. A separate DID number ("back-door") for 24-hour access to automated attendant and voicemail without having to speak to a person. [Read and understood.](#)
- P. Night mode (activated by a key on a telephone(s) and by an internal system timer) that will direct all incoming calls to the Automated Attendant. Because the hours of operation of each facility are different, it will be required that each building will enable the night greeting according to their individual schedule. [Read and understood.](#)
- Q. Override Automated Night Mode: Can the system's pre-programmed time of day routing (day-ring specified telephones; night calls routed to Automated Attendant) be "overridden" in the event of an unforeseen early closing? [Yes.](#) If so, please describe how this could be activated. [Can be a "button" programmed on the phone.](#)
- R. The system must permit voice mailboxes to be programmed individually with specific message storage durations and specific maximum message lengths. Does the system permit this? [Yes.](#) If

so, does the system provide the ability to establish voicemail box “templates” with pre-established parameters? [Mailboxes can be programmed by: message lengths by user, caller and number of messages. Voice mailbox templates can be established in the programming tool. Over 300 classes of service are available.](#)

- S. How many “greetings” (i.e. busy greeting, no answer greeting, vacation greeting, etc.) are included in voice mail user mailboxes? Can these be recorded, stored and activated by users as the occasion is called for? [Users have the option of recording up to four personal greetings: one primary personal greeting and three conditional personal greetings. The three conditional greetings are played if the telephone system provides call forward conditions to NuPoint:](#)
- [Ring no answer: This greeting is played if the called party does not answer.](#)
 - [Busy: This greeting is played if the called party is already on the phone.](#)
 - [All calls Forward: This greeting is played immediately to incoming calls so that callers do not need to wait for many rings before leaving a message.](#)

5.3 Life Safety

- A. E 911: Village of Gilberts expects to use the “Locator ID” application to be provided by the SIP carrier. The new system must support ANI identification to the appropriate PSAP (Public Safety Access Point) serving the Village. The system must support ALI display to the 911 center. [Read and understood and complies.](#)
- B. The system must provide an on-site alert indicating which telephone dialed 911. The alert must include the extension number and associated name of the telephone from which the 911 call was placed. [Read and understood. Alerting for up to 32 phones \(per controller\).](#) Can the notification be sent to any Village telephone? [Yes.](#) Can the destination of an alert be programmed to correspond to the source of the 911 call rather than establishing a single set of destinations for all 911 calls? [The emergency hunt group notification is a single set of destinations.](#)
- C. The Village requires that the system be capable of displaying a different ANI when users place outgoing calls other than to 911. [Read and understood.](#) Identify the options available for ANI display when placing outgoing calls. Is it a system-wide or station-by-station programming option? [Station by station basis.](#)
- D. The system must be capable of providing a button to be programmed so that, being activated, it will automatically alert selected telephones that immediate attention is required in the room from which the call originated. [Read and understood. Will utilize the emergency hunt group notification.](#)

6 TELEPHONE INSTRUMENTS

6.1 Telephone Instrument Types

For systems requiring new telephone instruments, the Village has identified 3 categories of telephone instruments to be deployed with the new system. The proposed models must meet the requirements set forth below:

	Coverage Phone	Staff Phone	Conference Room Phone
Line Appearances	6-12	2	2
Feature keys	16	8	8
Internal Ethernet switch	1 Gbps	1 Gbps	1 Gbps
Call Log (entries)	25	25	25
Multiple line display	Required	Required	Required
Single line display			
Headset compatible (cordless-no mechanical lifter required)	Required	Required	Optional
Duplex speakerphone	Required	Required	Required
Message Waiting Lamp	Multiple required	Required	Not required
Wall Mountable	Required	Required	Not required
Multiple Ring tones	Required	Required	Not required

Staff Telephone: It is intended for staff who do not regularly assist in covering calls for their department, but do use the telephone frequently. (See Table for feature requirements) [The Mitel 6920 IP set has been proposed to fulfill this requirement. The 6920 offers \(18\) programmable personal keys \(3 pages of 6 programmable keys\), \(4\) context sensitive soft keys, \(11\) dedicated feature keys, 3.5" QVGA color display, full duplex speakerphone and optional USB support. Wall mount kit optional.](#)

Coverage Telephone: It is intended for staff who have call answering responsibility for more than one person or for the Department telephone number. The telephone must be able to answer multiple lines and monitor the status (busy lamp) of others in the department. A "softphone attendant" that provides GUI access to telephone functions on the user's PC may be an acceptable alternative. (See Table for feature requirements) [The Mitel 6930 IP set has been proposed to fulfill this requirement. The 6930 offers \(72\) programmable personal keys \(6 pages of 12 programmable keys\), \(5\) context sensitive soft keys, \(11\) dedicated feature keys, 4.3" QVGA color display, full duplex speakerphone and native Bluetooth 4.1 and powered USB 2.0 \(500mA\) support. Wall mount kit optional.](#)

Conference Speakerphone: This IP set is intended for conference room applications for 5 or more participants. Set shall be full-duplex hands-free. Must have transfer/conference feature key, hold, mute. [The Mitel 6930 IP set plus a S720 Bluetooth Speakerphone has been proposed to fill this requirement.](#)

Provide the model number of the proposed telephones for each category:

- Staff [Mitel 6920](#)
- Coverage [Mitel 6930](#)
- Conference [Mitel 6930 plus S720 Bluetooth Speakerphone](#)
- Softphone [UCC Standard License provides mobile/softphone capability.](#)

6.2 Telephone Instrument Requirements

- A. Long handset and mounting cords are required. Assume approximately 20% of sets will require these. [Long mounting cords are possible. Mitel does not make a long handset \(curly\) cord.](#)
- B. Phone types and functions must be consistent across users with the majority of standard telephone system (PBX) features and functionality. [Read and understood.](#)
- C. All telephones must be electronic self-labeling. Phones with paper labels will not be considered. [Read and understood. All proposed handsets are self-labeling.](#)
- D. All telephones should have a two-line LCD display capable of showing both Caller ID Name and Caller ID Number without toggling or pushing buttons. [Read and understood.](#)
- E. Phones must have multiple programmable buttons to be used for internal extensions, external speed dials or other features. Buttons programmed with internal extensions should provide line appearances for the assigned internal extensions (DSS/BLF functionality). [Read and understood.](#)
- F. An expanded Call Log should be provided to store at least 100 entries. A desktop software application would be acceptable for this. [Read and understood. Call History function on telephone set or desktop software for users with appropriate UCC licensing.](#)
- G. The system will have the ability to integrate Outlook contacts with a user's telephone directory. [Read and understood.](#)
- H. The system will have the ability to update the telephone presence in Microsoft Outlook. [Read and understood.](#)
- I. All user telephones (except basic common area phones) must allow two or more concurrent calls to the same extension, and have multiple line appearances for departmental answering. [Read and understood.](#)
- J. All telephones (except basic common area models) should have a full duplex speakerphone. Phones must have distinctive ringing to identify internal vs. external calls. [Read and understood.](#)
- K. Caller ID Name and Caller ID Number of the original call must be displayed on calls even if forwarded or transferred from one internal extension to another extension. [Read and understood.](#)
- L. Caller ID Name and Caller ID Number must also appear on the display for a second incoming call. [Read and understood.](#)
- M. The telephones must permit the users to forward their telephones to an outside telephone number. [Read and understood.](#)
- N. The telephones must include the ability to program a button that when pressed will send an incoming call directly to the user's voice mailbox. [Read and understood.](#)
- O. The telephones must permit the users to "twin" their mobile telephone to their desk telephone. The ability for users to turn this on and off must be easy. [Read and understood. UCC Entry or Standard license required.](#)
- P. The telephones must be capable of entering a code to "block" their caller ID for outgoing calls (Police Department). [Read and understood.](#)

- Q. The phones must support wired and wireless headsets, cordless handsets and other ergonomic devices to accommodate the productivity needs of Village staff. Provide model numbers of cordless headsets that do not require a mechanical lifter in order to answer a call that are compatible with the proposed telephone instruments.
- R. Mobile application - Application to utilize a mobile device (Windows, Android and Mac, Windows Mobile, IOS, etc.) as a fully functioning communications device (voice, text, video) on the Village's system. 3 licenses must be included in the system price. Rules-based call handling must be included with this application. [Read and understood. UCC Standard license provided for this requirement.](#)
- S. Softphone- Application that permit a user to dispense with a traditional telephone instrument and utilized a fully featured software program to process calls on a laptop or desktop device. The cost to provide and deploy this for 1 user must be included in the system price. [Read and understood. UCC Standard license provided for this requirement.](#)

7 SYSTEM MANAGEMENT

The Village expects to be capable to perform routine telephone and voice mail system changes utilizing in-house staff. System management software must be included. [Read and understood.](#)

7.1 System Management Requirements

- A. System administration and alarm monitoring functions will be accessible via the existing data network, thus permitting access from any Village computer workstation connected to the internal network. This requirement shall include proper security measures to prevent unauthorized access to system administration functions. [Read and understood. Standard functionality.](#)
- B. The system must provide a straightforward browser-based management and programming interface so that the Village can perform its own "do-it-yourself" moves, adds & changes. Standard functionality. [Read and understood. Management of all Mitel core software is made through a Web interface. Users are authenticated by Username and Password.](#)
- C. The system must provide multiple levels of administrative capabilities. For example, authorized personnel at each building could be authorized to make user level changes to the telephones and/or voice mailboxes for users in their building (reset a voice mailbox password, add an appearance of an extension to a telephone). Provide an explanation of how the proposed system would accommodate this requirement. [Read and understood. The Group Administration Tool is web-based interface that enables administrators to configure and manage the following basic IP phone settings for group members:](#)
 - . Basic system parameters
 - . The system phone directory
 - . Extension and group parameteE
 - . Voice mailboxes
 - . Group membership (add, edit, or delete users from the system directory)
 - . Users' personal keys
- D. The system must permit the Village to easily create and modify Automated "call trees". [Read and understood. Call director offers "call flow" or "call tree" functionality.](#)
- E. The telephone system should provide a straightforward programming interface so that requests for changes can be made quickly and easily. [Read and understood.](#)

- F. All telephones must be self-labeling so that programming changes will not require IT staff to re-label the telephone(s) affected. [Read and understood.](#)
- G. Spare telephones will be purchased to facilitate repair. [Read and understood.](#)
- H. The system must permit the Village to easily upload audio files (.wav) directly into the system for use as music/message on hold and for recorded greetings to be used with Automated Attendant call trees and informational mailboxes. [Read and understood.](#)
- I. The Village would like the means to examine their callers' experience with the telephone system. This includes the desire to examine the path that a specific incoming call followed until the call's conclusion; identifying the extension number(s) that handled the call and the number of times the call was transferred. Describe the tools available to satisfy the requirement. [Creating system and extension reports is a function of the optional MiVoice Call Accounting. The specific report is a Life Cycle report.](#)
- J. Describe the proposed system's self-diagnostic and monitoring capabilities. [If the Mitel Mivoice Business detects an alarm, and email message can be sent containing details about the alarm to ten different email addresses. A notification can also be sent when an unattended software upgrade process starts, ends, fails, or is canceled.](#)
- K. Describe the proposed system's capability to identify the source of system performance problems. [The Mitel solution offers major and minor alarm notifications. The MiVoice system raises an alarm when an anomaly is detected and corrective action is required. The system continuously provides all attendants who use the Mitel consoles with alarm status information, Alarm threshold levels are programmable. There are three classes of alarms:](#)
- [Critical: indicates a loss of service that demands immediate attention. This alarm invokes System Fail Transfer if equipped. \(Resilient fail-over\)](#)
 - [Major: indicates a fault that affects service to many users. This alarm usually results in a major degradation in service and requires attention to minimize customer complaints.](#)
 - [Minor: indicates any fault that does not fall into either of the above two classes. When the system is not 100% operational, a minor alarm is raised. Alarm may require the attention of a technician, but it is not urgent. Examples of a minor alarm include the loss of a single line or trunk circuit. The system clears an alarm condition when the fault is corrected.](#)

[Remote Alarms Notification: Mitel can e-mail notification of alarm conditions to up to 10 addresses should a critical, major, or minor alarm occurs. Prompt notification of alarms ensures that issues can be resolved quickly.](#)

- L. Describe the proposed system's administrative notification capabilities to allow Village administration staff be informed of any system problems short of experiencing them first hand. [Described above.](#)
- M. If additional programs are available to enhance the Village's ability to monitor and diagnose problems with the telephone system please provide a description of their functions and the additional cost. [Mitel Premium Software Support offers Mitel Performance Analytics \(MPA\). MPA \(MPA\) is a fault and performance management tool for Mitel Unified Communications platforms and associated network infrastructure. MPA provides a more proactive service delivery model, detecting and addressing problems before users are impacted.](#)

Feature	MPA	MPA Plus
Deployment Options:	Cloud/Premise	Cloud/Premise
Device Support	Mitel	Mitel + Third Party
Trunk/Route/Gateway Utilization	✓	✓
Remote Access/Single Sign-on	✓	✓
Testing Tools	✓	✓
Alarms & Alerts	✓	✓
Reports & Queries	✓	✓
Backups & SMDR Collection	x	✓
Group Operations Scheduler	x	✓
IPT User Dashboard	x	✓
Inventory Reports	x	✓
Advanced User Operations (AUO)	x	✓
Set & Extension Inventory	x	✓
Advanced UC Network Testing	x	✓

8 IMPLEMENTATION

8.1 Installation Requirements

Village of Gilberts will provide sufficient PoE data switch ports to support all the new telephone instruments. [Read and understood.](#)

The Village of Gilberts will require new Category 6 cabling to be installed to the following locations: [Read and understood.](#) [Per Addendum #1, Police basement location will be replaced by training room cable drop.](#)

<u>Building</u>	<u>Floor</u>	<u>Location</u>
Village Hall	1 st Floor	Breakroom
Police Department	Basement	Basement
Police Department	1 st Floor	Supervisors area
Police Department	1 st Floor	Detective office
Finance/Public Works	1 st Floor	Breakroom

Each new location will be installed with one category 6 cable. Terminations will be on vendor provided Category 6 RJ45 jacks and existing patch panels. Materials should be the following or equivalent. If an equivalent, manufacturer specifications for each must be provided. [Read and understood.](#) [For proposal purposes we have quoted plenum rated cable. If this is not the case we can replace with PVC and reduce the pricing accordingly.](#)

- Station Wire: Berk-Tek LANmark-1000 Category 6, 4 twisted pair, 23 AWG.
- Wire Mould-for location approved: Panduit Pan-way LD5.
- Workstation Outlet: Ortronics TracJack Single Gang/4-Port Wall Plate OR-40300547-13 Beige, Ortronics TracJack, Category 6, RJ45, T568B, 45 degree Snap-In Module, OR-63750030-36 Green, and Ortronics TracJack, Blank Module OR-42100002-13 Beige.
- MDF Data Cabinet and Termination: Ortronics, Clarity 6, Category 6, 24-Port High Density Patch Panel, 6 port modules.

The Vendor will be responsible for identifying and labeling all new data cables. Labels must be “machine made” (not hand written) and applied to the jack and the corresponding port on the patch panels. [Read and understood.](#)

The vendor will be required to provide project management utilizing PMP (Project Management Professional) standards. The vendor is required to perform all the tasks necessary to implement a VoIP telephone system solution including the following steps: [Read and understood.](#)

- A. Ensure that all voice system components are installed and configured according to current manufacturer standards. [Read and understood.](#)
- B. Ensure that all routers and switches are installed and configured according to current manufacturer standards. [Per RFP data network will be the client’s responsibility. B&B Networks will work with the client to assure they have pertinent configuration information required for a successful VoIP deployment.](#)
- C. Coordinate and test all system components’ functionality. [Read and understood.](#)
- D. Install and test any third party applications provided by the vendor. [Read and understood.](#)
- E. Allow Village IT staff to accompany and observe vendor staff as deemed appropriate by the Village. The intent of this requirement is to familiarize Village IT staff with the overall design, components, programming, operation and administration of the new system. [Read and understood.](#)
- F. The new telephone system must be installed to serve users on the Village’s data network. As part of the project the Village requires that the vendor perform a technical assessment, prior to installation, to confirm that the hardware and software provided in the proposal is sufficient to support the desired applications. [Read and understood.](#)
- G. All installations must be performed in accordance with applicable building, safety, and FCC certification codes and regulations as well as all items mentioned in the general conditions section of this report. [Read and understood.](#)
- H. The Village requires the vendor to provide certified technical staff that has experience with integrated VOIP and Data network design and implementation. The vendor’s certified technical staff must have experience with the equipment proposed and will personally work with the Village and its data consultants to ensure its data network meets the requirements for the VoIP system. [Read and understood.](#)
- I. Full documentation and diagrams of the new design will be required. [Read and understood.](#)
- J. The vendor will provide certified engineer(s) to install the network hardware at the Village locations. Installation includes the following:
 - a. Install hardware modules as needed (modular chassis only). [Read and understood.](#)
 - b. Configure necessary parameters for protocols being used as agreed to by the Village. The Village will supply existing IP addressing schemes and Server naming convention. [Read and understood.](#)
 - c. Make room on all Village provided rack(s) or on appropriate surface(s) that the new equipment will be mounted in or on, e.g. POE Switches, Gateway Routers, Servers, etc. [Read and understood.](#)
 - d. Mount all equipment and make necessary connections to the Village’s networks. [Read and understood.](#)
 - e. Conduct all tests necessary to verify the network meets the manufacturer’s standards. [Read and understood.](#)
 - f. Implementation by Vendor includes installation and programming of all telephone system components and UPSs. [Read and understood.](#)
 - g. Mount all system components in racks (existing if sufficient space is available or vendor provided). [Read and understood.](#)

- h. Mount new voice network hardware (e.g. Gateway Routers, Servers, etc.) in appropriate rack(s) [Read and understood.](#)
 - i. Connect telephone system components to the network hardware. [Read and understood.](#)
 - j. Connect PSTN services to Gateway Routers. [Read and understood.](#)
 - k. Configure the new telephone system as determined and documented by your company's Project Coordinator and approved by the Village. [Read and understood.](#)
 - l. Connect telephone instruments to network and verify functionality. [Read and understood.](#)
 - m. Mount phones on wall (where applicable). [Read and understood.](#)
 - n. Perform final testing of all telephone systems and equipment. [Read and understood.](#)
- K. The data required to program the new telephone system will be developed jointly between the Village and the Vendor. [Read and understood.](#)
- L. The Vendor will provide a qualified project manager to meet with the Village. The purpose of the meeting is to describe the operation of the new telephone system and the information required to program the telephone system. [Read and understood.](#)
- M. The Village will provide information required to attach other external devices to the system such as external paging systems. [Read and understood.](#)
- N. The Vendor will provide a format (Excel spreadsheet) that will permit entry of information into an appropriate field. [Read and understood.](#)
- O. The Vendor will meet with the Village at the end of the database gathering process to review the information and finalize the system programming. [Read and understood.](#)
- P. The Vendor will perform all the programming necessary to accommodate the Village's telephone system requirements. These requirements include, but are not limited to, the following: [Read and understood.](#)
- a. User Names
 - b. Extension Number
 - c. DID number
 - d. DID department number
 - e. Telephone Type
 - f. Class Restriction
 - g. Call Pick-Up Groups
 - h. Page groups
 - i. Which telephones get voicemail?
 - j. Voicemail "0" out target extensions for individual mailboxes
 - k. Line Appearances
 - l. Trunking information such as backup POTS trunks at each facility
 - m. Outgoing caller ID for 911 calls and for ordinary outgoing calling
 - n. Which main incoming numbers ring to what location?
 - o. How many incoming line appearances are needed per main incoming number?
 - p. Identify which telephones are to be designated as the Main Answering Position(s) for each facility
 - q. Any additional POTS Number Porting information
 - r. Calls answered by Automated Attendant
 - s. If Automated Attendant what are the menu choices?
 - t. MOH (Music on Hold)
- Q. The Village will use new SIP service installed at the Police Department building. If applicable, the Vendor will be responsible for extending, if necessary, and connecting the analog business lines (POTS) to the new voice gateways at the remaining sites. The vendor is required to participate in an on-site "test" of these circuits prior to the system cutover. [Read and understood.](#)
- R. The Vendor will install all VoIP handsets, telephones and analog devices. The Vendor will also be present and assist the Village with the installation of each desktop application that is included as part of the proposed system (i.e. Unified Messaging). [Read and understood.](#)
- S. The successful vendor must not disrupt normal business operations unless agreed to by the Village. [Read and understood.](#) [B&B Networks will work with the Village on an Implementation schedule.](#)

- T. The complete system must be installed, staged, and tested 1 week prior to cutover to ensure seamless implementation. [Read and understood.](#)
- U. Cutover of the new system is defined as the time scheduled to move the Village's existing published telephone numbers from POTS service to the new SIP service to the new system. Cutover to the new system will take place during one day. Cutover will be conducted during normal business hours. The schedule will be developed at the Village's direction. The Vendor must have qualified technicians on site at the designated cutovers. The installation shall disrupt the Village's routine as little as possible. The installation personnel will adhere to the Village's policies at all times. These policies will be communicated to the successful vendor at the time of contract signing. The installation personnel shall keep all equipment secure and will not block any essential passages. If a particular area needs to be closed, the Village must be notified 48 hours in advance to allow for proper preparation. Any major interruption of service other than an individual station being without telephone service must be coordinated 48 hours in advance with Village of Gilberts. [Read and understood.](#)
- V. The vendor will be responsible for removing and properly disposing all the old telephone system equipment and handsets. The cost to do so and any value associated with the equipment must be included in the proposed system price. [Read and understood.](#)
- W. All wall surfaces that are worked on will be properly covered, plastered or prepared for painting before the Village will accept project completion. [Read and understood.](#)
- X. Vendor will submit the following items prior to system acceptance: [Read and understood.](#)
 - a. One (1) complete set of reproducible "as-installed" drawings
 - b. One (1) set of technical manuals
 - c. A current spare parts list
 - d. As built and most current database data dictionary
 - e. One (1) inventory list showing system trunk numbers, and Telco circuit number. All system components must be labeled. The Village must approve the labeling system in advance.
 - f. Written documentation of all administrative "privileges" (level of administrative access and passwords) necessary for proper functionality
- Y. Assuming a contract is awarded November 2021 and installation must be complete by December 30, 2021, please complete a project installation milestone chart. [Read and understood.](#) [Dependent on SIP trunk installation. A sample project milestone chart is included in the proposal binder](#)
- Z. Vendor will manage the project, providing the following status updates to the Village after installation begins: [Read and understood.](#)
 - a. Weekly conference calls
 - b. Project implementation plan progress including milestones, responsible parties, and expected completion
 - c. Up to date decision log

8.2 Training

Attendant, station user, system, and maintenance training is an important aspect of the requirements for the proposed telephone system. Village station users in the various departments will utilize different standard features. Station user training will be conducted using live telephones at sites established jointly between Village of Gilberts and the vendor. The successful vendor will establish individualized training sessions on a department basis to insure system utilization.

- A. Village staff will be trained the day(s) prior to “cutover”. Scheduled classes will be provided with live telephones (minimum 4 telephones) and certified trainer at the Village Hall building one day so as to accommodate multiple sifts. [Read and understood.](#)
- B. The Vendor will provide onsite system administration training for three (3) Village employees. Completion of the training will permit Village staff to complete station programming, traffic studies, moves, adds, changes, and updates to the automated attendant. Please provide a list of the functions the training will permit Village staff to complete. [Read and understood.](#)
- C. Administrative training will include providing the Village with the ability to understand and utilize the traffic management usage and reporting systems provided by your system. [Read and understood.](#)
- D. Instruction materials (instruction manuals, manufacturer user guides, custom instruction guides, etc.) will be provided in sufficient quantity for all users with 20% extra for replacement and new hire purposes. If Web-based information is available, provide the address so that the Village can review this information. [Read and understood.](#)
- E. Follow up onsite training for the Village will be provided three weeks after cutover. A minimum 1/2 day of training will be allotted for this purpose. [Read and understood.](#)
- F. Indicate the material available to the Village to keep them informed of new product services, and equipment that may be beneficial to their operation. [B&B Website and Customer facing webinars.](#) [Mitel Website and User Group.](#)

8.3 Inspection and Acceptance

Prior to acceptance of the new system, the vendor, with the assistance of the Village, will conduct an acceptance test to validate that the system meets the contract specifications and that all components specified in the successful contractor’s proposal have been installed. At a minimum, the following tests will be conducted. [Read and understood.](#)

- A. Public Network connectivity (outside dial tone and the ability to place an outside call)
- B. 911 calls to verify the PSAP receives the proper ANI and ALI information for each site
- C. DID calls to each department telephone number and selected individual stations
- D. Receipt of Caller ID and Caller ID-Name on first and subsequent calls to selected stations
- E. Calls to Automated Attendant call processors to verify proper routing of calls after each menu selection has been entered
- F. Verify proper “0” destinations from selected voice mailboxes
- G. The successful vendor shall, without charge, replace any material or correct any workmanship found by the Village not to conform to the contract requirements. If the Vendor does not promptly replace rejected material or workmanship, the Village may by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the contractor.
- H. Any additional tests deemed necessary, and communicated in writing, by the Village to demonstrate the functionality of the system

8.4 As-Built Documentation

Upon completion of system testing, the vendor will submit one (1) complete copy of the System Documentation. System Documentation shall include a spreadsheet (Excel format and editable by Village after handover) with the following station information. [Read and understood.](#)

- A. Room/Department
- B. Extension number
- C. Jack number
- D. Telephone model
- E. Data switch port
- F. Telephone handset key layout
- G. Summary (narrative) of call processing for each department
- H. Telephone company service connected to the system including circuit and telephone numbers
- I. The documentation shall be the property of the Village.
- J. All system components must be labeled. The Village must approve the labeling system in advance.

9 SERVICE AND MAINTENANCE

9.1 Remote Access

- A. The system must provide secure remote access for system administration and monitoring. Describe the means by which this access is secured. If a VPN connection will be used, the Village would require two-factor authentication for access. [Read and understood.](#)
- B. The proposed system must be accessible remotely by your service center for diagnostic routines, minor system alarms, major system failures, and minor program changes. Dispatch and contact procedures must be established as part of the implementation process. [Read and understood.](#)
- C. Establishing Village access of the system must be provided as part of the proposed system installation. [Read and understood.](#)

9.2 Service Requirements

- A. A two-hour maximum response time by the Vendor is required for a major outage or total system failure. A major outage is defined as: [Read and understood.](#)
 - a. System unable to process calls.
 - b. 10% or more of administrative stations or trunks out of service.
 - c. A next business day maximum on site response time for a normal type maintenance calls is required.
- B. The configuration of the system must be backed up on a regular (after any MAC work and twice per year minimum) basis. [Read and understood.](#) [Configuring automated system back-ups to Village resources is typically part of the system implementation process.](#)
- C. Please state if the system can be included in the Village's routine backup procedures (to SAN). If it cannot, the system must include a back-up system for data and disaster recovery purposes. [Yes and recommended.](#)
- D. The Vendor must be willing to take responsibility for diagnosing equipment problems and notifying the telephone company should the trouble be determined to exist in the LEC facilities. The Vendor must be responsible for any service charge billed to the Village for service by the telephone company if it is determined that the trouble is in the interconnect equipment. [B&B Networks will take responsibility to diagnose equipment related issues. If an issue is a Carrier/LEC or any third-party, the service call will be billable. B&B Networks maintenance does not cover 3rd party issues. If the carrier service is provided by B&B Networks through one of our agent partnerships then facilities troubleshooting will be covered.](#)
- E. A warranty period of one year will be provided as part of the purchase cost. [Read and understood.](#)
- F. The vendor or manufacturer must make a maintenance contract available for the proposed system. State the number of years that such a guarantee will be made. Maintenance must include both "break-fix" and manufacturer software patches and upgrades. The cost for maintenance including system software upgrades and patches **including installation of the same** must be provided on the System Price Sheets provided. [Read and understood.](#)
- G. Describe the process by which the proposed system is upgraded with additional software enhancements or a new software package. [Software upgrades are essentially downloaded from the Mitel website.](#) Indicate the following:

- a. Associated cost (work to be completed “after hours”). Approximate cost to upgrade \$600.00 or about 4 hours. System can be prepped during normal business hours and perform an overnight upgrade. The system does have to reboot so coordination with Village emergency services would need to be coordinated.
- b. The amount of time required to complete a typical software upgrade and if the system would be unavailable during the process. About 4 hours. Reboot time approximately 20 minutes.
- c. List the history of hardware changes required for upgrades of same system proposed. If so, please describe what hardware had to be replaced and the cost to do so. Currently no hardware changes are required for a software upgrade. In the past, (5 years ago) some older controllers needed to be replaced (pre 2008) or at least required a memory upgrade.

10 SYSTEM PRICING

10.1 Premise Based Systems

A. Price Sheet - System Acquisition

<u>Component</u>	<u>Equipment Price</u>	<u>Project Management, Installation, Configuration & Training</u>	<u>One Year Warranty</u>
Base Telephone (including handsets)	\$ 18,929.46	\$ 6,510.00	Included
Shipping	Included		
Performance Bond	\$ 189.29		
Total	\$ 19,118.75	\$ 6,510.00	
Total System Price	\$ 25,628.75		
<u>Optional Pricing</u>			
Redundant Processor at Village Hall	\$ 2,752.50	Included	Included
Call Accounting	\$ 3,303.60	Included	Included

B. Price Sheet – Lease Cost for Premise Systems

60 Month Lease-Purchase (\$1 buyout)

System Price without Options

\$ 522.05 /Month (with 2 advance payments at signing)

C. Premise based System Price Sheet-Maintenance

Price must include full software upgrades (patch and full versions) plus installation of the same.

Post Warranty Maintenance	2nd Year	3rd Year	4th Year	5th Year
Base Telephone System	\$ 1,864.00	\$ 1,903.00	\$ 1,945.00	\$ 1,990.00
Redundant Processor at Village Hall	\$ 347.00	\$ 358.00	\$ 370.00	\$ 383.00
Call Accounting	\$ 298.00	\$ 307.00	\$ 318.00	\$ 328.00
Total	\$ 2,509.00	\$ 2,568.00	\$ 2,633.00	\$ 2,701.00

10.2 Hosted System Price Sheet **Not Offered**

Component	NRC-Non-recurring Charge	Monthly Recurring Charge (36 month agreement)	Monthly Recurring Charge (60 Month agreement)*
Base Telephone System (including handsets)	\$ _____	\$ _____	\$ _____
Shipping	\$ _____		
Other	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____
Total 1st Year Cost	\$ _____	\$ _____	\$ _____
Optional Pricing			
Call Accounting	\$ _____	\$ _____	\$ _____

10.3 Itemized Unit Pricing - Additions and Deletions [Mitel Sourcewell pricing utilized. Can be used as pre and post cutover pricing.](#)

Vendor must provide an addition and deletion price list showing installed cost of common hardware, telephone instruments, licenses, etc.

Additions to or deletions from proposed system configuration will be made in accordance with this list. If prices are different for changes made to the system prior to installation and/or cutover please list both pre- and post-installation/cutover prices.

Telephone Instruments

Licenses for:

- Softphone
- Mobile application for smartphones

REFERENCES

All bids must include three references. Each vendor must provide references from three (3) completed VoIP phone projects for a Village(s) or other organizations for which you have provided comparable services. Local references are preferred. References should include company name, contact name, address, phone, fax and email address and contact information for the specific person who is knowledgeable about the Vendor's record and performance. References may be contacted for consultation and/or site visits at our discretion.

NAME Jonathan Pape
COMPANY Village of River Forest
ADDRESS 400 Park Avenue
CITY, STATE, ZIP River Forest, IL 60305
PHONE/FAX 708-366-8500
EMAIL jpape@vrf.us

NAME Aaron Greve
COMPANY City of McHenry
ADDRESS 333 S. Green Street
CITY, STATE, ZIP McHenry, IL 60050
PHONE/FAX 815-363-2216
EMAIL agreve@cityofmchenry.org

NAME Erik Vela
COMPANY City of Waukegan
ADDRESS 100 North Martin Luther King Jr Ave
CITY, STATE, ZIP Waukegan, IL 60085
PHONE/FAX 847-599-2500
EMAIL erik.vela@waukeganil.gov

VENDOR INFORMATION SHEET

Vendor: B&B Networks, Inc

Address: 245 W. Roosevelt Road, Building 3 Suite 16

Village: West Chicago State: IL Zip: 60185

Phone: 847- 293-0000 Fax: 630-293-0003

Signature: _____ Date: 9/29/2021

Print Name: Paul Clayton

Title: Vice President/General Manager

Email: pclayton@bb-networks.com

Submittal Checklist

Remember to submit the following items with your bid.

- Vendor narrative of proposed system design and scope of services
- Page 34 System Price Sheet Premise Based System and:
- Page 35 Premise System 60 Month Lease Cost
- Page 36 System Price Sheet Premise Based System Maintenance
- Page 37 System Price Sheet Hosted System
- Page 38 Itemized Unit Pricing
- Page 39 References
- Page 40 Vendor Information Sheet completed.
- RFP Required Vendor Responses to the RFP
- Manufacturer System Support Letter
- Manufacturer Vendor Certification Letter

Village of Gilberts
VoIP Telecommunications System RFP

Addendum 1
September 16, 2021

The proposal must acknowledge receipt of this Addendum Number 1 and any attachments. [Received.](#)

1. Correction: Page 11; Section XX-Proposals are due no later than 9:00 a.m. not 1:00 AM, October 1, 2021.
2. For Premise-based systems; the proposal must include all hardware required to support the new system. The Village will neither supply a processor nor host software in any virtual environment.
3. The proposals must include the removal and disposal of all the current NEC telephone system components.
4. Internet comes in to Village Hall and available to the Police Department and to the Public Works/Finance/Building facility through 1GB fiber connections. From the Public Works building, it is sent through a radio connection to one of the Village's water towers, and then directed to radio receivers at the water and waste water treatment plants.
5. Internet is currently provided by AT&T with expected download speed of 25 Mbps and expected upload speed of 10 Mbps.
6. There are a total of 3 wall mounted telephones at the Village. The proposal must include materials and labor to install these.
7. Remove one staff telephone from the count at the Police Department (basement).
8. The total number of new cable runs is the same (5). However, the new run to the Police Department basement will no longer be required but, a new cable run will be required to the training room on the first floor.
9. The Village will not be providing a network drawing. If there is specific information required please request it.
10. The scope of work should be expanded to include installation of two (2) exterior call boxes. One is on exterior of the Police Department and the other is at Town Center Park (301 Columbia Lane, Gilberts, IL). The work will include all materials and labor for the following at both locations:
 - Provide new exterior rated call boxes-make and model to be approved by the Village
 - Mount new call boxes in existing weatherproof enclosures
 - Connect new call boxes to existing POTs lines
 - Program new call boxes to dial specific telephone number designated by KaneComm
 - Test operation of call boxes and make any necessary adjustments

Village of Gilberts
VoIP Telecommunications System RFP

Addendum 2
September 23, 2021

The proposal must acknowledge receipt of this Addendum Number 2 and any attachments. [Received.](#)

1. The staff telephones that do not have voice mail are for telephones not requiring voice mail (i.e. breakrooms, etc.). 18 staff telephones must include voice mail. 3 voice mail with DIDs are for the main telephone numbers of the Village Hall, Police Department and the Finance/Public Works facilities general mailboxes.
2. Section 5.2.B. these counts include use of voice mailboxes for staff that do not have a telephone (i.e. patrol officers) nor a DID.
3. Section 6.2.O. assume that 12 staff telephones will require “twinning”. Twinning is defined as the ability for have calls sent to a user’s cell phone and, if a call is unanswered, having the caller directed to the user’s desk telephone’s voice mail rather than their cell phone voice mail. Four of these (as yet undetermined) will require a full mobility application.
4. For Hosted Systems, utilizing the Village’s current AT&T Internet connection (“over-the-top”) is acceptable.
5. Pictures of the Village’s outdoor telephone enclosure at the Police Department and the outdoor callbox at Town Center Park are attached to this Addendum 2. The new call box must be able to be mounted inside the enclosure at the Police Department. The call box at Town Center will be replaced per Addendum 1. The new call boxes are expected outdoor rated and to be a “push button” type with no telephone or dial pad.
6. Attached is a picture of the equipment related to the current FireTide equipment installed at the base of the water tower.

The Mitel Headset Lineup

Designed for professionals

Key Benefits

- Audio enrichment capabilities reduce user fatigue
- Noise cancelling microphones ensure clear conversations
- Noise shielding ear cuffs allow for greater concentration on the task at hand
- Designed for all-day comfort
- Built with premium materials to ensure long lasting performance
- High value features for enhancing productivity
- Fully supported with Mitel applications and 6900 / 6800 desktop phones



Mitel's headset family delivers a range of high-quality headsets from industry leading headset manufacturer, Jabra to address a range of softphone and desk phone-based user needs. Whether working from a home office or as an agent in a busy contact center, Mitel has a headset that will satisfy what's needed to effectively tackle the task at hand.

Flexible working

During the pandemic, many organizations and employees have been able to leverage technology to enable home working and the saying that "work is an activity, not a location" has been proved to be true for many. And, whilst many will return to the office, many are expecting this to be a more permanent change with an increasing mix between office and home working.

To support employees at home or in the office, Mitel provides a range of qualified headsets to suit different use cases and requirements. Whether it's a contact center agent who is looking for a durable headset that delivers outstanding audio quality whilst being comfortable to wear through the day or a team member who is looking for something that minimises environmental background noise, allows them to move around and provides a busy light to let others know they are active on a call, Mitel provides a range of headsets to suit.

Our headsets have been tested and certified with Mitel applications and desk phones to remove any compatibility issues that can arise with other headsets available on the market. Additionally, the headsets are designed to be longer lasting headsets with durable materials, aluminium hinges and steel headbands that enable fewer returns and reduced support tickets. Mitel is so confident in the reliability of our Contact Center headset models we back them with a 3-year warranty to give you peace of mind in your headset investment.

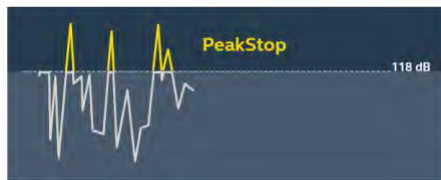
It takes 2 to communicate

Along with a choice of model to suit the individual user, the headsets have also been designed to provide hearing protection for the user as well as ensure optimum speech clarity for both parties in a conversation.

End-user hearing protection and long-term well being

PeakStop™

Stops sudden peaks in volume. It constantly monitors the sound level of your conversation. Whenever a sound spike comes in, PeakStop cuts off the “loud” part. Any sound above 118 decibels is considered too loud and is suppressed.



IntelliTone™

IntelliTone is there to ensure that the average sound level you're exposed to during your working day doesn't leave you deaf. Headsets with IntelliTone let you personalize the sound level to your preference and ensures audio stays within this envelop.



SafeTone™

Combines PeakStop and IntelliTone into a single audio enhancement feature.

Note: Audio enhancement features vary by model.

Speech clarity for both parties in the conversation

From a recent study, contact center agents indicated that customer conversations are often difficult to hear and contribute to agent fatigue. Mitel's headsets targeting contact center agents are optimized for speech clarity and intelligibility making for a more pleasant audio experience.

H10 Stereo USB Headset – PC and Deskphone

Engineered to keep you on task thanks to exceptional audio, outstanding noise isolation and superior comfort

The H10 is a corded **stereo** headset with an advanced digital chipset and three strategically placed **noise cancelling** microphones, for less background conversation noise on your calls.

Boom-arm mute and auto-answer.

Motion sensor to detect use.



You'll never miss a thing, thanks to **powerful leak-tolerant 40mm speakers** and advanced digital chipset, delivering audio that always keeps you in the loop.

Designed to the **perfect shape** using biometric measurements from hundreds of heads, added soft memory foam cushions that mold to your ear's natural contours, and assembled using **durable, premium materials**.

Busylight provided on each earcup that can be seen from **every angle** so you can work in peace.



- Connects to PC or Mitel IP Phones via USB-A.
- Supported IP Phone models: Mitel: 6920, 6930, 6930L, 6940, 6867, 6869, 6873 and corresponding antimicrobial treated versions

H20 Mono Analog Desk Phone Headset – Deskphone

Built to last for high-performing contact center agent use

The H20 has an **extremely lightweight** and unobtrusive design resulting in lowered agent fatigue and more **productive calls**.

Includes three wearing styles – **headband, neckband, and ear-hook** – providing ultimate flexibility to tailor the headset to personal wearing preference.



Features a reinforced cord that is built to **withstand heavy use** by protecting against office chair wheels and sharp objects.

Specially designed “air shock” **noise-cancelling mic** filters out sharp breathing sounds and popping noises often heard in conversations

Boom arm can be **rotated 360 degrees** with zero risk of breaking.



- Connects to Mitel IP Phones via RJ9 headset port
- Supported IP Phone models: Mitel 6910, 6920, 6930, 6930L, 6865, 6867, 6869 and corresponding antimicrobial treated versions

H30 Stereo USB Headset – PC and Deskphone

Engineered for softphone environments, with features that combat background noise and reduce interruptions

The H30 provides a unique, **3-microphone system** with intelligent **noise-cancellation** that filters out background noise and breathing sounds, giving callers a superior experience.

Built for intense use with **reinforced cords** and a flexible, 300-degree **adjustable boom** arm that reduces the risk of breakage.

Designed for all day **wearing comfort**.

Adjusting earcups - The soft earcups rotate to fit users' head optimally – ensuring good fit and noise seal.

Programmable **Statuslight**.

Excellent microphone performance.



Stereo sound, and super wideband audio help agents have vibrant, lifelike conversations – with the highest levels of **hearing protection**

Features **multi-color status lights** on both earcups, which are clearly visible from all angles, to make sure interruptions are kept to a minimum.



Lightweight - Only about 30% of the weight of an average consumer headset.

No pressure - **Easy feeling** with low pressure on users' ears and head.



Passive **noise cancellation**.

User **hearing protection** and volume normalization.

- Connects directly to PC's USB-C port or via the included UCB-C to UCB-A extender cable that also provides a quick disconnect capability
- Supported IP Phone models: Mitel 6920, 6930, 6930L, 6865, 6867, 6869 and corresponding antimicrobial treated versions

Integrated DECT Cordless Headset – Deskphone

Unique phone-attached DECT wireless headset add-on

Physically **attaches to 6930 & 6940 IP Phones** to reduce desktop clutter and eliminate need for additional headset power adapter.

Provides **noise-cancelling** microphone making it ideal for noisy environments.

Includes two wearing styles – headband and ear-hook – providing **flexibility to tailor** the headset to personal wearing preference.



Provides **wireless connectivity** to a range of up to **100 meters / 300 feet** with no loss in connection quality

Supports all day use with up to **8 hours** of talk time*.

Seamless headset button integration ensures reliable and intuitive operation.

- Attaches to phone or PKM via sidecar expansion port (support for up to 3 PKMs + Integrated DECT Headset attached to phone)
- Supported by Mitel 6930, 6930L or 6940 IP Phone and corresponding antimicrobial treated versions

Battery

- Powered directly by the Mitel 6930 or 6940 IP Phone
- Type – Lithium polymer
- Speech Time
 - 8 hours
- Stand-By Time
 - 43 hours
- Charge Time
 - 3 hours

* = Dependent on usage

H40 Stereo DECT Cordless Headset - PC and Deskphone

Industry-leading wireless performance for ultimate freedom of movement while staying connected

The H40 provides superior wireless connectivity to a range of up to **150 meters** / 490 feet with no loss in connection quality.



Advanced **noise-cancelling** microphone and enhanced stereo speakers deliver **crystal-clear** calls even in noisy environments

Supports all day use with up to **13 hours** of talk time*.

Busylight provided on both earcups plus indicator in boom-tip serve as “do-not-disturb” indicators to colleagues in immediate surroundings.

- Connects to PC or Mitel IP Phones via USB
- Supported IP Phone models: Mitel 6920, 6930, 6865, 6867, 6869

Battery

- Talk time: Up to 13
- Standby time: Up to 52 hours (improves with use of power nap feature)
- AC power supply: Yes
- Battery charge time
 - 40% after 30 min
 - 80% after 60 min
 - 100% after 90 min

* = Dependent on usage

Technical Specifications

Feature/Headset	H10 - Stereo	H20 - Mono	H30 - Stereo	H40 - Stereo	DECT Integrated
Audio					
User sound Protection	SafeStop™	PeakStop™ 118 dBA SPL (RMS)	PeakStop™ 105 dB SPL, IntelliTone™ 2.0	SafeTone™	Noise cancelling
Speaker Size	Ø 40mm	NB: Ø 30 x 6.8mm WB: Ø 30 x 6.4mm	28 x 3.9 mm	2 pcs Ø 28 x 3.9mm	
Speaker Max input power	30 mW	20mW	10mW (at 0.56 V)	<118 dB SPL(A)	<118 dB SPL(A)
Speaker sensitivity		NB: 10 dB Pa/V ±3dB WB: 8 dB Pa/V ±3dB	115 dB SPL@0.4V,1kHz		21,5 dB Pa/V
Speaker impedance		300Ω ±15 %/1kHz/ 1.0V	32 Ohms		32 Ohms
Speaker frequency range	20Hz-20.000Hz	NB: 100Hz to 4.500Hz WB: 150Hz – 6.800Hz	20Hz – 20kHz	40Hz-16kHz	
Speaker bandwidth music mode	20Hz-20.000Hz	NB: 100Hz to 4.500Hz WB: 150Hz – 6800Hz	20Hz – 20kHz	40Hz-16kHz	
Speaker bandwidth speak mode	100Hz-14.000Hz	NB: 100Hz to 4.500Hz WB: 150Hz – 6.800Hz	50Hz – 20kHz	150 - 6.800Hz	150-7kHz
Microphone type	3 Digital MEMS	Noise cancelling, Uni-directional	Digital MEMS microphones	Dual Microphone - ECM Uni-Directional and Analog MEMS system	Electret Condenser Microphone Uni-directional
Microphone sensitivity	-26 dBFS/Pa	STD NC: -30 dB V/Pa ±3dB, Pin=1Pa, 0dB=1V/Pa STD UNC: -28 dB V/Pa ±3dB, Pin=1Pa, 0dB=1V/Pa	-26dBFS@94dB SPL, 1kHz		-30 dBV/Pa
Microphone frequency range	100Hz-14kHz	101Hz – 8.000Hz	100Hz – 14kHz	100Hz-7.3kHz	100Hz –10.kHz
Microphone bandwidth		100Hz – 8.000Hz	100Hz – 14kHz		
Microphone power consumption		Current consumption 70-150µA@RL=3.9kΩ, Vs=3.0V	630uA		70-150µA Operating Voltage: 2V
Power supply				AC	Through deskphone
Power consumption		N/A	Typ. 58mA	7.5V/650mA	
Battery	N/A	N/A	N/A	Yes/exchangeable	Yes, lithium polymer
Certifications		CE, FCC, UL, cUL, EAC, RCM, RoHS, REACH	CE, FCC, RCM, Noise at work, G616 and OSHA-compliant Industry Certifications: cTUVus	CE, CB, FCC, IC, NOM, NTC, EAC, PSB, ICASA, TELEC, SIRIM, ACMA, NZ Telepermit, UL	
General					
Main unit dimension	186x157x60.5mm 7.32x6.18x2.38in	141 x 183 x 67mm	150 x 193 x 62mm	Base: 93 x 90 x 106mm Headset: 14 x 32 x 169mm	
Weight	188g / 6.63oz with cable 168.5g/ 5.94oz without cable	61g / 2.15oz with cord 45g/ 1.57oz without cord	96g (without cord)	Base: 203g Headset: 83g	Unit: 505g Headset: 26g
Cord length		100cm	120cm		
Operating temperature	-10°C to +55°C, 14°F to 131°F	-10°C to + 50°C	-10°C to +40°C (Humidity 5%~85% RH)	-10°C to +55°C (non-condensing)	
Storage temperature	-5°C to +55°C, 23°F to 131°F	-30°C to + 80°C	-20°C to +50°C (Humidity 20%~90% RH)	-5°C to +45°C (non-condensing)	
Box content	Headset, soft pouch			Headset, base, power supply, USB cable, desk phone cable	
Charging plug dimensions				Ø 2.35mm	
Security				DECT Security Step C & using FIPS approved algorithms for key generation, payload encryption and authentication	64-bit digital encryption

MiVoice 6920 IP Phone

Designed for the enterprise user who requires flexibility & reliability

Key Features

- 3.5" QVGA (320x240 pixel) color display
- Speech optimized handset
- High quality full-duplex speakerphone
- Programmable personal and Context sensitive soft keys
- Native EHS/DHSG analog headset support
- USB port for headsets and accessories



The MiVoice 6920 is designed for power users who demand not only a modern design but also a phone that is flexible and delivers a high quality communications experience. The MiVoice 6920 is designed from the ground up to provide an exceptional HD audio experience via its unique speech optimized handset, high quality full-duplex speakerphone and support for USB, EHS/DHSH & Analog headsets. The MiVoice 6920 offers an intuitive user experience via its crisp high resolution 3.5" color LCD display, programmable personal and context-sensitive soft keys.

Remarkable Audio

MiVoice 6920 IP Phone features Mitel's high definition HI-Q audio technology to deliver exceptional voice clarity. The 6920 handset provides speech optimized audio that delivers clearly discernable speech in all types of environments from the office cubical to the shop floor. Integrating HD wideband audio codecs, advanced audio processing, the 6920 offers a superior voice experience for crystal clear conversations.

Large Color Screen Display

Featuring a high resolution 3.5" QVGA color backlit LCD display that will deliver a rich visual presentation to maximize productivity. This large color display, combined with icon based navigation menus and intuitive user interfaces, makes the many powerful telephony features of the 6920 instinctively easy to use.

Feature Keys

- Programmable Personal keys for access to Lines, Speed Dials and Telephony functions
- Context Sensitive soft keys
- 4-way navigation key
- 11 dedicated feature keys plus dial pad

Audio and Codecs

- Mitel Hi-Q Audio Technology
- Speech optimized handset
- Hearing aid compatible (HAC) handset
- Full-duplex quality speakerphone
- Codecs (not all codecs supported by MiNet and SIP firmware):
 - G.711, G.729, G.722
 - G.722.1 (MiNet only);
 - G.726, iLBC AMR, AMR-WB (G.722.2) (SIP only)
- Headset connection interfaces – USB and Analog EHS/DHSG port

Flexible Headset Options

The MiVoice 6920 IP Phone offers USB headset support and features an innovative analog headset port that uniquely provides dual support for EHS/DHSG and modular 4-pin headset connections. Users with wireless headsets that support EHS/DHSG can connect directly to the 6920 using standard third party cables.

Display and Indicators

- 3.5" QVGA (320x240 pixel) color display
- Intuitive graphical user interface and navigation menus
- Adjustable screen brightness for user comfort in different lighting environments
- Dedicated LED for call and message waiting

Protocol Support

- Mitel IP (MiNet) protocol support
- SIP (Session Initiation Protocol) support

System Software Requirements

- MiVoice Business, Release 8
- MiVoice Office R5.0
- MiVoice 5000 R6.4
- MiVoice MX-ONE R6.3
- MiVoice Border Gateway (teleworker), Release 9.4
- MiCollab Client, Release 7.2.2

Integration and Connectivity

- Dual 10/100/1000 Mbps Ethernet ports (LAN/PC)
- Support for Mitel Teleworker Solution, Automatic Call Distribution (ACD) agent and supervisor, hot desking, and resiliency
- Support for use with Mitel MiCollab Client
- Multiple-languages support: English, French, German, Italian, Portuguese, Spanish and Dutch (downloadable language packs for SIP)
- Secure encrypted voice communication
- Quality of Service support – IEEE 802.1 p/Q VLAN and priority tagging
- IEEE 802.1x authentication support
- Powered USB 2.0 Host port (100mA)
- Sidecar expansion port
- Dedicated 4-pin modular headset port convertible to EHS/DHSG capable headset port

Powering

- Idle 1.3w, Typical 3.4w

Environmental / Regulatory Standards

- Operational:
 - » Operational +4°C to +49°C
 - » Humidity 34% at +49°C 95% at

+29°C

- Storage:
 - » *Operational -40°C to +70°C*
 - » *Humidity 15% at +70°C 95% at +29°C*

EMC

- *Canada: ICES-003 (Class B)*
 - *Rss-247*
- *USA: CFR Title 47, Part 15 (Class B)*
 - *FCC Part 15 Subpart C*
- *European Union: EN55024 (EU)*
 - *EN55032 (Class B)*
 - *EN 301-489-1-17*
 - *EN300 328*
 - *EN 50360*
- *Australia / New Zealand: AS / NZS CISPR 22*

Safety

- *Canada: CSA C22.2 NO. 60950-1*
- *USA: UL 60950-1*
- *European Union: EN 60950-1*
- *Australia / New Zealand: AS / NZS 60950 - 1*

Safety

- *Canada: CS03 Part V (Hearing Aid Compatible)*
- *USA: FCC part 68 (CFR 47) (Hearing Aid Compatible)*
- *Australia / New Zealand: PTC220, AS/CA S004, AS/ACIF S040*

Other

- *MTBF Rate: 40 years*
- *Size (L x W x H): 8.9 in x 5.9in x 7.5 in (22.5cm x 15cm x 19cm)*
- *Weight: 2.2 lbs or 0.98 kg*

MiVoice 6930 IP Phone

Powerful, Customizable IP phone designed for the power user

Key Features

- 4.3" (480x272 pixel) color display
- Bluetooth 4.1
- MobileLink mobile device integration
- Mobile phone charging point
- Voice optimized handset
- Support for optional *Cordless voice optimized* handset
- Enhanced full-duplex speakerphone
- Programmable Personal keys and Context Sensitive soft keys
- Highly customizable via broad array of optional add-on accessories



The MiVoice 6930 is designed for power users who need a phone that can be tailored to their specific communication needs. MobileLink enables the users' mobile phone to pair directly with the 6930 using the embedded Bluetooth 4.1 interface to deliver access to many of the features of the mobile phone on the desk phone, making the MiVoice 6930 an invaluable companion to the mobile user's smart phone. The 6930 affords users the flexibility to tailor the phone for specific needs through a broad array of end user installable add-on accessories. It's designed from the ground up to provide an exceptional HD audio experience via its unique speech optimized handset, enhanced full-duplex speakerphone and support for Bluetooth, USB and Analog headsets. Supporting today's high speed networks through dual Gigabit Ethernet ports, the 6930 offers a large 4.3" color backlit LCD display, HD wideband audio with advanced audio processing, programmable Personal keys and context sensitive soft keys.

Mobile Integration

The MiVoice 6930 IP Phone's MobileLink mobile device integration seamlessly marries mobile phone call audio and contact information with the desktop phone. Calls to the mobile phone can be answered on the 6930 just like any other call leveraging the superior audio performance and ergonomics of the 6930. Mobile Phone contacts are automatically synchronized with the 6930 allowing access to the same contacts on either

device. A powered USB port suitable for charging a mobile phone is also built into the 6930.

Remarkable Audio

Featuring Mitel's high definition Hi-Q audio technology to deliver exceptional voice clarity. The 6930 handset provides speech optimized audio that delivers clearly discernable

speech in all types of environments from the office cubical to the shop floor. It also boasts native support for an optional cordless version of this innovative handset. The 6930 features an enhanced HD full-duplex speakerphone with its own sealed acoustic chamber enabling superb audio performance. The MiVoice 6930 delivers a truly premium audio experience.

High Resolution Color Display

Featuring a crisp high resolution 4.3" (480x272 pixel) color display that delivers a rich visual experience for maximum productivity.

Feature Keys

- *Programmable Personal keys for access to Lines, Speed Dials and Telephony functions*
- *Context Sensitive soft keys*
- *4-way navigation key*
- *11 dedicated feature keys plus dial pad*

Audio and Codecs

- *Mitel Hi-Q Audio Technology*
- *Speech optimized handset*
- *Hearing aid compatible (HAC) handset*
- *Full-duplex high quality speakerphone*
- *Codecs (not all codecs supported by MiNet and SIP firmware):*
 - *G.711, G.729, G.722*
 - *G.722.1 (MiNet only);*
 - *G.726, iLBC AMR, AMR-WB (G.722.2) (SIP only)*
- *Headset connection interfaces – USB, Analog EHS/DHSG port, Bluetooth 4.1*

Flexible Headset Options

The MiVoice 6930 IP Phone offers native Bluetooth headset support as well as USB headset support and an innovative analog headset port that uniquely provides dual support for EHS/DHSG and

modular 4-pin headset connections. Users with wireless headsets that support EHS/DHSG can connect directly to the 6930 using standard third party cables.

Display and Indicators

- *4.3" (480x272 pixel) color display*
- *Intuitive graphical user interface and navigation menus*
- *Adjustable screen brightness for user comfort in different lighting environments*
- *Dedicated LED for call, message waiting and Mobile Device Connect indication*

Protocol Support

- *Mitel IP (MiNet) protocol support*
- *SIP (Session Initiation Protocol) support*

System Software Requirements

- *MiVoice Business, Release 8*
- *MiVoice Office R5.0*
- *MiVoice 5000 R6.4*
- *MiVoice MX-ONE R6.3*
- *MiVoice Border Gateway (teleworker), Release 9.4*
- *MiCollab Client, Release 7.2.2*

Integration and Connectivity

- *Dual 10/100/1000 Mbps Ethernet ports (LAN/PC)*
- *MobileLink*
 - » *Mobile pairing via BT*
 - » *Mobile Call Audio via desk phone*
 - » *Mobile Contact Sync*
 - » *Mobile Charging (USB port)*
- *Support for Mitel Teleworker Solution, Automatic Call Distribution (ACD) agent and supervisor, hot desking, and resiliency*
- *Support for use with Mitel MiCollab Client*
- *Multiple-languages support: English, French, German, Italian, Portuguese,*

- Spanish and Dutch (downloadable language packs for SIP)
- Secure encrypted voice communication
- Quality of Service support – IEEE 802.1 p/Q VLAN and priority tagging
- IEEE 802.1x authentication support
- Bluetooth 4.1 wireless interface
- Powered USB 2.0 Host port (500mA)
- Sidecar expansion port
- Dedicated 4-pin modular headset port convertible to EHS/DHSG capable headset port

Powering

- Designed for power conservation
- Accepts standards-based (IEEE 802.3af) Power over Ethernet (PoE)
- PoE Class 3 with automatic PoE Class change on Expansion Module installation
- Supports local powering via 48VDC PoE injector or 48VDC wall adapter

Power Consumption

- Idle 1.5w, Typical 7.2w

Environmental / Regulatory Standards

- Operational:
 - » Operational +4°C to +49°C
 - » Humidity 34% at +49°C 95% at +29°C
- Storage:
 - » Operational -40°C to +70°C
 - » Humidity 15% at +70°C 95% at +29°C

EMC/Radio

- Canada: ICES-003 (Class B)
 - o RSS-247
- USA: CFR Title 47, Part 15 Subpart B

(Class B)

- o FCC Part 15 Subpart C
- Europe: EN55024 (EU)
 - o EN55032 (Class B)
 - o EN 301-489-1-17
 - o EN300 328
 - o EN 50360
- Australia / New Zealand:
 - o AS / NZS CISPR 22

Safety

- Canada: CSA C22.2 NO. 60950-1
- USA: UL 60950-1
- Europe: EN 60950-1
- Australia / New Zealand: AS / NZS 60950 - 1

Telecom

- Canada: CS03 Part V (Hearing Aid Compatible)
- USA: FCC part 68 (CFR 47) (Hearing Aid Compatible)
- Australia/New Zealand:
 - o PTC220
 - o AS/CA S004
 - o AS/ACIF, 2040

Other

- MTBF Rate: 40 years
- Size (L x W x H): 9.3 in x 5.9 in x 7.5 in (23.5cm x 15cm x 19cm)
- Weight: 2.4 lbs or 1.08 kg

MiVoice 6940 IP Phone

Powerful, desktop IP phone designed for the Executive user

Key Features

- 7" (800x480 pixel) color LCD Touch Display
- Bluetooth 4.1
- MobileLink mobile device integration
- Mobile phone charging point
- Cordless speech optimized handset
- Enhanced full-duplex speakerphone
- Highly customizable via broad array of optional add-on accessories



The MiVoice 6940 is designed for the executive user who demands an exceptional device that meets their demanding communication needs. MobileLink enables the users' mobile phone to pair directly with the 6940 using the embedded Bluetooth 4.1 interface to deliver access to many of the features of the mobile phone on the desk phone, making the MiVoice 6940 an invaluable companion to the mobile user's smart phone. The 6940 affords users the flexibility to tailor the phone for specific needs through a broad array of end user installable add-on accessories. The 6940 is designed from the ground up to provide an exceptional HD audio experience via its unique speech optimized cordless handset, enhance full-duplex speakerphone and support for both Bluetooth and USB headsets. Supporting today's high speed networks through dual Gigabit Ethernet ports, the 6940 offers an exceptionally large 7" color touch display, HD wideband audio with advanced audio processing, ninety-six programmable Personal keys and six context sensitive soft keys.

Mobile Integration

The MiVoice 6940 IP Phone's MobileLink mobile device integration seamlessly marries mobile phone call audio and contact information with the desktop phone. Calls to the mobile phone can be answered on the 6940 just like any other call leveraging the superior audio performance and ergonomics of the 6940. Mobile Phone contacts are automatically synchronized with the 6940 allowing access to the same contacts on either

device. A powered USB port suitable for charging a mobile phone is also built into the 6940.

Remarkable Audio

Featuring Mitel's high definition Hi-Q audio technology to deliver exceptional voice clarity. The 6940 cordless handset delivers speech optimized audio that provides clearly

discernable speech in all types of environments. It also features an enhanced HD full-duplex speakerphone with its own sealed acoustic chamber enabling superb audio performance.

Feature Keys

- Programmable Personal soft touch keys for access to Lines, Speed Dials and Telephony functions
- Context sensitive touch soft keys
- 11 dedicated feature keys plus dial pad

Audio and Codecs

- Mitel Hi-Q Audio Technology
- Speech optimized cordless handset
- Hearing aid compatible (HAC) handset
- Full-duplex high quality speakerphone
- Codecs (not all codecs supported by MiNet and SIP firmware):
 - G.711, G.729, G.722
 - G.722.1 (MiNet only);
 - G.726, iLBC AMR, AMR-WB (G.722.2) (SIP only)
- Headset connection interfaces – USB, Bluetooth 4.1

Flexible Headset Options

The MiVoice 6940 IP Phone offers native USB and Bluetooth headset support.

Display and Indicators

- 7" (800x480 pixel) color touch display
- Intuitive graphical user interface and navigation menus
- Adjustable screen brightness for user comfort in different lighting environments
- Dedicated LED for call, message waiting and Mobile Device Connect indication

Protocol Support

- Mitel IP (MiNet) protocol support
- SIP (Session Initiation Protocol) support

High Resolution Color Display

Featuring an exceptionally large high resolution 7" 800x 480 pixel color touch display that delivers a rich visual experience for maximum productivity.

System Software Requirements

- MiVoice Business, Release 8
- MiVoice Office R5.0
- MiVoice 5000 R6.4
- MiVoice MX-ONE R6.3
- MiVoice Border Gateway (teleworker), Release 9.4
- MiCollab Client, Release 7.2.2

Integration and Connectivity

- Dual 10/100/1000 Mbps Ethernet ports (LAN/PC)
- MobileLink

» Mobile pairing via BT

» Mobile Call Audio via desk phone

» Mobile Contact Sync

» Mobile Charging (USB port)

- Support for Mitel Teleworker Solution, Automatic Call Distribution (ACD) agent and supervisor, hot desking, and resiliency
- Support for use with Mitel MiCollab Client
- Multiple-languages support: English, French, German, Italian, Portuguese, Spanish and Dutch (downloadable language packs for SIP)
- Secure encrypted voice communication
- Quality of Service support – IEEE 802.1 p/Q VLAN and priority tagging
- IEEE 802.1x authentication support
- Bluetooth 4.1 wireless interface

- Powered USB 2.0 Host port (500mA)
- Sidecar expansion port

- AS / NZS CISPR 22

Power Consumption

- Idle: 1.8w Typical: 9.0w

Powering

- Designed for power conservation
- Accepts standards-based (IEEE 802.3af) Power over Ethernet (PoE)
- PoE Class 3 with automatic PoE Class change on Expansion Module installation
- Supports local powering via 48VDC PoE injector or 48VDC wall adapter

Environmental / Regulatory Standards

- Operational:
 - » Operational +4°C to +49°C
 - » Humidity 34% at +49°C 95% at +29°C
- Storage:
 - » Operational -40°C to +70°C
 - » Humidity 15% at +70°C 95% at +29°C

EMC /Radio

- Canada: ICES-003 (Class B)
 - RSS-247
- USA: CFR Title 47, Part 15 Subpart B (Class B)
 - FCC Part 15 Subpart C
- Europe: EN55024 (EU)
 - EN55032 (Class B)
 - EN 301-489-1-17
 - EN300 328
 - EN 50360
- Australia / New Zealand:

Safety

- Canada: CSA C22.2 NO. 60950-1
- USA: UL 60950-1
- Europe: EN 60950-1
- Australia / NZ: AS / NZS 60950 - 1

Telecom

- Canada: CS03 Part V (Hearing Aid Compatible)
- USA: FCC part 68 (CFR 47) (Hearing Aid Compatible)
- Australia/New Zealand:
 - PTC220
 - AS/CA S004
 - AS/ACIF, 2040

Other

- MTBF Rate: 40 years
- Size (L x W x H): 9.7 in x 5.9 in x 7.5 in (24.5cm x 15cm x 19cm)
- Weight: 2.6 lbs or 1.18 kg

Mitel MiCollab

Powering communications for when and where you need it



Empower your business to 'think big, yet act small' by providing employees with everything they need to connect, communicate and collaborate across blended environments – driving the exchange of thoughts and improving the speed & quality of decision being made

Ensuring effective real-time communications is essential in today's fast-paced, mobile marketplace. Today work is not always done at a desk. It's done in the car, while walking to lunch, or while waiting for the plane to board. Today work can include colleagues working from home, different timezones, or with individuals who are not part of the organization.

This is why enabling your business to connect and collaborate more easily and effectively, no matter where they are, how they work or who they work with - is more essential than ever.

Mitel® MiCollab is a mobile-first designed communications and collaboration solution, designed to provide a highly collaborative, persistent workspace to align with how employees communicate in today's fast paced, mobile workplace. Through a single client your employees have access to an integrated suite of unified communications and collaboration services, so that they can make every interaction efficient and productive whether it's with colleagues, customers, or partners.

Key Benefits

- Single business tool providing enhanced communications and collaboration for individuals and teams
- Enables easy access to the knowledge, insights, and experiences of others allowing for higher quality, more timely business decisions being made
- Collaborate anywhere, on any device, with the same set of tools and user experience
- Connected workforce working together to increase customer satisfaction
- Flexible deployment options - *premises or cloud-based* - that can evolve with your business as needs change
- Presence and communications connectivity within Outlook
- Easy deployment and administration



Supercharging business productivity

MiCollab brings together voice, video, chat, messaging, web conferencing and team collaboration tools into one single solution making it easier for employees to connect with others and break down the barriers of siloed team environments.

Whether it's from their desktops or mobile device, with MiCollab employees can become more efficient, easily share ideas and knowledge across the organization, and ultimately work from virtually anywhere.

For example, MiCollab can be used to view the availability of colleagues who may have the answer to a critical, time sensitive question. Even if the employee is away from the office, they can be located and contacted on their mobile device using chat, a voice call, or video call and provide the answer that saves the day.

Furthermore with team collaboration tools (MiTeam) projects related activities, such as communications, document reviews, task management and collaborative meetings can all be conducted using the same application and be extended to members outside the organization, so that they can share ideas and work together towards achieving project goals.



Everything you need in one place

By providing today's essential communications and collaboration tools in a single, unified solution, Mitel MiCollab reduces the latency and complexity associated with having to sort through and locate communications spread out across multiple applications and having to manage those multiple applications - that when combined achieve the same level of business connectivity that MiCollab provides. MiCollab is comprised of:

- Unified Communications (UC) services access via clients for the desktop (PC and Mac), Web and mobile device
- Team collaboration services (MiTeam) that enable collaborative workspaces for team-based meetings, conversations, content collaboration and project management
- Unified Messaging services that make message storage and retrieval simple
- Audio, Web and Video Conferencing services to address a variety of conferencing needs - *audio, presentation, collaboration, and video*

Unified Communications

A single access point for all your business communication and collaboration needs regardless of location or device:

PRESENCE – know whether people you want to contact are on the phone, away from their desk or available for a video call, instant chat or collaboration session

MESSAGING – quick access to voice messages with visual message handling and presence information of the person who left the message

SOFTPHONE – enjoy the same desktop phone communications experience from a PC, laptop, or smartphone

MOBILITY – installed as a client on supported iOS® and Android™ devices, key communications and collaboration features are extended to mobile users

WEB CLIENT – access key unified communications and collaboration features from remote locations using any computer or web-enabled mobile device

POINT-TO-POINT VIDEO – place a video call with the tap of a button

INTEGRATION WITH BUSINESS APPLICATIONS

– enhance communications and productivity with integration to other business applications, such as Outlook®, IBM® Sametime, and Google®



MiCollab Client

Team Collaboration

Persistent workspaces for team meetings, conversations, content review and project management that are accessed via MiCollab clients, with features including:

STREAMS – persistent workspaces that capture all project activity from start to finish, including chats, content, reviews, assigned action items, enabling new members to get caught up in a matter of minutes

SEARCH – powerful search capabilities that help members quickly find the information they're looking for within a Stream

TO-DO – assign and track action items to ensure team members understand what needs to be accomplished, who is responsible, and by what date it's required

MEET– quickly create collaborative meetings on the fly, by choosing the participants, sending invitations, and launching the real-time meeting all from directly within a Stream

Unified Messaging

Enables the management of voice mail, email and fax messages with features including:

MESSAGE RETRIEVAL – retrieve voice, text and fax messages from one synchronized message store

OUTLOOK® CLIENT PLUG-IN – install an additional toolbar within Outlook to manage voice messages

FAX SERVICES – pro-actively provide fax senders with transmission status information right in the email in-box

Audio, Web and Video Conferencing

Comprehensive audio conferencing and web collaboration capabilities with features including:

SCHEDULED / AD-HOC CONFERENCING

AND WEBINARS – a variety of collaboration sessions, ranging from scheduled calls (one-time or recurring) to on-the-fly sessions

PARTICIPANT MANAGEMENT – a consolidated view of audio-only and collaboration participants, with integrated moderator controls

DESKTOP AND APPLICATION SHARING – share desktops, presentations, software applications, graphics and data of every kind

MULTI-POINT VIDEO CONFERENCING – a personal collaboration experience with video using ordinary webcams

PUBLIC AND PRIVATE CHAT – instant message with the option of archiving session transcripts

REMOTE CONTROL – request control of another participants desktop for back and forth collaboration

WEB-BASED COLLABORATION – lets people participate in collaboration sessions from a web browser

FILE TRANSFER – instantly transfer files to all or selected participants

DOCUMENT MANAGEMENT – place important files in public or private areas for future use

CONFERENCE RECORDING – record conference calls or collaboration sessions for future access or distribution

OUTLOOK® CLIENT PLUG-IN – install an additional tab within Outlook for automatic conference creation when creating a meeting request

For more information, please visit www.mitel.com

MiVoice 6900 Series IP Phones

Versatile family of 'Mobile First' IP Phones designed for today's mobile work style



The Mitel 6900 series is a family of powerful 'Mobile First' IP phones offering advanced integration with mobile phone calls and applications. Mitel's Mobile Integration capability enables the user's mobile phone to pair directly with the 6900's Bluetooth interface to deliver access to mobile phone features from the desk phone allowing both cellphone and IP calls to be managed from a single device. Mobile Integration allows mobile phone users to leverage the exceptional HD audio and comfortable ergonomics of the 6900 series phones for both IP and cellphone calls. The 6900 phones deliver crystal clear audio through a unique corded or cordless voice optimized handset and high performance hands-free speakerphone. Unparalleled flexibility is achieved through a broad array of add-on user installable accessories that enable the phones to be tailored to specific user needs. The 6900 family provides the flexibility and capability needed to meet the demanding needs of today's users.

Mitel 6900 Series IP Phones



MiVoice 6920 IP Phone

The MiVoice 6920 IP phone is designed from the ground up for the enterprise user who requires an exceptional HD audio experience via its unique voice optimized handset. It offers a large color LCD display, dual GigE, programmable personal keys and context-sensitive soft keys, support for both USB & Analog headsets.

- 3.5" QVGA (320x240 pixel) color display
- Speech optimized corded handset
- Programmable personal and Context sensitive soft keys
- Native DHSG/EHS analog headset support
- USB port for headsets and accessories

MiVoice 6930 IP Phone

The MiVoice 6930 IP phone commands the desktop with its large 4.3" color display, powerful crystal clear HD audio through the voice optimized handset, programmable personal keys, Bluetooth 4.1 with Mobile Integration, mobile phone USB charging point and choice of expansion modules makes the 6930 the choice of power users.



- 4.3" (480x272 pixel) color display
- Bluetooth 4.1
- Mobile Integration
- USB Mobile phone charging point
- Programmable personal and Context sensitive soft keys
- Speech optimized corded handset
- Support for optional Cordless handset
- Enhanced full-duplex speakerphone
- Highly customizable via optional accessories



MiVoice 6940 IP Phone

The MiVoice 6940 IP Phone is designed for executive users who demand a lot from their phone. The 6940 offers a large 7" touch display, powerful crystal clear HD audio through a unique cordless Bluetooth voice optimized handset and programmable personal keys. Mobile Integration, Dual Gigabit Ethernet ports and the full-duplex speakerphone ensure the 6940 delivers a robust, productivity-enhancing executive desktop communication tool.

- 7" (800x480 pixel) color LCD Touch Display
- Bluetooth 4.1
- Mobile Integration
- Mobile phone charging point
- Cordless BT speech optimized handset
- Enhanced full-duplex speakerphone
- Programmable personal and Context sensitive soft keys
- Highly customizable via broad array of optional add-on accessories

Common features for all Mitel 6900 phones & Comparison Feature Matrix

System Software Requirements

- MiVoice Business, R8
- MiVoice Office 400 R5.0
- MiVoice 5000 R6.4
- MiVoice MX-One R6.3
- MiCollab Client, Release 7.2.2

Audio and Codec

- Mitel Hi-Q Audio Technology
- Voice optimized handsets
- Hearing Aid Compatible (HAC) handset
- High quality full-duplex speakerphone
- Codecs (not all codecs supported by MiNet and SIP firmware):
 - G.711, G.729, G.722
 - G.722.1 (MiNet only);
 - G.726, iLBC AMR, AMR-WB (G.722.2) (SIP only)
- Headset connection interfaces – USB, Analog DHSG/EHS port, Bluetooth 4.1 (standard on 6930/40)

Integration and Connectivity

- Mobile Integration (standard on 6930/40)
 - *Mobile Call Audio via desk phone*
 - *Mobile Contact Sync*

- Support for Mitel Teleworker Solution, Automatic Call Distribution (ACD) agent and supervisor, hot desking and resiliency
- Support for use with MiCollab Client
- Multiple-languages Support: English, French, German, Italian, Portuguese, Spanish and Dutch (downloadable language packs for SIP)
- Secure encrypted voice communication
- Quality of Service support – IEEE 802.1 p/Q VLAN and priority tagging
- IEEE 802.1x authentication support
- Dual 10/100/1000 Mbps Ethernet ports (LAN/PC)
- Bluetooth 4.1 wireless interface (standard on 6930/40)
- Powered USB 2.0 Host port (100mA on 6920, 500mA on 6930/40)
- Sidecar expansion port
- Dedicated 4-pin modular headset port convertible to DHSG/EHS capable

Comparison Feature Matrix

	6920	6930	6940
Color LCD Display	3.5" (320x240) LCD	4.3" (480x272) LCD	7" (800x480) Touchscreen LCD
Mobile Integration	No	Yes	Yes
Dedicated LED for call, message waiting and Mobile Device Indication	Yes	Yes	Yes
Ethernet Ports	2 x GigE	2 x GigE	2 x GigE
Wideband Speakerphone	Yes	Yes	Yes
Bluetooth 4.1 Support	-	Yes (built-in)	Yes (built-in)

Bluetooth Handset Support	-	Yes (optional)	Yes (standard)
Wired Analog Headset Support	Yes	Yes	No
EHS Headset Support	Yes	Yes	No
USB Headset Support	Yes	Yes	Yes
Integrated DECT Headset	-	Yes (optional)	Yes (optional)
Detachable Keyboard Support	Yes	Yes	No (on screen keyboard)
Optional Wall Mount Support	Yes	Yes	Yes
LCD PKM Support	Yes (3 max)	Yes (3 max)	Yes (3 max)

Accessories

INTEGRATED DECT HEADSET



The Integrated DECT Headset delivers a range of up to 300 feet (100 meters) of personal area mobility, helping users avoid missed calls while stepping away to the printer, copier or colleagues' offices. Mitel's DECT Accessories are an ideal fit for all organizations and verticals including call centers, education, healthcare, hospitality and retail environments.

- DECT wireless technology – 300 foot (100 meter) range
- Premium mono-ear headset from Jabra
- Attaches to phone via phone's Expansion Port
- Powered directly by the IP phone
- Headset Call control buttons
- Supported on 6930 & 6940
- Available today for MiVoice Business. Q1 2018 for MiVoice Office 400, MiVoice 5000 and MiVoice MX-ONE

MiVoice S720 Bluetooth Speakerphone



The MiVoice S720 Bluetooth Speakerphone gives users the ability to untether themselves from their desk and take advantage of the added productivity that wireless communication delivers. Adding the benefit of completely hands-free communication, the MiVoice S720 enables users to work on their computers, handle documents, or take notes during conference calls. Making it the ideal fit for all organizations and verticals including office workers, education, healthcare, hospitality and retail environments.

- Battery powered with USB charging
- Dual connect – desk phone & mobile phone
- Ability to link two speakerphones together wirelessly
- Play stereo music from mobile
- Extend conference phone range
- Supported on the 6930 & 6940 IP Phone
- Available today for MiVoice Business. Q1 2018 for MiVoice Office 400, MiVoice 5000 and MiVoice MX-ONE

CORDLESS VOICE OPTIMIZED HANDSET



The cordless voice optimized handset allows users to enjoy clearly discernable conversations in a variety of environments without being physically tied to their desk phone. 6930 users can enjoy the freedom of cordless conversations for both IP and Mobile Integration calls by upgrading to the cordless handset.

- Supported on the 6930 (standard equipment on 6940)
- End user installable – 6930 comes standard with cordless handset charging contacts
- Answer/hang-up, mute and volume up/down buttons provided
- Ringtone played through handset while out of the phone cradle
- BT 4.1 Class 2 (10 meter / 30 feet range) wireless interface

WLAN ADAPTER



The WLAN Adapter delivers wireless 802.11 a/b/g/n dual band (2.4Ghz / 5Ghz) network connectivity to your 6900, 5300 or 6800 series phone. Wirelessly enable your IP Phone by simply connecting the WLAN Adapter to the Phone's network port via the supplied Ethernet cable and then configure the adapter to connect to your home office or enterprise wireless network. The WLAN Adapter supplies POE power to the connected phone for a clean and simple single wall adapter solution. The WLAN Adapter supports connection of a PC to the PC port of the connected phone with true 2x2 MIMO (300Mb/s) throughput. The WLAN Adapter delivers enterprise grade dual antenna connectivity and up to 802.1x security plus comes with a remote management application that allows administrators to remotely manage adapters deployed within their user community.

Features	Mitel WLAN Adapter
Wireless	802.11a/b/g/n (dual band 2.4 and 5 GHz)
Ethernet	10/100/1000
Security	WPA/WPA2 Personal Enterprise with 802.1x Authentication
Antenna	Two (internal)
MIMO	2x2 MIMO
Max Link Rate	MSC0 to MSC15 (300Mb/s)

Additional Software Security	Ethernet MAC Address Intrusion Alert
Config from Phone	Yes (Future)
MAC Address Transparency	Yes
Support PC plugged into Phone	Yes
POE+	Yes to power the phone + installed accessories
Remote Management	Yes via Remote Management Application
Bulk updates	Yes via Remote Management Application
Set Up	WPS, Remote Manager, Direct Config, Web

EXPANSION MODULES



The Mitel M695 can easily add 28 buttons to the existing Personal keys on a 6920, 6930 or 6940, enabling the MiVoice 6900 Series IP phones to become robust productivity enhancing desktop communication tools for users who need to monitor a large number of lines or Busy Lamp Fields. The M695 attaches easily to the 6900's sidecar expansion port which provides power to the attached PKM(s) for a clutter free desktop. Up to three modules can be daisy-chained together to provide up to 84 programmable keys that can be programmed with all of the same feature types available on the Personal keys of the base phone.

- Supported on the 6920, 6930 and 6940
- 28 programmable keys
- 4.3" 480x272 pixel color backlit LCD display
- Additional M695 PKM's can be daisy-chained for a combined total of up to 3 modules
- All attached PKM's powered by the phone – no separate power adapter required

MiVoice Business Overview

Business Communications Your Way, with Comprehensive and Flexible Solutions for On Premises or in the Cloud



In today's fast-paced, competitive, technology-led business environment, business success is built upon establishing & maintaining relationships, providing exceptional levels of service, and connecting with customers & colleagues in a timely manner.

So having the ability to quickly and effectively communicate and collaborate with customers, partners, colleagues and suppliers is critical to the growth of your business.

At Mitel, Job 1 is understanding your business needs and your infrastructure preferences, including what communications solution components to deploy and where to deploy them—on premises, in the cloud, or both - so that you can maximize your Return on Investment (ROI).

Together, Mitel MiVoice Business, Mitel MiCollab, and Mitel MiContact Center comprise a complete, cost-effective, unified communications solution that fits seamlessly into your existing IT framework to meet all of your business needs.

Key Business Solutions

- Mobility
- Unified Communication and Collaboration
- Unified Messaging
- Contact Center
- Full Range of Desktop Devices and Accessories

MiVoice Business provides the foundation to building a flexible, real-time communications landscape that can help your business with addressing the different needs of your employees. Whether it's related to job roles, varying levels of mobility within or outside of the business, or the daily use of business applications or industry frameworks, MiVoice Business can address your current needs, yet evolve with your business as your IT strategies and communications needs change.

Mobility

The reality of the current business landscape is that work often takes employees away from their desks, and their desk phone, each day.

With MiVoice Business, employees are provided with access to the same "in-office" communications experience from anywhere with a single identity, phone number, voice mailbox, and extension.

MiVoice Business's embedded mobility solutions deliver employees greater freedom to communicate from wherever their business takes them, without the burden of escalating mobility costs.

DYNAMIC EXTENSION

MiVoice Business's embedded Dynamic Extension solution provides businesses with the ultimate in cost-effective, "no compromise" mobility by letting employees select up to eight devices (regardless of device type) to act as their business phone, so all of their phone numbers collapse into one, giving them a single identity through their business extension.

HOT DESKING

Hot Desking allows employees to log into any Mitel MiVoice IP Phone, located at any of your offices, or even at their home, so they continue to be accessible and productive by having their calls routed to the device they are logged in to.

With MiVoice Business's External Hot Desking function employees can even log into external communications devices, such as their home phone, in order to take calls just like they would if they were using a Mitel IP desk phone in the office.

TELEWORKER SOLUTION

The Mitel MiVoice Border Gateway teleworker solution provides remote and mobile employees with seamless, secure access to the full set of MiVoice Business communications capabilities wherever they are, using any Mitel IP desk phone or MiCollab Client soft phone.

Unified Communications and Collaboration

A direct result of today's world of business is that organizations are faced with a number of challenges. From how to get employees to efficiently and effectively work together to help drive change throughout the business to ways to improve client interactions that drive increased revenue?

Mitel's MiCollab is an integrated suite of unified communication and collaboration solutions that work seamlessly together to allow employees to effectively and effortlessly connect with colleagues, customers, and partners - no matter where their day takes them.

MICOLLAB CLIENT

MiCollab Client provides employees with a single access point for all their business communications and collaboration needs. Employee instantly benefit from real-time access to everyone in the organization to enhance the overall effectiveness of “in the moment” communications. Furthermore, going mobile is simple with MiCollab Client for mobile devices. When installed on an employee’s mobile device (BlackBerry®, Android™, Windows Phone® and iPhone® / iPad®) key unified communications (UC) capabilities are extended to the mobile worker, such as presence and availability of colleagues, single number identity, instant messaging, visual voice mail, and more. Android, and iOS devices, additionally benefit from an integrated SIP softphone that allows voice over Wi-Fi or 3G/4G and point-to-point video so that they can remain connected, while on the move.

MICOLLAB - AUDIO, WEB AND VIDEO CONFERENCING

MiCollab audio, web, and video conferencing provides access to conferencing and collaboration tools that are vital to having a workforce that is connected with others - both inside and outside of the business - wherever they are. This includes being able to easily create scheduled and ad-hoc conferences on the fly, sharing applications and documents during a meeting, and conducting multi-point video conferencing with others using a standard PC webcam.

Unified Messaging

Unified Messaging enables your employees to respond faster to clients and colleagues through single message storage and access. With MiVoice Business your employees have anywhere, anytime access to messages with an integrated, fully-featured voice mail system, that provides unified messaging and automated attendant capabilities.

MIVoice EMBEDDED MESSAGING

Mitel’s MiVoice unified communication platforms offer entry-level embedded voice mail solutions that provide cost effective voice and unified messaging solution for under 748 users.

MICOLLAB UNIFIED MESSAGING

For more size and sophistication, Mitel’s MiCollab solution offers Unified Messaging capabilities for businesses with 2800 users or less. MiCollab Unified Messaging is available on both physical and virtual deployments and offers a full-featured and flexible unified messaging solution with a low total cost of ownership to satisfy the diverse needs of your organization.

MITEL NUPOINT UNIFIED MESSAGING

Mitel’s NuPoint Unified Messaging solution is a highly scalable, robust, and sophisticated messaging solution, scaling up to 120,000 users, and offers unique deployment integrations, such as Hospitality, and is available for physical premises-based or virtual deployments.

Contact Center

Contact centers can help improve your customers’ experience by ensuring that calls always go to the right agent – anytime, anywhere, and by any means. In fact to meet the needs of internal “customers,” some departments within your organizations may even perform a contact center role without thinking of themselves as contact centers.

MiVoice Business’s fully integrated contact center solution can assist your business with the delivery of excellent customer service that helps nurture relationships and ensure operational efficiency. MiVoice Business also supports the following management, reporting, and advanced routing solutions as well.

SMALL FORMAL CONTACT CENTERS

MiContact Center Business delivers robust contact center, IVR, and multimedia functionality and reporting but packaged specifically for small contact centers that have sophisticated, enterprise-grade requirements.

LARGE-SCALE ENTERPRISE-GRADE CONTACT CENTERS

MiContact Center Business is a robust, highly flexible solution that delivers feature-rich IVR capabilities and contact center monitoring, reporting, forecasting, and agent productivity tools for the most sophisticated contact centers, including virtual, multimedia contact centers with multiple locations and remote agents.

OUTBOUND CONTACT CENTERS

MiContact Center Outbound is a preview, progressive, and predictive outbound dialing solution that includes tightly integrated Customer Relationship Management, campaigning, and agent scripting capabilities.

Full Range of IP Desktop and Accessories

Customer service personnel, office administrators, and call center agents. Many employees who perform similar roles within your business can spend their whole day on the phone. That is why having the right desktop phone that can provide them with access to convenient features and appropriate functionality is essential to making their jobs easier and helps them perform better.

Whether it's personal huddle room solutions for executives, or add-on peripherals for keeping front-line personnel in touch anywhere and anytime, MiVoice Business offers a full range of IP desktop devices, accessories, and meeting room solutions that deliver advanced applications when and where you need it.

MIVOICE 5300 AND 6900 SERIES IP DESKTOP

From affordable entry-level IP phones to rich media information devices, MiVoice 5300 and 6900 Series have the right communications solutions for your employees. These include cost-effective two-line phones, traditional button phones, and self-labeling application phones that provide users with ample personal programmable keys.

MIVOICE PERIPHERALS & ACCESSORIES

Complementing the MiVoice 5300 and 6900 Series IP phones are MiVoice Desktop Peripherals that offer additional enhancements to existing MiVoice IP phones in order to evolve an employee's phone. These include the Mitel IP DECT Stand and DECT Handset that provides employees personal mobility up to 150 feet away from their desk, Cordless DECT Handset and DECT Headset to provides employee's with hands-free and cord-free communications for up to 300 feet away from their desk, and Personal Key Modules to provide phone power users with additional personal, programmable keys.

MEETING ROOM SOLUTIONS

MiVoice meeting room solutions make it easier for your employees to engage in the kind of productive collaboration that helps drive innovation. Whether it's to provide audio conferencing services or drive video collaboration in the boardroom, MiVoice meeting room solutions enable you to extend effective conferencing and collaboration throughout your entire business.

ATTENDANT POSITION CONSOLES

Whether it's a hard-button console that looks like a phone or a completely PC-based solution that provides the ability to view and change employee presence status, MiVoice Business has a solution for your operators and receptionists to assist with delivering a positive experience to your callers.



MiVoice Business's open, fully modular Freedom Architecture is agnostic when it comes to data infrastructure and communications components.

Deployment Flexibility

MiVoice Business call control software allows you to operate your communications system with flexibility, ease, and reliability on your choice of hardware platform:

- The family of Mitel 3300 Controllers
- Industry standard servers from Oracle®, HP®, IBM®, and Dell®
- Stratus® servers for mission critical server reliability
- VMware® vSphere™ and Microsoft® Hyper V™ virtualization platform, support for businesses that want to manage business communications like any other application in their data center
- Multi-Instance deployment for high-density call control required by large businesses and service providers

With a choice of deployment models (distributed, centralized, private and public cloud) as your IT strategy shifts, so too can your communications strategy.

Freedom from Walled Garden Architectures

MiVoice Business frees your business from a 'walled garden' approach that forces you into proprietary technologies, by letting you choose the hardware and UC components that work best for your business. Through its Freedom Architecture, MiVoice Business provides integration with most of the industry's widely deployed back office applications, including email, presence and instant messaging (IM) engines, and customer relationship management (CRM) solutions.

STANDARDS-BASED ARCHITECTURE

Adhering to industry standards, MiVoice Business enables your businesses to leverage your existing business infrastructure and provides a smooth transition to a network-centric communications model. MiVoice Business's core call control features and functionality are the same regardless of the hardware platform or solution deployment model and can operate across virtually any LAN / WAN infrastructure. With native support for legacy networking standards such as Q.SIG

and DPNSS in addition to digital trunking protocols for central office (PSTN) access, MiVoice Business offers your businesses the ability to retain existing investments irrespective of legacy PBX, while delivering all the advantages of a converged communications infrastructure.

SIP PROTOCOL SUPPORT

When it comes to open standards, MiVoice Business natively supports connection to both SIP lineside devices and SIP trunks. No extra hardware or software is required to support SIP users or trunks, greatly simplifying the solution administration when using the SIP Protocol.

INTEGRATION WITH BUSINESS APPLICATIONS

In concert with the Mitel Open Integration Gateway, the rich communications capabilities of MiVoice Business can be fully embedded within key business frameworks, such as Salesforce and Google to drive workflow process efficiencies in communications and client interactions for your business.

Simple, Powerful, Web-Based Management

MiVoice Business in conjunction with the Mitel MiVoice Enterprise Manager deliver a broad range of administration functions and capabilities all within a simplified web-based management architecture that reduces the time and resources required to perform tasks and administer changes. System changes are automatically synchronized across the solution, and management control and tasks can be delegated across the organization, rather than relying on a centralized point.

SIMPLE END USER PROVISIONING

Administrators can quickly create and provision new employees with preformatted departmental role-based templates. Employee information is automatically synchronized across all other MiVoice Business solutions in the network ensuring database reliability. Integration with Microsoft® Active Directory® means administrators can configure a user once in Active Directory, and the user will automatically be configured within MiVoice Business – saving your business considerable time, and simplifying large deployments.

Technical Specification

LANGUAGES SUPPORTED

English, Dutch, French, Italian, German, Portuguese (Europe), Portuguese (Brazil), Romanian, Russian, Swedish, Polish, Spanish (Europe), and Spanish (Latin America).

INDUSTRY STANDARD SERVER HARDWARE REQUIREMENTS

Specifications

CPU	Dual CPU, Quad Core Intel Nehalem®, Intel 55xx (2.26 GHz minimum), or later revision with Hyperthreading enabled
Hard Drive	146 GB SATA x2 (292 GB), 146 GB usable
Ram	6 GB
NIC	Integrated Dual 10/100/1000 Mbps

Supported Mitel Platforms

Mitel Standard Linux ¹ (MSL)	MSL 10 (or higher)
Mitel StreamLine	Release 1.0 or higher
Mitel Open Integration Gateway	Release 3.0 or higher

Supported Mitel Platforms

Mitel MiCollab	Release 7.2.2
Mitel MiCollab Client	Release 7.2.2
Mitel MiCollab: Unified Messaging	Release 7.2.2
Mitel MiCollab: Speech Auto-Attendant	Release 7.2.2
Mitel MiCollab: Audio, Web, and Video Conferencing	Release 7.2.2
Mitel MiVoice Border Gateway	Release 9.4
Mitel NuPoint™ Unified Messaging	Release 8.2.2
Mitel Speech Auto-Attendant	Release 6.0
Mitel MiContact Center Business	Release 8.1
Mitel MiContact Center IVR Routing	Release 8.1
Mitel MiVoice Analytics	Release 8.1

Supported Business Frameworks

Google	Gmail (MiVoice integration), Google Chrome
Microsoft	Lync 2010, Lync 2013, Skype for Business, Office 365 (Mitel NuPoint UM, MiCollab audio, web and video conferencing and MiCollab Client), and Hyper V
Salesforce	Salesforce Professional, Enterprise, Unlimited, Force.com, Developer, & Performance Editions
VMware	VMware vSphere™ 6.0, with VMware VSphere client

¹ Linux[®] is the registered trademark of Linus Torvalds in the U.S. and other countries.

Mitel MiVoice Business

RELEASE 9.0

GENERAL INFORMATION GUIDE



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MiVoice Business - General Information Guide

Release 9.0

November 2018

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ABOUT THIS DOCUMENT

OVERVIEW

This guide provides an overview of the MiVoice Business call-processing software and its host hardware platforms, the Mitel® 3300 IP Communications Platform (ICP), and Industry Standard Servers (ISSs). The topics covered in this guide include

- A description of the system architecture and components
- Migration strategies
- Supported applications



Note: The AX controller is not supported in the current release.
The AX controller will be supported in the MiVoice Business Release 9.1.

AUDIENCE

This guide is intended for

- End customers
- Sales executives
- Consultants
- Industry analysts
- Media analysts
- Sales engineers
- System engineers

RELATED DOCUMENTATION

You can access documentation on the Mitel Customer Documentation web site at <http://edocs.mitel.com>. You require a Mitel Online account username and password to view and download technical documentation. However, you do not need a username and password to view and download end user documents, such as telephone (phone) user guides.

The following guides provide complete information about MiVoice Business and the 3300 ICP:

- **General Information Guide:** an overview of the system
- **Site Planning Guide:** site planning and site preparation guidelines
- **Technician's Handbook:** installation, upgrade, and maintenance instructions
- **Hardware Technical Reference Manual:** hardware specifications
- **System Administration Tool Online Help:** programming, maintenance, and troubleshooting procedures
- **Troubleshooting Guide:** information on diagnosing and resolving common problems with MiVoice Business.

- **Resiliency Guidelines:** a comprehensive overview of the Mitel Resiliency solution and offer customers the tools to understand, plan, and implement a resilient network
- **Engineering Guidelines:** information required to engineer a MiVoice Business system for a customer site. The guidelines are intended to highlight specific areas of the product that need to be considered before installation.

OVERVIEW

Mitel MiVoice Business provides businesses of all sizes with a scalable, feature-rich communications system using a single stream of software. MiVoice Business is designed to meet the needs of businesses that have from 5 to 130,000 users, whether they are single-site deployments or multi-site networks that span many countries.

PLATFORMS

MiVoice Business is a modular, scalable system that runs on the following hardware platforms:

- Mitel 3300 ICP controllers, including Mx3 III, CX II, CXi II, AX, and EX
- Industry standard servers from Oracle®, HP®, IBM®, and Dell®
- VMware® vSphere™ and Microsoft® Hyper V™ virtualization platforms
- Multi-Instance deployment for high-density call control required by large businesses and service providers

MODULAR PLATFORM DESIGN PROVIDES SCALABILITY AND FLEXIBILITY

Deploying MiVoice Business on the above-mentioned platforms enables customers to meet current requirements and invest in a system that can grow with them as their business expands. The core call control features are the same regardless of the hardware platform, and functionality (such as trunk support) can be provided through field-installed modules for some platforms. This hardware commonality ensures that as a business grows the majority of a customer's investment is protected when a controller chassis is upgraded.

ABOUT MIVOICE BUSINESS

You can deploy MiVoice Business to support a broad spectrum of site configurations. For example, you could

- Implement a highly centralized solution at the head office with the call control and IP telephony services delivered over Wide Area Network (WAN) connections to small branch offices.
- Configure larger branch offices with main controllers on site to provide local support.
- Cluster an entire network of controllers to function as one large system.

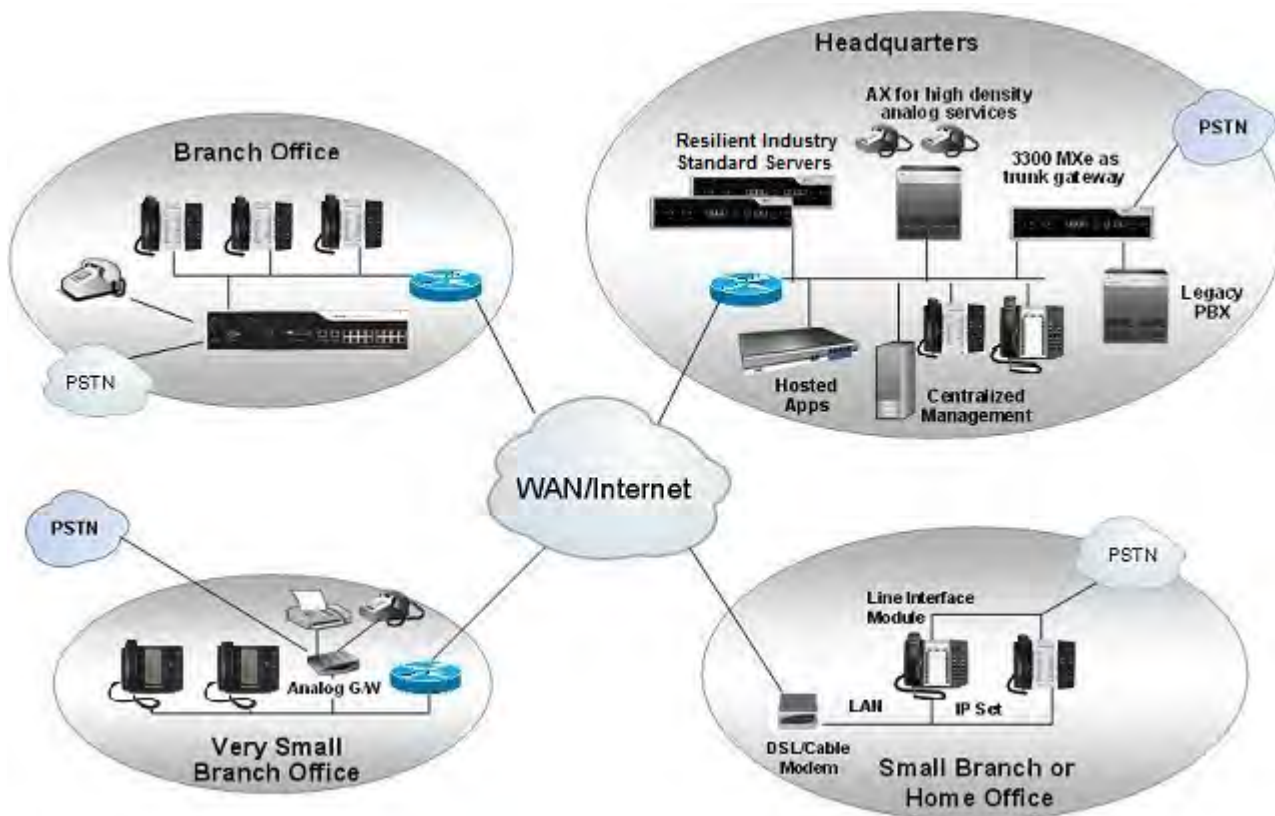


Figure 1: MiVoice Business Site Configuration

For smaller organizations, Mitel delivers a 3300 ICP system which incorporates a powered Ethernet switch and has a number of embedded applications that can be complemented with MiCollab.

For large organizations or multi-site deployments, you can deploy up to 999 controllers in a cluster to deliver extensive features, services, and applications. These controllers use a peer-to-peer communication protocol to share management and administration data between systems to ensure consistency of features and applications without incurring high management costs.

On large sites, key functionality is typically hosted by dedicated “task-specific” controllers with all users connected over an IP network. For example, a large organization might have the following setup:

- 5000 users on an industry standard server with a backup MXe III Controller to provide resilient support
- An MXe III Controller acting as a trunking gateway with connections to the traditional telephone network for outside access
- A dedicated NuPoint unified messaging Server for voicemail, automated attendant, and unified messaging

Networking With Industry-Standard Protocols

Use of open standards, such as SIP, interconnects next generation network services and applications to support new desktop devices. Customers can be assured that their investment in a Mitel solution will be developed and expanded into the future because the solution is not limited by proprietary protocols. And while our focus is to deliver a complete communications solution that meets the needs of today with potential to deliver more in the future, our solution also supports an extensive list of legacy protocols and devices.

Reliability Through Redundancy and Resiliency

Mitel supports VMware® to enable voice and business applications to run together in fault tolerant, highly available environments. Mitel's unified communications features run as virtual appliances on the VMware vSphere™ virtualization platform.

Mission-critical environments can use industry standard servers that have the processing capacity to power redundancy and can provide some models of the 3300 ICP with hardware redundancy and resiliency. Resiliency automatically transfers support for an IP phone to an alternate controller in the event that the phone cannot communicate with its primary controller. By taking advantage of IP-networking, resiliency provides an extremely flexible solution to enhance system reliability. It uses resources that are spread across the network to optimize hardware resources and ensure there is no single point-of-failure.

MiVoice Business Virtual offers the same MiVoice Business functions and capabilities, while being treated like any other virtualized application in the data center. With MiVoice Business Virtual, you can access the full range of standard MiVoice Business telephony features such as Dynamic Extension, clustering, resiliency support, SIP service provider interconnect, and multi-node management.

Mitel's resiliency solution uses Spanning Tree Protocol and Rapid Spanning Tree Protocol (STP/RSTP). These protocols allow physical path redundancy between Ethernet switches. They place redundant network paths into standby mode by blocking traffic on redundant ports. Then, if a currently active network path fails due to a Bridge/Switch failure or a network cabling failure, STP/RSTP enables a standby network path and network connectivity is restored.

Hardware reliability is enhanced by the use of solid state hard drives in some models of the 3300 ICP.

APPLICATIONS THAT ENHANCE PRODUCTIVITY

MiVoice Business includes an extensive number of applications that provide significant value to an organization and its employees. These applications enhance communication, productivity, accessibility, mobility, and support the specialized site requirements of businesses and institutions, such as hotels, hospitals, schools, military sites, and call centers.

Mitel Networks also supports the integration of third-party applications through the Mitel Solutions Alliance (MSA). The program helps businesses to develop custom applications or features to achieve higher productivity.

DEVICES THAT SUPPORT USERS

Mitel offers a wide selection of attractive, easy-to-use IP devices to meet the needs of employees, managers, executives, and attendants. These IP devices provide quick access to powerful system features through programmable feature keys, softkeys, and menu-guided applications such as Call Forwarding and Call History. Mitel provides the following devices:

- Display Phones
- Desktop Application Phones
- Wireless Phones (DECT and WiFi)
- Session Initiation Protocol (SIP) Phones
- Consoles
- Conference Units
- Video Conferencing Devices
- Digital Phones
- Phone Accessories
- Softphones
- PC Clients

TOOLS THAT MINIMIZE CONFIGURATION AND SUPPORT

MiVoice Business includes tools that simplify Installation, configuration, administration, and the work of end-users, group administrators, system administrators, and installers. The tools and their functions are as follows:

- End user tools allow users to maximize the value of the system features.
- Administrator tools simplify system and user configuration.
- Management tools automate the tasks required to support large scale installations.
- Maintenance tools reduce the time and costs associated with system support.

EXTENSIVE SYSTEM FEATURE SET

MiVoice Business has an extensive list of end-user and system features that support effective and efficient communications. The system administrator can enable or disable features through the System Administration Tool and can create Classes of Service to define levels of feature support for each different group of users. For example, a Class of Service can be created to provide executives with advanced calling privileges, such as Executive Busy Override.

Administrators can use the default features and system settings to minimize configuration requirements, or can configure these settings for maximum flexibility. Administrators can enable or disable system settings across the entire system or network.

MIGRATION MADE EASY

Because of Mitel's long history in voice communications, Mitel continues to support a host of protocols which facilitate a smooth migration to Voice over IP support—whether your legacy PBX is from Mitel or another supplier.

You can deploy the 3300 ICP as a network gateway to link multiple traditional PBX's together over a WAN connection, eliminating costly private circuits, or deploy it as an applications gateway that delivers critical functionality to a defined user community without disrupting the broader organization. These deployment models allow organizations to migrate at their own pace, when it suits their needs.

MIVOICE BUSINESS SOFTWARE OVERVIEW

Mitel delivers sophisticated call management applications and desktop solutions on the 3300 ICP platform. Scalable, resilient, call control functionality is powered by IP and fully supports traditional TDM based telephony for legacy devices and PSTN connectivity.

Mitel's architecture uses the IP network to connect IP telephony devices. It also switches calls between traditional phone devices:

- For IP telephony, it provides call setup, tear down, and signaling between Ethernet IP connected phones.
- For traditional telephony, such as POTS and PSTN trunks, it handles calls via a conventional TDM circuit-switched subsystem.

This ability to use two different switching techniques simultaneously means that

- All traffic is switched with minimum conversion between packet and traditional telephony to provide optimum voice quality in all call scenarios.
- Embedded gateway functionality is required only between IP and non-IP networks optimizing the use of system resources.
- Migration from traditional PBX to IP telephony is seamless and efficient.

MiVoice Business provides call control features and applications that enhance business communications.

LICENSING

The MiVoice Business license strategy delivers simplicity and flexibility while maintaining cost effectiveness.

Every MiVoice Business system, whether it is deployed on a Mitel 3300 controller, Industry Standard Server or a virtual appliance, requires a Core package that sets the MiVoice Business System Type and allocates specific licenses for immediate customer use. Further licenses can be purchased and allocated required. The core software package also defines any license limitations or restrictions.

SYSTEM TYPE

MiVoice Business systems are activated either as Standalone or Enterprise Systems. The underlying software running the two system types is the same; however, the different system types allow Mitel to present the MiVoice Business solution to different markets and customer segments while using the same software stream.

As of Mitel Communications Director Release 5.0, virtual MiVoice Business systems can be activated as Standalone or Enterprise Systems.

The Enterprise System provides the inherent networking capabilities of MiVoice Business along with full User and Device resiliency.

INDIVIDUAL USER LICENSES

Individual User Licenses include

- **User License:** enables an IP device to be fully activated for all features or can be used for a Hotdesk User as the user logs on to a phone that does not have a license
- **External Hotdesking license:** enables an off PBX number to be added to the system and is typically used to add a mobile phone for twinning
- **ACD Active Agent license:** permits concurrent usage license—one required for each concurrent agent log in
- **HTML license:** required for certain HTML applications
- **Analog line license:** required for each ONS port enabled on the ASU II
- **Voice mail licenses:** one license is required per mailbox, also used for auto attendant applications
- **Multi-device User License:** intended for users who have a range of devices: desk phones, soft phones, mobile phones, in-building wireless phones
- **Suite License:** used in Hospitality solutions where up to six phones can be added to a single suite using only a single Suite license

Individual user licenses may vary depending on whether the customer's system type is Standalone or Enterprise: Enterprise Systems require Enterprise User licenses and Enterprise ACD licenses and Standalone Systems require Standard User licenses and Standard ACD licenses.

TRUNKING AND COMPRESSION LICENSES

Individual Trunking and Compression Licenses include

- SIP Trunk license
- Digital Link License
- G729 Compression licenses
- T38 Licenses

With the introduction of the Standalone and Enterprise System types, the system wide license options available are as follows:

- Integrated Directory Services Integration
- Voice mail - Hospitality
- Enterprise License Sharing

Enterprise License Sharing allows Enterprise customers to group all MiVoice Business systems together and move licenses around their solution.

COMPRESSION

Bandwidth optimization is a key requirement of VoIP systems: MiVoice Business supports G.722.1 and compresses calls using G.729a. Compression reduces the bandwidth of a call from 64 kbps to 8 kbps plus packet overhead. By using voice compression across the LAN/WAN infrastructure, you can optimize bandwidth usage for voice calls. The mechanism for managing this feature is based on zones. You can place groups of MCS devices in zones to compress calls between zones (not within zones). You can define zones within a controller's LAN infrastructure, between remote IP devices and the controller, and across the WAN for multiple controller networks.

Most MiVoice IP Phones inherently support voice compression: calls between IP Phones on the LAN/WAN infrastructure can be compressed as required. For example, a call between IP Phone B and IP Phone D (over the LAN or WAN) can be compressed without system compression resources.

G.729a compression is also supported for calls that have TDM (Digital or Analog) endpoints that cross the LAN/WAN infrastructure. For example, a call from TDM phone A to IP Phone D can be compressed using compression resources in controller A to compress the LAN/WAN segment between Controller A and IP Phone D. The same compression occurs if TDM Phone A called TDM Phone C over the LAN/WAN, except that in this case compression resources would be required on both controllers.

You can purchase optional compression licenses and DSP modules to enable TDM-to-IP compression on the 3300 ICP.

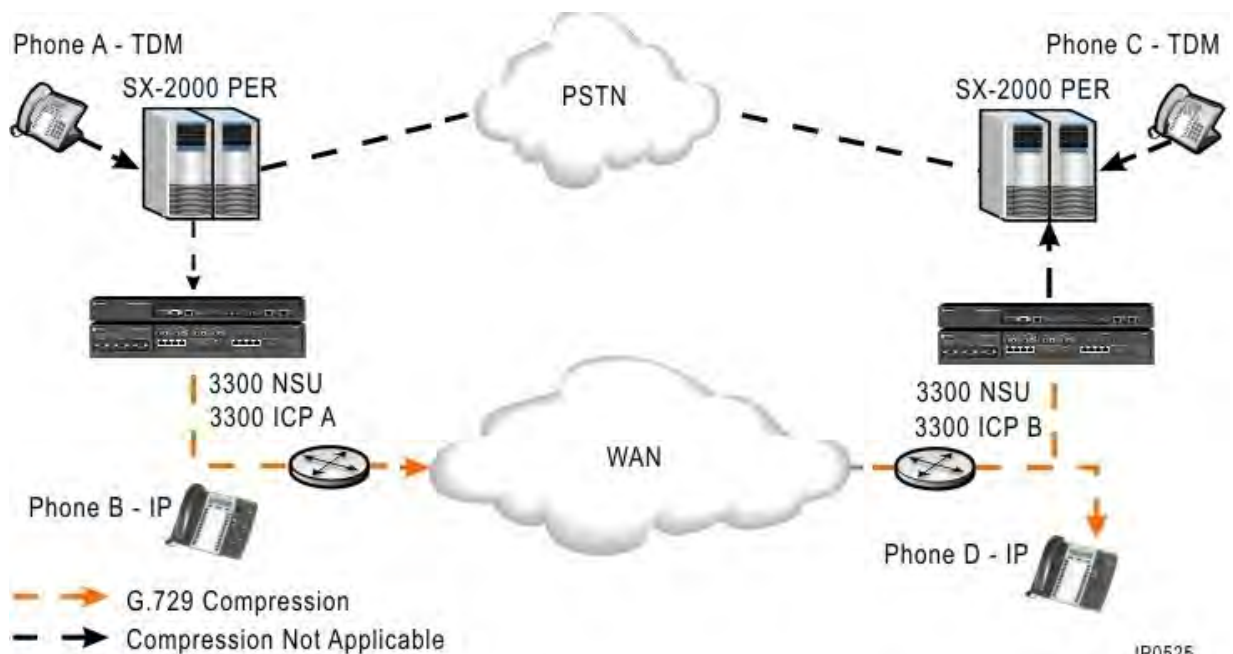


Figure 2: Voice Compression Between 3300 ICPs

IP0525

IP NETWORKING

IP Networking enables you to network systems together. Instead of leasing dedicated voice circuits, you can route voice traffic over the existing LAN/WAN infrastructure. The Mitel IP Networking implementation uses point-to-point topology to optimize network resources.

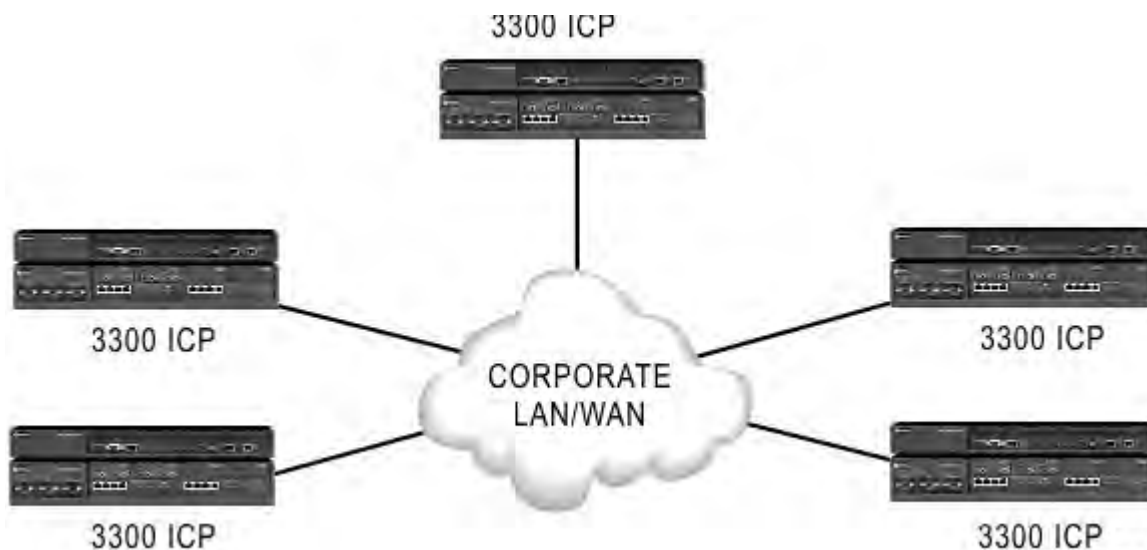


Figure 3: IP Networking - Point to Point Topology

IP Networking supports the MSDN/DPNSS protocols over the IP infrastructure. You can cluster controllers in a single location to provide greater resiliency than that of a single controller operating autonomously. You can seamlessly network geographically separated controllers to share information and services in a transparent and cost efficient manner. IP Networking can be used as the primary communication between controllers or as a backup to TDM networking.

The IP Networking feature supports G.711 and G.729a encoding. Connections with up to 999 other network nodes are supported. A total of 2000 IP network connections are supported from any one node and up to 200 connections can be defined between any two nodes.

SIP TRUNKING

To manage costs within their organizations, many companies opt to replace their traditional PSTN connections with new SIP services deployed by service providers.

MiVoice Business connects to service provider networks using the SIP protocol over the IP network. The SIP Trunking solution provides many features, such as basic calling features, billing capability, Emergency Services support, and FAX support.

Mitel operates a SIP center of excellence. The SIP team undertakes interop activity. They use the SIP protocol to certify integration with SIP service providers for applications that connect to MiVoice Business using SIP and third party SIP devices. Mitel OnLine publishes interop compliance policies on a monthly basis.

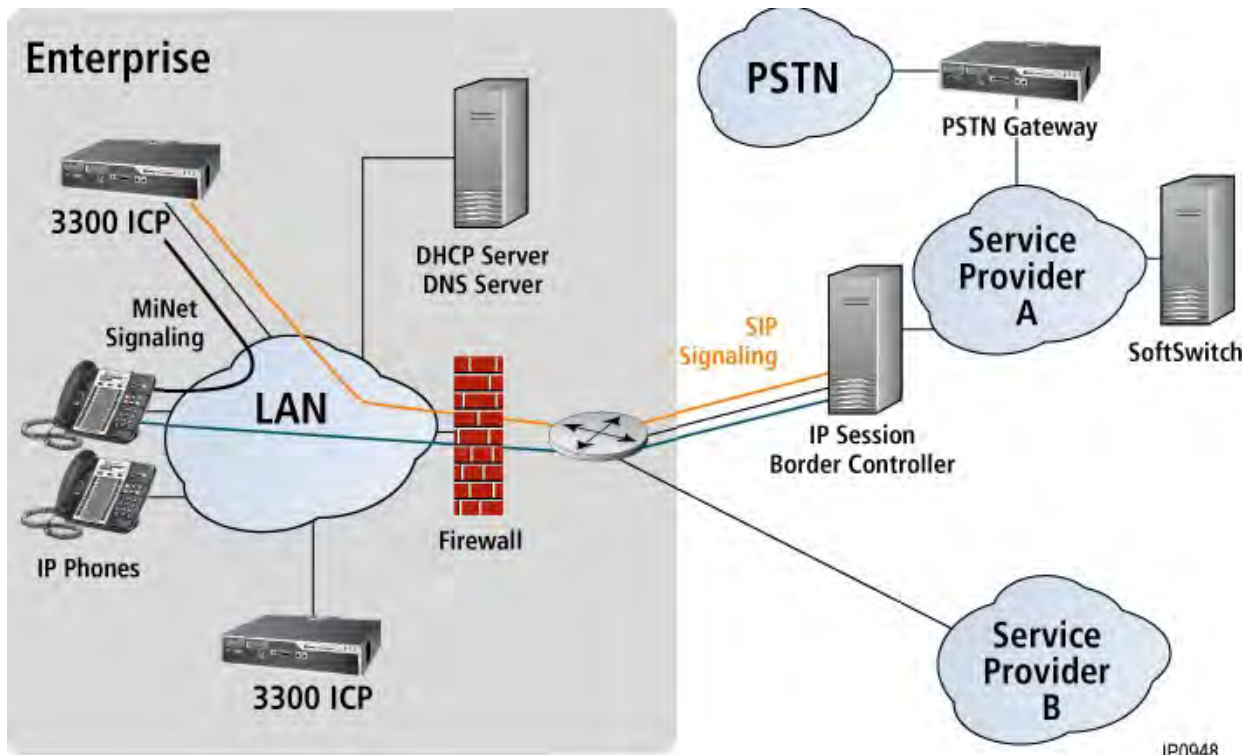


Figure 4: SIP Trunking

CONFIGURABLE REAL-TIME TRANSPORT PROTOCOL (RTP) PACKETIZATION

MiVoice Business administrators can configure a voice stream packet rate for SIP trunks to their service providers between 10ms to 80ms (with 10ms increments).

MALICIOUS CALL TRACE

For incoming SIP calls that are tagged as Malicious Calls, MiVoice Business records the Media IP address and port used remotely and captures SIP signalling information. This information cannot be sent to the SIP Service Provider but is recorded if required.

FAX SUPPORT

You can configure the MiVoice Business network to allow faxes to be sent over the IP network using G.711 pass-through or IP network using FAX Relay (T.38).

Real-time, Group 3 FAX communication over IP networks using FAX Relay (T.38 standard protocol) allows you to transmit and receive facsimile over IP trunks between FAX machines on 3300 ICP (Release 9.0 or later) systems.

BANDWIDTH MANAGEMENT

One of the key benefits of IP telephony is the opportunity to reduce costs and ongoing management by eliminating controller hardware at small remote sites. IP phones can readily be deployed across the WAN (or Internet using the MiVoice Border Gateway teleworker service)

hosted by a centralized MiVoice Business controller with gateways for remote survivability. When you deploy remote sites, you must ensure non-voice data has adequate bandwidth and voice quality is preserved.

If the bandwidth between locations is restricted, you can reduce consumption by applying compression to voice traffic between IP Phones. Compression reduces the bandwidth demands of a standard voice call (G.711) by compressing the call using the G.729/G.722.1 codec. Compression is applied to calls between the zones of IP Phones.

In addition, Mitel provides a bandwidth management feature that helps IT managers plan and justify network capacity expansions and perform the following tasks at predetermined zone access points (ZAPs) between the zones in a network:

- Measure and report consumed and available bandwidth.
- Establish maintenance alarms when bandwidth consumption exceeds configured threshold levels.
- Provide Call Admission Control (reject new calls through a specific bottleneck point if the consumed bandwidth exceeds the maximum configured levels).

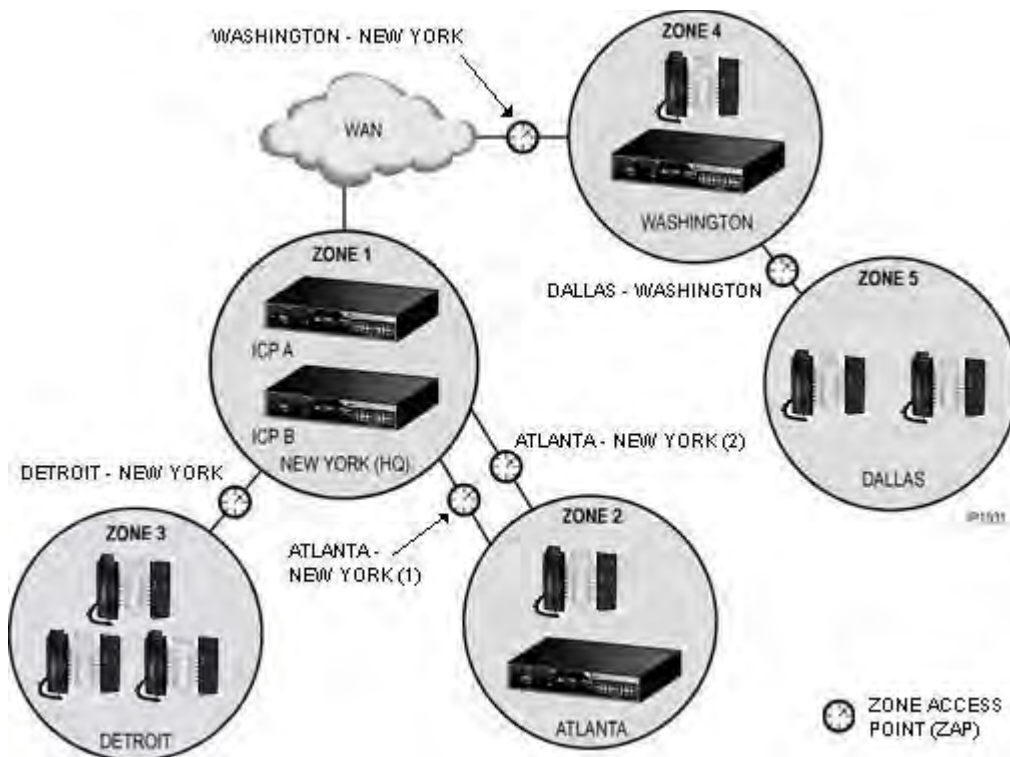


Figure 5: Bandwidth Management at Zone Access Points

RESILIENCY

Resiliency on MiVoice Business increases the reliability of communications by maintaining calls in progress, handling new incoming and outgoing calls, and continuing to provide voice mail services in the event of MiVoice Business or network failures. The Resiliency solution preserves system functionality in the event of network difficulties by distributing network intelligence throughout “resilient” clusters that anticipate and pro-actively mitigate system failures.

By taking advantage of IP-network characteristics of location independence, resiliency provides a flexible solution to enhance system reliability. By using resources that are spread across the network, resiliency ensures there is no single point of failure and optimizes hardware use. Resiliency provides an advantage over many other competing alternatives where solutions involve costly hardware redundancy for each controller.

If the primary controller experiences a service outage, support for resilient devices is automatically transferred to the secondary controller. During the transfer of phone service between the primary and secondary controllers, calls in progress are maintained, ensuring that IP phone users are not affected by the controller outage. The following figure illustrates how you can configure a site with fully resilient devices. Node B is the secondary controller for the phones on Node A, and Node A is the secondary controller for the phones on Node B. If a controller experiences an outage, phone support is transferred to its secondary controller.

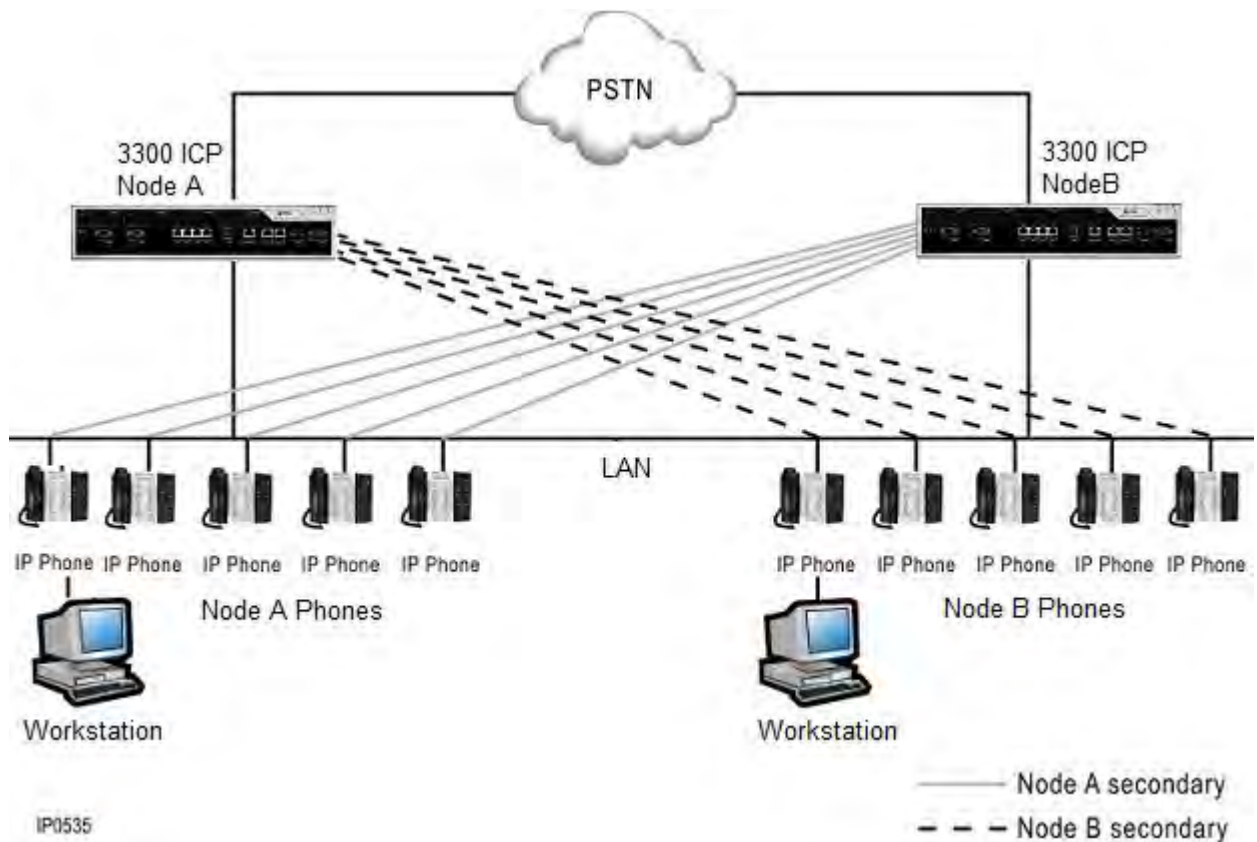


Figure 6: Resilient Configuration

ADVANTAGES OVER REDUNDANCY

Resilient solutions are less costly and more flexible than redundant solutions. While the redundancy model is highly effective and reliable, it is unnecessarily costly for some customers.

Distributed resilient networks enable you to route around failed or otherwise inaccessible portions of an IP network. Distributed resilient networks provide the following distinct advantages over the centralized 1+1 hardware requirements of a redundant solution:

- No single point of failure

- Lower hardware costs because of the efficient use of existing hardware

Because any controller in the network can act as a secondary controller, Mitel Resiliency can be referred to as an "any +1" solution for system reliability. Rather than dedicating expensive, robust hardware to solving temporary and often infrequent system failures, Mitel Resiliency makes efficient use of a system's existing capacity.

In resilient networks, a secondary controller is not limited to acting as a dedicated backup call-control host. The secondary controller can also function as one of the following devices:

- Full service controller (in a configuration where resiliency support is distributed among multiple controllers in the network)
- Group controller
- Wireless access controller
- Call center controller
- Video conference controller
- IP network gateway
- PSTN gateway
- Voice mail server

DEVICES THAT SUPPORT RESILIENCY

The following Mitel IP devices support resiliency:

- All 6900 series IP Phones
- All 5300 series IP Phones
- 5540 IP Console
- MiVoice Business Console
- 5560 IPT
- IP PKM 12 and IP PKM 48
- 5310 IP Conference Units
- Teleworker service sets

Resilient clusters can contain pre-4.0 3300 ICPs and Mitel legacy SX-2000 PBXs. These devices cannot function as secondary controllers, but they can be part of a resilient solution as boundary nodes and transit nodes.

For detailed information on Resiliency, see the *3300 ICP Resiliency Guidelines*.

RAPID SPANNING TREE PROTOCOL

Both Rapid Spanning Tree Protocol (RSTP) and Spanning Tree Protocol (STP) are supported on the CXi II/CXi II Controller, MXe III Controller, and AX Controller.

HOT DESKING

Hot Desking creates a more flexible work environment by enabling users to share IP phones. This is ideal for businesses that employ telecommuters, sales agents, and other employees who spend much of their time out of the office.

Hot Desking enables a pool of shared phones to be made available to employees instead of assigning a dedicated phone to each employee. You can configure IP phones as hotdesk phones without requiring System User licenses.

When a user logs on to a hot desk set, the system applies the user's phone profile to the set: phone settings such as directory numbers, COS/COR settings, display preferences, line appearances and button programming. Once logged on, Hot Desk users can use or change the phone features associated with their profile, such as

- Call forwarding (all types)
- Callback messages (message waiting indicator)
- Auto Answer
- Do Not Disturb (DND)
- Last Number Redial
- Timed Reminder
- Advisory Status Message

Hot Desking is supported across clustered networks: users can log on to any Hot Desk-enabled set in the cluster. After a user logs on, the set is redirected to the user's host ICP. Figure 7 provides an example of a hot desk user in a cluster.

EXTERNAL HOT DESKING

Hot Desking is supported on external answering points such as cellular phones, home phones, and remote phones using a VoIP service. Mitel can also treat extensions on other manufacturers

PBX's as external hotdesk devices. After a user's number is programmed to support External Hot Desking, calls to the user are routed to the user's External Hot Desk phone number.

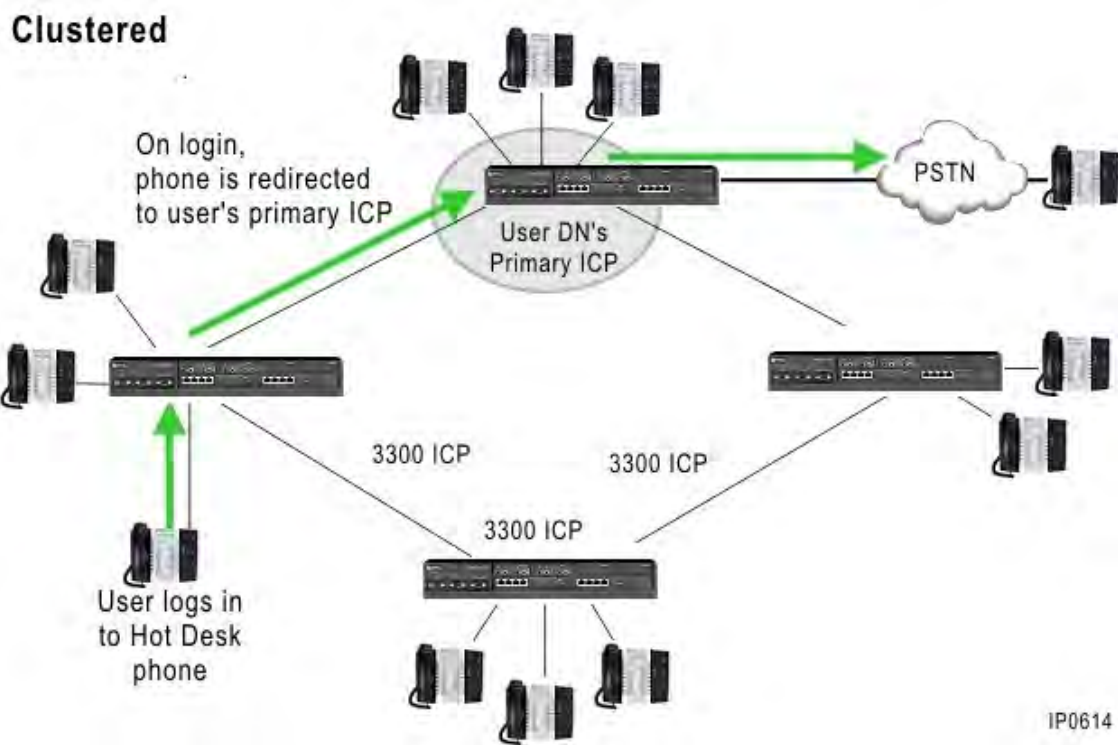


Figure 7: Clustered Hot Desking

Mitel supports resilient Hot Desking. If both the set and user are programmed for resiliency, then the Hot desk user will not lose service if the host controller fails. Instead, the hot desk phone registers for call service with the secondary controller and the user remains logged in with the current profile.

MULTI-DEVICE CAPABILITY

Mitel provides a multi-device capability: instead of one phone being used by many users, each user has multiple devices and requires a single User license only.

External Twining offer a less costly Multi-device solution for users who require two devices, for example a desk phone and a cell phone, without consuming a Multi-device license.

EMBEDDED UNIFIED MESSAGING

Embedded Unified Messaging (UM) enables users to receive and manage voice messages through IMAP-enabled e-mail clients such as MS Outlook or Outlook Express. Message states are synchronized between the e-mail client (e-mail message store) and IP phone (voice message store). Secure connections to the IMAP server are made through TLS or STARTTLS.

Embedded UM is not compatible with Standard Unified Messaging. Only one or the other can be enabled for a mailbox.

EMBEDDED VOICE MAIL

MiVoice Business includes an integrated fully-featured voice mail system. Up to 30 ports are available for voice mail calls with support for a maximum of 750 mailboxes and 450 hours of storage time.

The voice mail system includes the following features:

- Standard Unified Messaging enables users to forward voice messages, including Record-a-Call messages, to e-mail addresses. Users can manually forward individual voice messages, or automatically forward all voice messages.
- An automated attendant plays different greetings during and following business hours, provides a company directory that uses extension numbers or names as the dialing method, and allows single-digit option selection.
- A Multi-level auto attendant (MLAA) enables a hierarchical menu to be programmed on the auto attendant. This provides callers with self-service options (for example, "Press 1 for Sales") to reach individuals, departments, or pre-recorded information, or to leave voice messages.
- Personal Contacts enables users to create a customized voice menu so callers can reach users on their cellular phone, or by fax, etcetera.
- User mailboxes can be password-protected.
- A tutorial assists new subscribers with mailbox setup.
- Messages can be quickly retrieved.
- Easy-to-use menus enable users to send urgent, private, or certified messages.
- Users are notified of any messages customers have left them.
- Users can record conversations and save them to their voice mailboxes.

VOICE PROFILE FOR INTERNET MAIL

Voice Profile for Internet Mail (VPIM) enables voice mail users to send and receive messages between the VPIM2 compliant voice mail servers of a network, regardless of whether they are Mitel or third-party systems.



Note: VPIM on embedded voice mail does not support G.721 compression; it supports only G.721 without compression. The other sites in the VPIM must also support G.721.

VPIM is supported between embedded messaging and NuPoint and is compatible with Hot Desking.

EMBEDDED SYSTEM MANAGEMENT

Embedded System Management (ESM) includes the following end user tools:

- "Desktop Tool" on page 20
- "Administration Tools" on page 20

DESKTOP TOOL

The Desktop tool is a web-based interface that enables IP phones users to

- Assign features to personal keys
- Manage personal contact lists
- Add and delete internet bookmarks

The following figure illustrates the Desktop Tool.



Figure 8: Desktop Tool Interface

ADMINISTRATION TOOLS

Group Administration Tool

The Group Administration Tool is a web-based interface that enables administrators to configure and manage the following basic IP phone settings for group members:

- Basic system parameters
- The system phone directory
- Extension and group parameters
- Voice mailboxes
- Group membership (add, edit, or delete users from the system directory)

- Users' personal keys

The following figure illustrates the Group Administration Tool.

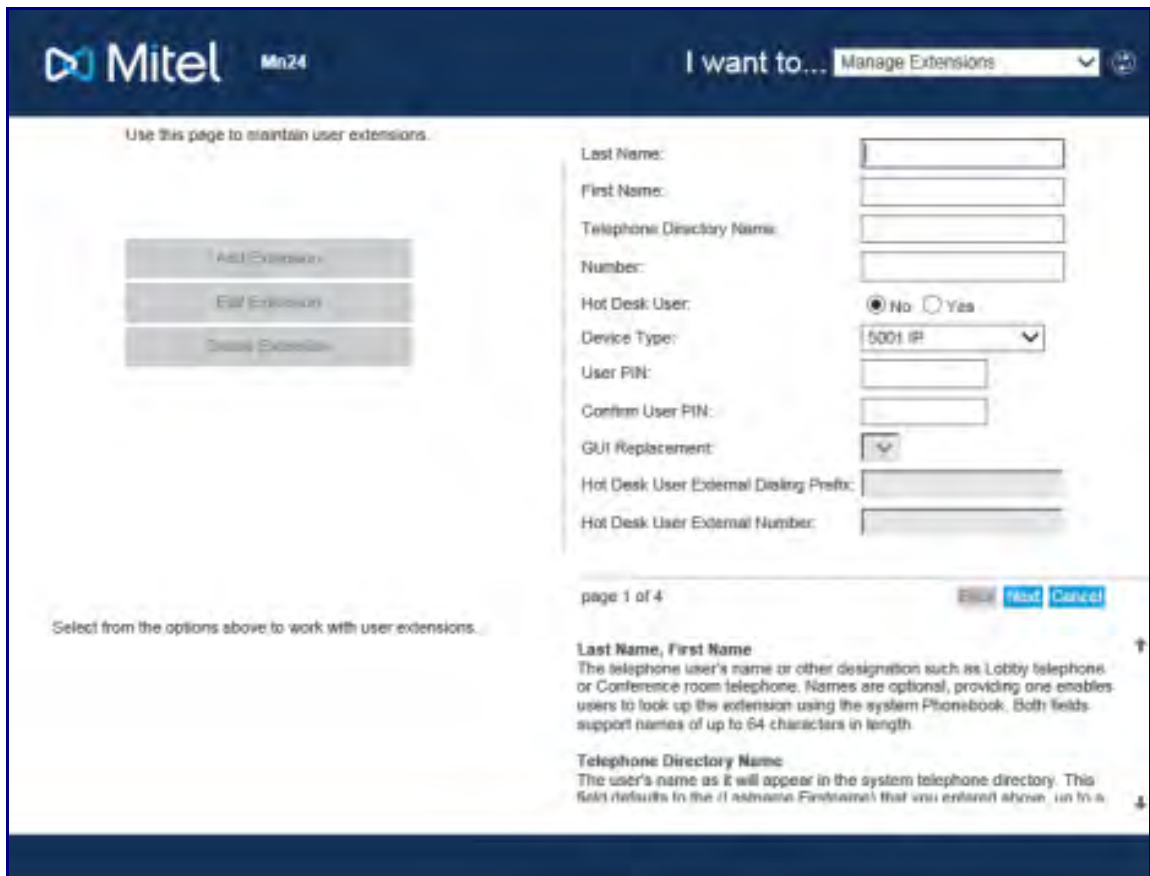


Figure 9: Group Administration Tool Interface

System Administration Tool

The System Administration Tool enables trained technicians and system administrators to program system-wide settings, voice settings (lines, extensions, management parameters, system directories, and voice mail) and IP network features. The System Administration Tool provides access to Maintenance Logs, Software Logs, and Login and Logout Audit Logs.

The User and Service Configuration form provides administrators with the following capabilities:

- Consolidated view of user or device information: this simplifies the add, modify, and delete functions for users and devices and reduces the number of times the same data is entered into the system.
- Copy user functionality: administrators can quickly create new entries using existing user or device settings and configurations.
- Import capability: administrators can quickly collect and import user and service data using Microsoft Excel spreadsheets. These spreadsheets contain built in validation similar to ESM data entry rules which helps reduce errors.

The following figure illustrates the User and Service Configuration Form.

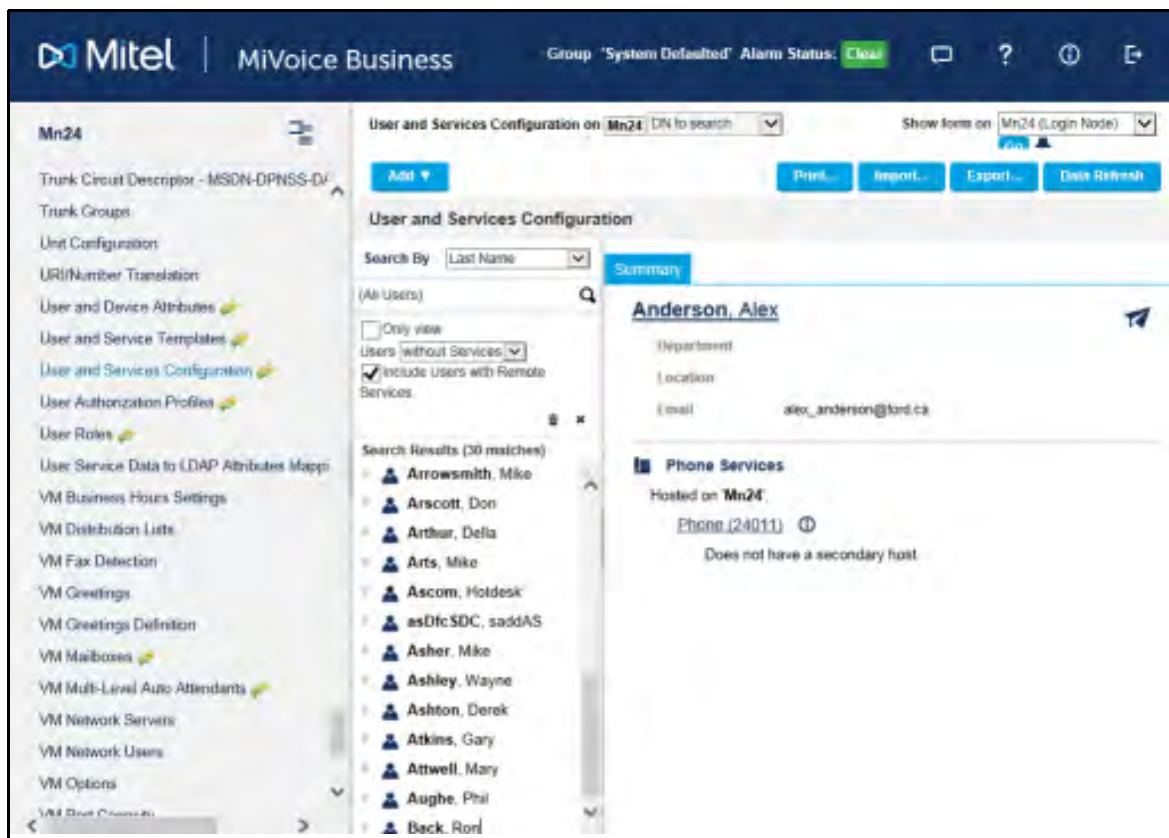


Figure 10: User and Services Configuration Form

The Scheduler form is used to schedule system events to run automatically. For example, you can create an event that causes the system to switch to night service every evening, and another event that causes it to switch to day service every morning.

To reduce management overhead and improve productivity you can schedule the following events to run automatically:

- Backups
- CSV File Import/Export
- File Transfers
- IDS Synchronization
- Night/Day Service

The Scheduler tool can also automatically log out Hotdesk Users at a set time.

The Scheduler tool includes a calendar that can be updated with holidays. When you add an event, you can specify a repetition interval, such as daily or weekly, and indicate whether the event should run on holidays or only on weekdays.

The following figure illustrates the Scheduler Form.

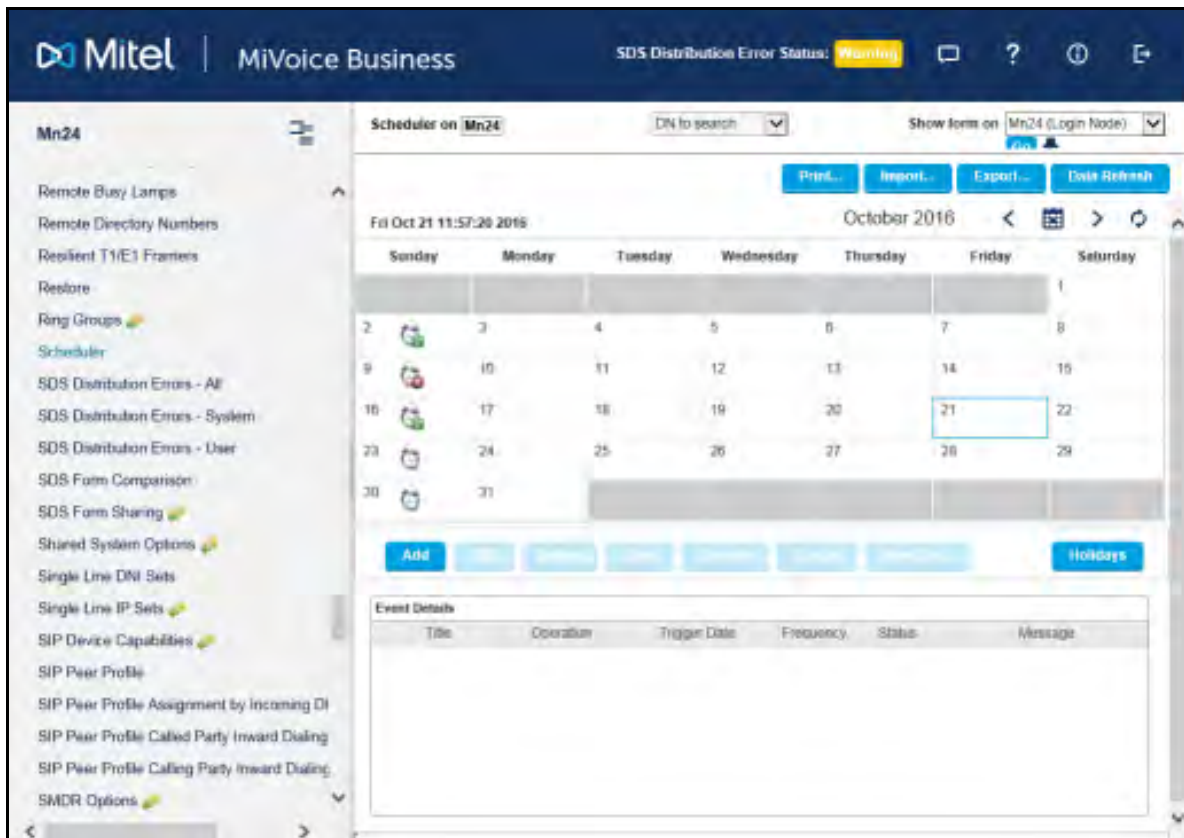


Figure 11: Scheduler Form

The System Administration Tool

- includes Audit Logs that provide a historical record of changes made to the system from the System Administration Tool and various other user interfaces and applications. This assists with troubleshooting problems that arise, enabling you to determine who, in a multi-administrator system, is responsible for a particular change.
- supports Range programming. Range programming speeds up MiVoice Business programming and configuration by enabling the administrator to program repetitive data using a single command. The administrator can also print forms and form data.
- includes data import functionality that enables administrators to quickly import large numbers of new users and devices via a .CSV format file. Administrators can collect a substantial configuration data in the spreadsheet file and then import it directly into the MiVoice Business database. The import functionality eliminates the need to manually enter configuration data for each user or device and reduces the likelihood of data-entry errors. Technicians can import new user data when setting up a new system and administrators can import large numbers of users or devices whenever they need to be added.
- enables you to maintain a small group of network elements (20 or fewer) effectively and conveniently without the need for a management tool such as MiVoice Enterprise Manager. Administrators can "reach through" to the System Administration tool of any network element to program it, and backup all databases from a single session on a network element.

For additional details, refer to the *MiVoice Business System Administration Tool Help* available on Mitel's edocs website.



Notes:

1. Network elements must be grouped together within an SDS Administrative group to use this feature.
2. The System Administration Tool is available in English only.

ALARMS MANAGEMENT

The 3300 ICP system raises an alarm when an anomaly is detected and corrective action is required. The system continuously provides attendants who are using Mitel consoles with alarm status information. You can program alarm threshold levels. There are three classes of alarms:

- **Critical:** indicates a loss of service that demands immediate attention.
- **Major:** indicates a fault that affects service to many users. This alarm usually results in a major degradation in service and requires attention to minimize customer complaints
- **Minor:** indicates any fault that does not fall into either of the above two classes. When the system is not 100% operational, a minor alarm is raised. It may require the attention of a technician, but it is not urgent. Examples of a minor alarm include the loss of a single line or trunk circuit

The system clears an alarm condition when the fault is corrected.

REMOTE ALARMS NOTIFICATION

Administrators can set up remote alarms to notify technicians of critical, major, or minor alarms. MiVoice Business e-mails the notifications to up to 10 addresses. Prompt notification helps ensure issues are addressed quickly.

MiVoice Business supports Simple Network Management Protocol (SNMP). SNMP defines asynchronous messages called "traps". Administrators can set up SNMP traps to monitor system devices and functions. SNMP traps are generated to alert administrators to significant events (for example, when alarms are triggered or cleared).

Traps are sent by the SNMP agent in MiVoice Business to an SNMP manager to report error conditions and other types of messages. The SNMP agent in MiVoice Business communicates with SNMP-compatible Network Management Stations and supports industry-standard MIB-II definitions as well as proprietary SNMP extensions.

CONTROLLED SYSTEM ACCESS

System Administrator Policies enable you to control access to System Administration Tool forms for individual users. When you create a policy, you set permissions that grant Read or Read/Write access to forms. Denying access to a form hides it from view.

You can enable remote access to forms and distribute policies to all platforms in a MiVoice Business cluster using System Data Synchronization.

Mitel offers Management Access Point (MAP) to provide secure, controlled access to systems and system tools from remote locations.

IP PHONE ANALYZER

IP Phone Analyzer is a Windows application that collects performance information from IP Phones on a network. Technicians can use one PC to monitor the status of all IP phones on the system. IP Phones within the network send debug, status, and statistical information to IP Phone Analyzer. Technicians can direct phones to new IP Phone Analyzer addresses via a MiVoice Business Maintenance task. This eliminates the requirement to reset the phones manually.

IP Phone Analyzer provides information in four views:

- **Status View:** displays the status of each phone registered with IP Phone Analyzer, MAC Address, IP Address, Directory Number, State, Link Lost, Set Type, Absolute Time, Load Revisions, Current ICP, and the CODEC type being used by each set on the network.
- **Packet View:** displays trace messages sent from each set for analysis.
- **Packet History View:** sorts messages received by IP Phone Analyzer.
- **Call Statistics View:** displays call statistics, including RTP statistics, collected from IP sets.

SYSTEM DATA SYNCHRONIZATION

System Data Synchronization is an enabling technology that

- Reduces the time to provision and administer multiple MiVoice Business nodes by automatically updating common data changes around all of the relevant nodes without any administrator intervention
- Ensures that changes to network data are performed consistently and accurately across the network, improving change management costs
- Simplifies network deployment and reduces initial deployment costs by synchronizing the newly deployed MiVoice Business nodes with the existing network
- Enhances security management across the network by allowing accounts and passwords to be managed centrally

The System Data Synchronization application enables administrators to synchronize database information among a network or cluster of MiVoice Business systems. Database changes made to a platform in the network or cluster are applied to the other platforms.

HOSPITALITY

Mitel is renowned for delivering comprehensive solutions for the hotel industry—from small hotels/motels through to large resorts and cruise ships.

The new centralized hospitality solution

- Meets the needs of international markets—including Europe, the Middle East, and Asia Pacific—and supports multi-national guests upon check-in

- Employs leading-edge technologies to deliver customized applications, such as large display touch screen phone sets for high-end boutiques and hotels
- Enables our partners to create custom HTML applications for large screen phone displays for resort amenities, restaurants, advertising, etcetera, to enhance service
- Provides full-service integration with wireless SIP devices with embedded resiliency support for third-party devices
- Provides enhanced analog scalability, centralized administration, and a redundant CPU IP platform to accommodate large hospitality deployments
- Provides greater capacity for devices and suites and comprehensive support for numerous PMS and Call Accounting solutions. See “Centralized Hospitality Deployment” on page 28.

MiVoice Business provides the features commonly used by hotels, motels, cruise ships, and hospitals. It also provides elite features required of full service hotels, such as VIP status, automatic personal wakeups, multiple languages, and maid identification.

Using the Hotel/Motel feature, receptionists, operators, and front desk personnel can

- View information on guest rooms, guests, and room extensions. Receptionists can add and edit guest room information.
- Check in and check out guests, thus keeping track of arrivals and departures.
- Set the condition and occupancy status of rooms. Receptionists can set the condition and occupancy status of rooms or maids can do this by entering personal ID codes—clean, not clean, maid present, out of service, to be inspected. Requiring maids to identify themselves when indicating room status changes enforces accountability and enhances quality.
- Search for rooms by using room condition and occupancy status as search parameters.
- Assign VIP status labels to room extensions so hotel employees respond accordingly when VIP guests call the front desk or other hotel extensions. Assigning VIP status labels to rooms optionally triggers the system to provide personal wake ups when VIP guests set the wake-up feature. In addition, hotel employees can associate labels to room extensions to provide insight as to the purpose of their stay (for example, Honeymoon, conference, wedding) or to provide language identification so calls are answered in the guest’s language.
- Enable Automatic personal wakeups for specific VIP or non-VIP guest rooms so that personal wake-up calls for the guests are automatically set.
- Change the language of phone display prompts and applications for the phones in a guest room at 'check in' from the attendant console or the PMS.
- Select up to fifteen different languages including English, French (Canadian), French (European), Italian, German, Spanish (European), Spanish (LA), Dutch, Portuguese (Brazil), Portuguese, (European), Romanian, Russian, Swedish, Polish, Simplified Chinese, and Arabic on IP phones only.
- Set Do Not Disturb (DND) from the Guest Services Application or the PMS for individual rooms or suites to prevent calls from ringing guests’ phones.
- Listen to room monitor extensions on analog phones.
- Enable Call Blocking to prevent calls from being made between guest rooms.

- Restrict the types of calls that guests can make from room extensions.
- Use Message Registration to calculate the total cost of calls made from individual room extensions.
- Print Automatic Wake-up, Room Status, and Message Registration reports.
- Access logs generated by the system during operation of the Hotel/Motel feature.

PROPERTY MANAGEMENT SYSTEM

MiVoice Business can work independently or in conjunction with a Property Management System (PMS). PMSs provide

- Reservation control
- Centralized accounting and billing
- Call logging

IP-enabled PMS applications can communicate directly. Applications that require a serial interface to connect to the network can use a third-party Serial-to-IP port converter.

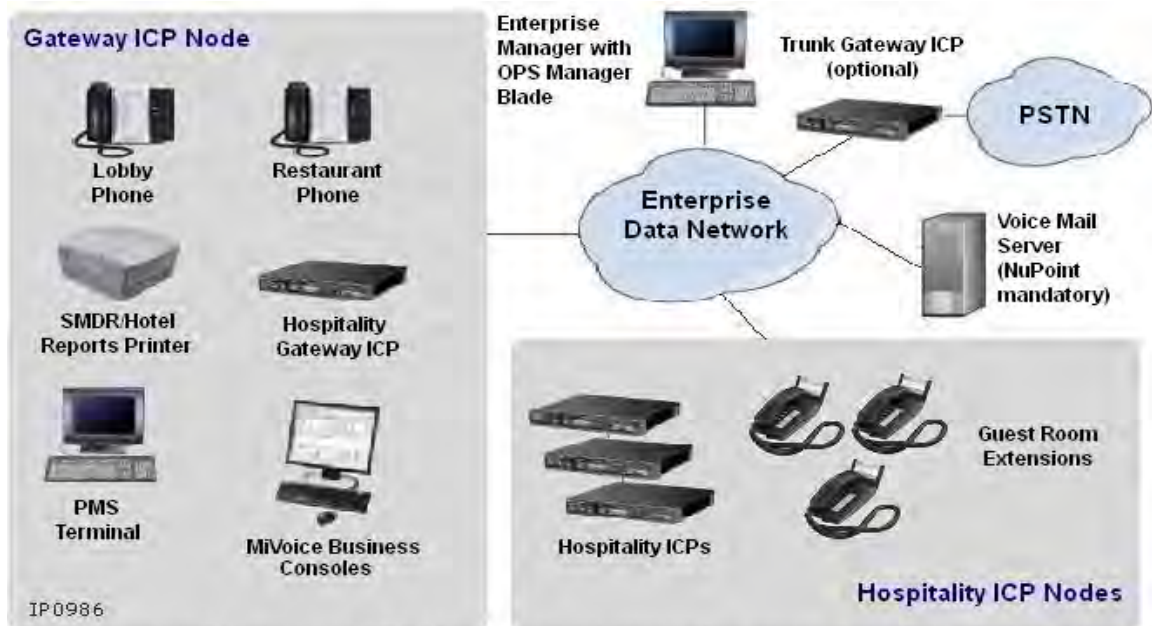
When guest information is changed in the PMS system, the PMS sends messages to the PBX.

Mitel supports connections to a range of PMS systems.

CLUSTERED HOSPITALITY

Clustered Hospitality provides hotel/motel feature functionality across MiVoice Business/3300 ICPs clusters. A cluster is comprised of a single Hospitality Gateway and one or more Hospitality controllers. The Hospitality Gateway is the interface to the PMS and the Guest Services Application (GSA) on the 5550 IP Console and MiVoice Business Console, and can also host guest room extensions.

The following figure depicts a typical clustered hospitality environment.



Note: Enterprise Manager and OPS Manager are not required to manage the telephone directories of the cluster elements if Remote Directory Number (RDN) Synchronization is enabled in the cluster.

Figure 12: Hospitality Deployment Example

Clustered Hospitality supports

- Hotel logs and reports via a networked printer
- Shared Telephone Service (STS), available if all members reside on the same MiVoice Business as the linked suite.
- Configuration of room extensions and suites from any MiVoice Business in the cluster
- Resilient hotel room extensions
- PMS GRS General Reset/Get Reservation Status (a PMS function that synchronizes its check-in/check-out data with the MiVoice Business controllers to ensure the data on both systems matches on a cluster-wide basis)

CENTRALIZED HOSPITALITY DEPLOYMENT

In addition to Standalone and Clustered Hospitality solutions, MiVoice Business accommodates large-scale analog Centralized Hospitality deployments.

The architecture provides scalability and centralization. MiVoice Business can automatically extend calls across a cluster to analog ports on AX nodes.

A single IP controller functions as the Suite Hospitality Controller and one or more AX nodes provide connectivity for analog devices. The Suite Hospitality Controller performs processing and management tasks, hosting the Hotel and Motel Features and Reports, PMS and SMDR interfaces, GSA, and attendant consoles.

All call processing is performed locally. Calls to the suite ring all members (who are local or across the cluster). Although the analog ports may be situated on other nodes in the cluster, call processing is managed locally within the Suite Hospitality Controller as a single, standalone hospitality solution.

With this architecture, Suite Services continue to be supported, including wakeup calls and MWI notification. The central Suite Hospitality Controller supports direct connections to Attendant Console Guide Services, PMS and Call Accounting Packages, and to IP and SIP phones.

5540 IP Console

MiVoice Business continues to support IP phones. In this architecture, remote ports are considered to be local and 5540 IP guest services can be used in large-scale deployments. For deployments that require over 1000 ports, MiVoice Business now uses a smaller footprint as phone appliances are clustered.

SMDR Data

This architecture greatly simplifies the number of SMDR data streams required to support call accounting and billing applications because there is now only one SMDR stream from which to collect data. Since the call control is processed on the central Suite Hospitality Controller, there is no need for SMDR consolidation.

Capacity

Each fully loaded AX node supports a maximum of 288 ONS ports and the central MiVoice Business ISS can support a maximum of 5000 devices and over 2000 suites.

REDUNDANT CPU PLATFORM

MiVoice Business now supports the Stratus ftServer 2600 and 4500 industry standard servers from Stratus Technologies. The Stratus servers have a fully redundant hardware architecture in which both CPUs function in lockstep, enabling MiVoice Business to operate on a CPU redundant hardware IP platform. All key hardware components, such as the CPU, memory, motherboards, I/O, hard discs, are duplicated: processing is uninterrupted in the event of a component malfunction.

Although it appears there are two system, Stratus ftServer presents users with a single view. A single copy and installation of the operating system and MiVoice Business instance are required.

TENANTING

Tenanting enables systems to be partitioned among a number of tenants and then be configured to appear as separate systems to each tenant. Up to 64 small businesses or departments of a larger business can share system features and capabilities.

You can allocate consoles, CO trunks, and dial-in trunks individually to tenants or share them between tenants. You can switch to night service centrally, or on a tenant-to-tenant basis. You can block calls through the system so tenants can only call each other on CO trunks.

Some system features are enabled for each tenant individually while other features are shared by all tenants. You can define groups, such as Attendant Groups, Trunk Groups, and Multiline Appearances with devices belonging to different tenants.

The following conditions apply to Tenanting:

- You can have up to 64 tenants, including the landlord (tenant 1).
- Each tenant can have its own Music on Hold source.
- The following devices and resources can be members of a tenant:
 - IP phones and consoles
 - wireless phones
 - analog trunks
 - digital trunks
- Unless otherwise programmed, all phones, consoles and trunks are in the landlord group.
- IP trunks are not tenantable resources.
- Tenanting is not supported with the following features:
 - Hot Desking
 - Resiliency
- Tenanting is a local system feature only and is not supported in networked or clustered configurations.

EMERGENCY SERVICES SUPPORT

With Emergency Services support, when an emergency number is dialed (for example 911 or 112), a Caller's Emergency Services ID (CESID) is sent from the MiVoice Business system to the Public Safety Answering Point (PSAP). Note PSAP is relevant only in North America. The CESID is used as a key for the PSAP to determine the precise location of the caller. For this reason, it is critical that the CESID database within MiVoice Business be kept up to date.

CESID is supported on analog sets, Mitel's digital and IP sets, mobile devices, and generic SIP devices.

You can configure CESID for mobile directory numbers. Although any hot desk user can have a CESID, only External Hot Desk Users (EHDUs) on external trunks can make use of it. Regular hot desk users and EHDUs logged in to MiNET devices will continue to use the CESID associated with their set's registration DN.

When users with digital or analog phones change offices or relocate within a building, a manual update is required to the MiVoice Business database and the phone move is typically managed by the Telecoms/IT team. The CESID database must be updated at this time to ensure that the user's new location is accurately reflected in the database.

IP phones can be moved from one location to another, by the user, without the need to manually update to the CESID database because MiVoice Business automatically updates CESID.

In order to update CESID automatically, the network environment must have Layer 2 (L2) switches that are all configured for Cisco Discovery Protocol (CDP), Spanning Tree Protocol (STP), or both of them. The system automatically updates CESID for IP devices that are moved

to a known location. CESID Logs and CESID Alarms record all CESID-related activity on the system. By automatically updating this information, businesses save the cost of manual updates and, more importantly, ensure the safety of their employees.

Automatic CESID updates are not supported for teleworker IP phones, Mitel Your Assistant Softphone, or wireless IP phones.

Emergency services are supported for teleworker phones through the use of the Mitel Line Interface module. Emergency call routing for teleworkers is provided as follows:

- If Emergency Call Routing is not configured in MiVoice Business, the user picks up the teleworker phone and presses the Line Interface Module configured key and dials the emergency number. For more information, refer to Line Interface Module on page 99.
- If Emergency Call Routing is configured in MiVoice Business, the user picks up the teleworker phone and simply dials the emergency number.

ENTERPRISE LICENSING

Mitel Enterprise Licensing (License Sharing) is an additional License Manager capability available for MiVoice Business Enterprise Systems.

Enterprise Licensing allows a customer to easily move licenses around their solution with no interference from Mitel, the Solution Provider, or the AMC. By activating Enterprise Licensing, the customer is setting up MiVoice Business licensing to work as a single solution rather than a group of individual licensed nodes.

There are many advantages to licensing a group as a single entity including license flexibility, ease of administration, and lowered cost of ownership.

There are three types of license management available for MiVoice Business systems:

Standalone Systems

Standalone Systems are licensed with a single Application Record for each system. MiVoice Business License Manager controls the licensing on individual systems.

Non Shared Enterprise Systems

Enterprise Systems licensed with individual Application Records cannot share licenses. This licensing model is how all existing Enterprise systems that have upgraded to MCD 5.0 appear. Each system is linked to its own Application Record and is controlled individually by License Manager.

Enterprise customers who do not wish to invoke Enterprise Licensing can continue to license their systems individually.

Shared Enterprise Systems

MCD 5.0 introduced shared Enterprise System licencing. Enterprise licensing allows groups of MiVoice Business systems to be amalgamated into a single Application Group at the AMC. The customer chooses a single system within the group of systems to act as the Master License

Manager Designated License Manager (DLM) which connects to the AMC Application Group. All the underlying Group systems licensing is controlled by the DLM.

MIVOICE BUSINESS SYSTEM FUNCTIONALITY

This chapter describes MiVoice Business system functionality. For details on system configurations, refer to the *MiVoice Business Engineering Guidelines*. For detailed descriptions of hardware components, refer to the *MiVoice Business Hardware Technical Reference Manual*.

3300 ICP HARDWARE OVERVIEW

3300 ICP Controllers provide the voice, signaling, central processing, and communications resources for the system.



Figure 14: 3300 ICP Controllers — Scaling to Site Requirements

Mitel offers five types of controllers that scale to meet the requirements of small-to-large sites:

- **CX II and CXi II Controller:** 2nd generation versions of the CX and CXi controllers that provide support for up to 150 devices without the need for additional DSP resources
- **AX Controller:** optimized for analog devices, this unit supports a maximum of 100 IP devices or a maximum of 288 ONS devices (or a combined maximum of 300 devices). Note that when installed in a low traffic environment (for example, Hospitality), the AX can support 288 analog sets and 288 IP sets, for a combined total of 576 devices. Up to 300 IP devices can be supported under low traffic conditions.
- **MXe III Standard Controller:** supports a maximum of 300 IP devices or 350 ONS devices (or a combined maximum of 350 IP/ONS devices)
- **MXe III Expanded Controller:** supports a maximum 1400 IP devices or 1500 ONS (or a combined maximum of 1500 IP/ONS devices)

Controllers can be networked together over an IP infrastructure to deliver solutions for large or multi-site organizations.

Modules are field replaceable units (FRUs) that expand the functionality and capacity of the controller. Modules are installed in external and internal slots in the controller. The number of available slots depends on the controller model. Communication interface modules, such as, Dual T1/E1, T1/E1 Combo Card, and Quad BRI modules, are installed in slots that are accessible externally from the front or rear panel of the controllers.

The controllers have the following common physical features:

- **External casing:** all of the components may be stacked or rack-mounted (in a 19-inch rack).
- **Power supply:** each unit has its own standard male IEC AC input connector for power.
- **LEDs:** the LEDs are located on the front or rear of the units for indication of circuit status.
- **LAN/WAN ports:** RJ-45 connectors
- **Maintenance port:** DB-9 (RS-232)

The following sections provide an overview of the controller variants. For detailed information on controller capacities, refer to the controller configuration tables in the *3300 Integrated Communications Platform Engineering Guidelines*.

CX II AND CXi II CONTROLLERS

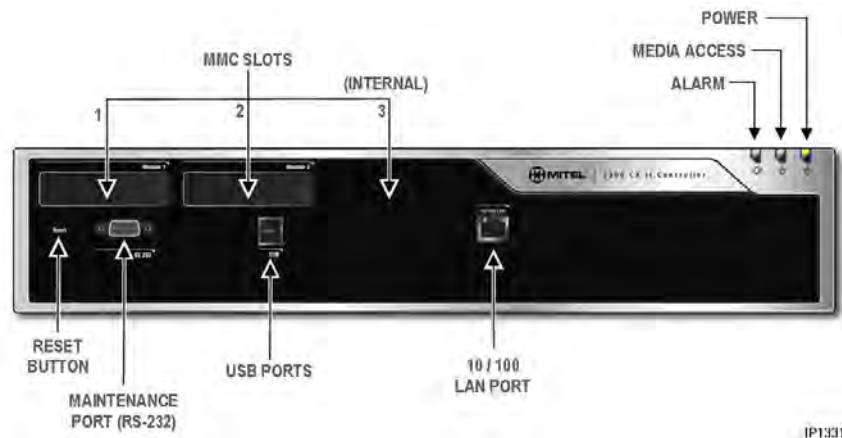
The CX II/CXi II comes with an embedded Analog Main Board that supports 6 analog trunks and 4 analog extension ports. The CX II/CXi II includes the required DSPs in the base configuration. You need to add cards and DSP resources only for additional functionality, not for performance scaling.

The CX II and CXi II Controllers support

- Up to 150 IP devices, or up to 150 combined IP/ONS devices
- The Analog Main Board (AMB): provides six LS trunk ports with CLASS support (CLASS is available in North America and Latin American only), four ONS ports, a single Music-on-Hold port (one source supported), a single Paging port (one paging zone), and two System Fail Transfer circuits.
- The Analog Option Board (AOB): provides six LS trunks ports with CLASS support, four ONS ports, one System Fail Transfer circuits and one paging circuit
- One 10/100 BaseT WAN port (RJ-45 connector)
- One 10/100 BaseT LAN port (RJ-45 connector)
- Sixteen 10/100 BaseT LAN ports connected to an internal Ethernet Layer 2 switch (CXi II Controller only)
- SATA solid state drive or SATA hard drive for software storage

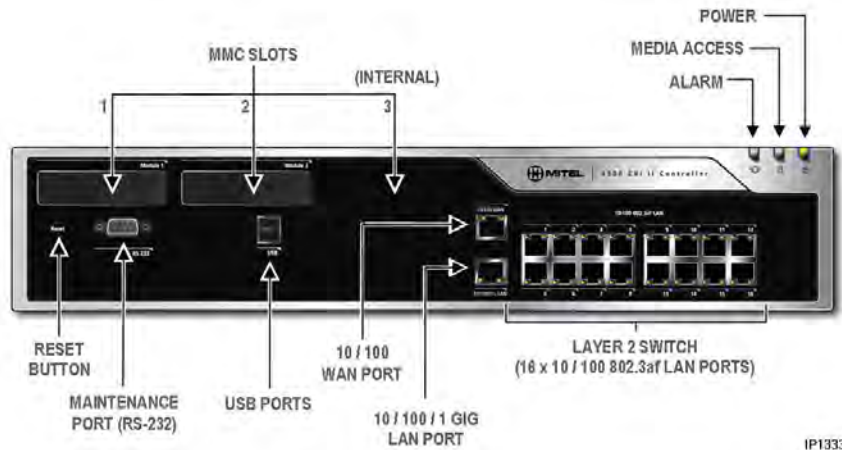
Optionally, you can install

- The Analog Option Board (AOB): provides six LS trunks ports with CLASS support, four ONS ports, one System Fail Transfer circuits and one paging circuit
- One DSP II module for FAX Relay (T.38) / compression
- One or two T1/E1 Combo modules for digital trunking
- One or two Quad BRI module for BRI trunks
- A Quad Copper Interface Module (CIM) for connection of up to three Analog Service Unit IIs (ASU IIs)



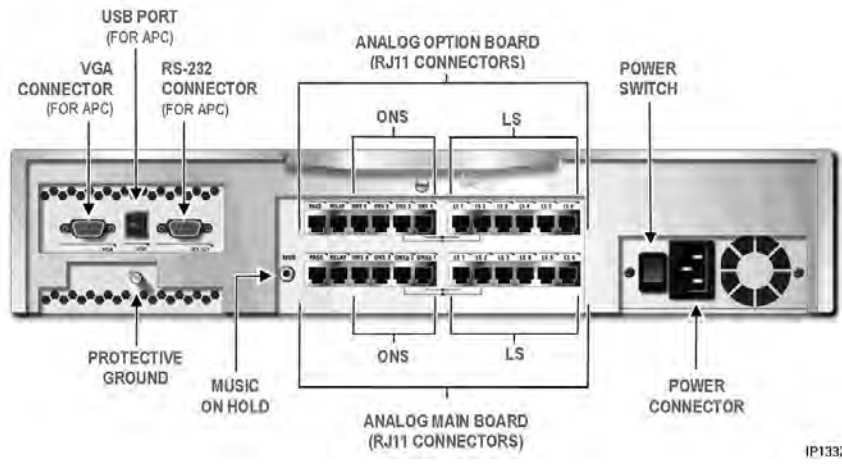
CX II FRONT PANEL

IP1331



CXi II FRONT PANEL

IP1333



REAR PANEL

IP1332

Figure 15: CX II/CXi II Controllers

AX CONTROLLER

AX Controller provides support for IP devices and analog devices and is ideal in situations that require a high density of analog devices. AX Controller be deployed as a standalone system or in a network of systems to provide additional analog support.

AX Controller supports a maximum of 288 IP devices, or a maximum of 288 ONS devices, or a combined maximum of 300 devices.



Note: When AX is installed in a low traffic environment (for example, Hospitality), it can support 288 analog sets and 288 IP sets, for a combined total of 576 devices.

The AX Controller provides

- 12 line card slots to support analog phones and trunks. The following cards (all hot-swappable) are available:
 - 24-port ONS line card
 - 4 + 12 port combo card (4 analog trunks and 12 ONS ports)
- Two 10/100 BaseT Ethernet LAN ports (RJ-45 connector)
- One externally accessible expansion slot and one internal expansion slot for up to two of the following optional modules:
 - Dual FIM (external)
 - Quad DSP (external or internal)
 - Echo Canceller (external or internal)
 - Dual T1/E1 (external)
 - T1/E1 Combo (external)
 - Quad BRI (external)
 - DSP II (internal or external)

Optionally, you can install

- A second AC Power Supply Unit (PSU) for power redundancy
- Line cards

The AX Controller consists of a card chassis, power supply, controller card, and optional line cards. You access the power supply, controller card, and line cards from the rear of the controller.

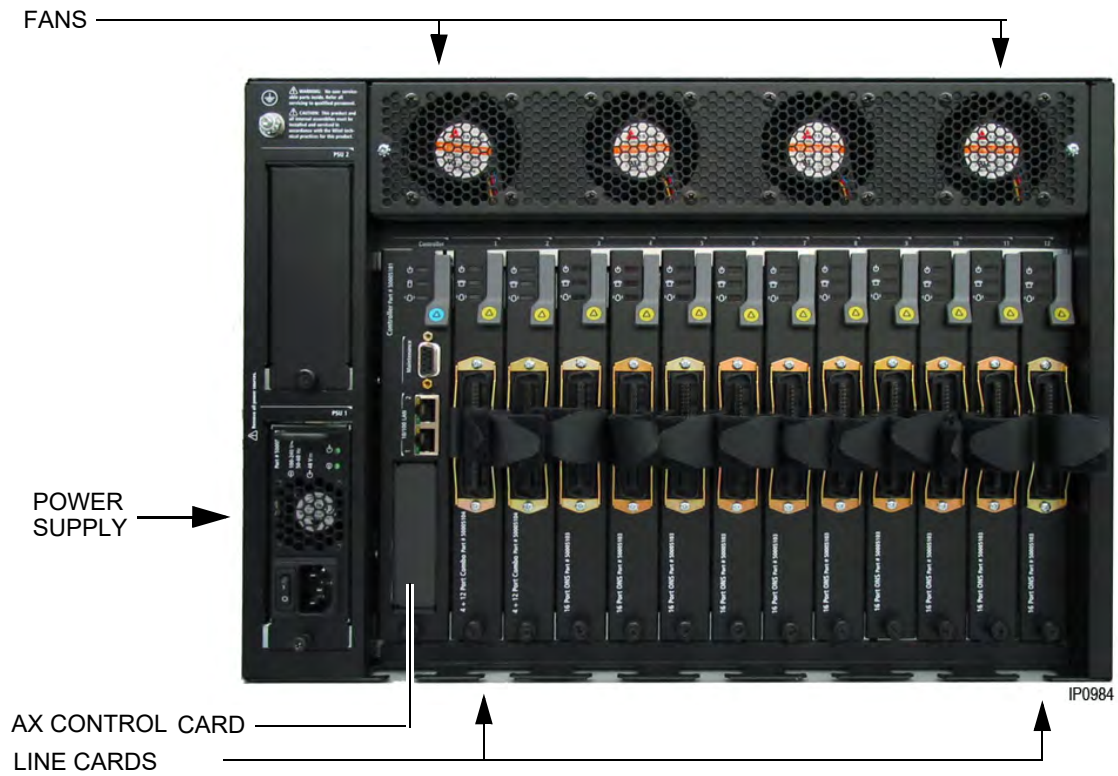


Figure 16: AX Controller Rear View

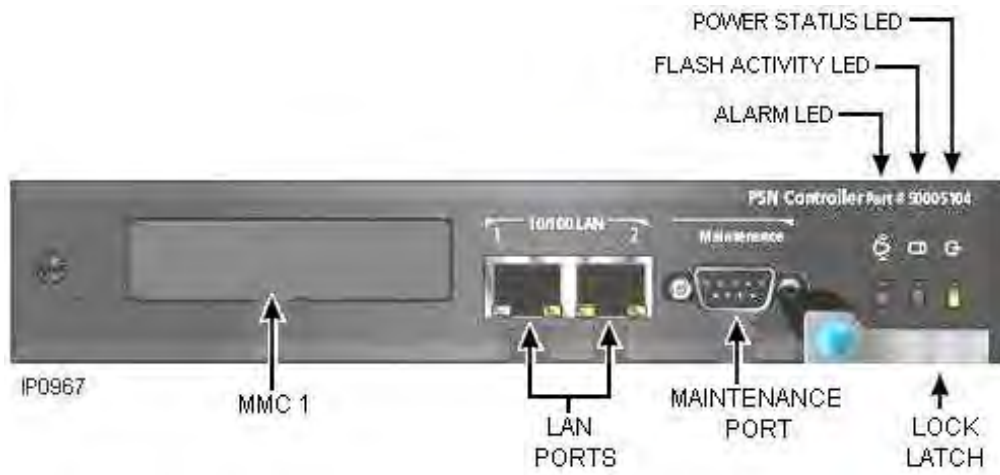


Figure 17: AX Controller Control Card

MXE III CONTROLLER

The MXe III Controller is available in two capacities: standard and expanded. Both versions include an embedded Analog Main Board and redundant cooling fans.

The MXe III Controller supports up to

- 350 devices (combined IP/ONS) in the standard configuration
- 400 IP devices and 1500 ONS devices (1500 combined IP/ONS) in the expanded configuration
- 1400 SIP devices/users

The MXe III Controller can host up to seven bays (North America only) providing connectivity for 96 ONS or OPS devices per bay. Only BCCIII-equipped bays are supported. Trunk cards are not supported.

The MXe III Controller provides

- Two 10/100/1000 BaseT Ethernet LAN ports (RJ-45 connector)
- One 10/100 BaseT Ethernet WAN port (RJ-45 connector)
- Four externally accessible slots and two internal slots for optional modules
- Four CIM ports
- An Analog Main Board that provides 6 analog trunks and 4 analog extension ports
- An alarm relay port
- SATA solid state drive or hard drive for software storage

Optionally, you can install

- MXe II Expanded Processor Package to upgrade from standard capacity (350 devices and 64 E2T channels) to expanded capacity (1500 devices and 128 or 192 E2T channels)
- Two Quad DSP modules for G.729a compression
- Two octal DSP II modules for G.729a compression and T.38 FAX support
- Up to four Dual FIMs for connecting NSUs, peripheral units, and bays
- Up to four Dual T1/E1 modules
- Up to three T1/E1 Combo modules
- Up to three Quad BRI modules
- Power and disk drive redundancy with the addition of a RAID (Redundant Array of Independent Disks) controller, a second hard disk, and a second AC PSU

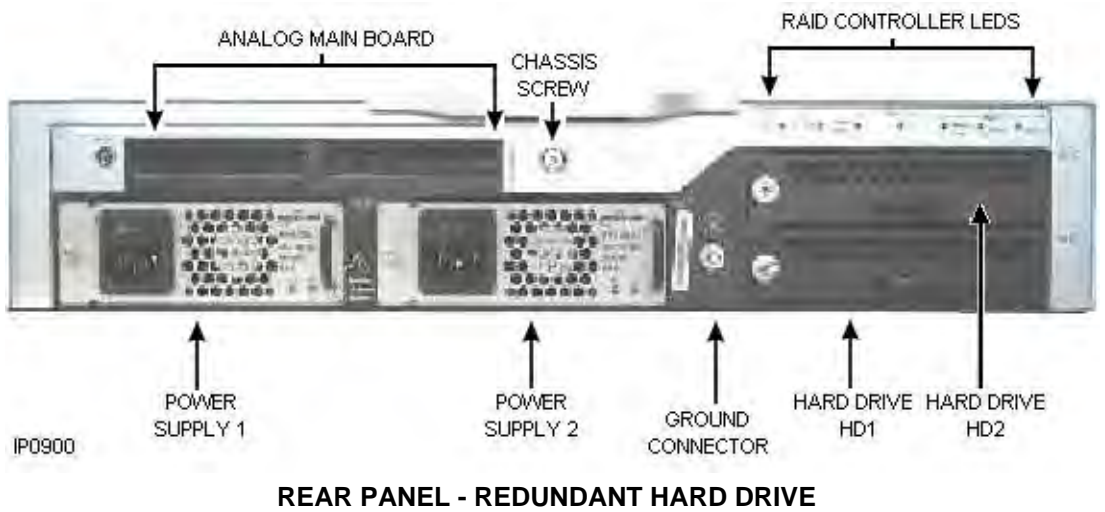
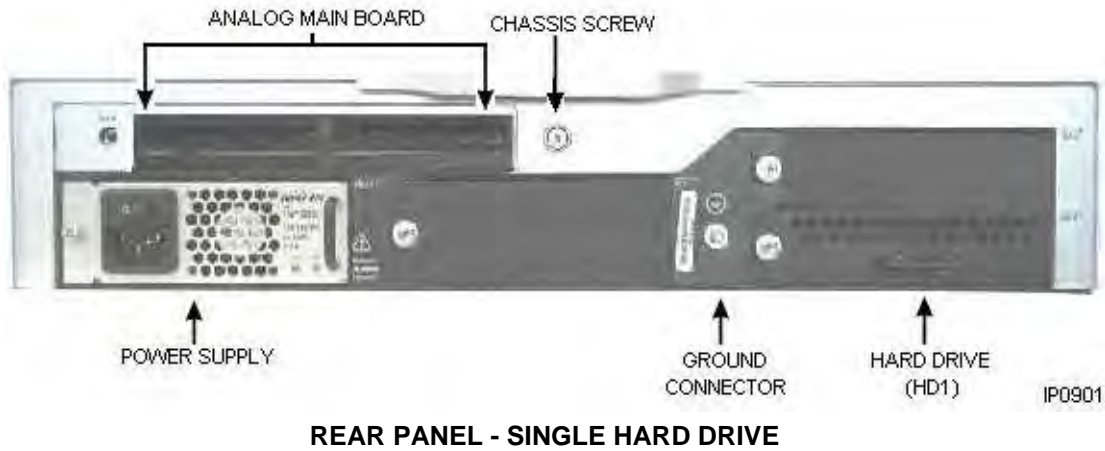
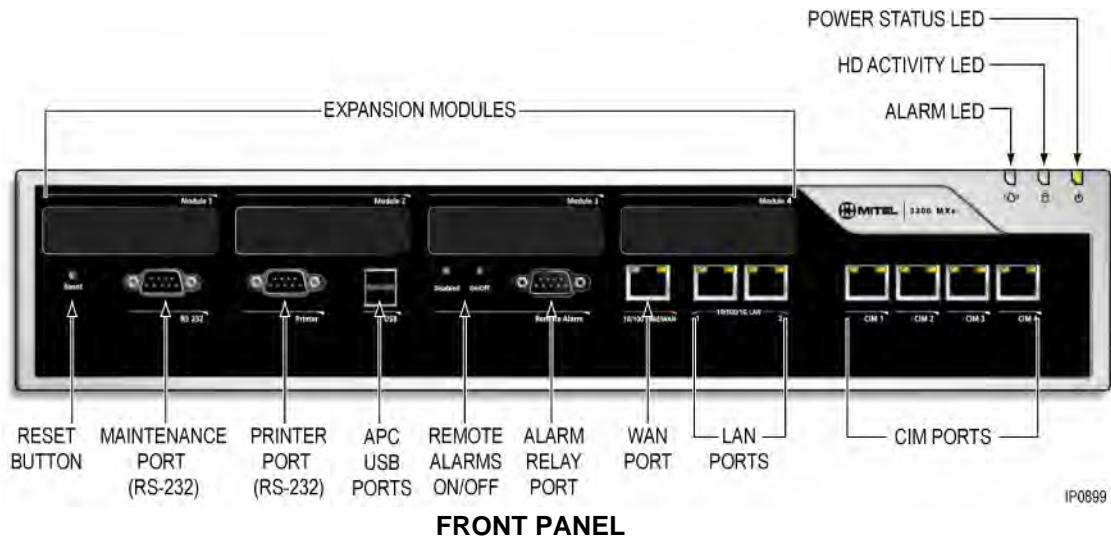


Figure 18: MxIII Controller

SYSTEM RESOURCES: PROCESSORS, CARDS, AND MODULES

This section describes the cards and modules that support the system. To meet site requirements, you may need to add additional system resources to the controller. When planning a site, refer to the Configuration Tables in the Engineering Guidelines to determine if additional system resources, such as compression, echo cancellation, or Ethernet-to-TDM (E2T) channels are required.

PROCESSORS (E2T/RTC)

The CX II/CXi II, AX, and standard Mx III Controllers use a single processor to perform the Real Time Controller (RTC) functions and the Ethernet-to-TDM (E2T) functions. The expanded Mx III Controller has separate processors for these functions.

The E2T converts voice streaming between Internet Protocol and Time Division Multiplexing (TDM) signals. The RTC runs the call control for the controller and acts as a gateway for the IP signals/packets.

DIGITAL SIGNAL PROCESSOR MODULES

The Digital Signal Processor (DSP) Modules perform basic telephony and compression functions including

- Conferencing
- Voice Mail playout and recording
- Call Progression tone generation and detection
- Auto-attendant support
- G.729a compression (for IP trunking and wireless phones)
- FAX over IP (T.38) and additional G.729a compression (provided by the high-density DSP II MMC)

The system allocates DSPs for

- Conferencing (at startup)
- Voice mail depending on the number of ports programmed in the customer database (at startup)
- Tone generation and detection as required by traffic conditions (on a per call basis).
- Auto-attendant features

You can add additional DSP resources to a controller by adding a Quad DSP module, a Dual DSP Module, or a DSP II Module. The Dual DSP module is available only for CX/CXi II systems. Instructions on how to calculate system DSP requirements are provided in the *3300 Integrated Communications Platform Technician's Handbook*.

ECHO CANCELLATION MODULE

The Echo Canceller (EC) module provides echo cancellation on E2T channels. Each bi-directional E2T channel requires one bi-directional EC channel. The EC module provides 128 EC channels.

ANALOG SUPPORT

You can add analog support to a controller with an Analog Services Unit II, Analog Main Board, or Analog Options Board. The following table summarizes the analog support for each controller type.

Table 1: Analog Support

CONTROLLER	QUAD CIMS	ASU IIS	ANALOG MAIN BOARD	ANALOG OPTION BOARD
CX II / CXi II	1	3 with one Quad CIM installed	1	1 (optional)
AX	0	Not supported		
MXe II	2	4 without any Quad CIMS installed 8 with one Quad CIM installed 12 with two Quad CIMS installed	1	Not supported
MiVoice Business for Industry Standard Servers/MiVoice Business Virtual	0	Not supported		

QUAD COPPER INTERFACE MODULE (CIM)

A Quad CIM MMC provides four CIM ports that allow you to connect ASU IIs to the following 3300 ICP controllers:

- CX II / CXi II Controllers support one Quad CIM module. Only the first three ports on the Quad CIM are functional, the fourth is not supported. Therefore, you can only connect up to three ASU IIs.
- The MXe III Controller has four embedded CIM ports allowing the connection of up to four ASU IIs. You can add up to two Quad CIM MMCs to increase the number of supported ASU IIs to 12.

The CIM ports require standard 8-pin modular jacks (RJ-45) consisting of 2 balanced signal pairs on Unshielded Twisted Pair (UTP) crossover cable. The CIM supports a distance of up to 100 feet or 30 meters between the controller and the ASU II.

ANALOG SERVICES UNIT II

The ASU II platform delivers analog trunks and extension services to all markets. It comprises a chassis with two card slots. Depending on how you configure the unit with line cards, the ASU II chassis can support up to 48 ONS phones and up to eight LS trunks.

Two card variants (both hot-swappable) are available to support analog phones and trunks:

- The 24-port ONSp card provides 24 ONS lines for provisioning extensions outside the building. The ports on this card are protected against surge and lightning.
- The 12-port ONS/ 4-port LS Trunk Combination card provides analog line and trunk capability in a single card:
 - 12 On-Premise Station (ONS) Lines for analog phones and four Loop Start (LS) trunks for analog connection to a central office. The ONS ports on this card are protected against lightning
 - Four System Fail Transfer (SFT) relays that provide direct connection between an analog phone and a Loop Start trunk in the event of a system or power failure
 - Custom Local Access Signaling Services (CLASS) is supported on the ONS circuits. CLASS allows the 3300 ICP system to pass Calling Line ID digits and CLASS name information to display sets that support Caller ID functionality.

Any card can fit into either slot and the cards can be inserted while the unit is operational.



Note: ASU IIs support DTMF phones only; pulse or rotary dial phones are not supported.

ANALOG MAIN BOARD/ANALOG OPTION BOARD

The MXe II and CX (i) (II) Controllers support the Analog Main Board (AMB). In addition, the CX (i) (II) can support the Analog Option Board (AOB).

The Analog Main Board supports

- Six Loop Start (LS) trunks
- Four On-Premise (ONS) lines (the first 2 ports are surge-protected)
- Two Power Fail Transfer (PFT) ports
- One Music On Hold (MOH) circuit
- One Loudspeaker Paging circuit

The AOB provides the controller with an additional

- Six LS trunks
- Four ONS lines
- One Music On Hold (MOH) circuit
- One Loudspeaker Paging circuit

Custom Local Area Signaling Services (CLASS) is supported on embedded LS trunks and ONS lines. CLASS enables the 3300 ICP system to pass Calling Line ID digits and CLASS name information to display sets that support Caller ID functionality.

MIVOICE BUSINESS NETWORK SUPPORT

VOICE NETWORKING GATEWAY SOLUTIONS

The use of IP telephony can result in cost savings and improve the number and quality of voice-related applications. Many end customers recognize the benefits of these enhancements but are hesitant to replace their entire voice infrastructure to gain benefits at a particular site. In such situations, using MiVoice Business as a gateway into IP telephony has many advantages.

By integrating MiVoice Business into an existing third-party PBX, customers retain their previous investment in communication equipment while taking advantage of the benefits of a superior IP telephony solution. MiVoice Business can connect to the third-party PBX using a variety of methods, building the gateway to IP telephony. This enables customers to use IP Networking, Collaboration, Mobility, and virtual Contact Center applications, as illustrated below.

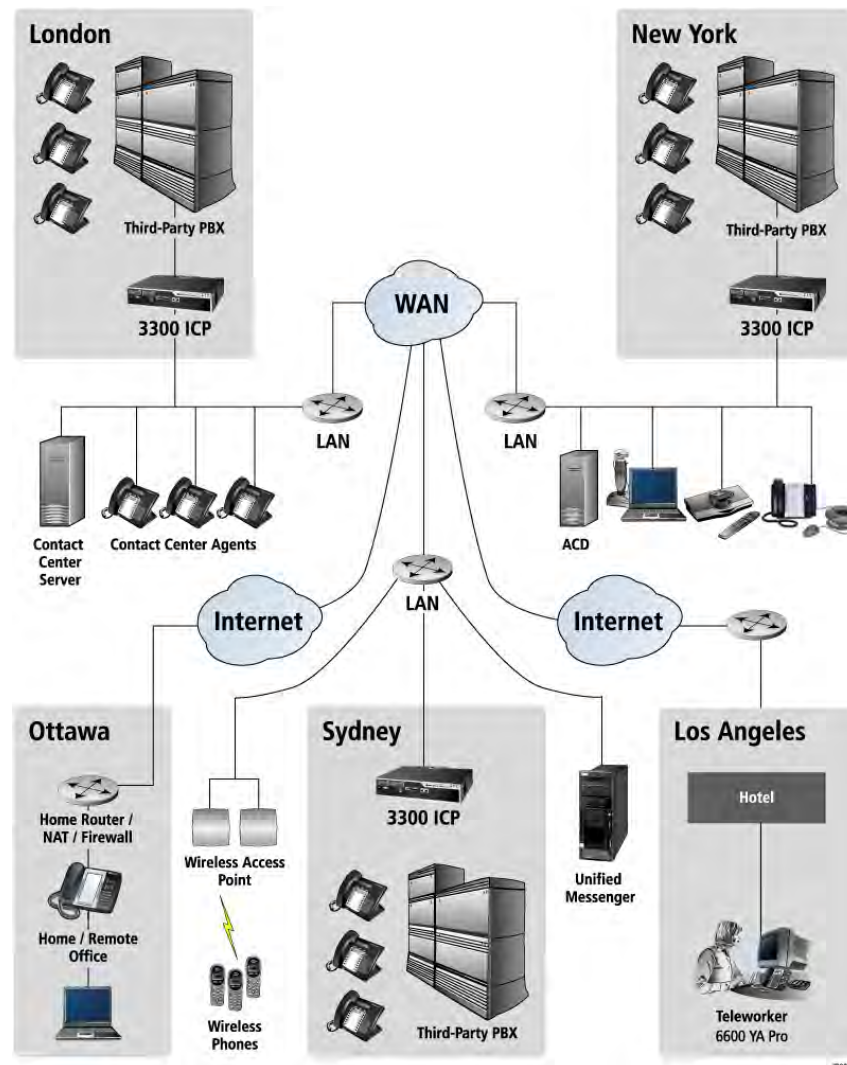


Figure 20: MiVoice Business as Gateway

APPLICATIONS

The following applications are available for all MiVoice Business deployments, except where noted. These applications include Unified Communications solutions, solutions for vertical markets, General Business Solutions, and Third Party Developer Support.

- Unified Communications
 - “MiCollab” on page 51
 - “Mitel NuPoint Unified Messaging” on page 54
 - “Mitel Unified Communicator Express” on page 55
 - “MiCollab Client” on page 56
 - “Mitel Intelligent Directory Application” on page 57
 - “Mitel Live Content Suite” on page 58
 - “Mitel Applications Builder” on page 58
 - “Mitel Live Business Gateway” on page 59
 - “Microsoft Lync” on page 60
 - “Customer Interaction Solutions” on page 67
- “General Business Solutions” on page 71

Some applications are embedded in the system software and others are supported externally. For more information, see the sections that follow. For detailed information on the Unified Communications solutions, see the *Unified Communications General Information Guide*.

MICOLLAB

MiCollab integrates with MiVoice Border Gateway to provide small and medium-sized businesses with a set of advanced IP applications. MiCollab consolidates the installation and management of these applications on a single server to make it simpler to manage the information flow among customers, partners, and suppliers.

Co-residency is provided for multiple Mitel applications, including

- MiCollab Unified Messaging
- MiCollab Speech Auto Attendant
- MiCollab Mobile Client
- MiVoice Border Gateway with Teleworker, SIP Trunk Proxy and Web Proxy services
- MiCollab Audio, Web, and Video Conferencing
- MiContact Center Office
- MiVoice Business Dashboard

Refer to the latest *MiCollab General Information Guide* on the Mitel Customer Documentation web site for a list of the currently supported applications.

MiCollab can be deployed as software on an industry standard server, as software pre-installed on a compact PC server, or as a virtual appliance.

FLOW THROUGH PROVISIONING

Flow Through Provisioning is a feature of MiVoice Business 7.2 and MiCollab 7.0. The feature allows you to provision and manage users and services for a network of MiVoice Business servers from the MiCollab User and Services (USP) application. Updates made to the following data are synchronized between the MiCollab and MiVoice Business systems using System Data Synchronization (SDS):

- User and Services Data
- Network Elements
- Departments and Locations
- Roles and Templates

Both MiVoice Business and MiCollab are updated following any user- or service-affecting changes on either platform. However, although changes made to users, phone services, roles, and templates on a MiVoice Business system are distributed to the other systems (including MiCollab), the recommended best practice is to perform all user and service provisioning from the MiCollab USP application.



Note: MiCollab services can be added, modified, or deleted only from the MiCollab USP application.

The feature provides single sign-on to the administration interfaces for the Mitel communications network. After you sign into the MiVoice Business System Administration Tool, you are granted Reach Through access to the MiCollab USP application, and vice versa. Direct links allow you to access specific programming forms on one platform from forms on the other platform.

For details and for information on how to configure Flow Through Provisioning, refer to the "MiCollab Installation and Maintenance Guide" on the Mitel Customer Documentation web site.

MICOLLAB SUPPORT

MiCollab is supported as a virtual appliance within the VMware® vSphere™ environment for MiVoice Business. Virtual MiCollab leverages VMware vSphere 4.0 or 4.1 to enable businesses to consolidate Mitel's leading unified communications applications in the data center.

MiCollab Audio, Web, and Video Conferencing

MiCollab Audio, Web, and Video Conferencing provides a feature-rich, cost effective IP-based collaboration solution for conducting highly interactive online meetings, brainstorming and training sessions, and presentations. Its audio conferencing and web presentations capabilities facilitate better collaboration among internal and external employees and business partners. Key benefits of the solution are as follows:

- **Better Communications:** Benefit from high quality audio and video that enables people to interact easily and effectively, no matter where they are located.
- **Faster Business Decisions:** Arrange meetings instantly to bring the right people together at the right time.
- **Easy Scheduling:** Send e-mail invitations with access codes, dial-in numbers, Web links and all the details participants need for effective meetings from a Web-based interface.

- **Lower Costs:** Reduce costly and inefficient travel, while avoiding the high costs of out-sourced conferencing services.
- **Easy Management:** This is deployed as part of MiCollab.

Audio, Web, and Video Conferencing provides

- Audio Conferencing features:
 - Conference Session Recording
 - Integrated Reporting Capabilities
 - Port Reservation
 - Outlook Integration
 - Browser-based User Interface
 - Conference Scheduling
 - Conference Management
 - Record and Playback
 - Controlling a Call in Progress
 - Ad-hoc Conference Calling
 - Spoken Name/Roll Call
 - International Callback
- Video Conference Features:
 - High-definition video support
 - Moderator-controlled participation

- Web Conferencing Features:
 - Desktop Sharing
 - Application Sharing
 - Internet Co-browse
 - Multi-Point Video Conferencing
 - Polling
 - Security
 - Hand Raising
- Acknowledgements/Quick Polls

MITEL NUPOINT UNIFIED MESSAGING

Mitel NuPoint Unified Messaging™ is a scalable, integrated voice and fax unified messaging system that users can access anywhere, anytime. NuPoint provides access to a host of flexible and customizable applications including Call Director, Speech Auto-attendant, and the Microsoft Office Live Communications Server® 2005/Office Communications Server 2007 integration. Simple and cost-effective configuration, implementation, administration, and management help streamline system management and deliver lower total cost of ownership.

Users can receive their voice mails and emails through one interface. On their desktops, users manage messages in Outlook. While on the road, they can phone into the Mitel NuPoint server and listen to their voice mails and emails. This simplifies the end user experience and increases productivity.

Mailbox users access these capabilities through the NuPoint Telephone User Interface (TUI) or Outlook (using the NuPoint Outlook Client Plug-in). When using the Outlook Client Plug-in, users are able to record, playback, forward and reply to voice mail messages and view fax messages. Text to Speech (TTS) enables users to listen to their email messages through their NuPoint Voice Mail.

NuPoint is available as part of the MiCollab implementation and as a standalone solution, and can scale to provide voice applications to large enterprises that demand high capacity, high availability, and resilient services. You can network two active NuPoint 640s to a single direct-connect storage array, enabling the 640's to store all data that relates to NuPoint users and NuPoint system data in one shared database. If a single 640 fails, the remaining one in the cluster continues to operate.

The NuPoint 640 has been engineered so there can be no single point of failure. It ensures high availability and minimizes unplanned downtime, and can be further integrated into an organization's data center infrastructure.

You can use NuPoint to

- Place calls to people/departments quickly and efficiently by speaking their names or phone numbers
- Page a mailbox owner when a new voice mail message arrives. NuPoint supports SMS notification to cellular phones. SMS notification text-messages users when they receive new voice messages.
- Allow callers to leave a voice mail message or input a call back number which is then displayed on the mailbox owners pager
- Schedule automatic wake-up calls to any phone at any date and time
- Record voice messages and have them automatically distributed to multiple users
- Deliver new, unplayed voice messages to an on- or off-system phone number of choice
- Route calls to predetermined destinations based on time of day, day of week, or day of year
- Property management integration and custom hotel prompts
- Configure up to six fax channels/ports for each NuPoint server. The Fax feature works in a network configuration where the NuPoint server is integrated directly with an MiVoice Business system or with another PBX.
- Perform Mailbox Maintenance, System Maintenance, Report Generation, and Call Director management from a web-based console
- Support integration with up to four MiVoice Business systems
- Enhance InBand integration to permits users to interface with legacy PBXs, using enhanced inband with DTMF
- Control voice mail functions through context-sensitive keys on the phone

For more information, refer to *Mitel NuPoint Unified Messaging General Information Guide* on Mitel edocs.

MITEL UNIFIED COMMUNICATOR

Mitel Unified Communicator enhances business communication and collaboration with co-workers, customers, and partners, helping employees to make better decisions, be more responsive, and deliver greater value to their clients.

MITEL UNIFIED COMMUNICATOR EXPRESS

Mitel Unified Communicator (UC) Express is a cost-effective, server-less desktop unified communications client that provides system tray access to productivity enhancements like click-to-call, incoming caller ID pop-up, call history, speed call list, plus personal (Microsoft® Outlook®) and Corporate (Microsoft Active Directory) directory integration with public instant message presence engines. UC Express is tightly integrated with MiVoice IP Phones, resulting in a converged infrastructure that enhances the user experience and the effectiveness of "in the moment" communications.

UC Express is designed for easy configuration and installation, providing IT personnel with a number of implementation options—from simple end-user downloads to large-scale pull or pushed-based mass deployments.

UC Express is a fast and easy way to simplify routine communications and help users maximize operational efficiency.



Figure 21: UC Express Call Control

MICOLLAB CLIENT

MiCollab Client is a comprehensive unified communications client that integrates presence and availability, secure Instant Messaging (IM), audio conferencing, and video and data collaboration with the call control capabilities of MiVoice Business. UC Advanced provides a unique "launch pad" for commonly used Mitel and third-party applications and an open API to enable tailored integration into business process software such as salesforce.com and Microsoft CRM.

UC Advanced enables users to manage contact information, determine the presence and availability of colleagues, and set their own call-handling policies at the desktop.

Figure 22 illustrates a call being escalated to a video call from the voice call and chat windows.



Figure 22: MiCollab Client

MITEL INTELLIGENT DIRECTORY APPLICATION

Mitel Intelligent Directory Application is a free desktop application that enables users to access contact, calendar, and presence information for both corporate and personal directories directly on their phones.

Intelligent Directory Application provides a simple, intuitive, on-screen, searchable directory of both corporate (Microsoft® Active Directory®) and personal contacts (Microsoft Outlook®) on the phone's display, and provides at-a-glance presence information for the entire corporate directory list. Presence information is automatically fed from the Instant Messaging (IM) contact list (Office Communication Server 2007) to 5320, 5330, 5340, and 5360 IP Phone displays. Presence icons that appear on these phone displays provide presence indication for all corporate contacts.

MITEL LIVE CONTENT SUITE

Mitel Live Content Suite is a sophisticated, yet easy-to-use, web portal application for personalizing new live content applications and telephony functions on MiVoice IP Phones.

Live Content Suite enables customers to create and publish dynamic and personalized information to users, transforming Mitel 5360 IP Phones into media information appliances. This improves communication with employees and enables them to readily access information.

Live Content Suite provides multi-language support and enables administrator to copy the programming from a source phone to a set of target phones, and permit specific users to program phones for their work groups.

Live Content Suite includes:

Live Desktop Portal

Live Desktop Portal is an intuitive, web-based phone programming portal. It provides users with a replica view of their phones and enables them to easily drag and drop content, applications, speed-dials, and telephony functions to touch-screen keys on their phones.

Live Blogger

Live Blogger delivers custom, live content to users' phones using standard blog tools. Live Blogger enables users to receive information from a central blogging source. Live Blogger uses a web server to provide the required functionality.

Live Applications

Live Applications are pre-packaged applications that deliver dynamic content to phones enabled with Live Content Suite. The continually expanding list of Live Applications includes Live Twitter® Reader, Live Weather, Live Flickr®, Live RSS List View, and Live RSS Page View.

Supported Mitel Phones

Live Content Suite supports the following MiVoice IP Phones:

- Release 1.0: Mitel 5360 IP Phone
- Release 1.1:
 - Mitel 5320, 5330, 5340 IP Phones, providing full Live Content and Live Desktop Portal personalization capabilities
 - Mitel 5304, 5312, 5324, 5320, 5330, 5340, 5212 and 5224 IP Phones, providing full Live Desktop Portal telephony programming and administration capabilities

MITEL APPLICATIONS BUILDER

Mitel Application Builder is an easy-to-use online wizard for creating hospitality applications that run on Mitel 5360 IP phones. The wizard guides you through the steps necessary to create a customized, on-phone hospitality application for Mitel 5360 IP Phone sets. The builder creates a hospitality guest application based on your input and selections.

Online Demo and On-Phone Capabilities

After you create an application, you can send an email link to customers that provides an online simulation of the application. You can also demonstrate the application to customers using a Mitel IP 5360 phone.

Ability to Push Live Advertising to Guest Phones

When used in conjunction with Mitel Live Content Suite, Mitel Live Application Builder enables hotel operators to create and manage live advertising content by simply editing a blog.

Supported MiVoice IP Phones

Live Application Builder supports the Mitel 5360 IP Phone.

MITEL LIVE BUSINESS GATEWAY

Mitel Live Business Gateway enables Microsoft Office Communications Server 2007 to communicate with a MiVoice Business host platform. Users can see the telephony status and presence of other users on the network and can make calls from Microsoft Office Communicator 2007 using Mitel IP desktop phones. They can access key business resources quickly and efficiently and be notified with pop-ups when other users finish calls (become available).

Live Business Gateway integrates with Microsoft Outlook and Office to track all voice and IM conversations and any missed calls. Users can view the telephony status of business users and make calls from within these applications with the click of a mouse. Out of office messages and calendar information can be synchronized with Communicator 2007, enabling users to readily communicate their availability and whereabouts.

The combination of Office Communications Server 2007 and Live Business Gateway enhances information worker productivity and greatly improves business process efficiencies by combining a wide range of collaboration tools with Mitel's trusted IP telephony solution.

Note: Live Business Gateway continues to fully support Microsoft Live Communication Server 2005 and Communicator 2005; however, in this document reference is made only to Office Communications Server 2007 and Communicator 2007.

This integrated solution from Mitel and Microsoft includes

- Microsoft Office Communicator 2007 R2
- Microsoft Office Communications Server 2007 R2
- Mitel Live Business Gateway 3.1 or greater
- Mitel 3300 IP Communications Platform (ICP) Controller

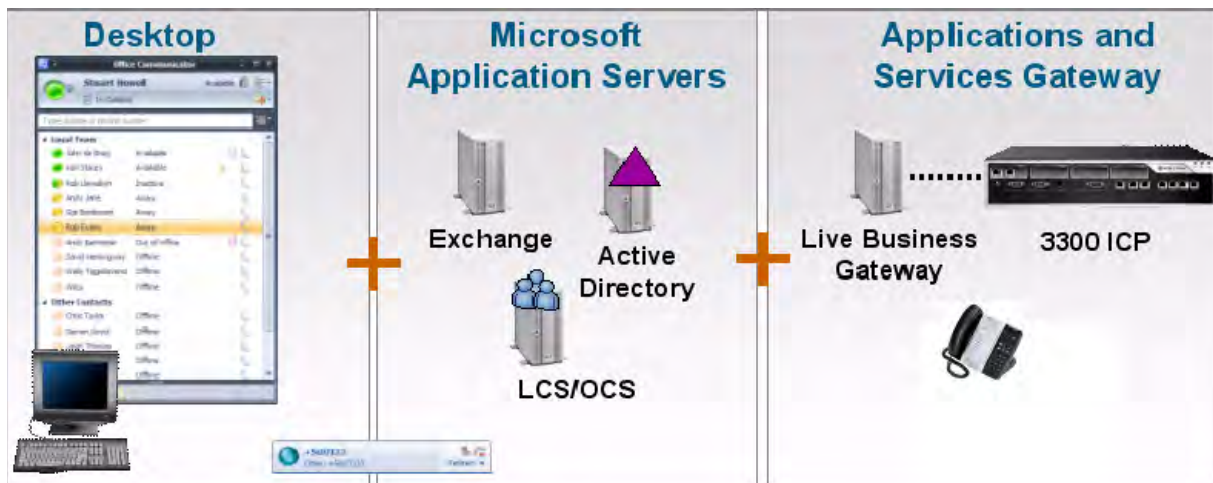


Figure 23: Live Business Gateway Integration

MICROSOFT LYNC

Customers who choose Microsoft Lync as their preferred Unified Communications solution, often require integration to their existing IP - PBX, or if choosing a new IP - PBX, need to ensure that telephony integration with Lync is possible. Most businesses that deploy Lync use it for instant messaging, PC presence and collaboration, and a feature rich IP-PBX, such as MiVoice Business for telephony.

Customers who have deployed Live Communications Server 2005, Office Communications Server 2007 or Office Communications Server 2007 R2, are being encouraged by Microsoft to upgrade to Lync.

MCD Release 4.2 SP1 and greater is Microsoft Lync Direct SIP certified. Mitel has successfully completed testing of Live Business Gateway release 3.2 with MCD 4.2 and Microsoft Lync. LBG 3.2 and Direct SIP are now fully supported by Mitel when used with Office Communications Server 2007 R2 or Lync.

Mitel offers a wide range of solutions, that in conjunction with MiVoice Business, provide telephony and presence integration enhancements to Lync and Office Communications Server 2007 R2.

Current telephony integration solutions include

- Mitel Live Business Gateway release 3.2
- Direct SIP
- Mitel 5550 IP Console and MiVoice Business Console presence integration for OCS 2007 R2
- MiCollab Client presence integration / federation
- Mitel Speech Auto-Attendant presence integration for OCS 2007 R2

MOBILITY SOLUTIONS

Mitel's Mobility Solutions are as follows.

MIVOICE BORDER GATEWAY TELEWORKER SERVICE

The MiVoice Border Gateway teleworker service connects a remote office to the corporate voice network to provide full access to voice mail, conferencing, and other features of the office phone system.

MiVoice Border Gateway requires the following components.

HEAD OFFICE	REMOTE SITE
<ul style="list-style-type: none"> • Server installed with MiCollab software and the MiVoice Border Gateway software blade or Server installed with Mitel Standard Linux software and the MiVoice Border Gateway software blade • Static IP address • Sufficient internet bandwidth (approximately 50 kbps is required per teleworker if G.729a compression is enabled) 	<ul style="list-style-type: none"> • 5304, 5312, 5320, 5324, 5330, 5340 and 5360 IP Phones • DSL/cable router with Network Address Translation (NAT) and local DHCP • Broadband connectivity (static IP address is not required)

You can configure the MiVoice Border Gateway teleworker service at the head office using a 5304, 5312, 5320, 5324, 5330, 5340, or 5360 IP Phone. Using a two-click process, the phone is set to operate in teleworker mode. The phone keypad is used to enter the IP address of the MiVoice Border Gateway installed at the head office. The phone can then be taken off-site and plugged into any broadband Internet connection. When the phone is powered up, it automatically establishes a connection with the MiVoice Border Gateway and is registered as a standard extension of the office phone system. The phone can also be returned to normal (non-teleworker) mode with the touch of a button.

The following figures illustrates possible MiVoice Border Gateway teleworker service configurations. In these configurations, the Applications Management Center (AMC) provides a range of downloadable applications and services to the remote office.

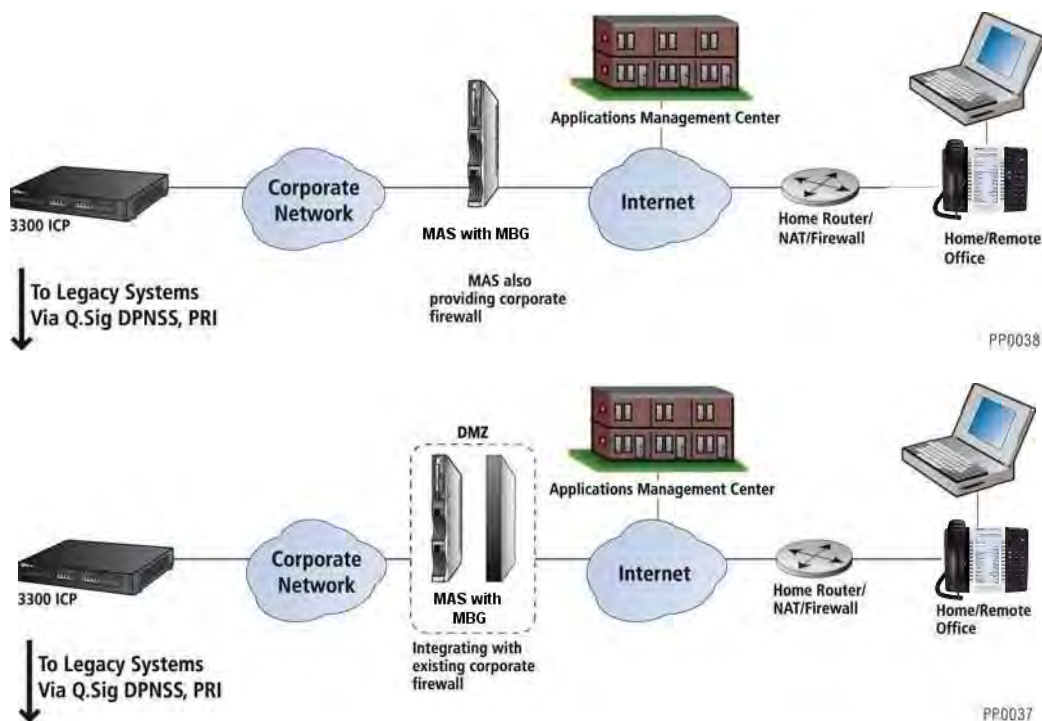


Figure 24: MiVoice Border Gateway Teleworker Service

UNIFIED COMMUNICATOR MOBILE

Mitel Unified Communication Mobile (UC Mobile) is a software solution that enables users to twin their desk phone with an internal or external PSTN-connected phone (for example, a cell phone). Calls arriving at the desk phone ring the cell phone simultaneously, until one or the other is answered. If calls are unanswered, they are forwarded to voice mail.

UC Mobile extends commonly-used PBX features, such as hold and transfer, to cell phones so mobile workers can access Mitel’s rich telephony features and applications while they are on the go. When configured as a twin, a cell phone acts as an extension of the enterprise desk phone, providing a single number contact and an integrated mobile and desktop experience.

A user can readily change the device/number that is twinned to his/her primary extension and take advantage of advanced capabilities delivered with Mobile Clients for Windows Mobile and Symbian S60 smartphones. With the addition of the Mobile Client, outbound mobile calls are placed by the PBX, extending Single Number capability and delivering cellular long distance cost savings.

Administrators configure system settings using an administrative web interface. Users program their personal settings using a web interface, telephony user interface (TUI), or Mobile Client graphical user interface (GUI). For more information, refer to the Unified Communicator Mobile documentation available on the Mitel edocs website.

UC Mobile is available as a Standalone application or within Mitel Application Suite; UC Mobile release 2.0 and above is only available within MiCollab.

WIRELESS SUPPORT

Mitel offers full-featured, integrated wireless IP solutions to suit your application, geographic location, and technology preferences. From DECT and Wi-Fi/802.11 solutions to Bluetooth Devices and DECT Cordless Devices for Mitel 5330, 5340, and 5360 IP Phones, Mitel's wireless IP phone devices provide users with the complete range of MiVoice Business features.

MiVoice Business supports the following wireless devices. See "Wireless IP Phones" on page 95 for more information on these devices.

WIRELESS PHONE	WIRELESS INFRASTRUCTURE	COMMENTS
SpectraLink 8020, 8030 Wireless Handsets	Polycom certified enterprise grade Wi-Fi networks (www.polycom.com)	No longer available; integrated over SIP
Mitel 5603, 5604, and 5606 Wireless Handsets	IP-DECT	Available globally; integrated over SIP
Mitel 5610 Handset and IP DECT Stand	IP-DECT	No longer available; integrated over SIP

The DECT Cordless and Bluetooth devices are described later in this document.

IP Wireless phones offer the following benefits:

- **Integrated full-featured Call Control:** Includes caller name and number display, call hold and transfer, message waiting light, and conference calls. Wireless softkeys provide users with single-button access to common telephony features such as call hold, call transfer, call waiting, call forwarding, call swap, multi-language support, voice mail control, and Superkey functionality.
- **Complete IP Network integration:** When integrated with an MiVoice Business system, provides the complete range of MiVoice Business features

IP-DECT System (Global)

The Mitel IP-DECT System (Global) can be deployed in any locality where the operation of devices in compliance with the European DECT or the North American DECT standards is permitted.

The IP-DECT System comprises the following components:

- 3300 ICP Controller
- Base stations for wireless coverage
- 5603: wireless handset for office environments
- 5604: wireless handset for healthcare environments
- 5606: wireless handset for healthcare and industrial environments
- 5606 (Alarm): wireless handset for industrial/security applications

- 5606 (Services): wireless handset for safety/security applications
- 5610 DECT: IP phone and stand for Mitel 5300 Series IP Phones
- Services and Messaging gateway (WSM)
- Full Range of Accessories

The base stations connect to the 3300 ICP controller through the LAN and communicate to the 3300 ICP over the IP SIP protocol; the base stations communicate over the air to the Wireless Handsets using standard Digital Enhanced Cordless Telecommunications (DECT) protocol. One of the base stations functions as the Master Base station providing the management interface that enables configuration of the wireless system settings, base stations and handsets. The WSM connects to the system through the LAN and enables the Messaging and Alarm capabilities of the system. The 5603 and 5604 handsets are programmed on the 3300 ICP as specific device types; the 5606 series handsets are programmed as regular SIP extensions.

The system supports up to 1,000 users and 1,000 base stations per master, to a maximum of 10,000 users per system. See the diagram below for a typical configuration.

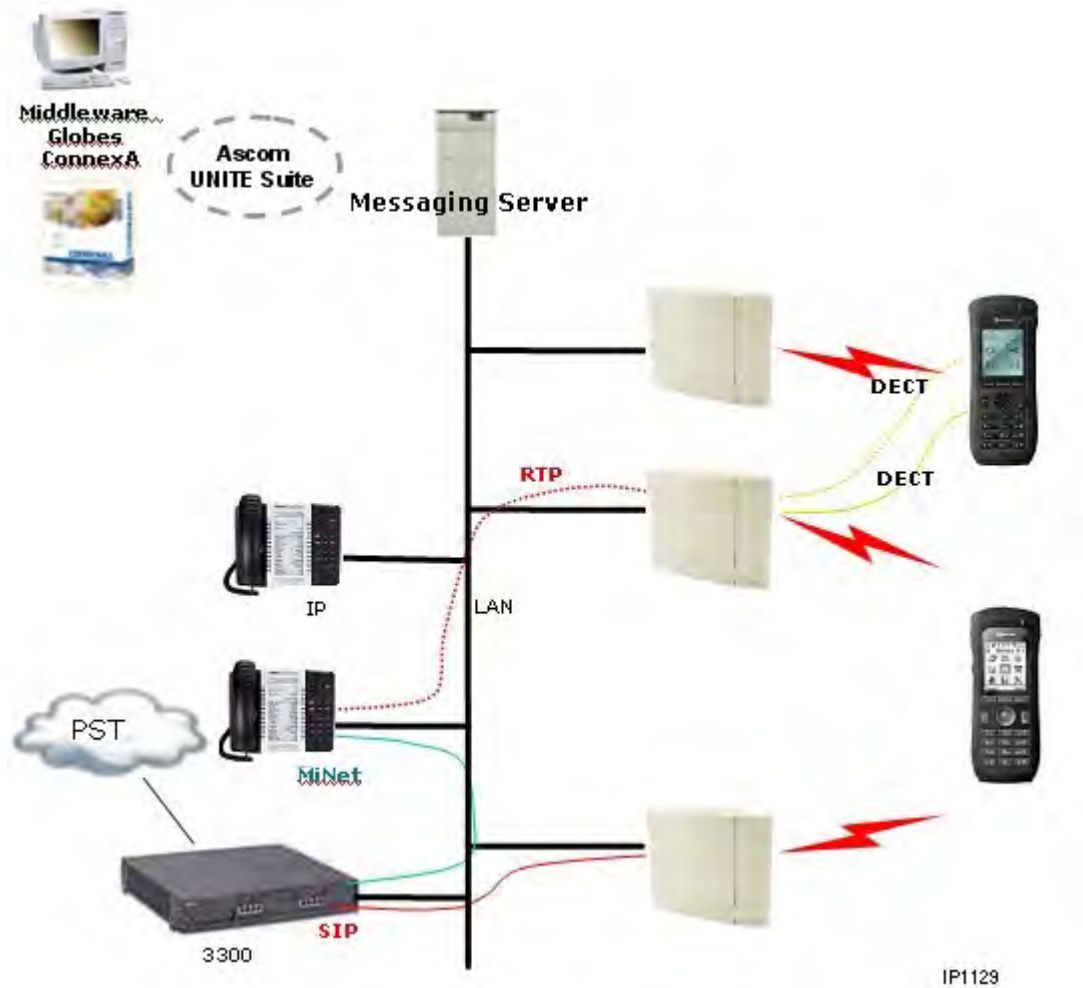


Figure 25: IP-DECT System (Global)

IP DECT Wireless Solution (EMEA)

The Mitel Internet Protocol Digital Enhanced Cordless Telecommunications (IP-DECT) wireless solution is available in the EMEA (Europe, Middle-East and Africa) and the Australia market. It consists of the following components:

- 3300 ICP controller
- Base stations for wireless phones
- Open Mobility Manager (IP-DECT wireless solution administration application)

The base stations connect to the 3300 ICP controller through the LAN. The wireless phones communicate with the base stations using standard Digital Enhanced Cordless Telecommunications (DECT) protocol. One of the base stations is designated as the Open Mobility Manager (OMM). Like the other base stations, the Open Mobility Manager transmits voice information to and from the wireless sets, but it also provides a management interface that enables you to configure the wireless system settings and base stations.

An SNMP agent configured in each base station conveys alarm information and facilitates overall SNMP management of large, wireless networks in the base station.

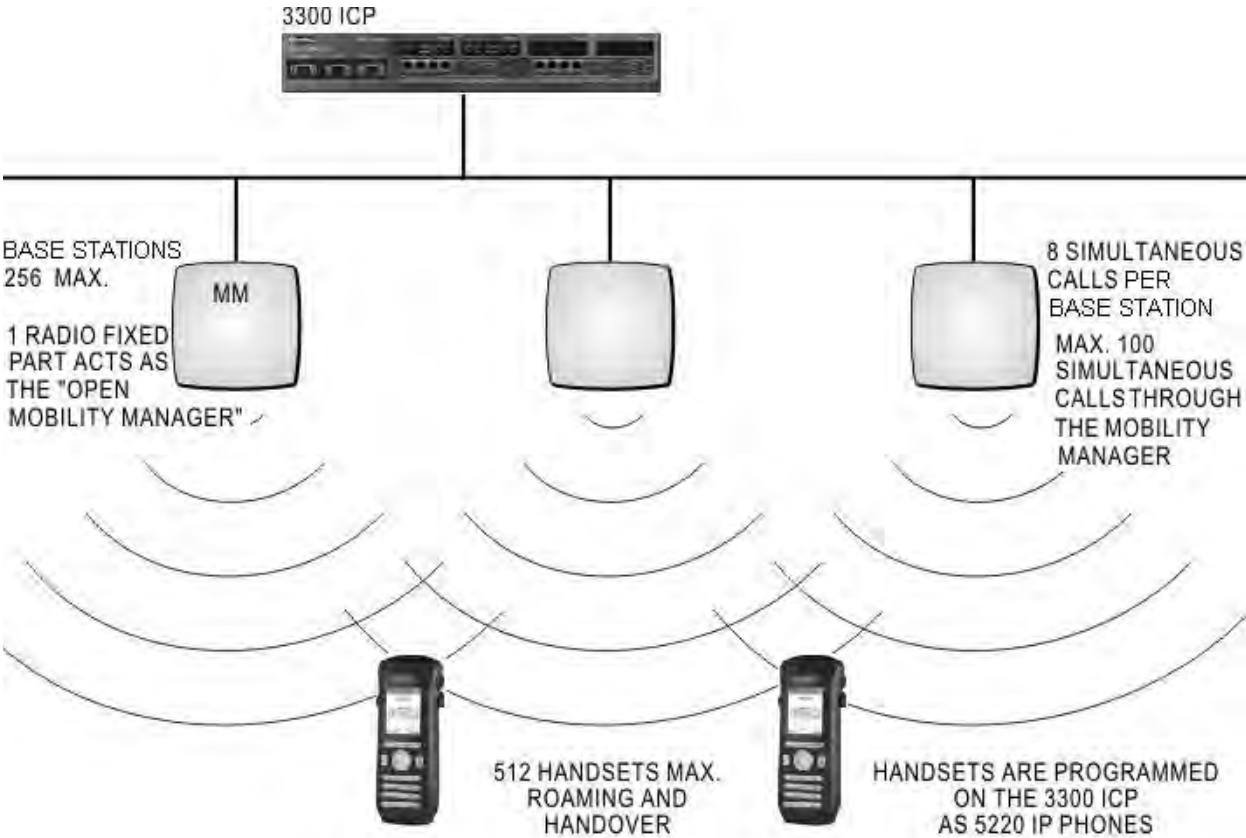


Figure 26: IP DECT Wireless Solution (EMEA version)

IP DECT Handset and DECT Stand

The Mitel 5610 Handset and DECT Stand are peripheral devices for 5300 Series IP Phones. To support up to eight 5610 Handsets for localized mobile communication, you simply snap the DECT Stand onto a phone. The handsets have vibrant color screens and full dial pads, and can be programmed as unique SIP extensions or as members of a personal ring group.

SpectraLink IP Integrated Wireless Voice Solution

SpectraLink wireless phones provide access to all the features and functionality available on a Mitel IP-desktop as well as the mobility of a compact 802.11 (Wi-Fi) wireless device. The SpectraLink Wireless Voice Solution is fully IP-integrated with the 3300 ICP to provide a single wireless data and voice infrastructure. SpectraLink Wireless Voice Solution provides investment protection by enabling customers to build wireless infrastructures using a choice of more than 27 different brands of Access Points. SpectraLink enables customers to consider out-of-building, campus-wide or even municipality-wide wireless voice networks. In addition, the SpectraLink Wireless Voice Solution enables the 3300 ICP to act as wireless gateway for third-party PBXs as well as Mitel's SX-200 and SX-2000 platforms. Communication between the 3300 ICP wireless gateway and the legacy PBXs is over standard trunk protocols such as MSDN/DPNSS, Q.Sig, or T1/D4.

SpectraLink Wireless Voice Solution provides

- Multi-line support similar to the 5324 IP Phone
- Push-to-talk Walkie-talkie style communication
- Choice of two phone styles (Industrial and Enterprise)
- Choice of Access Points
- Support for text alerts
- Extensive integration support for applications such as Nurse-Call, security and emergency response

In order to implement the SpectraLink Wireless Telephone Solution, you must also order the SpectraLink SVP Server (see SpectraLink Voice Priority Server on page 67). In addition, Mitel provides the optional SpectraLink Open Application Interface for two-way messaging.

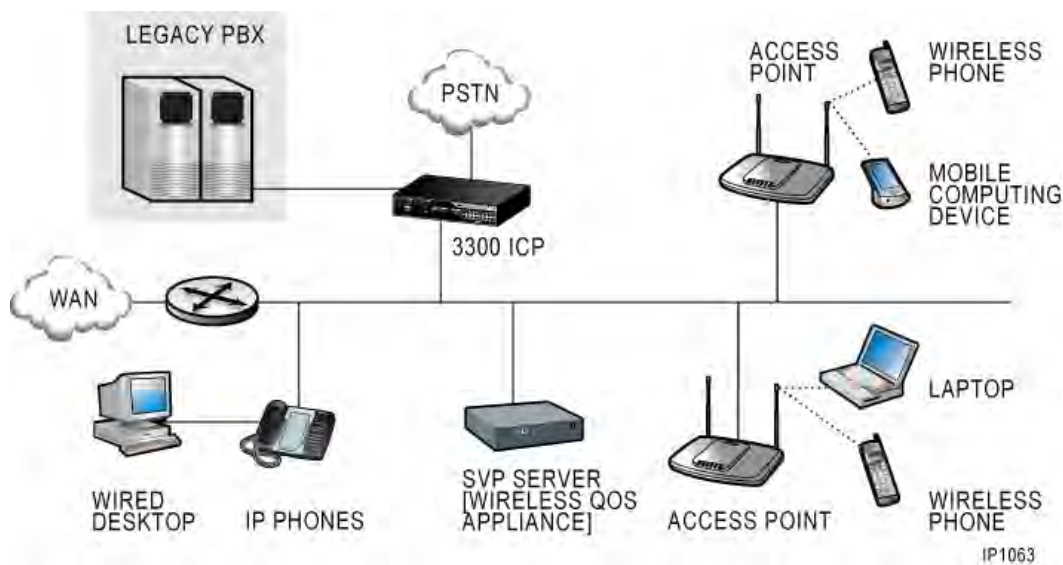


Figure 27: SpectraLink IP Integrated Wireless Voice Solution

SpectraLink Voice Priority Server

The SpectraLink Voice Priority (SVP) Server allows converged voice and data traffic over a common wireless network and reduces packet queuing delays for voice traffic. The SVP Server

- Ensures excellent voice quality on converged wireless networks
- Is fully compatible with 802.11b wireless LANs
- Handles 80 simultaneous calls per SVP Server (300-600 users)

SpectraLink Open Application Interface

The SpectraLink Open Application Interface (OAI) enables handsets to function as two-way messaging devices: they provide integration with other enterprise systems and enable mobile workers to access critical information.

CUSTOMER INTERACTION SOLUTIONS

The Mitel Customer Interaction Solutions product suite combines robust communications platforms, Automated Call Distribution (ACD), and a modular suite of feature-rich, web-based applications for streamlining contact center management, and enabling advanced multimedia customer contacts. The Mitel Customer Interaction Solutions portfolio includes

- “Automatic Call Distribution” on page 68
- “Applications for Formal Contact Centers” on page 68
 - “Mitel MiContact Center Business Edition” on page 69
 - “Mitel MiContact Center Enterprise Edition” on page 70
 - “Commander Contact Centre” on page 70
- “MiVoice Call Accounting” on page 71

AUTOMATIC CALL DISTRIBUTION

MiVoice Business provides fully integrated Automatic Call Distribution (ACD) functionality through either the ACD or ACD Express call routing applications. Targeting formal and informal contact centers respectively, ACD and ACD Express provide call distribution, agent mobility, feature configuration, administration, and recorded announcements. MiVoice Business integrated ACD functionality is enhanced by the Mitel MiContact Center Solutions product suite. Designed for formal, small-to-enterprise sized contact centers, MiContact Center Solutions enables customers to streamline operations and improve efficiency. It is described in more detail below, and in the *Customer Interactions Solutions General Information Guide*.

ACD applications benefit from Mitel's comprehensive Hot Desking features. With Hot Desking, a pool of shared phones can be made available to all agents. Agents can log in and log out of any phone with their unique Hot Desk ID and password. The system applies the agent's personal profile to the set. After they log in, agents can make themselves present in, or absent from, any one of their groups through a pre-programmed feature access key (FAK). If agents are not present in any of their groups, they can still access their prime line keys. They can log in and log out using feature access codes (FACs), with flexibility in the choice of sets. These capabilities are all controlled by Class of Service (COS) settings in MiVoice Business, ensuring that ACD administrators have full control over permission assignment.

Agents may be active in 16 agent groups at any given time in an ACD application that employs the 3300 Mx III Controller.

With dynamic license allocation, customers can purchase the number of concurrent licenses required for their operation.

For a description of the 3300's Hot Desking capabilities see "Hot Desking" on page 17

APPLICATIONS FOR FORMAL CONTACT CENTERS

A formal contact center is typically an organization that operates one or more call centers that are critical to their business. Formal contact centers can be large or small. They have advanced needs such as multi-channel, highly customized Interactive Voice Response (IVR), extensive reporting, and customized integrations with Customer Relationship Management (CRM) applications and other business processes. Mitel's formal contact center solutions provide a formal way of dealing with incoming calls and support a range of basic to advanced functionality and price points. They are built on the sophisticated call routing functionality of the ACD application in MiVoice Business.

Mitel's formal contact center solution supports dynamic Extensions for agents, extending ACD features to all IP, SIP, and external devices, and enabling External Hot Desk Agents (EHDAs) to be on 3rd party endpoints, such as cell phones, on analog phones, or at home. The solution provides ACD dimensioning for active agents, agent skill groups, dial out of queue points, and RADs.

Support for Mitel MiContact Center Solutions in Virtualized Environments

Mitel's formal contact center solutions take advantage of the improved performance, ease of use, and comprehensive management capabilities of data center virtualization. These solutions are fully supported in virtualized (VMware) environments, where virtual appliances are created to simplify configuration and installation. All of the advanced contact center and general business functionality is supported, with the exception of web callbacks and Music on Hold (due to their requirement for a sound card), and Multimedia Contact Center (coming soon).

Mitel's formal contact center solutions include

- "Mitel MiContact Center Business Edition" on page 69
- "Mitel MiContact Center Enterprise Edition" on page 70
- "Commander Contact Centre" on page 70

Mitel MiContact Center Business Edition

Mitel MiContact Center Business Edition is designed for organizations that need to process incoming calls in a formal way, and require advanced capabilities with minimal customization. MiContact Center Business Edition is built for single-site contact centers that have 25 or fewer agents and focused application needs. MiContact Center Business Edition provides

- An award-winning graphical agent desktop
- A Core set of historical and real-time reports
- Consolidated agent and queue management
- Rich voice automatic call distribution (ACD) functionality
- Contact center management tools
- Contact center scheduling for automatic agent scheduling based on business rules and required skills
- Schedule adherence to verify agents are adhering to their schedules
- Real-time agent and queue control
- Call accounting
- Automatic call distribution
- A browser-based IVR solution that provides advanced call routing and self service
- Inbound multimedia: ACD for e-mail, web chat, fax, SMS, and walk-in
- Desktop phone and softphones
- CRM screen-pops
- Outbound dialing: automated dialing
- Remote agents via MiVoice Border Gateway teleworker service



Note: MiContact Center Business Edition is limited to 25 agents and 8 ports.

Mitel MiContact Center Enterprise Edition

Mitel MiContact Center Enterprise Edition is a scalable, resilient, and virtual solution for sophisticated contact centers of all sizes across one or more locations. Enterprise Edition targets organizations whose call center is fundamentally critical to their business, or their call center *is* their business. These organizations require a highly available system, advanced integration, extensive reporting and sophisticated routing. All of these complex capabilities must be made available in a distributed (and/or virtual multi-site) environment. Mitel MiContact Center Enterprise Edition meets these demanding call center implementations by providing the feature set of MiContact Center Business Edition plus

- Extensive custom reporting
- Sophisticated routing and highly customized interactive voice response (IVR)
- Customized integrations for customer relationship management (CRM) and workforce management (WFM)
- Resiliency and high availability
- Support for distributed, multi-site, virtual deployments

Contact center solutions are described in detail in the *Mitel Contact Center Solutions General Information Guide*.

Commander Contact Centre



Note: This solution is available in the UK only.

Mitel Commander Contact Centre is an innovative advancement in contact center communications and control, extending the boundaries of the customer-agent interaction to support a wide range of contact types in a completely integrated environment. Commander's patented solution provides Multimedia Interaction Management™ through the most comprehensive set of tools on the market — routing, queuing, tracking, and reporting on inbound and outbound calls, e-mail, Web Chats, Web Requests, faxes, voice mail, and blended calls (preview dialing).

Commander handles customer requests from the arrival of an interaction to final wrap-up. Fully integrated features such as Interactive Voice Response (IVR) and e-mail parsing identify customers and their needs. Commander applications query third-party applications or mainframe databases to look up customer data or information about a call (who the caller is, the caller ID, and the type of support contract the caller has). By linking to CRM data, Commander retrieves details about the customer. Intelligent queuing and data-directed routing ensure an optimal path for every interaction. By using Web-based administration, real-time monitoring, and a comprehensive decision management system, organizations can create a complete, customizable picture of the contact center operations for all levels of management. Commander Contact Centre features are described in detail in the *Commander Contact Center product documentation*.

MIVOICE CALL ACCOUNTING

MiVoice Call Accounting is a comprehensive call costing solution that is available as either a single site or multi-site solution, and can optionally be integrated with Mitel MiContact Center Management. MiVoice Call Accounting enables organizations to monitor and control telecommunication costs and clearly show how much money is being spent and who is spending it. With Call Accounting, you can

- Monitor usage and establish call patterns for departments and work groups
- Track, report, and control telecommunication costs
- Track account codes in SMDR reports
- Perform cost recovery and carrier bill reconciliation
- Know if costs are excessive because employees are sharing toll free lines, calling restricted numbers, or calling their friends long distance
- Mitel Subscriber Services (optional module): enables you to charge back departments, employees, and customers using markup or discount pricing
- Mitel Traffic Analysis (optional module): enables you to determine if the organization is using its incoming, outgoing, and bi-directional trunks efficiently

GENERAL BUSINESS SOLUTIONS

EMERGENCY RESPONSE ADVISER

Mitel Emergency Response Adviser is an application that runs on a Microsoft Windows-compatible server and one or more remote terminals. It provides local security personnel with an emergency call display and response console that

- Alerts them to new emergency calls
- Identifies the exact location of the phone that was used to dial the emergency number
- Lists any helpful extra information
- Waits for call acknowledgement
- Logs the call and time of acknowledgement

This functionality is added to the existing Emergency Services feature offered by MiVoice Business. The switch performs the actual routing of emergency calls to dispatch emergency personnel (for fires, medical emergencies, etcetera).

Emergency Response Adviser enables you to alert mobile personnel on their phones or pagers. Emergency Response Adviser can simplify the generation of data files necessary for keeping the PSAP up to date with physical plant changes, which is an essential part of emergency services management.

THIRD-PARTY DEVELOPER SUPPORT

The Mitel Solutions Alliance (MSA) Developers Program offers third-party vendor partners and end customers access to software development tool kits and support services for integration with our award-winning range of IP communication devices.

MSA Universal SDK Development Kit

The Mitel Open Integration Gateway (OIG) is a web server that provides a single access point to web services available within a Mitel system. The Mitel OIG runs on the Mitel Standard Linux (MSL) operating system and can be deployed as an MSL software blade through the Mitel AMC licensing server, or as a virtual appliance. The Mitel OIG provides web services by integrating with a Mitel system (MiVoice call manager cluster or single MiVoice call manager node and Mitel applications). Mitel OIG supports the following web services:

- Session management service
- Call control services
- Data access services

Software developers are required to join the Mitel Solutions Alliance (MSA) developer partner program at one of the Developer Advanced membership levels in order to develop or modify Mitel OIG-based applications.

MiAUDIO

With MiAUDIO, developers can include the processing of phone audio streams in their applications for MiVoice Business. Examples of MiAUDIO applications include a voice mail system, or an automated recorded message delivery system.

Software developers are required to join the Mitel Solutions Alliance (MSA) developer partner program at one of the Developer Advanced membership levels in order to develop or modify MiAUDIO-based applications.

MiAUDIO is used to control the calls of a physical phone or a workstation softphone. MiAUDIO can receive and interpret Dual Tone Modular Frequency (DTMF) signals and handle multiple phones, trunk devices, and routing queues. Applications written for MiAUDIO permit third-party call control (outside of the "conversation"). MiAUDIO targets server applications that control multiple devices and handle things such as corporate voice mail, where speech recognition and DTMF detection are required.

Emulating the Mitel 5020 IP Phone controlled by MiVoice Business, MiAUDIO provides voice port capabilities to server-based applications. MiAUDIO offers the following

- Up to 60 ports (softphones) for voice applications
- Voice stream record and playback
- Phone and line device interface for monitoring and controlling the softphone
- DTMF generation
- DTMF detection events for IP- and TDM-sourced calls
- Call control via OIG

Secure Recording Connector

Mitel Secure Recording Connector (SRC) is a call recording solution that enables third-party recording equipment to record Mitel encrypted voice streams. SRC is placed on the LAN and accepts requests from properly authorized Call Recording Equipment (CRE) to establish taps in the voice stream.

SRC is part of the MiVoice Border Gateway software blade. Phones that are enabled for call recording register with the ICP via the SRC. SRC then taps (mirrors) the voice streams of any enabled phone, or group of phones, to third-party call recording equipment. Developers can use the SRC-CRE interface to add, remove, and query recording taps.

Software developers are required to join the Mitel Solutions Alliance (MSA) developer partner program at one of the Developer Advanced membership levels in order to develop or modify SRC-based applications.

HTML Toolkit for MiVoice 5320, 5330, 5340, and 5360 IP Phones

The Mitel 5320, 5330, 5340, and 5360 desktop application phones feature a large graphics display and a built-in HTML player. Mitel HTML Toolkit provides Application Programming Interfaces (APIs) for developers to customize these large-screen display phones.

HTML Toolkit enables developers to build graphical applications for 5320, 5330, 5340, and 5360 phones using standard web authoring tools. They can tightly integrate the phones into their business processes and deliver tailored functionality for a wide range of business applications that target horizontal and vertical market sectors. Custom applications provide simple navigation and enhanced usability of display phones and meet organizational objectives (for example, sales, branding, and process improvement).

The HTML Toolkit also provides notification applications for MiVoice 5304, 5312 and 5324 IP phones. HTML Applications are also supported over MiVoice Border Gateway (Teleworker). With HTML Toolkit 2.2, core applications such as Mitel Intelligent Directory and Mitel Live Content Suite will run on supported phones anywhere using MiVoice Border Gateway.

Examples of applications that can be developed with the HTML Toolkit include

- **Hospitality:** room phones can deliver unique guest services
- **Education:** classroom phones can be used to take attendance, store student information
- **Financial:** latest stock market information can be displayed
- **Retail:** inventory checker, inter-store communications
- **Healthcare:** medication profiles can be displayed, pharmaceutical prescriptions can be ordered
- **General Business:** weather, Photo album, Screen Saver with company logo, Calculator

ADMINISTRATION TOOLS

This section describes the tools that simplify programming, administration, management, and maintenance tasks:

MIVOICE ENTERPRISE MANAGER

MiVoice Enterprise Manager is a management tool that provides consolidated administration of Mitel's product portfolio. It provides a management desktop, inventory management, configuration, network monitoring, maintenance and diagnostics, and system administration.

Enterprise Manager includes a number of applications that provide:

- Support for up to 1,000 managed Mitel systems and up to 1,000 non-Mitel nodes.
- Network Inventory and Health Monitoring via Enterprise Manager.
- Software Management via MiVoice Business Software Installer.
- Management of a network of MiVoice Business systems via OPS Manager, the network management tool (OPS Manager is integrated into Enterprise Manager).
- Support for Management Access Point (MAP).
- Product Management via Embedded System Management (ESM) tools. For more information, refer to product documentation for the 3300 ICP and Customer Interaction Solutions.
- Download of audio files for Music on Hold to multiple MiVoice Business nodes via Audio File Manager.
- Report generation using Crystal Reports.
- Collection of passive voice quality statistics from IP sets and consoles in the network via the Voice Quality Manager application. Enterprise Manager polls the MiVoice Business host platform for voice quality statistics and exports the data to Viola Networks NetAlly RealTime via XML.
- Discovery of IP sets and certain configured UPS (compliant with SNMP).
- Discovery of applications (such as Unified Communicator Mobile).
- Alarm monitoring on managed networks via the Mitel Alarm Monitor, without having to start the Enterprise Manager client.
- Export capability that allows you to export alarm, event, and inventory data in .csv format to the Enterprise Manager server.
- Alarm history which includes the ability to archive alarms on the server.
- Administrator defined user groups.
- Auto discovery of MiVoice Business host platforms, SX-2000, NuPoint, teleworker IP Phones, Wireless Access Points and data network devices.
- Single sign-on authentication based on security group settings

For more information, refer to *Enterprise Manager General Information Guide*.

MIVOICE BUSINESS MIGRATION TOOL

The MiVoice Business Migration Tool helps you prepare and migrate your MiVoice Business system (running Mitel Communications Director 6.0 SP3 or later) to MiVoice Business Release 9.0 or later.

You can use the MiVoice Business Migration Tool to perform the following operations:

- Pre-migration audit - The tool audits your system's database and generates a pre-migration audit report that outlines hardware and system programming that are incompatible with MiVoice Business Release 9.0 or later, and provides available actions you can take to make your system's database compatible with MiVoice Business Release 9.0 or later. For more information, see the MiVoice Business Migration Guidelines document. When you have a compatible database, proceed with migration with media replacement or full migration.
- Migration with media replacement - The tool migrates only the bootloader on your 3300 ICP controller. After the migration, you must manually replace the Hard Disk Drive (HDD) on the 3300 ICP controller with an HDD containing the MiVoice Business 9.0 or later software, and then restore the corrected database. This operation is available only when the HDD (8 GB for AX's primary and secondary CF slots, 16 GB for CX II and CXi II, and 60 GB for MXe III) or RAM (512 MB for AX, 1 GB for CX II, CXi II, and MXe III) is insufficient on your MiVoice Business system. If only the RAM is insufficient, then you must upgrade the RAM and proceed with the full migration operation.
- Full migration - The tool installs the MiVoice Business 9.0 or later software and then restores the compatible database on a supported 3300 ICP controller. This operation is available only when both the HDD (8 GB for AX's primary and secondary CF slots, 16 GB for CX II and CXi II, and 60 GB for MXe III) and the RAM (512 MB for AX, 1 GB for CX II, CXi II, and MXe III) are sufficient on your MiVoice Business system.

MITEL INTEGRATED CONFIGURATION WIZARD

The Mitel Integrated Configuration Wizard is an independent software application that simplifies initial programming and allows system databases to be set up quickly. The application is installed onto a maintenance PC and then run while the PC is either connected or disconnected from the MiVoice Business system. Technicians can create and save database templates that can be used for new installations. The technician connects the Configuration Wizard with the MiVoice Business system through the network and then applies the database.

The Configuration Wizard can also be used to commission MiCollab Unified Messaging, Unified Communicator Mobile, and teleworker users on a Mitel Applications Server. Refer to the *MiVoice Business System Administration Tool* online help for more information on the Mitel Integrated Configuration Wizard.

LINE MEASURE TOOL

The Line Measure Tool (LMT) allows technicians to determine the line settings for Loop Start (LS) trunks that are connected to the AX Controller Card Chassis, Analog Main Board, Analog Option Board, or ASU II by running the following tests:

- Individual or Batch Line Quality Test: Reports the loss level, Echo Return Loss (ERL), and line quality for a specified trunk(s). A recommended setting is provided based on the test results.

- Individual or Batch Distortion/Echo Test: Measures the non-linear distortion effects (for example, from clipping) of a specified LS trunk(s) for each candidate balance circuit setting.

The Line Quality test allows technicians to obtain the optimum Balance Network Setting and Trunk Category for each LS trunk, based on the signals received from the CO. These settings are then programmed into the Analog Trunks form of the LS trunk to reduce the possibility of echo and audio level issues between the trunks and IP phones.

Technicians can run the Loop Start (LS) Measure tests using calls between a 3300 ICP and CO, or by looping calls through one LS trunk on the 3300 ICP back through other LS trunk on the same 3300 ICP.

DESKTOP DEVICES

Mitel offers a broad range of desktop phones, wireless phones, phone accessories, conference units, and consoles to meet user needs—from basic service to advanced feature and display capabilities.

FEATURE SUPPORT MATRIX

The following tables summarize the features provided by 5300 and 6900 series of MiVoice IP Phones.

5300 SERIES

PHYSICAL	5304	5312	5324	5320	5330	5340	5360
Desk/Wall Mountable	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Desk/Wall Mount Stand	Not Included (ordered separately)	Included	Included	Included	Included	Included	Included
5300 Series Handset Version 4	Yes	Yes	Yes	Yes	Yes (Wideband)	Yes (Wideband)	Yes (Wideband)
Length of handset cord	3 meters / 10 feet	3 meters / 10 feet	3 meters / 10 feet	3 meters / 10 feet	3 meters / 10 feet	3 meters / 10 feet	3 meters / 10 feet
LAN Ports	2-Port	2-Port	2-Port	2-Port	2-Port	2-Port	2-Port
Ethernet Cable (2 meters / 7 feet)	Included	Included	Included	Included	Included	Included	Included
Compression Support	G.711, G.729a	G.711, G.729a	G.711, G.729a	G.711, G.729a	G.711, G.729a, G.722.1**	G.711, G.729a, G.722.1**	G.711, G.729a, G.722.1**
Voice QoS (802.1p/q)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Encryption	128 bit AES*	128 bit AES*	128 bit AES*	128 bit AES*	128 bit AES*	128 bit AES*	128 bit AES*
802.1x Support	Yes - EAP PEAP	Yes - EAP PEAP	Yes - EAP PEAP	Yes - EAP PEAP	Yes - EAP PEAP	Yes - EAP PEAP	Yes - EAP PEAP
CLASS B Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Headset Jack	No	Yes	Yes	Yes	Yes	Yes	Yes
Peripherals (Modules) Support	No	No	Yes	No	Yes	Yes	Yes (Does not include PKM support)
IP DECT Stand/GigE Stand Support	No	Yes	Yes	Yes	Yes	Yes	Yes***

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*Advanced Encryption Standard

** Audio coding: ITU-T Rec. G.722.1 Annex C, licensed from Polycom®. Applies to 5330, 5340 and 5360 IP Phones only

*** 5360 IP Phone supports embedded Gigabit

POWERING OPTIONS	5304	5312	5324	5320	5330	5340	5360
Ethernet / AC Power Adapter Support (48 VDC LAN Power)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.3af Power over Ethernet Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Consumption (Idle)	2.03W	2.43W	2.43W	3.20W	3.2W	3.2W	4.2W*
Power Consumption (Typical)	2.88W	3.23W	3.23W	4.3W	4.8W	4.8W	7.4W*
Power Consumption (Maximum)	3.45W	3.87W	3.87W	5.3W	5.8W	5.80W	7.8W*
* 10/100 MB Mode values. GB Mode values: Idle - 4.8W; Typical - 8.6W; Maximum - 9.2W							
DISPLAY	5304	5312	5324	5320	6330	5340	5360
Color	No	No	No	No		No	
Size (pixels)	2 lines X 20 characters	2 lines X 20 characters	2 lines X 20 characters	320 x 240 (1/4 VGA)	320 x 240 (1/4 VGA)	320 x 240 (1/4 VGA)	800 x 480 (7in.)
Number of Pixels (w x h)	160 x 28	160 x 28	160 x 28	160 x 320	160 x 320	160 x 320	480 x 800
Pixel Size	0.43 x 0.43mm	0.43 x 0.43mm	0.43 x 0.43mm	0.37 x 0.40 mm	0.37 x 0.40 mm	0.37 x 0.40 mm	.19 x .19 mm
Illumination	Reflective Backlit White	Reflective Backlit White	Reflective Backlit White	Reflective Non-backlit	Transmissive FSTN with White LED Backlight	Transmissive FSTN with White LED Backlight	TFT Color with LED Backlight
Contrast Adjust	Yes	Yes	Yes	Yes	Yes	Yes	No
Display (soft) Keys	No	No	Yes	Yes	Yes	Yes	Yes
Auto Dimming	Yes	Yes	Yes	N/A	Yes (Programmable)	Yes (Programmable)	Yes (Programmable)
Backlight Off Capability	No	No	No	N/A	No (Screen saver)	(Screen saver)	
Chinese Character Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes

FUNCTION KEYS	5304	5312	5324	5320	5330	5340	5360
Number of Programmable Feature/Line Appearance Keys	9	12	24	16 (Self-labeling)	24 (Self-labeling)	48 (Self-labeling)	48 (Self-labeling)
Fixed Feature Keys	2	10	10	10	10	10	10 plus 9 quick launch icons on Gadget Sidebar
Softkeys	0	0	3	3	3	6	6
Multi-line	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hold	No (Definable)	Yes	Yes	Yes	Yes	Yes	Yes
Redial	No (Definable)	Yes	Yes	Yes	Yes	Yes	Yes
Cancel	No (Definable)	Yes	Yes	Yes	Yes	Yes	Yes
Volume Up/Down Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ringer Up/Down Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Message Key	No (Definable)	Yes	Yes	Yes	Yes	Yes	Yes
Transfer/Conference Key	No (Definable)	Yes	Yes	Yes	Yes	Yes	Yes
Call Forward (On/Off) Key	No (Definable)	Yes (Definable)	Yes (Definable)	Yes (Softkey)	Yes (Softkey)	Yes (Softkey)	Yes (Softkey)
Call Me Back Key	No (Definable)	Yes (Definable)	Yes (Definable)	Yes (Softkey)	Yes (Softkey)	Yes (Softkey)	Yes (Softkey)
Phonebook/Directory Key	No (Definable)	Yes (Definable)	Yes (Definable)	Yes (Via Menu Key)	Yes (Via Menu Key)	Yes (Via Menu Key)	Yes (Via Menu Key)
Microphone Key	No	No	No	No	No	No	No
Mute Key	No	Yes	Yes	Yes	Yes	Yes	Yes
Speakerphone	No	Yes	Yes	Yes	Yes	Yes	Yes
Program/Superkey	No (Definable)	Yes	Yes	Yes (Via Menu Key)	Yes (Via Menu Key)	Yes (Via Menu Key)	Yes (Via Menu Key)
Desktop User Tool	Yes	Yes	Yes	Yes	Yes	Yes	Yes
INDICATORS	5304	5312	5324	5320	5330	5340	5360
Feature/Line Appearance LEDs	2	12	24	8	24	48	48

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Message Waiting LED	Orange	Orange	Orange	Orange	Orange	Orange	Orange
Hold	N/A	Yes (Flashes Orange)	Yes (Flashes Orange)	Yes (Flashes Orange)	Yes (Flashes Orange)	Yes (Flashes Orange)	Yes (Flashes Orange)
Hold Button	N/A	Red	Red	Red	Red	Red	Red
Line LED Color	Orange	Orange/Green	Orange/Green	Orange/Green	Orange/Green	Orange/Green	Orange/Green
Ringer LED	Orange	Orange	Orange	Orange	Orange	Orange	Orange
Microphone/Mute LED	No	Orange	Orange	Orange	Orange	Orange	Orange
ACOUSTIC FUNCTIONS	5304	5312	5324	5320	5330	5340	5360
Ringing Volume Adjust	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Handset Volume Adjust	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Handsfree Speakerphone	No	Yes	Yes	Yes	Yes	Yes	Yes
Handsfree: Half Duplex Full Duplex	None	Full Duplex	Full Duplex	Full Duplex	Full Duplex	Full Duplex	Full Duplex
Wideband Audio Hardware	No	No	No	No	Yes	Yes	Yes
On-Hook Dialing	No	Yes	Yes	Yes	Yes	Yes	Yes
On-Hook Call Announce (Paging Receive Capability)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Off-Hook Call Announce	No	Yes	Yes	Yes	Yes	Yes	Yes
Multicasting Capable	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Amplified Receive >12 dB	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hearing Aid Compatible (HAC) Handset	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ring Warble / Pitch Adjust	No	Yes	Yes	Yes	Yes	Yes	Yes

SYSTEM SOFTWARE REQUIREMENTS	5304	5312	5324	5320	5330	5340	5360
3300 ICP/MiVoice Business	Release 9.0 (UR1) or later	Release 9.0 (UR1) or later	Release 9.0 (UR1) or later	MCD Release 4.1 (SP1) or later	5330: Release 8.0 (UR3) or later	Release 9.0 (UR1) or later	MCD Release 4.1 (SP1) or later
MiVoice Border Gateway teleworker service	Release 5.2 (SP1) or later	Release 5.0 or later	Release 5.0 or later	5320: Release 5.2 (SP1) or later	5320: Release 5.2 (SP1) or later	Release 4.1 or later	Release 5.2 or later
SIP Software Platform	SIP Release 7.2 or later	SIP Release 7.2 or later	SIP Release 7.2 or later	5320 - SIP Release 8.0 or later	5330: SIP Release 7.2 or later	SIP Release 7.2 or later	SIP not supported

General Information Guide

6900 SERIES

PHYSICAL	6920	6930	6940
Desk/Wall Mountable	Yes	Yes	Yes
Desk/Wall Mount Stand	Not Included (ordered separately)	Included	Included
Length of handset cord	3 meters / 10 feet	3 meters / 10 feet	3 meters / 10 feet
LAN Ports	2-Port	2-Port	2-Port
Ethernet Cable (2 meters / 7 feet)	Included	Included	Included
Compression Support	G.711, G.722, G.722.1, G.729a*	G.711, G.722, G.722.1, G.729a*	G.711, G.722, G.722.1, G.729a*
Voice QoS (802.1p/q)	Yes	Yes	Yes
Encryption	128 bit AES**	128 bit AES**	128 bit AES**
802.1x Support	Yes - EAP PEAP	Yes - EAP PEAP	Yes - EAP PEAP
CLASS B Support	Yes	Yes	Yes
Headset Jack	Yes	Yes	Yes
Peripherals (Modules) Support	Yes	Yes	Yes
IP DECT Stand/GigE Stand Support†	N/A	N/A	N/A
USB Ports	1 (Powered)	1 (Powered)	1 (Powered)

* Audio coding: ITU-T Rec. G.722.1 Annex C, licensed from Polycom®. Applies to 5330, 5340 and 5360 IP Phones only

**Advanced Encryption Standard

† DECT Cordless Headset and Gigabit support integrated.

POWERING OPTIONS	6920	6930	6940
Ethernet / AC Power Adapter Support (48 VDC LAN Power)	Yes	Yes	Yes
802.3af Power over Ethernet Compliant	Yes	Yes	Yes
Power Consumption (Worst Case Maximum)	3.8W	8W	9.9W
with one M695 PKM	6.1W	10.3W	12.2W
with two M695 PKMs	8.4W	12.6W	14.5W
with three M695 PKMs	10.8W	15W	17W

* 10/100 MB Mode values. GB Mode values: Idle - 4.8W; Typical - 8.6W; Maximum - 9.2W

DISPLAY	6920	6930	6940
Color	Yes	Yes	Yes
Size (inches)	3.5	4.3	7.0

Number of Pixels (w x h)	320x240	480x272	800x480
Pixel Size	0.43 x 0.43mm	0.43 x 0.43mm	0.43 x 0.43mm
Illumination	Reflective Backlit White	Reflective Backlit White	Reflective Backlit White
Touch Interface	No	No	Yes
Contrast Adjust	Yes	Yes	Yes
Display (soft) Keys	Yes	Yes	Yes
Auto Dimming	Yes	Yes	Yes
Backlight Off Capability	No	No	No
Chinese Character Support	No	No	No
FUNCTION KEYS	6920	6930	6940
Number of Programmable Feature/Line Appearance Keys	18	72	96
Fixed Feature Keys	10	10	10
Softkeys	4	5	6
Multiline	Yes	Yes	Yes
Hold	Yes	Yes	Yes
Redial	Yes	Yes	Yes
Cancel*	Yes	Yes	Yes
Volume Up/Down Keys	Yes	Yes	Yes
Ringer Up/Down Keys	Yes	Yes	Yes
Message Key	Yes	Yes	Yes
Transfer/ Conference Key	Yes	Yes	Yes
Call Forward (On/Off) Key**	Yes (Definable)	Yes (Definable)	Yes (Definable)
Call Me Back Key	Yes (softkey)	Yes (softkey)	Yes (softkey)
Phonebook/Contacts Directory Key	Yes	Yes	Yes
Microphone Key	No	No	No
Mute Key	No	Yes	Yes
Speakerphone	No	Yes	Yes
Program/ Superkey†	Yes (Definable)	Yes (Definable)	Yes (Definable)
Desktop User Tool	Yes	Yes	Yes
* Accomplished using End Call softkey or equivalent fixed-function key.			
** Call Forward Always only.			
† Must be programmed from ESM tools.			
INDICATORS	6920	6930	6940
Feature/Line Appearance LEDs*	N/As	N/A	N/A

General Information Guide

Message Waiting LED	Red	Red	Red
Hold*	N/A	N/A	N/A
Hold Button*	N/A	N/A	N/A
Line LED Color*	N/A	N/A	N/A
Ringer LED	No	No	No
Microphone/Mute LED	Red	Red	Red

* Not applicable. Colored icons in combination with flash rates are used to convey call and feature states.

ACOUSTIC FUNCTIONS	6920	6930	6940
Ring Volume Adjust	Yes	Yes	Yes
Handset Volume Adjust	Yes	Yes	Yes
Handsfree Speakerphone	Yes	Yes	Yes
Handsfree: Half Duplex Full Duplex	Full Duplex	Full Duplex	Full Duplex
Wideband Audio Hardware	Yes	Yes	Yes
On-Hook Dialing	Yes	Yes	Yes
On-Hook Call Announce (Paging Receive Capability)	Yes	Yes	Yes
Off-Hook Call Announce	Yes	Yes	Yes
Multicasting Capable	Yes	Yes	Yes
Amplified Receive >12 dB	Yes	Yes	Yes
Hearing Aid Compatible (HAC) Handset	Yes	Yes	Yes
Ring Warble / Pitch Adjust / Ring Tones	Ring Tones (20)	Ring Tones (20)	Ring Tones (20)

SYSTEM SOFTWARE REQUIREMENTS	6920	6930	6940
3300 ICP/MiVoice Business	MiVoice Business 8.0 or later	MiVoice Business 8.0 or later	MiVoice Business 8.0 or later
MiVoice Border Gateway teleworker service	Release 9.4 or later	Release 9.4 or later	Release 9.4 or later

DISPLAY PHONES

5300 SERIES

Mitel's display phones provide intuitive user access to more sophisticated call handling and converged applications supported by MiVoice Business. These phones support dual ports, MiNet and SIP protocols, and feature a 2 x 20 backlit character display. The MiVoice Border Gateway teleworker service allows the following phones to be located off-site and still be supported by MiVoice Business:

- **5304 IP Phone:** an entry-level display phone that supports 2 line keys with LED indication, 7 programmable multi-function keys in a small footprint appealing to the hospitality, education, retail, healthcare and general business market segments.
- **5312 IP Phone:** supports full duplex handsfree operation, 11 programmable multi-function keys, and a prime line key.
- **5324 IP Phone:** supports full duplex handsfree, 23 programmable multi-function keys, three intuitive call state sensitive softkeys, and a prime line key.



5304 IP Phone



5312 IP Phone



5324 IP Phone

Figure 28: Display Phones

DESKTOP APPLICATION PHONES

5300 SERIES

Mitel 5300 Series desktop application phones provide innovative features and applications. Users can access features quickly using programmable self-labeling keys. A large graphics display and an intuitive softkey interface provide easy-to-use applications such as PhoneBook and Call History. The following phones are ideal for enterprise executives, managers, ACD agents, ACD supervisors, and teleworkers:

- **5320 IP Phone:** provides 16 programmable multi-function keys and three intuitive call state sensitive softkeys.
- **5330 IP Phone:** provides 24 programmable multi-function keys and three intuitive call state sensitive softkeys.
- **5340 IP Phone:** provides 48 programmable multi-function keys and six intuitive call state sensitive softkeys.

- **5360 IP Phone:** provides 48 programmable multi-function keys and six call state sensitive intuitive softkeys on a large color touch-sensitive display.

These phones provide a built-in HTML toolkit for desktop applications development (See “HTML Toolkit for MiVoice 5320, 5330, 5340, and 5360 IP Phones” on page 73 for additional details). The following Mitel phone applications are currently available:

- **Mitel Intelligent Directory Application:** provides access to Active Directory and Outlook contacts on the 5320, 5330, 5340 and 5360 IP Phones. It also provides presence information on 5320, 5330, 5340 and 5360 IP Phones for contacts via Microsoft Office Live Communications Server.
- **Mitel Live Content Suite:** enables customers to create and publish dynamic and personalized information to users, transforming 5320, 5330, 5340 and 5360 IP Phones into media information appliances.



5320 IP Phone



5330 IP Phone



5340 IP Phone



5360 IP Phone

Figure 29: 5300 Series Desktop Application Phones

6900 SERIES

The Mitel MiVoice 6920 IP, 6930 IP, and 6940 IP Phones are the newest additions to the Mitel family of multi-line desktop IP phones. Ideal for enterprise executives, managers, ACD agents, ACD supervisors, and teleworkers, each phone features a noise canceling handset, a high quality full duplex handsfree speakerphone, and a high resolution color display that is easily navigated using an integrated navigation cluster or via the touch screen. Ten fixed-function keys supplemented by programmable self-labeling keys provide one-touch access to commonly used telephony features.

All three phones support applications such as personal/corporate contacts and call history and can be used remotely as a Teleworker phone.

MobileLink support on the 6930 and 6940 provides seamless mobile integration using Bluetooth wireless technology. With MobileLink users can:

- sync the mobile phone's contact list with the 6930 or 6940 IP Phone.
- answer a mobile phone call using the 6930 or 6940 IP Phone.
- switch audio from the 6930 or 6940 IP Phone to the mobile phone and back again.



6920 IP Phone
(3.5" display, 18 programmable keys)



6930 IP Phone
(4.3" display, 72 programmable keys)



6940 IP Phone
(7" display, 96 programmable keys)

Figure 30: 6900 Series Desktop Application Phones

MITEL UC360™ COLLABORATION POINT

Mitel® UC360 Collaboration Point is an all-in-one multimedia collaboration appliance that provides multi-party audio and video conferencing, in-room presentation display, and remote collaboration for the personal office meeting space. Featuring a compact design and an easy-to-use touchscreen interface, the UC360 makes collaboration a natural part of every work day.



Figure 31: Mitel UC360 Collaboration Point

Key features of the UC360 Collaboration Point include

- Superior audio conferencing capability including a beam forming microphone array
- Built-in presentation display capability via HDMI interface that supports connection to high definition LCD display/projector
- Built-in MS Office readers and editors
- Remote desktop access (no need to bring laptop to give a presentation)
- Support for multiple file transfer methods, including USB Flash Drive, SD Card,
- Dropbox™ and Google® Docs

- Audio conferences for up to four parties
- High Definition video conferencing for up to four parties with an integrated conference bridge
- Support for integration with Active Directory and LDAP
- Ability to display Remote Presentations

MIVOICE 5505 GUEST IP PHONE

The MiVoice 5505 Guest IP Phone meets the needs of Hospitality customers who are looking to deploy IP to guest rooms. The 5505 Guest IP Phone base provides the physical features hotel guests have come to expect such as, a high quality full-duplex speakerphone, programmable speed dial keys, a large area for custom branding and dialing instructions, a cordless handset locator, and a physical ringer volume switch.

The 5505 Cordless Handset provides industry leading features by virtue of its built-in two line backlit display and a built-in alarm clock that can be easily set. With an operating range of up to 50 meters (150 feet) from the phone base, the 5505 Cordless Handset is ideal as a second phone for a guest room or a suite of rooms.

The 5505 Guest IP Phone provides DECT to SIP gateway functionality and the 5505 Cordless Handset.

DECT to SIP gateway features include/support

- A built-in DECT/DECT 6.0 interface with support for 1 base cordless handset plus up to 3 extension handsets (appears as one extension to the PBX)
- Single line SIP VoIP protocol features
- A High Speed Internet / PC Port side mounted for easy guest access
- Powering via Power Over Ethernet (802.3af)
- A full duplex speakerphone with On-Hook Dialing support
- A 12-button dial pad
- 6 fixed feature keys: Volume up/down rocker, speakerphone, microphone mute, messages, end call, handset locator
- 5 programmable speed dial keys
- Joining of a handset call with a base unit speakerphone call
- MiVoice Business Resiliency support: can still make calls upon failover to a secondary controller

5505 Cordless Handset features include

- A 2-line illuminated display with automatic dimming
- A 12 button dial pad
- 9 fixed keys: Talk, Hang-up / Power, Messages, Volume up/down, Speakerphone, Soft Key 1 & 2, Mute, Flash
- Message waiting indication via phone display
- A Built-in Speakerphone

- Support for multiple languages
- Guest programmable options: Alarm clock, phonebook, customizable ringer volume, choice of ringer melodies, and language selection.



Figure 32: MiVoice 5505 Guest IP Phone

MIVOICE 5560 IPT

The 5560 IPT is a dual display / dual handset, multi-line trading appliance. It's rugged design is suited to the high activity environment of stock trading floors: it provides access to many lines and handles a high volume of calls. The 5560 IPT combines the speed and performance that split-second trading demands, at a fraction of the total cost of ownership of other solutions.



Note: You must obtain channel designation to sell the 5560. Contact your Mitel AE for information.

The 5560 IPT enables traders to

- Accelerate multi-tasking with dual handsets and displays
- Prioritize calls using the multi-line display and float keys
- Cover other traders' calls within the team
- Access other trading partners with one touch dialing
- Handle two active calls at the same time
- Access embedded phone applications



Figure 33: 5560 IPT

WIRELESS IP PHONES

MiVoice Business supports the following wireless phones:

- **5603, 5604, 5606 Wireless Handsets:** IP DECT phones for the IP-DECT Wireless System (Global). These handsets provide voice communication, text messaging, alarm handling, and an extensive set of telephony features based on SIP integration with MiVoice Business.
- **Mitel 612, 622, and 632 DECT Handsets:** Mitel 600 family of handsets, from the entry-level 612 to the ruggedized 632 and the in-between 622, offer exceptional voice quality and data transmission along with the latest in DECT security standards.
- **5610 DECT Handset and IP DECT Stand:** IP DECT phone and stand for MiVoice 5300 Series IP Phones. The stand connects to the PC port on the phone and supports up to eight handsets. The handsets can be programmed as unique SIP extensions or as members of a personal ring group associated with the phone.



MiVoice 5603



MiVoice 5604



MiVoice 5606



Mitel 612 DECT



Mitel 622 DECT



Mitel 632 DECT

Figure 34: Wireless Phones

IP PHONE ACCESSORIES

The following table lists Mitel IP Phone accessories and identifies supported sets.

ACCESSORY	5304	5312	5324	5320	5330	5340	5360	6920	6930	6940
IP Programmable Key Module (12 or 48 keys)	No	No	Yes	No	Yes	Yes	No	No	No	No
Mitel M695 Programmable Key Module (PKM)	No	No	No	No	No	No	No	Yes	Yes	Yes
5310 IP Conference Unit	No	No	Yes	No	Yes	Yes	Yes	No	No	No
Line Interface Module	No	No	Yes	No	Yes	Yes	Yes	No	No	No
Cordless Module	No	No	No	No	Yes	Yes	Yes	No	See Note 1	

ACCESSORY	5304	5312	5324	5320	5330	5340	5360	6920	6930	6940
Gigabit Ethernet Stand	No	Yes	Yes	Yes	Yes	Yes	No*	See Note 2		
IP DECT Stand	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Bluetooth Module	No	No	No	No	yes	Yes	Yes	No	See Note 1	
Mitel Wireless LAN Adapter	No	No	No	No	No	No	No	Yes	Yes	Yes

* Supports embedded Gigabit

In addition to these IP Phone accessories, the IP Paging Unit is available for the system.



Notes:

1. The 6930 and 6940 includes a cordless Bluetooth handset and support for Bluetooth headsets.
2. The 6930 and 6940 are equipped with dual Gigabit Ethernet ports.

MITEL IP PROGRAMMABLE KEY MODULES 12 AND 48

The 12- and 48-button MiVoice Programmable Key Modules (PKMs) extend the capabilities of the MiVoice 5324, 5330, and 5340 IP Phones with additional buttons and LED indicators. With these expansion modules, you can readily add 12 or 48 or up to 96 buttons to the existing programmable keys on the IP Phones.

You can program the 12, 48, or 96 additional personal keys as feature keys, speedcall keys, direct station select (DSS) keys, or line appearance keys. Each key has a line status indicator that works the same way as those of the associated phone. The additional keys can be readily programmed using the phone or by the system administrator.



Figure 35: Programmable Key Modules

MITEL M695 PROGRAMMABLE KEY MODULE (PKM)

The M695 PKM is designed to increase the power and flexibility of the Mitel MiVoice 6900 Series IP phones. Featuring a 4.3" 480x272 pixel color backlit LCD display and 28 programmable softkeys with LEDs, the M695 can be used with the 6920, 6930, and 6940 IP phones to create a powerful, feature rich console option.

The M695 PKMs can be daisy-chained with up to three additional M695 PKMs, all sharing power and signaling with the Mitel MiVoice 6900 Series IP phones. Designed for receptionists, administrative assistants, call center agents, power users, and executives who need to monitor and manage a large volume of calls on a regular basis, the M695 PKM provides an intelligent choice for all enterprise IP environments.



Figure 36: M695 Programmable Key Modules

MITEL 5310 IP CONFERENCE UNIT

The Mitel 5310 IP Conference Unit is a full duplex, high-quality, conference unit that uses acoustic beam-forming technology for superior performance. The 5310 IP Conference Unit connects to a 5324, 5330, 5340, or 5360 IP Phone to provide full conferencing and telephony functionality. This eliminates the need for an additional LAN port.

The conference unit provides

- Acoustic beam-forming technology that controls near end, far end, and double talk, and locates the direction of speech
- Visual confirmation that the Conference Saucer has picked up the speaker's voice
- Module and soft keys for Conference Controller Application for the 5324, 5330, 5340, and 5360 IP Phones.



Figure 37: 5310 IP Conference Unit

LINE INTERFACE MODULE

Mitel's Line Interface Module (LIM)

- Enables incoming and outgoing analog PSTN calls directly from an IP phone
- Supports failover to an analog line in the event an IP connection is lost
- Provides emergency dialing support for IP phones such that emergency calls connect through the analog PSTN connection

The System Administrator sets the operation mode during system programming. The Line Interface Module has the following modes of operation:

- **LIM Mode:** is recommended for teleworker/remote configurations and allows the user to select an external analog line via a line key programmed on the 5324, 5330, 5340, or 5360 IP Phones. The analog line can be used at any time.
- **Failover Mode:** In Failover Mode the Line Interface Module line can only be used when the IP connection has failed (if the phone does not receive a response to 'keep alive' messages, the phone assumes the Ethernet link is down and automatically switches to analog mode).

DECT CORDLESS HANDSET AND HEADSET

The DECT Cordless Handset and DECT Cordless Headset offer corridor mobility for MiVoice 5330, 5340, and 5360 IP phone users. The Cordless Handset and Headset enables users to move freely within the office or adjacent offices (up to 300 feet from their desk) while still communicating from their desk phones.

Both cordless devices connect to an IP phone through the cordless module, which attaches to the back of the phone. The cordless headset rests and recharges in a headset cradle that attaches to the side of the phone. The cordless handset recharges in the handset cradle.

The Cordless Devices Application provides access to the configuration settings and information screens that apply to the cordless module and accessories.

The DECT cordless accessories provide

- LED Indicators on the Cordless Module, Handset and Headset that indicate connectivity and charging status
- Eight hours of talk time
- 43 Hours of standby time
- An operating range of up to 300 feet (100 metres) in a typical office environment
- An out of communications range warning tone
- Support for two cordless devices (Handset and Headset) per Cordless Module
- DECT-based design: DECT 6.0 cordless technology provides higher quality voice transmission, density, and is less susceptible to interference compared to Bluetooth.



Figure 38: Cordless Handset and Headset

MITEL BLUETOOTH MODULE

The Mitel Bluetooth Module is a new IP Peripheral which fits discretely into the back of the 5330, 5340 and 5360 IP Phones. The Bluetooth Module supports Mitel's Bluetooth Handset and a vast number of third-party Bluetooth headsets from other manufacturers. The Bluetooth Module enables MiVoice IP Phone users to integrate their commercially available Bluetooth headsets with their desk phones: they can enjoy handsfree freedom, similar to using their cell

phones. The ability to use a single headset with both a desk phone and cell phone augments Mitel's mobility solution for users who want to leverage the Dynamic Extension capability. The Bluetooth Module enables users to have personal area mobility with a potential range of up to 30 feet from their desks within the office or adjacent offices, while still communicating using their desk phones.

The Mitel Bluetooth Module provides

- An initiate call / end call key
- Volume control keys and a Mute key
- A built-in ringer in the Bluetooth Handset
- The ability to pair up to 6 Bluetooth devices with the Bluetooth Module
- The ability to place outbound calls when mobile with programmable "auto speed dial" upon off hook - Speak@Ease or "0" or secretary speed call
- LED indicators on the Bluetooth Module and Bluetooth Handset that indicate connectivity and charging status
- Eight hours of talk time
- Forty-three hours of standby time
- A battery recharge time of three hours or less
- An operating range of up to 30 feet (10 Meters) from the IP Phone
- An out of communications range warning tone



Figure 39: BlueTooth Module and Handset

MITEL GIGABIT ETHERNET STAND

The Gigabit Ethernet (GigE) Stand enables phones to operate in a 10/100/1000 Mbit/s Ethernet (GigE) LAN environment and allows unconstrained Gigabit Ethernet bandwidth from the network to desktops. The GigE Stand supports the IEEE 802.3af Power over Ethernet standard, eliminating the need for a separate power supply to power the IP phone.

The GigE Stand attaches to the base of the IP phone and replaces the existing stand. It has three ports:

- GigE LAN port (to connect to the Gigabit Switch)
- GigE PC port that allows a GigE-equipped PC to connect to the LAN via the stand
- 10/100 Mb Ethernet connection to the attached phone

MITEL IP DECT STAND

The IP DECT Stand is an accessory peripheral for the MiVoice 5300 Series IP Phones. The IP DECT Stand connects to the base of a MiVoice 5312 / 5324 / 5320 / 5330 / 5340 or 5360 IP Phone and acts as an IP DECT base station with SIP Gateway functionality. The IP DECT Stand connects to the network through the PC port on the MiVoice IP Phone. It supports up to eight 5610 DECT Handsets that act as SIP extensions. The IP DECT Stand

- Supports up to eight handsets / three simultaneous calls
- Is supported across a range of MiVoice IP phones: 5312 / 5324 / 5320 / 5330 / 5340 / 5360 IP Phones
- Is configured using a web configuration interface
- Has a DECT-based design: DECT 6.0 cordless technology provides higher quality voice transmission, density, and less interference



5610 IP Dect Stand



Gigabit Ethernet Stand

Figure 40: Accessories - Stands

MITEL WIRELESS LAN ADAPTER

The Mitel Wireless LAN Adapter that adds wireless connectivity to Mitel MiVoice 6900 Series IP Phones. It allows the Ethernet-enabled phone to join a secure, high-speed network.

Feature highlights include:

- Dual band IEEE 802.11a/b/g/n support:

The Mitel Wireless LAN Adapter is designed to communicate in the 2.4 GHz and 5 GHz bands. Radio interference in the commonly used 2.4 GHz band can be avoided by utilizing 5 GHz.

- Gigabit Ethernet support:

The wired LAN port supports 10/100/1000BASE-T (auto-recognition).

- Simple to setup and use:

The Mitel Wireless LAN Adapter is easy to set up using the enclosed network setup cable. No special drivers or software are required.

- Enterprise security:

The Mitel Wireless LAN Adapter supports the following security functions:

- WEP (64 Bit/128 Bit)
- WPA-PSK (TKIP/AES)
- WPA2-PSK (AES)
- IEEE 802.1X EAP-PEAP, EAP-TLS, EAP-TTLS, EAP-FAST, EAP-LEAP

MITEL IP PAGING UNIT

The Mitel IP Paging Unit is an optional module that provides overhead or loudspeaker paging functionality. The IP Paging Unit is installed as a standalone or a wall-mounted unit. Two LEDs provide basic status information. The unit connects to the LAN using an RJ-45 cable and is powered by a 24 VDC power adapter.

Each IP Paging Unit supports one paging zone.



Note: A third party remote paging amplifier (not included) connects to the paging unit and is powered separately.



IP0223

Figure 41: IP Paging Unit



Figure 42: 5550 IP Console

MITEL MIVOICE BUSINESS CONSOLE

The Mitel® MiVoice Business Console is a replacement for the 5550 IP Console but without the adjunct telephony keyboard and handset. Instead, the MiVoice Business Console uses a USB headset and handset for audio and a standard PC keyboard for call handling and feature operation.

MITEL 5540 IP CONSOLE

The Mitel® 5540 IP Console is the ideal attendant solution for small and medium sized businesses. It can be used as an attendant console, a sub-attendant position for departments or workgroups, or as a back-up answering position. It supports a broad range of standard and specialty functions and features including

- A highly visible, four-line, 80-character, backlit, tilt display that shows the date, time, call status information, calling line identification, and calls waiting
- 14 fixed function keys dedicated to basic and enhanced call-handling activities
- 10 softkeys that control access to the attendant features through call state sensitive keys
- Teleworker support with MiVoice Border Gateway that enables attendants to work anywhere, anytime

General Information Guide

- Third-party cordless headset integrated functions: Call Answer, Call Cancel, Audio Controls, and training mode support
- Access to integrated Mitel hospitality features including room status, guest telephony privileges, and automatic wake-up calls

Multiple language support for global customers: English, French, Spanish, German, Italian, Dutch and Portuguese.



Figure 43: 5540 IP Console

FEATURES

FEATURES OF MIVOICE BUSINESS

The following table details MiVoice Business features and indicates which features are supported by Resiliency. N/A indicates that a feature is not specifically related to resiliency or a resilient device, but that it will function on a secondary controller in a resilient configuration.

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
911/Lockout Notification to ONS/CLASS Sets	<p>Allows an ONS CLASS extension to be programmed for 911 notifications. The 911 caller's name and number is identified on the display.</p> <p>This application is ideal for after-hours operation, when the attendant or sub-attendant is not at the desk. For example, in hotels for guards, or in hospital applications when the on-duty personnel is away from their desks, they can still be notified of lockout alarms and/or 911 calls, with the use of an ONS/CLASS portable display phone.</p>	N/A
911 Console overflow	911-call info is split over to the console.	Yes
E-911 Support	<p>Displays indicate the extension and the location of the person who dialed 911. Notifications of 911 calls are audible, continuous, and distinct from regular ringing patterns when the set is idle and on hook. If the user is already on a call, a new call tone alerts the user to the alarm condition. The alarm overrides sets having DND enabled.</p>	Yes
Account Codes -Default	<p>Default Account Codes are entered automatically by the system each time a user dials an external number. They may be used to segregate groups in SMDR for billing.</p>	Yes
Account Codes -Verified and Non-Verified	<p>Allows you to access features that are not normally available at a station. These account codes can be used to change the COS and COR at any station.</p> <p>Non-Verified Account Codes allows you to enter codes on the SMDR record for billing and/or call management.</p>	Yes
Account Code Reporting for Internal SMDR	<p>During a two-party call, Verified and/or Non-verified Account Codes can be reported in Internal SMDR logs. Each time an Account Code is entered during the call, a new SMDR log is generated. The first Verified/Non-verified Account Code entered during a call is the active Account Code. When subsequent Account Codes are entered during the call, a new SMDR log is generated. The SMDR log reports the previously active Account Code in the Call Completion field of the SMDR log.</p>	Yes
Account Codes -System	<p>System Account Codes are automatically outputted by the system when outgoing calls are made on a specialized carrier trunk circuit.</p>	N/A
ACD Agent Hot Desking	<p>Allows an agent to log into any ACD set and have the system apply the agent's personal phone profile to that ACD set</p>	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
ACD External Hot Desk Agents	<p>Mitel supports Dynamic Extensions for agents, extending ACD features to all IP, SIP, and external devices, and enabling External Hot Desk Agents (EHDAs) to be on 3rd party endpoints, such as cell phones, on analog phones, or at home.</p> <p>An EHDA is an External Hot Desk User (EHDU) that is also a member of an ACD group. In a typical work-at-home scenario, the user answers the ACD calls on a single-line residential phone and has a OIG-based call center application that provides “screen pops” that contain caller information and client account data.</p>	Yes
ACD Dial out of Queue	<p>Allows user to exit the ACD queue to perform another action. For example, you can exit the ACD queue to leave a voice mail for callback.</p>	Yes
ACD Scaling	<p>Provides increased ACD dimensioning for active agents, agent skill groups, dial out of queue points, and RADs</p>	
ACD Hold Retrieve/Abandon Event	<p>Previously ACD Real Time Events did not report when a Non-ACD call was answered on an Agent phone and then placed on hold to be retrieved at another set. Currently, enabling Feature Level 3 and ACD Real Time Events modifies the reporting of the Hold Retrieve and Hold Abandon events.</p> <p>Requires: ACD Real Time Events (MSA-A-54) and Feature Level 3 (PN 54000510)</p>	N/A
ACD Extended Agent Skill Groups	<p>When this option is enabled, the maximum number of agent skill groups increases to 128. Each group can support up to 500 agents.</p>	N/A
ACD Skill-based Routing	<p>Each agent in an agent group is assigned a skill level. Calls to the group are routed to the most skilled available agent. If agents of equal skill are available, the call is routed to the longest-idle agent. To facilitate skill-based routing, agent IDs can appear in more than one agent group.</p>	N/A
ACD Make Busy Reason Codes	<p>ACD agents enter a reason code when phones are put into a Make Busy state.</p>	No
ACD Real Time Event	<p>Real time event records are used to monitor and record the activity of the ACD operation. Events are divided into two groups: call events and group statistics events.</p> <p>Call events report on individual ACD agent activity.</p> <p>Group statistics report on ACD group activity such as number of calls queued, longest waiting call, and number of active agents.</p>	N/A

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
ACD Silent Monitor	Allows a supervisor to listen to an agent's phone conversation, with or without the agent's knowledge. The supervisor can monitor an individual agent or a group of agents (hunt group). This feature uses a conference circuit, providing the supervisor with a one-way audio path into the conversation. The monitor acts like any normal conference except the supervisor's transmit path is not connected, thus preventing the agent or the customer from hearing the supervisor. A Silent Monitor can be performed on two-party conversations or conferences. Supervisors may also tape a particular agent's conversations. This feature can also be used to monitor non-ACD sets, including ONS, SIP, and external hot desk user sets.	Yes
Alpha Tagging	Associates names with external numbers entered in the system phone directory. Alpha Tagging is intended for (but not restricted to) jurisdictions that do not provide calling party name in incoming signaling from the PSTN.	No
ANI Display on Non-prime Lines	Displays ANI information on Non-prime lines for 5 seconds. If the number is not seen, it can be redisplayed by pressing the Superkey and then the line key that is ringing.	Yes
Add Held	Allows you to move a call on Hold to another line, form a conference with a call on hold, or add a call on hold to an existing conference	Yes
Advanced Analog Networking	Provides calling line identification and travelling class marks across T1/D4 trunks	Yes
Advanced ARS	Allows you to program day and time zones, route plans, and ARS assignment	N/A
Advice of Charge	Allows the caller to determine the cost of a toll call	Yes
ANI/DNIS/ISDN Number Delivery	Automatic Number Identification and Dialed Number Identification Service identify numbers that are transmitted on an incoming trunk	N/A
ANSWER PLUS® Automatic Attendant	Allows an external caller to dial through to an extension without going through an attendant. See also Multi-level Auto Attendant	N/A
ANSWER PLUS Automatic Call Distribution	Consists of four main components: call distribution, agent mobility, management and reporting, and feature configuration and administration.	N/A
ANSWER PLUS - Mitel Call Distribution	Permits the use of Recorded Announcement Devices (RADs) and a uniform call distribution to hunt groups	N/A
Attendant Bulletin Board	Posts information for other attendants (for example, speed dial numbers). All 5550 IP Console and MiVoice Business Consoles on the system, that have a network connection, share bulletin board	Yes
Attendant Busy-Out (Console)	Places your attendant console in a busy-out condition (absent status) under certain circumstances. In the busy-out condition, incoming calls are automatically rerouted.	Yes
Attendant Busy-Out (Station)	Allows you to busy-out a specific station by using the attendant console	N/A

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Attendant CAS Interface	Centralized Attendant Service interface allows an MiVoice Business system to be a remote node for a CAS site. CAS is an attendant call-handling service provided at a central office switch for calls from both public and private networks.	N/A
Attendant Call Answering Priority	Allows you to assign priority to calls based on origin when multiple calls are waiting; the call with the highest priority is answered first	Yes
Attendant Call Information Display	Provides the attendant with information about called and calling parties	Yes
Attendant Call Selection	Allows you to choose which group of incoming calls to answer first. Each group is selected by pressing a softkey on the attendant console	Yes
Attendant Conference	Allows the attendant to set up one or more conference connections between central office trunks and internal stations	Yes
Attendant Consoles (Multiple)	Provides support for Multiple Attendant Consoles	Yes
Attendant Console Firmkeys	Allows firmkeys to be programmed as one of the following feature keys: Phonebook, Guest Services (Hotel/Motel), Trunk Status, Alarm, SMDA, Select Option, Bulletin Board, Emergency Call Log, Guest Services, Help, Message Waiting, Operator Mode, Pager, Phone Book, Scratch Pad, Third Party application, Tones, TrkGrp Status, Voice Mail or blank (no application).	Yes
Attendant Console Status Display	Displays various parameters such as Day/Night Service, Attendant Status, and Alarm Status	Yes
Attendant Directory Number	Allows you to dial a number (typically "0") to reach the attendant. Separate directory numbers can be programmed for each attendant console	Yes
Attendant Help	Provides online assistance	Yes
Attendant Hold	Allows you to temporarily place a call on hold so you can use other phone features	Yes
Attendant Identity Information Display	Allows you to view the console's prime directory number, the Phone Book software version, and the console's hold slot number. This feature applies to the SC1000 only. From the 5550 IP Console and MiVoice Business Console, you can view the system software version.	N/A

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Attendant Language Selection	<p>Enables attendant to choose the language of operation for the attendant console. The 5550 IP Console and MiVoice Business Console supports the following languages:</p> <ul style="list-style-type: none"> • English • French • EU Spanish (Europe) • LA Spanish (Latin America) • Dutch • Italian • German • PT Portuguese (Europe) • Romanian • Swedish • Polish. <p>Note that an attendant's language selection is preserved when the MiVoice Business system undergoes an update or restore.</p>	Yes
Attendant Messaging	Allows you to activate a message-waiting condition on a station from the attendant console. The condition can be queried or cancelled by the attendant or by a station user with the appropriate Class of Service.	Yes
Attendant Metered Calls	Allows you to use the attendant console to track the cost of outgoing trunk calls	Yes
Attendant New Call Tone	Provides audio notification of new calls to the attendant console	Yes
Attendant Position Busy-Out	See Attendant Busy-Out (Console).	Yes
Attendant Recall	Automatically alerts the attendant when either a trunk call to an idle station or a call on hold at the console has not been answered within a specified time period.	Yes
Attendant Ringer Control	Allows you to mute the attendant console ringer. When the ringer is muted, the Call Waiting indicator at the top of the display alerts you to incoming calls.	Yes
Attendant Scratch Pad	Functions as your personal phone directory and speed dial list. You use it to save phone numbers for faster dialling or to store the names and numbers of callers for future reference.	Yes
Attendant Serial Call	Automatically returns a call to the attendant console when the call ends	Yes
Attendant Setup and Cancellation of Station Features	Allows the attendant to set up and cancel certain station features such as Call Forward, Do Not Disturb, Callback, and Reminder	No
Attendant System Login	Requires the attendant to log on to the system to access certain programming functions from the attendant console	N/A

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Attendant Tone Signaling	Allows the attendant to send tones over the circuit once a call has been established	Yes
Attendant Trunk Group Busy Status	Allows the attendant to display and/or print the busy status of the system trunk groups from the attendant console	Yes
Audio Files Update	<p>Uploads audio files to the MiVoice Business system and uses them for embedded Music on Hold, all Auto Attendant greetings, set greetings, and RAD greetings</p> <p>Uploads an audio file to a single MiVoice Business system by using the System Audio Files Update form, or to multiple MiVoice Business systems by using MiVoice Enterprise Manager.</p>	No
Audit Trail	<p>Provides a historical record of changes made to the system (from the System Administration Tool and various other user interfaces and applications) in the Login/ Logout Audit Logs form</p> <p>Assists with troubleshooting problems that arise, pinpointing who, in a multi-administrator system, is responsible for a particular change</p>	N/A
Auto-Answer	Automatically answers calls that ring your Prime line. This is typically used in an ACD environment.	No
Auto-Hold	Automatically places an active call on hold when you press a line key to originate or receive another call	Yes
Automatic Mobile Failover/ (EHDU)	If your desktop phone fails, the Mobile Failover/External Hotdesk User (EHDU) feature reroutes all calls to your mobile device. After the phone returns to service, calls are automatically routed back to the desktop.	
Automatic Phone Lock	The ability to schedule an event to automatically log out Hotdesk users, who are current logged in	Yes
Automatic Route Selection (ARS)	Simplifies local and long distance dialling by automatically selecting the most convenient and cost-effective route for the call and by inserting and/or deleting the proper routing digits	Yes
Backups - Scheduled	Enables you to schedule events to automate the process of backing up the system database to the local hard drive or to an FTP server	N/A
Bandwidth Management	<p>Measures and manages bandwidth consumption by the VoIP media stream. This feature allows you to perform the following functions for the voice data packets at predetermined bottleneck points in the network:</p> <ul style="list-style-type: none"> • Measure and report consumed and available bandwidth • Establish maintenance alarms when bandwidth consumption exceeds configured threshold levels • Provide Call Admission Control, that is, the rejection of new calls through a specific bottleneck point when consumed bandwidth exceeds maximum configured levels. 	No
Basic Rate Interface	A basic ISDN service that consists of two 64Kbps channels and one 16Kbps channel. Basic Rate Interface (BRI) is supported on the 3300 ICP by the Quad BRI module.	N/A

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Broadcast Groups	See Groups-Key System and Multicall.	Yes
Broker's Call	Allows you to temporarily suspend a phone call while you originate a new one. Once the new call has been established, you can alternate between the two calls.	Yes
Busy Dial Through	Allows you to dial a feature access code sequence when a busy condition is encountered. See Callback and Camp-on	Camp on – Yes Callback when on secondary or callback destination on secondary - No.
CSV File Import/Export - Scheduling	Enables you to schedule events to automate the process of importing and exporting form data in .CSV format	N/A
Calculator	Allows you to use your phone as a basic four-function calculator by using the phone keypad, display and softkeys	No
Callback	Allows you to request that the system notify you when a busy line becomes idle or when an unanswered station goes off-hook and on-hook	No
Callback for EHDU	Eliminates or reduces tariffs that External Hot Desk Users are charged for calls to system. Callback works by disconnecting the user's call, and then calling the user back within a few seconds. On answering, the user is presented with dial tone and can then dial the required number.	No
Callback – System Programmable	Allows you to program the destination of a matured callback set against a key line or multi call line group	N/A
Call-by-call Service	<p>With Call-by-Call Service, access channels do not have to be dedicated to specific services such as OUTWATS or 800 services. This enables the customer to reduce facilities and integrate dedicated and switched, inbound and outbound, voice and data traffic on a single facility. It also allows a business with calling peaks to dynamically allocate coverage across channels so that access lines are optimized.</p> <p>This implementation ensures that incoming calls are not turned away because all incoming channels are busy while adjacent outgoing channels are idle.</p>	Yes
Call By Name	See Phonebook.	Yes
Call Coverage	<p>Provided through a combination of features, such as: Call Rerouting, Call Forward, Do Not Disturb, and Answer Plus-Mitel Call Distribution. The following Call Coverage Services can be configured and assigned to groups and users: Hot Desk PIN Security, Direct Transfer to Voice Mail, Post Call Destination, and Announcements.</p>	Yes for all features except DND
Call Duration Display	Displays the call duration for incoming and outgoing calls, in one minute increments (starting at 0:00)	Yes

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Call Forking	Enables a call to be split or forked so that several locations can ring simultaneously. MiVoice Business supports forking for outgoing calls over SIP trunks supported for outgoing SIP calls handled by external SIP forking servers	Yes
Call Forward	Allows you to redirect incoming calls to an alternate number	Yes (features and access keys)
Call Forward -Cancel All	Allows you to cancel all types of Call Forward	No
Call Forward Delay	When the Call Forward - Busy feature is activated on a phone, a call to that phone can be delayed at a busy extension. A person on the phone receives a warning that there is another call waiting. The phone can either be set to display the name of the waiting caller, or provide interrupted dial tone.	No
Call Forward -Follow Me-End Chaining	Ensures that calls are not further redirected	Yes
Call Forward -Follow Me-Reroute When Busy	Forwards the call to the original set's First Alternative Rerouting if the call forward destination is busy	No
Call Forward -Forced	Allows you to manually redirect an incoming call on your prime or private line to another number	No
Call Forward Group	Allows you to forward group and prime lines to different locations	No
Call Forward Out of Service	This feature behaves like Call Forward No Answer. If no destination is programmed, calls are handled as if the phone is not installed	No
Call Forward - Override	Allows you to bypass or override any Call Forward condition that is set at the station that you are calling	Yes
Call Hold	See Hold	Yes
Call History	Call History keeps track of the names (if available) and phone numbers of missed calls, unanswered outgoing calls or external answered incoming or outgoing calls. It allows the user to view and quickly place a callback. This feature is supported on the 5330/5340 IP Phone and the MiCollab Client Softphone.	Yes
Calling Line Identification	The phone number of the calling party is transmitted to the Mitel PBX and can be sent to devices within the system.	Yes
Caller Line Identification Presentation (CLIP)	Allows ONS CLIP sets using CLIP protocol to receive Caller Line Identification Delivery (CLID) information and the time and date of a call. There is no CLIP support for the ASU (UK).	N/A
Call Park	Allows extension users and attendants to park calls and automatically initiate a page to announce the call to the requested party. Formerly, only the attendant could park calls (with no automatic paging) for extensions to retrieve. See also Group Park.	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Call Pickup	Allows you to answer an incoming call that is ringing at another station	Yes
Call Pickup - Clustered	Provides Dialed Call Pickup functionality across a cluster	Yes
Call Privacy	Protects a call from audible Call Waiting tones, as the result of a camp-on, and prevents intrusion of any kind (for example Busy Override)	Yes
Call Recognition Service for EHDU	Simplifies or eliminates log-ins for External Hot Desking Users by authenticating them based on their calling line ID	No
Call Release	See Release.	Yes
Call Rerouting	Redirects calls to alternate answering points or devices under specified conditions. May be used to redirect calls always (in Day, Night 1, and/or Night 2 mode) or under busy, no answer, or Do Not Disturb conditions	Yes
Call Screening	Allows devices configured as Secretaries (with Multicall and DSS/BLF appearances of other prime DNs - Boss's) to receive (ring) and route back Boss's incoming calls, while the Boss device is in Do Not Disturb (DND) state. The routed calls override the DND and ring the Boss's prime line. Screening can be activated or deactivated using the appropriate programmable keys: DND on Boss, Superkey+DSS/BLF on Secretary.	Yes
Call Split	See Conference Split.	Yes
Call Swap	See Swap.	Yes
Call Transfer	See Transfer.	Yes
Call Waiting Swap	Allows you to use the switch hook to alternate between two calls when parties are in Call Waiting for your station or when you have a call on Consultation Hold	Yes
Called Party Features Override	Allows calls from an extension to override any call redirection features, such as call forwarding, that are enabled on the destination extension. If this feature is activated before a call is made to an extension and the call is unanswered, the call remains ringing on the extension	Yes
Camp-on (Call Waiting)	Allows you to notify a busy party that you are waiting. An attendant may also put a call through to a busy station to indicate that a call is waiting. Upon hearing the Call Waiting tone, the busy party can either respond or finish the current call.	Yes
Camp-on Tone Security	Prevents you from hearing Camp-on tone. If any party in a call has this option enabled, no Camp-on tone is sent to anyone in the call.	Yes
Centralized Attendant Service (CAS) interface	See Attendant CAS Interface.	N/A

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Centrex (Flash and Double Flash over Trunk)	Provides the ability to send a double switchhook flash out over a trunk. Flashing over a trunk enables a phone on the PBX to use CENTREX features.	Yes
CLASS (Customer Line Access Subscriber Services)	Allows the system to receive Calling Line ID digits or CLASS name on CLASS sets	N/A
CLASS Station Side Software Support.	Enables ONS CLASS sets using the CLASS protocol to receive caller line identification delivery (CLID) information	N/A
Class of Restriction	Limits a station's access to specified numbers. A station may have three CORs (Day/Night1/Night2 service). The COR may also be changed by using a Verified Account Code.	Yes
Class of Service	Defines a station or trunk's feature and timer options. A station or trunk may have three COSs (Day/Night1/Night2 service). The COS may also be changed by using a Verified Account Code.	Yes
Clear All Features	Allows you to cancel the features that are activated on your extension or another user's extension	Yes (also for Remote Clear All Features)
CLI Substitution	Allows the PBX/BRI extension number to be appended to the outgoing CLI	Yes
Clustered Hospitality	Provides hotel/motel feature functionality across a cluster of 3300 ICPs. The cluster comprises a single Hospitality Gateway ICP and one or more Hospitality ICPs.	Resiliency support in a hospitality application is limited to devices only; guest services (wake-up calls, room status information, suite services etc.) are not resilient.
Voice Compression	Allows IP calls in VoIP systems to use less bandwidth than uncompressed calls In addition to the G.711 a/u law and G.729a codecs already supported, Mitel 5330, 5340, and 5360 IP Phones now support the G.722.1 wideband codec.	Yes
Centralized Suites for Analog Devices	Distributes the connections for analog guest room extensions across several elements and centralizes all processing on a single IP node in standalone hospitality environments This implementation can be protected by installing the ICP Hospitality node software on fully redundant platform such as the Stratus® Server for RHEL.	No

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Conference	Allows you to connect three or more calls into a single phone conversation. While you are in a Conference, you can use any of the features that would normally be available during a two-party call.	Yes
Conference Split	Allows you to separate a 3-party conference so that two of the parties can speak privately, while the other is placed on Consultation Hold.	Yes
CPN Substitution	Allows you to send a substitute directory number for the calling party's DID number to the network (rather than sending the actual DID). You can define CPN substitution for individual DID numbers or ranges of DID numbers.	Yes
Credit Limit Support	The PMS uses a Credit Limit message to inform the PBX of a specific room or suite's phone credit limit. The PBX uses an Alert message to notify the PMS when the established phone credit limit has been reached. The PMS may then send a Station Restriction message to the PBX to apply previously programmed Class of Restriction parameters (calls in progress are not affected when a credit limit is reached). The PBX does not make any call restriction decisions; the PMS is solely responsible for informing the PBX of any action to take in regards to credit limit exhaustion. Emergency Services (911/999) and internal calls are never restricted.	Yes
DASS II Voice I	Allows basic calls to be made from the system to a DASS II protocol Central Office, using CEPT Digital Trunks and DASS II signaling	Yes
Date and Time	Set through the System Administration Tool. This data appears on all Station Message Detail Recording (SMDR), traffic measurements, data dumps, display phones, and attendant consoles.	Yes
Day/Night Service Control	Allows you to redirect calls to alternate answer points for individual trunks. Answer points can vary according to the selected mode of operation (Day, Night 1, or Night 2).	Yes on Consoles, No on sets
Destination-based Call Display	Displays the name of the destination hunt group. When individuals are assigned to different hunt groups, they can still answer calls appropriately, based on the display.	No
Dial Tone	Users normally hear continuous dial tone when they lift the handset. They hear discriminating (also called interrupted), or transfer dial tone under certain conditions	Yes
Dial Tone -Outgoing Calls	The system can provide a pseudo-CO dial tone to prevent possible confusion to station users.	Yes
Dialed Number Editing	Allows you to edit numbers during dialing	Yes
Dialing -Conflicting Numbers	The system can differentiate between conflicting numbers such as 1-0-0-0-0 and 1-0-0-0. In this example, if the fifth digit is not dialed within a time-out period, the system assumes that the dialed sequence is complete and makes the call.	Yes
DID Single Ring Cadence	Gives single ring back to outside callers	N/A

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Direct-In Lines (DIL)	Allows incoming trunks to be assigned to a specific station or hunt group so that calls from the trunk ring the station or hunt group directly	Yes
Direct Inward Dialing (DID)	Permits incoming calls on designated trunks to directly access predefined stations (or other answering points) on the system	Yes
DID Service	Offers a Direct Inward Dialing solution, alternative to DID Ranges for CPN Substitution and user-based System Speed Calls. This feature provides the ability to reallocate DID numbers to their answering points from ESM. Incoming calls can be routed to specified destinations based on the mapping of DID numbers to their destinations, without using the interim Speed Call System. The feature provides a single consolidated provisioning interface: the DID Service form, but the configured data is stored in the Call Recognition Service form	Yes
Direct Inward System Access (DISA)	Allows external callers to access the system by using a special trunk. The system sees the DISA trunk as a station with its own Class of Service and Class of Restriction. Calls that enter the system on DISA trunks have access to a variety of system features. In all cases, the DISA trunk can be assigned account codes to provide a high degree of security or additional options.	Yes
Direct Outward Dialing (DOD)	Allows you to make external calls without attendant assistance	Yes
Direct Page	Allows you to page another phone over its built-in speaker See Off-Hook Voice Announce.	Yes
Direct Station Select/Busy Lamp Field (DSS/BLF)	A Busy Lamp Field (BLF) allows the status of a directory number to appear on the line status indicator of a phone or Programmable Key Module. The monitored device may be on the same system or another system within the same cluster. The key associated with the busy lamp acts as a Direct Station Selection (DSS) key.	Yes
Direct Transfer to Voice Mail	Transfers an active call directly to the requested party's voice mailbox instead of waiting for the system to transfer it there after ringing the party's phone. Use this feature when you know that the party is unavailable or when the caller only wishes to leave them a voice message.	Yes
Direct Voice Call	Allows you to establish a two-way handsfree call at the called party set whether or not Handsfree Answerback or Auto-Answer is enabled	Yes
Disable Send Message	Allows you to disable the send message key function on certain sets, through class of service	Yes
Display Caller ID on all Lines	Provides Caller ID on other lines when idle (shows any ringing lines), and when the user is talking (priority based on key position)	Yes
Display Contrast Control	Allows you to adjust the contrast of the alphanumeric display on your phone	Yes
Display Identity of Ringing Non-Prime Line Keys	Allows users of SUPERSET display phones to display the calling line identifier of ringing non-prime keys on their sets	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Display of Name and Number	Displays name and number and offers the ability to switch between displays	Yes
DNI	Allows the programming of Mitel digital devices	N/A
DNIC as a RAD	DNIC ports may be programmed as Recorded Announcement Devices (RADs). When a DNIC port is programmed as a RAD, the device capabilities are limited to those of a RAD.	Yes
Do Not Disturb	Allows you to place your set in an apparent busy condition without affecting the outgoing functionality. If people call your set while DND is activated, they hear a special busy tone	No
DTMF Keypad Support	Allows ONS/OPS extensions to use all 16 keys on a 4x4 DTMF keypad. The additional row of four keys (ABCD) is used to access features in the system	N/A
Dual PKM 48 Support	The Programmable Key Module 48 (PKM48) provides 48 additional feature keys for phones. Each feature key has a Line Status Indicator that behaves the same way as those on a phone. A second PKM48 can connect to the first to provide for a total of 96 additional feature keys.	Yes
Emergency Services	Allows an Emergency Services number to be dialed, which sends a Customer Emergency Services ID (CESID) from the system to the Public Safety Answering Point (PSAP). The CESID is used as a key in the Automatic Location Information (ALI) database to retrieve a database record indicating the precise location of the caller.	Yes
Feature Keys	Allows you to activate features without dialing feature access codes	Yes. See 3300 ICP Resiliency guide
File Transfer Support	You can use the Scheduler application to collect and transfer the following file types: <ul style="list-style-type: none"> • SMDR Records • Audit Trail Logs • phone Directory • Traffic Logs • IDS Synchronization Files 	Yes
Flash -Calibrated	Allows you to generate a Switchhook Flash with a precise time interval	No
Flash -Switchhook	Allows you to place a call on Consultation Hold and return to dial tone so that you can invoke station features.	No
Flash -Trunk	Allows you to single- or double-flash a trunk in order to access Centrex™ features	No
Flexible Answer Point	Allows station and console users to program a night answer point for their incoming trunk calls	No

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Flexible Dimensioning	<p>Allocates database memory to each feature resource. The amount of memory determines the maximum size of the feature resource; the system borrows memory from other resources that are not in use.</p> <p>This feature allows individual systems to be tailored to individual business needs, resulting in optimal performance for a particular system.</p>	N/A
Forced Non-Verified Account Codes	<p>Customers such as law firms require ways of tracking calls for billing purposes and need the ability to enter a number (account code) as a record for a call. These numbers do not have to be "verified", as the number might only be valid for the duration of a case. But they must be "forced" in order to ensure that an Account Code can be used as a billing tracking mechanism (tracked in SMDR record). The solution is to have the ability to use a Forced Non-Verified Account Code.</p>	Yes
Ground Button	<p>Allows you to place a call on Consultation Hold and return to dial tone to invoke station features. The Ground Button provides an alternate method of producing a Switchhook Flash.</p>	N/A
Group Listen	<p>Allows you to carry on a conversation using the handset or headset while allowing others nearby to listen to the person at the far end over the handsfree speaker.</p>	No
Group Page	<p>Allows you to page a group of phones over their built-in speakers</p>	Yes
Group Park	<p>Group Park is a variant of Call Park that uses a single feature key to both park and retrieve calls. Call indication is provided to all members in the group.</p>	Yes
Groups - Key System and Multicall	<p>Allows multiple phones to share the same extension number. Incoming calls ring at all of the idle stations, and the stations stop ringing when one group member answers the call</p>	Yes
Group -Presence	<p>Allows group members and answer points in groups (Voice hunt groups, Name Tag hunt groups, Ring Groups, Personal Ring Groups, and ACD agent groups) to be easily made "present" (i.e. included) or absent from the group. Only members who are present in a group are offered calls directed to that group. Group Presence employs COS so that administrators or end users can be granted control depending on the specific application. For example, in the case of a Personal Ring Group, a user would likely be granted the ability to opt an answer point in or out of his/her group. However, in the case of an ACD agent group, the control to make agents present may be given to supervisors or agents depending on the application. Feature access keys can be programmed to enable simple toggling between present and absent. Presence can also be controlled through FACs, the 3300 Desktop Tool and OIG.</p>	Yes
Group Silent Monitor	<p>See ACD Silent Monitor</p>	Yes
Handset Receiver Volume Control	<p>Allows you to adjust the volume of the handset receiver</p>	Yes
Handsfree Operation	<p>Allows you to use your phone without lifting the handset</p>	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Headset Operation	Allows you to use a Headset to make and receive phone calls	Yes
Hold	Allows you to temporarily suspend a phone call. While the call is on hold, you can use the other phone features. The call can be retrieved either at the original answer point or at another extension.	Yes
Hold on Hold	Allows both parties of a two-party call to put the call on hold	Yes
Hot Desking	<p>Hot Desking allows a number of users to share one or more Hot Desk-enabled IP sets. To use a Hot Desk set, the user logs in using a Hot Desk DN and PIN. Once logged in, the user can:</p> <ul style="list-style-type: none"> • Receive incoming calls at the set • Place outgoing calls • Retrieve voice messages • Program and use feature keys. <p>Hot Desking is ideal for telecommuters, sales agents, and other employees who spend only part of their time in the office. With Hot Desking, a company does not have to provide a dedicated phone for each of these employees. Instead, the company can make a pool of shared phones available for users.</p>	Yes
Hot Desking -External	Allows users to configure any external phone number (e.g. mobile phone, home phone) as a Hot Desk. When the Hot Desk user is not logged into one of the system's Hot Desk sets, the system automatically routes the call to the external phone number. As a system extension, the external device user has access to extension dialing along with other system resources such as voicemail. Coupled with "Presence" it enables the presence of the external number to be treated the same as an internal number. Support for External Hot Desking continues while the set is on the secondary controller.	Yes
Hotdesk Login Indicator	The Busy Lamp Field (BLF) indicator light does not flash when a hot desk user is logged out. When a hot desk user is logged in, the lamp displays a steady, green light. The Green BLF Lamp for Logged in Hotdesk User Class of Service option controls this capability.	Yes
Hotel/Motel	Provides a property-management interface and features commonly used by hotels, motels, and hospitals	No
Hotline	Automatically dials a designated answer point when you go off-hook. The answer point can be another extension, an attendant, a trunk, or a hunt group	Yes
Hunt Groups	Allows you to define a group of extensions under a pilot number; calls to this number ring the first idle extension in the group. You can directly access any phone within a hunt group by dialing its unique extension number.	Yes
Hunt Groups - Networked	Provides hunt group functionality across a network or cluster. See 3300 ICP Resiliency Guidelines for more details	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Integrated Directory Service	The Integrated Directory Service (IDS) feature uses the Lightweight Directory Access Protocol (LDAP) to synchronize user and service data from your corporate directory server to the MiVoice Business platform. System Data Synchronization is then used to share the data among the administrative group. Note that in MiVoice Business Release 5.0, data is synchronized in one direction only, from the corporate directory server to MiVoice Business, and that only one type of directory server is supported: Microsoft Active Directory. Although all users are IDS manageable by default, you can disable the feature for individual users on the User and Services Configuration form.	N/A
Integrated Directory Service - Scheduling	After you have programmed IDS for your cluster or network, you can schedule "full" or "incremental data synchronization events. Full IDS synchronization queries the directory server for new, modified, and deleted user records. Incremental IDS synchronization queries the directory server for new and modified user records.	
Intercept Handling	Allows the system to control what happens to a call when it cannot be completed as dialed. Such a call may be routed to a tone or to a directory number; two destinations can be programmed for either condition.	Yes
Interconnect Restrictions	Restricts access to certain trunks, stations and equipment (such as data communications equipment). Interconnect restrictions are a function of the direction of the call. Every peripheral device is assigned an Interconnect Number that prevents it from connecting with another.	Yes
Interconnect Restriction Override	Allows 911-access to phones in a hotel environment that must be restricted from dialing various internal numbers	Yes
Inward Dialing Modification	Enables you to alter dial strings contained in inbound SIP calls After adding substitution rules, you can apply them to both "Called Party" and "Calling Party" SIP headers. You can implement this feature as part of the initial system setup when you Program SIP Trunks and Program SIP Phones.	
IP Networking	Enables calls to be placed or received over an IP trunk	Yes
ISDN PRI	The Universal NSU (dual link) provides an interface between users (voice or data) and the ISDN Primary Rate Interface (PRI) services offered by the Network Service Providers.	N/A
Keep TelDir Entry on Check Out	Ensures that the phone directory entry associated with a particular room or suite extension is unchanged upon check out	Yes
Key System Groups	See Groups-Key System and Multicall	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
LLDP-MED	Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED) is an open standard extension of the LLDP core standard used by endpoint devices to discover each other on the same network link (segment). Certain MiVoice IP Phones can use LLDP-MED to obtain the VoIP-specific configuration information that they require to operate in a converged network—information such as VLAN ID, COS Priority, and DSCP values.	N/A
Language Change	<p>Provided they are made available by the system administrator, this feature allows the user to change the language of their set's phone prompts and softkeys to any one of the following languages:</p> <ul style="list-style-type: none"> • English • French • EU Spanish (Europe) • LA Spanish (Latin America) • Dutch • Italian • German • PT Portuguese (Europe) • Romanian • Swedish • Polish • Chinese (5312, 5324, 5330 and 5340 IP Phones only) • Arabic (5312 and 5324 IP Phones only) <p>Note that a user's language selection is preserved when the MiVoice Business system undergoes an update or restore.</p>	No
Last Group Member Routing (LGMR)	The Last Group Member Routing (LGMR) feature is an enhancement to the Ring Groups feature. When enabled, connects a caller to the same ring group member that attended the caller within a specified period of time.	Yes
Line Types and Appearances	Allows an administrator to program any of the programmable keys on a phone as line appearance keys for single or shared lines (up to 32). There are four types of lines: Prime, Non-Prime, No Where Prime (also referred to as a Phantom Line), and Mobile Line (which applies to 69xx sets only).	Yes
Line Appearance Ring Types	Line appearances can be programmed to ring in a variety of ways.	Yes
Location Based Accounting	<p>Location Based Accounting enables you to automatically determine a device's location based on its IP address. You can attribute calls to specific locations and bill the locations accordingly. The feature involves two components:</p> <ul style="list-style-type: none"> • zone identification based on IP address • device location information in the 3300 ICP's SMDR records 	Yes

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Location Based Call Routing	Directs calls made to designated numbers (such as Emergency - 911, Directory Assistance - 411, etc) to appropriate services located in the same zone as the device from which the users are dialing.	N/A
Location Based Time Zone	Enables 3300 ICP administrators to manage set displays based on the time zone in which the sets are located, independent from the system time zone	
Maintenance	The system provides extensive maintenance coverage periodically testing all types of peripheral hardware. Maintenance users may test individual circuits on demand.	N/A
Malicious Call Trace	The Malicious Call Trace feature provides network-wide tagging capability of malicious calls. The Malicious Call Trace feature provides a record of malicious calls in the SMDR record. Malicious calls can be recorded using the Record a Call feature (when available).	Yes
Meet-Me Answer	Allows a paged party to respond to a Group Page without knowing the identity or location of the paging party	Yes
Meet-Me Conference	Allows you to set up a conference where up to eight people can dial in and join from anywhere. Each participant dials an MMC access number, bridge number, and an optional PIN to join the conference.	No
Message Board	Provides a method for administrators to communicate with each other on the System Administration tool	No
Messaging-Advisory	Displays a short advisory message to display-set users who call your phone	No
Messaging-Callback	Allows you to leave a callback message on a phone when the called party is busy or does not answer. When you receive a callback message, you can review the message on the display (if applicable) and/or call the sender back.	Yes
Messaging-Dialed	Allows you to leave a message-waiting indication on a phone. When you receive a message-waiting indication, you call your message taker to accept the message	Yes
Mixed Station Dialing	Allows you to use DTMF phones within the system and on the same line	N/A
MNMS	Supports OPS Manager functions	N/A
MSDN/DPNSS	A digital signaling system that provides many features and is used within a private network of PBXs	N/A
MSDN Release Link Trunk	Allows the attendant to make an outgoing call on an incoming trunk. It provides centralized attendant service by allowing attendants on the attendant system to reroute calls without tying up additional trunk resources.	N/A
Multicall Groups	See Groups-Key System and Multicall	Yes
Multiple Consoles	See Attendant Consoles (Multiple)	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Multi-Level Auto Attendant	Allows a hierarchical menu to be programmed on the auto attendant. This provides callers with better self-service access to the person or department they are calling	N/A
Multi-Level Precedence and Preemption (MLPP)	Supports emergency communications for the military as part of the Defense Switched Network (DSN). MLPP allows authorized users to <ul style="list-style-type: none"> • specify a precedence level when they make a call • preempt calls that have a lower precedence level. 	Yes
Multi-Color LED line status	Involves employing color to indicate to a set user whether activity on a line key is of direct concern to the user, or of greater concern to another member of the associated broadcast group	Yes
Multi-device Suite license	Simplifies and cost reduces the hospitality solution where hotels require multiple devices in a single suite. Hoteliers can license hotel rooms as single suites: up to 6 devices can be configured in a suite while consuming only a single System license.	N/A
Music	Allows you to listen to the Music On Hold music source through the speaker on the phone	Yes
Music On Hold	<p>Music On Hold (MoH) provides callers with music or information while they are waiting for a call to be completed. Music On Hold is provided when a call is on Hold, transferred to a busy party, or camped-on to a station. The music or information source is provided by the customer. There are three types of Music on Hold and four types of Music on Hold sources.</p> <p>Music on Hold types</p> <ul style="list-style-type: none"> • Call Coverage Based or User Based - Uses the MoH source assigned to the user who is holding the call or the destination the call is queued on. • Zone Based - Uses the source provisioned for the user or destination zone in the Network Zones form. • System Based - Uses the default source when the above types are not provisioned, invalid, or otherwise inappropriate. <p>Music on Hold sources</p> <ul style="list-style-type: none"> • Analog • Digital • Embedded (allows systems to use embedded .wav files as music sources) • Live Music on Hold Over IP (uses a PC with an internet connection or third-party MoH server to stream audio to an IP endpoint in the system) 	Yes
Music On Hold over IP	Music on Hold over IP plays live music from a source on the Internet.	No
Music On Hold Transfer	Allows external callers who are transferred to a set to hear Music on Hold while waiting for an answer. For a transferred call, the caller hears Music On Hold until the call is answered at the destination.	No

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Name Suppression on Outbound Calls	Allows callers to block the name of the caller from the ISDN network even if the name is programmed in the phone directory	Yes
Simple Network Time Protocol (SNTP)	The 3300 ICP supports a client for Coordinated Universal Time (UTC) distribution. Administrators benefit from automatic synchronized clocks for all 3300's in a system, automatic updates for daylight savings time, and descriptive timestamps and logs	N/A
Networking	The system supports both analog and digital networking. See Node ID Recognition and Uniform Numbering Plan.	N/A
Networking using MSDN/MSAN	MSDN/DPNSS provides fast call setup capabilities and feature transparency across the network. No significant difference between making a local call and a network call is apparent to the user All of the MSDN networking packages require that each PBX has MSDN Voice I or MSAN installed.	N/A
Networked ACD	Supports ACD functions over a Mitel Switched Digital Network (MSDN). Agent skill groups at different locations (on different systems) may service calls on the network independently of where the call entered the network.	No
Networked Group Page	Group Paging can be completed across a network or network cluster, allowing, for example, a set on system A to page a specific group on system B.	Yes
Network Selectable Music Source	Each site can select their own music source or a networked source from the originating PBX.	N/A
Night Service	Switches the system from day service to night service and vice versa Allows you to redirect calls to alternate answer points for individual trunks. Answer points can vary, according to the selected mode of operation (Day, Night 1, or Night 2). A key appearance may be programmed to indicate if the MiVoice Business system is operating in Night Service mode.	Yes
Night Service Indicator	Enables supported sets to be programmed so the Feature Access Key (FAK) LED goes off during the day and turns on at night. Pressing the key displays the current mode of operation (Day, Night 1 or Night 2).	Yes
Night Service - Scheduled	Enables you to schedule Night Service modes on the MiVoice Business system. Allows transitions between all of the supported service modes (Day, Night 1, or Night 2) at independent times	Yes
Night Service - Automatic	Automatically places the system into Night service if all attendant consoles are unable to receive calls or if all attendant consoles are inactive when the time-out period has expired	Yes
Node ID Recognition	Enables a system in a network to determine whether an incoming call applies to it or to another system in the network	N/A

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Non-Busy Station	Allows you to program an extension to never return a busy tone. This feature is used for special situations such as emergencies A non-busy extension can originate calls if it is also programmed as a Hotline extension.	No
Non-DID Extension	Allows the system to support phones that are not directly accessible to DID trunks. Calls to and from these phones are transferred to non-DID extensions by an intercept handling point (such as an attendant or a station)	Yes
Off-Hook Detection to Display sets	Used in hospitals and nursing applications. If someone fails to complete dialing, the alert is sent to a set	Yes
Off-Hook Voice Announce	Allows you to receive a direct page during a handset or headset call. See Direct Page	Yes
ONS Ports as Music Sources	Allows a music source, either the system's Music on Hold source, or an ACD alternate music source, to be an ONS port instead of a DMP module. The Alternative Recording Device (ARD) is an off-hook ONS port that connects to callers in a listen-only conference. The user decides what is supplied on the ONS port - silence, music, or endless loop recordings. Note: An ARD should not be used as a first-level announcement (Music On Hold, for example). Eliminating or reducing the number of DNIC circuits and DMP modules translates into cost savings for the organization.	N/A
Overlap Outpulsing	Reduces post-dialing delay when trunk calls are originated. Once ARS has determined a route, a trunk is seized and tones are outpulsed to the CO. These pulses are sent before the user has finished dialing to allow faster call setup on analog trunks.	N/A
Override	Allows you to enter a conversation at a busy station or ring a station with Do Not Disturb activated. Before you enter the conversation, all parties receive a warning tone.	Yes
Override Security	Prevents users from using Override on your station	Yes
Paging	Allows you to connect to loudspeaker/paging equipment to access individual paging zones or all paging zones simultaneously. Before you are connected to the paging equipment, you hear a two-second burst of tone.	Yes
Permanent Do Not-Disturb	Allows an extension to be placed in a permanent busy state	N/A
Phonebook	Allows you to locate and call a system user based by name, extension number, department, and/or location	Yes
Phone Lock	Phone Lock locks a set preventing access to the majority of features, with the following exceptions: unlocking the set via a user PIN, Hot Desk Login and Logout support, and Emergency Call Notification support. Phone Lock has no effect on incoming calls but restricts outgoing calls, with the following exceptions: calls to emergency trunk routes and local operators.	Yes

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Prevent Call to SIP Devices if in Use	Forwards incoming calls to an alternate destination, such as voice mail, if the SIP Phone user is already engaged in a call	Yes
Post Call Destination	Automatically forwards callers to a specified destination after the called party hangs up.	N/A
PRI (Primary Rate ISDN)	Protocol supported by the T/E1 Modules. PRI supports features such as Min/Max, Automated Min/Max, NFAS (Non-Facilities Associated Signaling), D-channel Backup, and Remote LAN Access.	N/A
Printer Support	The system has complete RS-232 printer flexibility. Any printer port may be programmed for any application. The system supports system printers both for its own applications (such as SMDR and maintenance) and as dedicated data communications printers.	N/A
Priority Queuing	Handles calls in order of priority. When waiting for calls to be completed internal or external callers are placed in a queue and assigned an access priority.	N/A
Privacy Release	Call privacy between users who share line appearances in key systems groups is automatic. The privacy release feature allows users to release privacy during a call to include another member of the key system group in the call.	Yes
Private Line Automatic Ringdown	Provides rapid connections between devices, primarily 5560 IPTs used by securities and commodities traders	Yes
Programmable Key Modules	Provide phones with additional personal keys	Yes
Property Management System (PMS)	A PBX feature that allows the hospitality industry to connect their Hotel PMS systems to the PBX via an IP interface or serial interface. This connection allows the PMS to notify the PBX when a user checks in or checks out.	Yes
Q.SIG	A protocol that allows you to connect a minimum of two systems together to form a virtual private network. Q.SIG is supported by the T1/E1 Modules for both incoming and outgoing calls. Note: Resiliency does not work over QSIG (NSIs not passed)	N/A
Recorded Announcement Device Support	RADs are supported in the system as recording hunt groups. These special hunt groups support features and restrictions that allow efficient use of the recording resources. Recording hunt groups are used in ACD, UCD, Hotel/Motel Wakeup, Automatic Attendant Overflow and Automated Attendant.	N/A
Range Program Trunks	Allows installers to select a consecutive range of trunk circuits. The system automatically assigns sequential trunk numbers to those circuits. Also copies parameters from the first programmed trunk including Class of Service, Day, Night1, Night2 and Circuit Descriptor Number. Trunk Name and Comments are left blank.	N/A
Recall	Allows an incoming caller, who has been transferred to an idle station and not answered within a specified time-out period, call back the last party who handled the call. Similar time-out recalls occur for parties who are transferred to busy stations or placed on hold.	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Recall Button	See Ground Button.	N/A
Record-A-Call	Record-a-Call allows extension users to record a two-party call when one party is connected to a trunk. The recorded conversation is stored in the users' voice mail mailbox. You can configure this feature to automatically record incoming calls when the call is answered at the extension, record external outgoing calls that are made from a system extension to the PSTN, and record both incoming calls and external outgoing calls for the same extension.	Yes
Redial	Automatically dials the last manually dialed number	Yes
Redial -Saved Number	Allows you to save a number for future dialing. The number remains saved until a replacement number is saved	Yes
Release	Allows you to release from an attempted connection to an external party without going on-hook. Release is useful when you encounter a busy or unavailable external party that you are attempting to add to a conference.	Yes
Reminder	Allows you to program your set to ring and provide a message at a specified time within a 24-hour period	No
Remote Wake-up Calls	Wake-up calls can be set or cancelled remotely from a phone or attendant console using the Hotel/Motel Room Remote Wake-up Call feature access codes.	No
Reroute after Call Forward Follow Me to Busy Destination	This feature uses the class of service option Call Reroute after CFFM to busy destination. With this option set to YES, if the user programs call forward always and the call forward third party or group call forward destination is busy, the call follows the original called set's programmed call reroute first alternative for busy. For example, a call arrives at station A that is call forwarded under one of the above stated conditions to station B. If station B is busy or does not answer, the call follows station A's First Alternative Rerouting. With the COS option set to NO, the call only follows set A's rerouting on a no answer condition. This functionality applies only to calls using call forward always; call forward third party or group call forward with the "forwarded to" destination being an internal party, another user across MSDN or calls forwarded externally via ISDN.	No
Resiliency (3300 ICP only)	Allows the IP Phones to re-home to a secondary controller if a 3300 ICP fails or is taken out of service. This ensures that there is no disruption in service. In addition, calls that are in progress when an outage occurs remain in progress and are not lost. Network administrators may configure IP Phone and IP Console resiliency from the System Administration Tool of the local element, or through OPS Manager.	Yes
Ringer Control	Allows you to adjust the volume and pitch of the phone ringer	Yes
Ring Groups	Provides the ability to ring all members of a group simultaneously or sequentially; can contain local, resilient and remote DNs as members.	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Ring Groups -Personal	Provides the ability for a user to configure a collection of up to 8 answer points as a personal ring group. An incoming call to the Prime Number will simultaneously ring all devices in the group. "One busy/All busy" may be configured for the group so that if one answer point is busy, they will all appear busy. Users also have the ability to "push" a call back to the ring group so that it may be "puled" (answered) by another device. "Push and pull" can be made quite simple for the user by pre-configuring a feature key for this purpose.	N/A
Ringing -Discriminating	Allows you to distinguish between incoming internal calls, incoming trunk calls, tie line calls, and Callbacks by using different ringing patterns (cadences)	Yes
Ringing -Discriminating (Optional)	Allows you to change the Discriminating Ringing patterns on ONS/OPS lines so that you hear internal ringing (1 second on and 3 seconds off) for both internal and external calls	N/A
Ringing Line Select	Allows you to answer any ringing line by going off-hook.	Yes
Registering and Auto-provisioning Multiline IP Telephones without a DN	Reduces and simplifies the provisioning and installation effort for IP Phones to be registered as a basic Userless Device—a device with service level "IP Device Only" that allows the user to log in, but does not require a license. With this Automatic DN Selection registration and auto-provisioning method, a device can be registered and brought to service without being pre-configured first and the installer does not need to specify the device's Directory Number (DN—only the Set Registration Access Code—to initiate the registration.	No
Scheduler	Allows you to schedule common events to run automatically. For example, you can create an event that switches the system to night service every weekday evening. The Scheduler includes a calendar that can be customized with holidays that are unique to your locality.	N/A
Silent Monitor	See ACD Silent Monitor.	Yes
SMDR -External	Collects data for outgoing and incoming trunk calls	N/A
SMDR -Internal	Collects data for calls made between stations within the system	N/A
SMDR Extended Reporting Level 1	Allows SMDR record format changes to accommodate: <ul style="list-style-type: none"> • International ANI digit strings • Attendant Line Appearances • Incomplete Internal calls (optional). 	N/A
SNMP Agent	Simple Network Management Protocol (SNMP) governs the management and monitoring of network devices and their functions.	N/A
Speak@Ease™ Softkey Support	Provides quick and easy access to the Mitel Speech Server voice recognition system	Yes
Speaker Volume Control	Allows you to adjust the volume of the phone speaker	Yes

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Speed Call -CDE	Allows users to speed dial phone numbers that the administrator has programmed into the system. The administrator programs the number into a "CDE speedcall" key on a user's set through the Multiline Set Keys form. Users initiate the speed call by pressing the key.	Yes
Speed Call -Pause	When the system encounters a pause while dialing a speed call digit string, the system ceases dialing for the duration of the pause. Dialing resumes when the pause ends.	Yes
Speed Call - Personal	Allows you to store and dial frequently-used numbers using access codes and index numbers	Yes
Speed Call -System	Allows you to dial stored system numbers	Yes
Speed Call - User	Allows you to store external numbers under feature keys for faster dialing. You can press a Speed Call Key to dial a phone number or, during a call, to output DTMF tones	Yes
Station Message Detailed Accounting (SMDA)	Allows the system to accumulate meter pulses (up to an assigned buffer size) that can be read, printed, and cleared from a console. You can collect meter pulses either with a device (device meter unit accumulation) or an account code (account code meter unit accumulation).	N/A
Station-To-Station Dialing	Allows you to dial any other station directly	Yes
Suite Service	<p>Allows you to group a number of phone lines through interconnected hotel/motel rooms, or suites, for the purposes of billing and sharing phone service. There are two kinds of suite services:</p> <ul style="list-style-type: none"> • Single suite services • Linked suite services. <p>Suites and linked suites allow you to specify a number of member extensions (1 to all) that ring simultaneously (up to 24 for linked suites). These extensions can be multi-member broadcast groups.</p> <p>Suites and linked suites require all member extensions to be defined on the same 3300 ICP.</p>	No
Swap	Allows you to temporarily suspend a phone call to originate a new one. Once the new call has been established, you can alternate between the calls.	Yes
Switchhook Flash	See Flash-Switchhook.	No
System Access Authorization	Passwords control administrative access to the system. The installation technician assigns usernames and passwords for access to the different system tools.	N/A
System Alarm Indications	See Alarms and Attendant Console Status Display.	N/A

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
System Fail Transfer	Maintains phone service in the event of system failure (such as during a power outage). When the system goes into SFT mode up to four POTS phones are connected directly to the Central Office via LS Trunks.	N/A
T1/D4	Provides support for T1 Channel Associated Signaling	N/A
Tag Call	Provides a record of malicious calls in the SMDR record	N/A
CTI Support	Supports OIG and MiTAI computer telephony interfaces	No
Tandem Trunking	The system can transparently interconnect trunk circuits originating from one CO or PBX and terminating on another (tandem trunking), without attendant intervention.	N/A
phone Directory -Privacy Option	Any extension number in the system phone directory can be designated as private. When an extension number is private, the number is not displayed on other users' phones.	Yes
phone Usage Restriction (Curfew Control)	Provides the ability to restrict calls based on the time of day. It is used in conjunction with existing Call Block (Hotel Motel functionality). When the curfew time is reached, users receive a warning tone indicating that calls in progress will be cleared down.	Yes
Templates	<p>Templates have been introduced to speed the configuration process and ensure that correct settings are applied throughout the enterprise. Common settings, such as the Class of Service and Device Type, can be saved in a template and applied to multiple users and devices.</p> <p>Three new forms are available:</p> <p>Key Templates: Enables you to program line key settings for multiline phones and SIP devices</p> <p>User and Service Templates: Enables you to program a subset of the information normally added on the User and Services Configuration form</p> <p>User Roles: Enables you to link templates with roles. When you add a new user, you are prompted to select a role and its associated template.</p>	N/A
Tie Trunk Support	Tie trunks terminate at the attendant console, at station sets, in hunt groups, or on night bells. They may also be arranged as dial-in tie trunks or tandem trunks. Like CO trunks, tie trunks are arranged in groups.	N/A
Timed Reminder	See Reminder.	No
Toll Control	Allows or denies access to specified routes, CO exchanges, and directory numbers	N/A
Tone Demonstration	Allows you to hear the tones provided by the system	Yes
Tone Detection	The system can detect and analyze call progress tones that originate from the Central Office during the course of a trunk call	N/A

FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Tone Plan Flexibility	Call progress and supervisory tones generated within the system are programmed to meet the requirements of the phone authorities of the country in which the system is installed.	N/A
Traffic Reporting	Provides traffic reports of system usage to allow better system resource management	N/A
Transfer	Allows you to move a call from one phone to another. Before completing a transfer, you can consult privately with the third party and swap between private conversations with each party.	Yes
Transmission Tests	Allows you to perform milliwatt, balance, and 100 tests on a trunk	N/A
Travelling Class Marks	Travelling Class Marks (TCM) extend users access to features and services available to them on their host MiVoice Business system to other MiVoice Business systems in a cluster or network. TCM allow callers in a private network to access features and services based on the their Class Of Service (COS), Class of Restriction (COR), and Interconnect Number, rather than on those of the incoming trunk on the remote system.	Yes
Trunk Access	Allows you to directly access a specific trunk. No toll control or ARS checking is done when you use Trunk Access. This feature is used when a maintenance phone is required.	Yes
Trunk Answer From Any Station (TAFAS)	Allows you to answer any call that rings a night bell	Yes
Trunk Busy-Out	Allows you to busy-out a specific trunk. When you perform a Trunk Busy-Out, the trunk is busied out if it is idle; if the trunk is in use, it is busied out as soon as it becomes idle. When you busy-out the trunk, it cannot be accessed.	N/A
Trunk Group Busy Status	Enables attendants to query the status of trunk groups from the attendant console	Yes
Trunk Group Hunting	Allows you to search for trunk groups in either a terminal or circular pattern. In a terminal trunk hunt group, trunks are selected in a predetermined order. In a circular hunt group, trunks are selected in a distributed manner (the first free trunk after the last one used becomes the new first choice).	N/A
Trunk Labels	May be assigned to individual trunks or groups of trunks. When a trunk call appears at an attendant console or set, the trunk label and trunk number is displayed.	Yes
Trunk Range Busy Out and Return to Service	Allows the installer/trouble-shooter to busy out and return to service an entire digital link. All trunks in the "Range Busy Out" must be on the same card. Trunk Range Busy Out and Return to Service is only available in maintenance mode. This reduces the amount of time required to troubleshoot programming or operation problems with digital trunks.	N/A

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FEATURE NAME	DESCRIPTION	SUPPORTED WHILE SET ON SECONDARY CONTROLLER?
Trunk Select -Direct	Allows you to access an outside trunk for the purposes of originating and receiving external calls. Because the trunk is assigned to a line appearance, you can access the trunk to make or answer calls without trunk access codes.	Yes
Trunk Support	The system supports most public network trunk types (both analog and digital).	N/A
Two B-Channel Transfer (TBCT)	Allows you to transfer an external call to another external destination and have the two external parties connected through the trunks at the Central Office (CO)	No
Uniform Numbering Plan	The system supports the use of a network Uniform Numbering Plan that allows you to use the same digits to reach a station from any location in the network.	N/A
User Provisioning Roles	The User and Services Configuration form simplifies the creation and management of users, enabling you to modify a wide range of user data without having to make modifications in many separate forms. When configuring users, you can apply a default (standard) user role or a unique, customized user role.	N/A
Voice Mail	The system has its own integral voice mail system.	Yes
Voice Mail Interfaces	Most voice processing systems work in conjunction with the system. The system provides the following voice processor interfaces: <ul style="list-style-type: none"> • Voice Mail - E&M Interface • Voice Mail - Digital E&M Interface • Voice Mail - Softkey support with Mitel's NuPoint (MiCollab and standalone versions) and Express Messenger™ • Voice Mail - ONS Interface. 	N/A
Voice Mail Softkeys	Provides the user with a quick and convenient way to navigate voice mail. Access to the system is provided through context-sensitive softkeys on an IP phone.	Yes
XNET	Proprietary switched MSDN/DPNSS networking over the PSTN. Also supported is a Hybrid XNET configuration. Hybrid signalling delivers voice over PRI channels, with MSDN call setup, feature invocation, and tear-down signalling over the IP network. Full XNET DPNSS feature transparency is maintained.	N/A

AUTO ATTENDANT FEATURES

FEATURE	DESCRIPTION
Open and Closed Greeting	A company greeting can be programmed to automatically change from open business hours to closed or after hours.
Expire at a preset Time Greeting	A Company Greeting can be programmed for use over holidays or shutdowns that automatically expires after a specified number of days.
Alternate Greetings	Each port can use one of eight alternate greeting sets (Open, Closed, or Temporary) to allow special greetings per port.
Play Greeting by Incoming Trunk Assignment	Each port can be assigned to answer calls on specific incoming trunks and play a greeting based on the destination dialed – for example, Sales, Shipping and Receiving, Customer Service.
Flexible Mailbox Numbering (Dial Plan)	In addition to supporting single-digit mailboxes (1 - 8), a mailbox dial plan of 2, 3, 4, or 5-digits can be selected.
Directory	Also known as Name Dialing. Callers may access a mailbox directory where they are able to reach a mailbox owner by dialing the person's first or last name rather than their mailbox number. The system can be configured for either first or last name dialing (but not both at the same time).
Caller Type-Ahead	Callers who are familiar with the system may enter their keypad selections without waiting for the system prompts.
Operator Revert	Callers may reach a live attendant at any time by dialing "0".
Operator Transfer to a Mailbox	Allows an operator to transfer an outside caller to a specified mailbox where the caller immediately hears the subscriber's personal greeting and is prompted to leave a message. Callers press # to bypass or interrupt the greeting and begin recording a message.
Transfer to Any Extension	Allows the user to dial any internal extension defined in the system
Quick Message Feature	Allows a caller reaching the auto-attendant to leave a message in a specific mailbox without transferring to the mailbox extension and possibly speaking live with the subscriber
Multiple Message Capability	Allows an outside caller to leave more than one voice mail message per call, therefore saving on toll charges
User Programmable Dial 0 Extension	Allows the user to program the dial 0 extension to any internal extension, for example, a personal or departmental secretary. The administrator can override the system default ("0" for the operator) with any valid phone number, including an external number or even a long distance number. The administrator can also override the system default on an extension by extension basis, with any valid phone number.
Park and Page	Auto Attendant Park and Page enables the Auto Attendant to park incoming calls and announce them to the requested party using paging. The requested party can then retrieve the call by using the "Call Park - Retrieve" feature.
Supervised/Unsupervised Transfer	The Auto Attendant can be programmed to perform either supervised or unsupervised transfers. The addition of supervised transfer capability allows calls that cannot be completed to return to the Auto Attendant for further processing.
VM Fax Detection	Detects an incoming fax tone and directs it to the fax mailbox/extension

VOICE MAIL FEATURES

FEATURE	DESCRIPTION
Personal Greetings/Name	Each mailbox user can record subscriber name and a personal greeting.
Message Prologue	Informs subscribers when they access their mailbox how many new or saved messages they have (if any)
Temporary Greeting	Each subscriber can record a personal greeting set for a specific number of days (with automatic expiration).
Password Protected Mailboxes	Access to subscriber mailboxes requires a password. Password length system-wide can be from three to six digits. (Default is four digits.) Callers have three chances to enter a valid password before they are disconnected.
Message Envelope	Played prior to beginning of each message, containing priority type, date, and time (including caller identification for internal and external calls). Mailboxes can be individually configured to play the envelope only in response to a key press – i.e., at the request of the subscriber.
Message Length	Unlimited message length with a 5-minute continuation prompt. Minimum message length is two seconds
Saved Messages	A subscriber may save messages. They are automatically purged from the system after 15 days (or as reprogrammed) or you can specify that saved messages are never deleted. New messages are never purged automatically. The saved messages are played in last-in first played order
Message Review	Allows immediate replay of a message, including message envelope (timestamp, calling party information)
Message Erase	Allows immediate deletion of a message from the system. The message cannot be subsequently restored; deletion is immediate and permanent
Message Reply	Allows immediate reply to a message received from another internal mailbox subscriber
Message Forward	Allows messages to be forwarded to other subscribers and distribution lists with or without a pre-pended comment
Message Rewind/Hold/Fast Forward	Allows subscribers to rewind, fast forward, or pause messages for several seconds
Message Keep/Skip	Allows subscribers while listening to a message to advance to the next new message (if any). Each new message played is marked as “saved”
Multi-Level Auto Attendant	Allows a hierarchical menu to be programmed on the auto attendant providing callers with better self-service access to the person or department they are calling
Urgent Messages	The message receives priority placement in the listener's mailbox.
Private Messages	The message cannot be forwarded to another subscriber's mailbox.
Certified Messages	On internal calls, the sender is notified when the recipient has read the message.
Message Record/Send Actions	Callers have the ability to pause during recording, review, re-record, and append to a message before sending it. A message can also be cancelled prior to sending.
Message Addressing	Subscribers can address messages to multiple recipients and hear the recipient's name played back to confirm valid entry of mailbox numbers.

FEATURE	DESCRIPTION
Forward Voice Mail to E-Mail	This feature allows users to forward voice messages, including Record-a-Call messages, to an E-mail address. Users can choose to manually forward voice messages, or automatically forward all voice messages.
Memo	Subscribers have single-digit access to send a message to their own mailbox, for future reminders and memo-type messaging.
Message Notification	<p>The subscriber is notified that they have received a message by the message light on their phone (MWI), and optionally by setting the notification type to one of the following options, which causes the voice mail system to call:</p> <ul style="list-style-type: none"> • the mailbox's associated extension number, for analog phone extensions or phones without a message light (prompts called party to log into their mailbox). • an outside number (prompts called party to log into their mailbox). • a message pager (plays an audio message indicating messages are waiting). • a tone-only pager (simply hangs up after a far connection is made). • a digital pager (plays DTMF digits corresponding to a system-wide callback number along with the specific mailbox number). <p>The system administrator may change notification options. The mailbox owner may also modify them if the system administrator grants permission. In addition to the notification type, the phone number and schedule are configurable. The schedule determines whether paging occurs:</p> <ul style="list-style-type: none"> • around the clock, regardless of the business schedule. • only during open business hours. • only during closed business hours. • never (disabled until the schedule is changed to one of the three previous schedule options). <p>Finally, a mailbox may be configured to do non-MWI notification only in response to urgent messages (as opposed to all messages).</p> <p>By default, a busy or no answer condition detected on a notification call results in two additional retries occurring at 15-minute intervals. All notification results are posted to the system log file.</p>
Outside Message Notification Calls	The administrator configures a trunk access code for use in all outside notification calls. The trunk access code controls the lines to be used for notification.
Distribution List, Broadcast Message	Allows four system-wide and five (per mailbox) personal distribution lists as well as a broadcast message facility to deliver a message to all mailboxes. Individual subscribers can belong to any number of distribution lists.
New mailbox Tutorial	The system guides the user through the steps required for initial configuration of mailbox, including specification of a (non-default) passcode and recording of a personal greeting and name.

FEATURE	DESCRIPTION
Mailbox Types	<p>The following mailbox types are available:</p> <p>Extension - the auto-attendant transfers a caller to the mailbox’s associated extension. If the called party is busy or does not answer, the caller is prompted to leave a message in the mailbox. The extension mailbox may be linked to other mailboxes for transfer only (dual mailboxes). This permits the caller to transfer to other mailboxes in the same department.</p> <p>Message-Only - the auto-attendant does not attempt a transfer but immediately prompts the caller to leave a message in the mailbox.</p> <p>Transfer-Only - the auto-attendant transfers a caller to the mailbox’s associated extension but does not take a message if the called party is busy or does not answer.</p> <p>Information-Only - the auto-attendant only plays the mailbox greeting; no transfer or prompt to leave a message occurs.</p> <p>Administrator - for accessing administrative functions such as greetings recording.</p>
Property Management System (PMS)	<p>A Voice Mail feature that allows the hospitality industry to connect their Hotel PMS systems to the voice mail application via an IP interface. This IP connection allows the PMS to notify voice mail when a user checks in or checks out. Based on this information the voice mail system either creates or deletes a mailbox for the guest.</p>
Record a Call	<p>Using Voice Mail as a recorder, this feature allows a subscriber to record a live conversation between themselves and another party.</p>
Softkey Integration	<p>Users with Mitel phones can press softkeys instead of dialing codes to select Mitel Express Messenger menu options. For example, to listen to message, a user can press the Play Message softkey instead of dialing the digit 7.</p>
Dual Mailboxes	<p>A transfer-only mailbox can be linked to the same extension as an existing extension-type mailbox. This enables, for example, a single mailbox for a sales department and the sales manager.</p>
Mailbox Administration via OPS Manager	<p>Mailbox administration (adds, moves, changes) can be performed using OPS Manager, a standalone application that works seamlessly with the MiVoice Business embedded system management.</p>
Networked Voice Mail	<p>Networked Voice Mail allows voice mail users to seamlessly send and receive messages between all the voice mail servers on a network. This includes (but is not limited to):</p> <ul style="list-style-type: none"> • selecting destination mailboxes using the corporate voice mail directory. • confirmation of destination mailboxes (name or number). • using existing voice mail features such as receipts, distribution lists, replying to a voice mail <p>Networked Voice Mail supports EMEM (networked and clustered), NuPoint Messenger, and other VPIM2-compliant mail servers (G.711 compliant), and is compatible with Hot Desking.</p>
Personal Contacts	<p>Personal Contacts allow users to store alternate numbers where callers can contact them instead of leaving a message. Callers are prompted in the greeting to press a key to have their call transferred to the alternate number—they are never told the number. Users can program up to ten (10) Personal Contacts.</p>

FEATURE	DESCRIPTION
Distribution Lists	A Distribution List allows mailbox subscribers to send messages to several people at one time. There are two types of distribution lists: personal lists and global lists. Personal lists are set up by individual subscribers for their own use. Global lists are for use by all subscribers and are set up using the VM Distribution Lists Form. Only the system administrator can set up or change the global lists. Up to 49 global lists (001-049) can be created. A fiftieth list (000) is already set up to broadcast messages to every local mailbox. Users can create up to 10 personal lists (050-059). Each distribution list can have up to 750 contacts.
RAD Greetings	This feature provides the ability to play recorded greetings through an embedded voice mail port (RAD port), eliminating the need for external tape machines or other audio-playing devices. RADs are commonly used to automatically answer incoming calls and deliver pre-recorded messages such as "All of our representatives are busy helping other callers, please continue to hold to maintain your call priority." When the RAD message finishes playing, the caller usually hears Music On Hold while waiting for an agent to become available. RAD messages may also give the caller information, which answers their questions, thus resulting in a 'good' abandoned call. They may also provide advertising or promotional information to callers while they're waiting for someone to take their call.
Record a Call Option	Allows users and ACD agents to record phone conversations to be reviewed later. The message is saved in Voice Mail. Recorded calls can be replayed to ensure accurate information was derived from the conversation or perhaps to monitor harassing phone calls. When a user activates this feature, it is accomplished in silence. Record a Call is supported through embedded voice mail functionality.
Voice Mail Hunt Group	MiVoice Business supports a single, large, voice mail hunt group with up to 240 members. This large hunt mail group can be resilient; however, you can only use it with NuPoint Messenger Release 10 or later voice mail systems.

FEATURES SUPPORTED BY PROTOCOLS

The following tables summarize the features supported by QSIG and PRI protocols:

QSIG

The following table lists features supported by QSIG.

FEATURE	DESCRIPTION
QSIG Calling Name	Allows the system to send and receive the name of the caller; in turn, the called party will see the name of the caller on the phone display screen if the appropriate Class of Service options are set.
QSIG Call Forwarding and Diversion	Incoming calls are diverted to another destination as defined by the user when the service is activated. This includes: <ul style="list-style-type: none"> • QSIG Call Forward Busy • QSIG Call Deflection • QSIG Call Forward No Reply • QSIG Call Forward Unconditional.

FEATURE	DESCRIPTION
QSIG Message Waiting Indication	Users can set or cancel message waiting indications on the set of another party to indicate that they wish to be called back.
QSIG Call Transfer	A user can connect two other calls together, of the same basic service, as a new call (there must be three parties). This feature does not support placing a party on soft hold before making an enquiry call to another. This feature maps to the Transfer portion of the MSDN/DPNSS Call Hold and Three-Party Working Service.
QSIG Callback (Call Completion)	Users can request a Callback when they reach a busy or unanswered station. Callback with service retention is supported for the following Call Completion Supplementary Services: Completion of Calls to Busy Subscribers (SS-CCBS): users can set a Callback against a busy station. Completion of Calls on No Reply (SS-CCNR): users can set a Callback against a station that doesn't answer.
Call Offer	Users can offer calls to parties at a busy destination. The busy user receives indication of a call offer, while the calling party receives indication that a call offer has been invoked. The called user has the choice of clearing the current call and being re-rung, putting their current call on hold and accepting the offered call, or ignoring the offered call.
Path Replacement	Active calls, connected through the Q.SIG network, can be replaced with new connections which are more efficient or cost effective (when possible). The originating system requests the path replacement and the terminating system makes the optimized call. None of the existing call path is used when path replacement occurs. There must be an established call (a call that has been answered) before this feature is invoked.

The following table lists the supported QSIG ISO features that are supported by the Mitel 3300 Release 5.1 product. The X in the third column indicates that the feature is fully supported. For QSIG features not supported, the 3300 does not act as a transit switch.

STANDARD	FEATURE	MITEL 3300
ETS 300 012 (Ed 1)	Layer 1	X
ETS 300 402-1&2	Layer 2	X
ISO 11574, 11572	Audio Speech	X
ISO 11571	Numbering Plan	X
ISO 11582	Generic SS Platform (GF)	X
ISO 14136	Calling Line Identification Presentation (CLIP)	X
ISO 14136	Connected Line Identification Presentation (COLP)	X
ISO 14136	CLIP/COLP Restriction (CLIR)	X
ISO 13864, 13868	Calling Name Identification Presentation (CNIP)	X
ISO 13864, 13868	Connected Name Identification Presentation (CONP)	X
ISO 13864, 13868	CNIP/CONP Restriction (CNIR)	X
ISO 13872, 13873	Call Forwarding Unconditional (CFU)	X (note 1)
ISO 13872, 13873	Call Forwarding Busy (CFB)	X (note 1)

STANDARD	FEATURE	MITEL 3300
ISO 13872, 13873	Call Forwarding No Reply (CFNR)	X (note 1)
ISO 13865, 13869	Call Transfer (CT)	X (By join)
ISO 13863, 13874	Path Replacement (PR)	X (note 2)
ISO 13866, 13870	Call Completion to Busy Subscriber (CCBS)	X
ISO 13866, 13870	Call Completion on No Reply (CCNR)	X
ISO 14841, 14843	Call Offer (CO)	X (note 3)
ISO 15505, 15506	Message Waiting (MWI)	X (note 4)
ISO 15055, 15056	Transit Count (TC)	X
ISO 13866 13870	Call Completion Busy Subscriber (CCBS)	X (note 5)
ISO 13866 13870	Call Completion No Answer (CCNA)	X (note 5)

**Notes:**

1. Does not support Interrogation. It is a way to determine the call forwarding status of a remote phone.
2. Only supports Originator Requesting Path Replace. Either end may ask for the route optimization but Mitel only supports this for the originator. It is recommended that the route optimization timer on the Mitel switch be set to a shorter time than the other side so that the Mitel switch initiates the optimization request.
3. Only supported without path retention. Path retention retains the connection between two PBXs so that a supplementary service can be invoked without establishing a new connection. This method holds up a trunk resource and is not supported.
4. Does not support MWI interrogate function. It is a way to determine the message waiting lamp status of a remote phone.
5. Does not support connection retention. Connection retention holds up a virtual call between the two end-points. Mitel supports path reservation which ensures that resources are available when User B can accept User A's call and service retention in that the call is compelled to complete.

PRI

The following table lists features supported by PRI.

FEATURE	DESCRIPTION
ANI/DNIS/ISDN Number Delivery	Automatic Number Identification and Dialed Number Identification Service identify numbers that are transmitted on an incoming trunk.
Call-by-call Service	With Call-by-Call Service, access channels do not have to be dedicated to specific services such as OUTWATS or 800 services. This enables the customer to reduce facilities and integrate dedicated and switched, inbound and outbound, voice and data traffic on a single facility. It also allows a business with calling peaks to dynamically allocate coverage across channels so that access lines are optimized. This implementation ensures that incoming calls are not turned away because all incoming channels are busy while adjacent outgoing channels are idle.
Calling Line Identification	The phone number of the calling party is transmitted to the Mitel PBX and can be sent to devices within the system.
E-911 Support	Displays indicate the extension and the location of the person who dialed 911. Notifications of 911 calls are audible, continuous and distinct from regular ringing patterns when the set is idle and on hook. If the user is already on a call, a new call tone alerts the user to the alarm condition. The alarm overrides sets having DND enabled.

MSDN/DPNSS

The following table lists features supported by MSDN/DPNSS.

FEATURE	DESCRIPTION
Callback	Allows you to request that the system notify you when a busy line becomes idle or when an unanswered station goes off-hook and on-hook
Call Forward	Allows you to redirect incoming calls to an alternate number
Calling Line Identification	The phone number of the calling party is transmitted to the Mitel PBX and can be sent to devices within the system.
Camp-on (Call Waiting)	Allows you to notify a busy party that you are waiting. An attendant may also put a call through to a busy station to indicate that a call is waiting. Upon hearing the Call Waiting tone, the busy party can either respond or finish the current call.
Call Split	See Conference Split.
Conference	Allows you to connect three or more calls into a single phone conversation. While you are in a Conference, you can use any of the features that would normally be available during a two-party call.
Conference Split	Allows you to separate a 3-party conference so that two of the parties can speak privately, while the other is placed on Consultation Hold
Do Not Disturb	Allows you to place your set in an apparent busy condition without affecting the outgoing functionality. If someone calls your set while DND is activated, they hear a special busy tone.
SMDR -External	Collects data for outgoing and incoming trunk calls

FEATURE	DESCRIPTION
SMDR -Internal	Collects data for calls made between stations within the system
Recall	Allows an incoming caller, who has been transferred to an idle station and not answered within a specified time-out period, call back the last party who handled the call. Similar time-out recalls occur for parties who are transferred to busy stations or placed on hold.
Tandem Trunking	The system can transparently interconnect trunk circuits originating from one CO or PBX and terminating on another (tandem trunking), without attendant intervention.
Trunk Select - Direct	Allows you to access an outside trunk for the purposes of originating and receiving external calls. Because the trunk is assigned to a line appearance, you can access the trunk to make or answer calls without trunk access codes.
Override	Allows you to enter a conversation at a busy station or ring a station with Do Not Disturb activated. Before you enter the conversation, all parties receive a warning tone.
Serial Call	Allows a centralized attendant to set up serial calls for users on remote PBXs
Route Optimization	Replaces non-optimal call routing with routings that use the fewest number of network channels
Hold on Hold	Allows a person on a two party call to temporarily suspend the phone call. While the call is on hold, the person that placed the call is able to use other phone features. The call can be retrieved from the phone that placed the call or from another phone.
Direct Page	Allows you to page another phone over its built-in speaker See Off-Hook Voice Announce.
Networked Group Page	Group Paging can be completed across a network or network cluster, allowing, for example, a set on system A to page a specific group on system B.

SECURITY FEATURES

Encrypted media and signaling path is supported for all Mitel's IP phones.

ENCRYPTED MEDIA PATH

The media path encryption is accomplished with Secure RTP using 128-bit Advanced Encryption Standard (AES). Encryption is backwards compatible to support both currently shipping desktops as well as previously deployed Mitel IP desktops. Mitel provides encryption of the signaling path between multiple MiVoice Business systems using Secure Sockets Layer (SSL) protocol. This allows scalability of applications by configuring MiVoice Business systems into clusters or deploying them as part of a centrally managed but distributed architecture.

Mitel's media encryption solution (SRTP using 128-bit AES) is not supported for SIP connections. To provide SIP media security, SRTP, as defined by RFC 4568, is implemented with the Mitel MiVoice Business Release 7.0. See MiVoice Business Engineering Guidelines for the list of devices that support SRTP encryption.



Note: Mitel 5603/5604/5607 (Ascom) devices offer SRTP only, but will accept an SRTP or RTP answer.

SRTP requires consistent end-to-end encrypted media negotiations; therefore, every component that negotiates SRTP with a SIP endpoint must comply with RFC 4568. If a system includes SIP Phones that offer SRTP, it is recommended that the entire network is SRTP compliant. Otherwise, to avoid incompatibility issues, SRTP on SIP devices can be disabled by setting option "AVP Only Device" in the SIP Device Capabilities form to "Yes" and option "Allow Device To Use Multiple Active M-Lines" to "No". These settings will allow SRTP-capable SIP devices to send and receive unencrypted (AVP) messages. SIP devices that are not SRTP-capable accept only unencrypted messages.

MiVoice Business system supports two types of media negotiations:

- Strict Security (SRTP only) – if the far endpoint is unable to negotiate standard SRTP, the call will fail to connect;
- Secure (SRTP with SAVP - Secure Audio Video Profile) or non-secure (AVP) – if the far endpoint does not support SRTP, non-secure option will be used.

For interoperability and backward compatibility, the following non-SIP products support both SRTP and Mitel's encryption solution (SRTP negotiations take precedence):

- MiNET 53xx series phones
- MiAudio SDK
- MiVoice Border Gateway

ENCRYPTED SIGNALING PATH

For secure signaling to SIP devices, Mitel supports Transport Layer Security (TLS) protocol - an upgrade to the SSL protocol. TLS provides message encryption, message integrity, and endpoint authentication. It is used for secure SIP signaling between MiVoice Business systems and the following endpoints:

- Mitel-branded TLS-capable SIP devices, such as 5603, 5604, 5607
- 3rd-party SIP devices as approved by Mitel's SIP Center of Excellence with TLS interworking

When a TLS set initiates a connection with an MiVoice Business, the TLS's Server (unilateral) authentication method is used to authenticate the server (only the server's security certificate is required).

PHONE AND USER AUTHENTICATION

Mitel implements phone authentication that requires a unique association of MAC addresses and IP and user-entered PIN registration numbers. Additionally, desktop software downloads are encrypted. Mitel also provides 802.1X authentication for desktops (Release 6.0 and later) which offers support for the Extensible Authentication Protocol (EAP) using EAP-MD5 challenge authentication to a RADIUS Server.

WORM AND VIRUS PROTECTION

MiVoice Business uses an embedded real time operating system. This system is less susceptible to virus or worm attacks that target traditional applications and their OS services because it provides a very small base of common functionality with general purpose operating systems. This lack of common functionality means that VxWorks is not affected by the viruses and worms typically found on networks and the Internet. This also makes it difficult for an attacker to write a virus targeted at generic VxWorks implementations.

Application servers based on supported Microsoft Windows operating systems (OS) must be properly maintained with regard to current operating system security updates. Mitel products based on the Windows OS include the MiContact Center and MiVoice Enterprise Manager. These key application servers must be maintained with the latest in Microsoft security updates and worm protection.

PREVENTION OF TOLL ABUSE

Any communication system that has a combination of Direct Inward System Access (DISA) integrated auto attendant or RAD groups and peripheral interfaced auto attendant or voice mail can be susceptible to toll abuse. Therefore it is important to assign appropriate phone privileges and restrictions to devices. In addition, public phones should be denied toll access unless authorized through an attendant.

MiVoice Business has comprehensive toll control built in. It lets you restrict user access to trunk routes and/or specific external directory numbers. It also provides Class of Restriction (COR) and Class of Service (COS) features that can substantially reduce the risk of toll abuse.

As a deterrent to toll abuse by internal callers, Station Message Detail Recording (SMDR) can be used to track calls from within your company, providing detailed information such as the originating extension number, time, duration, and number dialed. SMDR record access should be restricted as with any other function.

SECURE MANAGEMENT INTERFACES

MiVoice Business includes a fully integrated set of management tools designed to install, manage, and administer MiVoice Business systems. Three levels of access are provided in order to meet the needs of system technicians, group administrators, and the desktop telephony users themselves. All of these integral management tools use Secure Socket Layer (SSL) security for data encryption.

User access to the management tools is controlled by a login and password. Once a user logs into a MiVoice Business, the system displays a menu of the specific tools to which they have been granted access.

Mitel also offers the Management Access Point to provide secure remote administration for VPN or dial-up access.

SECURE APPLICATIONS

Mitel addresses application security via:

- MiCollab Softphone - Provides a softphone with encrypted call path and call signaling as well as secure instant messaging to keep IM traffic encrypted and inside the network.
- Wireless Solutions - Includes secure IP-DECT solution (EMEA) and encryption for 802.11b wireless telephony, support for encryption using Wi-Fi Protected Access (WPA) and authentication using WPA and WPA2.
- XML Implementation - Supports encryption of all traffic using standard SSL and provides strong certificate-based authentication for API use.

SIP SECURITY

Mitel SIP desktops support secure RTP and also satisfy the PROTOS test suite for CERT advisory CA-2003-06. The SIP desktops also provide support for firewall traversal and SSL-encrypted SIP.

PRODUCT AVAILABILITY BY REGION

NORTH AMERICA

This table indicates the availability of products in Canada and the United States.

NORTH AMERICAN REGION

	CANADA	UNITED STATES
MiVoice Business	Y	Y
MiCollab	Y	Y
3300 ICP Components	Y	Y
MiVoice Business Voice Mail	Y	Y
MiCollab Audio, Web, and Video Conferencing	Y	Y
MiVoice Business Wireless	Y	Y
Peripheral Cabinet	Y	Y
SX-200 Bays	Y	Y
Applications		
OPS Manager	Y	Y
Contact Center Management	Y	Y
Interactive Contact Center	Y	Y
Contact Center Scheduling	Y	Y
Multimedia Contact Center	Y	Y
Visual Workflow Manager (Intelligent Queue)	Y	Y
Call Recording	Y	Y
Unified Communicator	Y	Y
Intelligent Directory Application	Y	Y
Live Content Suite	Y	Y

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NORTH AMERICAN REGION (CONTINUED)

	CANADA	UNITED STATES
Phones		
5304 IP Phone	Y	Y
5312 IP Phone	Y	Y
5320 IP Phone	Y	Y
5324 IP Phone	Y	Y
5330 IP Phone	Y	Y
5340 IP Phone	Y	Y
5360 IP Phone	Y	Y
5606 and 5606 (Alarm) IP DECT Phones	Y	Y
SUPERSET 4025	Y	Y
Consoles		
5540 IP Console	Y	Y
5550 IP Console	Y	Y
MiVoice Business Console	Y	Y
Accessories		
5310 IP Conference Unit	Y	Y
IP PKM (12 and 48 Button units)	Y	Y
IP Paging Unit	Y	Y
Line Interface Module	Y	Y
Gigabit Ethernet Stand	Y	Y
Cordless Module and Accessories	Y	Y
5610 DECT Handset and IP DECT Stand	Y	Y
Bluetooth Module	Y	Y

ASIA PACIFIC

This table indicates the availability of products in Australia, New Zealand and China.

ASIA PACIFIC REGION

	AUSTRALIA	NEW ZEALAND	CHINA
MiVoice Business	Y	Y	Y
3300 ICP Components	Y	Y	Y
3300 Voice Mail	Y	Y	Y
3300 Wireless	Y	Y	N
Peripheral Cabinet	Y	Y	Y
SX-200 Bays	N	N	N
Applications			
Contact Center Management	Y	Y	N
Interactive Contact Center	Y	Y	N
Contact Center Scheduling	Y	Y	N
Multimedia Contact Center	Y	Y	N
Visual Workflow Manager	Y	Y	N
Call Recording	Y	Y	N
Unified Communicator	Y	Y	Y**
Intelligent Directory Application	Y	Y	Y
Live Content Suite	Y	Y	Y

* **Note:** The MiCollab Client Collaboration Option is not translated into Chinese.

ASIA PACIFIC REGION (CONTINUED)

	AUSTRALIA	NEW ZEALAND	CHINA
Phones			
5304 IP Phone	Y	Y	Y
5312 IP Phone	Y	Y	Y
5320 IP Phone	Y	Y	Y*
5324 IP Phone	Y	Y	Y
5330 IP Phone	Y	Y	Y
5340 IP Phone	Y	Y	Y
5360 IP Phone	Y	Y	Y*
5606 and 5606 (Alarm) IP DECT Phones	Y	Y	Y
SUPERSET 4025	Y	Y	N
Consoles			
5540 IP Console	Y	Y	Y
5550 IP Console	Y	Y	Y
MiVoice Business Console	Y	Y	Y
Accessories			
5310 IP Conference Unit	Y	Y	Y
IP PKM (12 and 48 Button units)	Y	Y	Y
IP Paging Unit	Y	Y	Y
Line Interface Module	Y	Y	N
Gigabit Ethernet Stand	Y	Y	Y
Cordless Module and Accessories	Y	Y	N
5610 DECT Handset and IP DECT Stand	Y	Y	N
Bluetooth Module	Y	Y	Y

EMEA REGION

This table indicates the availability of products in the different countries of the EMEA region.

EMEA REGION

	UK	SPAIN	PORTUGAL	NETHERLANDS	ITALY	GERMANY	FRANCE	UAE	SOUTH AFRICA
MiVoice Business	Y	Y	Y	Y	Y	Y	Y	Y	Y
3300 ICP Components	Y	Y	Y	Y	Y	Y	Y	Y	Y
3300 Voice Mail	Y	Y	Y	Y	Y	Y	Y	Y	Y
3300 Wireless	Y	Y	Y	Y	Y	Y	Y	Y	Y
Peripheral Cabinet	Y	N	N	Y	Y	Y	N	Y	Y
SX-200 Bay	N	N	N	N	N	N	N	N	N
Applications									
OPS Manager*	Y	Y	Y	Y	Y	Y	Y	Y	Y
Contact Center Management	Y	N	N	Y	Y	N	N	N	N
Interactive Contact Center	Y	N	N	N	N	N	N	N	N
Contact Center Scheduling	Y	N	N	N	N	N	N	N	N
Multimedia Contact Center	Y	N	N	N	N	N	N	N	N
Visual Workflow Manager	Y	N	N	N	N	N	N	N	N
Call Recording	N	N	N	N	N	N	N	N	N
Speech Server/ Messaging Server	Y	N	N	N	N	N	N	N	Y
Unified Communicator	Y	Y	Y	Y	Y	Y	Y	Y	Y
9100 Call Center Commander	Y	N	N	N	N	N	N	N	N
Intelligent Directory Application	Y	Y	Y	Y	Y	Y	Y	Y	Y

General Information Guide

EMEA REGION (CONTINUED)

	UK	SPAIN	PORTUGAL	NETHERLANDS	ITALY	GERMANY	FRANCE	UAE	SOUTH AFRICA
Live Content Suite	Y	Y	Y	Y	Y	Y	Y	Y	Y

EMEA REGION (CONTINUED)

	UK	SPAIN	PORTUGAL	NETHERLANDS	ITALY	GERMANY	FRANCE	UAE	SOUTH AFRICA
Phones									
5304 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5312 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5320 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5324 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5330 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5340 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5360 IP Phone	Y	Y	Y	Y	Y	Y	Y	Y	Y
5606 and 5606 (Alarm) IP DECT Phones	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUPERSET 4025	Y	N	N	Y	Y	Y	Y	Y	Y
Consoles									
5540 IP Console	Y	Y	Y	Y	Y	Y	Y	Y	Y
5550 IP Console	Y	Y	Y	Y	Y	Y	Y	Y	Y
MiVoice Business Console	Y	Y	Y	Y	Y	Y	Y	Y	Y
Accessories									
5310 IP Conference Unit	Y	Y	Y	Y	Y	Y	Y	Y	Y
IP PKM (12 and 48 Button units)	Y	Y	Y	Y	Y	Y	Y	Y	Y
IP Paging Unit	Y	Y	Y	Y	Y	Y	Y	Y	Y
Line Interface Module	Y	Y	Y	Y	Y	Y	Y	N	N
Gigabit Ethernet Stand	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cordless Module and Accessories	Y	Y	Y	Y	Y	Y	Y	N	N
5610 DECT Handset and IP DECT Stand	Y	Y	Y	Y	Y	Y	Y	Y	Y

EMEA REGION (CONTINUED)

	UK	SPAIN	PORTUGAL	NETHERLANDS	ITALY	GERMANY	FRANCE	UAE	SOUTH AFRICA
Bluetooth Module	Y	Y	Y	Y	Y	Y	Y	Y	Y

LATIN AMERICA

This table is a list of products available in Latin America. These products may not have completed regulatory approvals.

LATIN AMERICA

	ARGENTINA	BRAZIL	CHILE	MEXICO
MiVoice Business	Y	Y	Y	Y
3300 ICP Components	Y	Y	Y	Y
3300 Voice Mail	Y	Y	Y	Y
3300 Wireless	Y	Y	Y	Y
Peripheral Cabinet	Y	Y	Y	Y
SX-200 Bay	Y	N	N	N
Applications				
OPS Manager*	Y	Y	Y	Y
Contact Center Management	Y	Y	Y	Y
Interactive Contact Center	Y	Y	Y	Y
Contact Center Scheduling	Y	Y	Y	Y
Multimedia Contact Center	Y	Y	Y	Y
Visual Workflow Manager	Y	Y	Y	Y
Call Recording	Y	Y	Y	Y
Mitel Speech Server (attendant only)	Y	Y	Y	Y
Unified Communicator	Y	Y	Y	Y
Intelligent Directory Application	Y	Y	Y	Y
Live Content Suite	Y	Y	Y	Y

LATIN AMERICA (CONTINUED)

	ARGENTINA	BRAZIL	CHILE	MEXICO
Phones				
5304 IP Phone	Y	Y	Y	Y
5312 IP Phone	Y	Y	Y	Y
5320 IP Phone	Y	N	Y	Y
5324 IP Phone	Y	Y	Y	Y
5330 IP Phone	Y	Y	Y	Y
5340 IP Phone	Y	Y	Y	Y
5360 IP Phone	Y	N	Y	Y
5606 and 5606 (Alarm) IP DECT Phones	Y	Y	Y	Y
SUPERSET 4025	Y	Y	Y	Y
Consoles				
5540 IP Console	Y	Y	Y	Y
5550 IP Console	Y	Y	Y	Y
MiVoice Business Console	Y	Y	Y	Y
Accessories				
5310 IP Conference Unit	Y	Y	Y	Y
IP PKM (12 and 48 Button units)	Y	Y	Y	Y
IP Paging Unit	Y	Y	Y	Y
Line Interface Module	Y	Y	Y	Y
Gigabit Ethernet Stand	Y	Y	Y	Y
Cordless Module and Accessories	Y	Y	Y	Y
5610 DECT Handset and IP DECT Stand	N	N	N	Y
Bluetooth Module	Y	Y	Y	Y

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Mitel

Next-level on-site and cloud communications for enterprises and large businesses looking to radically transform their business operations. Our game-changing solutions include robust phone systems, video collaboration applications and contact center solutions that drive results. Welcome to the world of seamless communications.

Zultys MX Series

The Zultys family of advanced Open Standards SIP-based IP phone systems offer businesses of all sizes a feature-rich, energy-efficient path to IP telephony and Unified Communications. Zultys premises and virtual solutions do more in one system than any other IP phone system on the market!

The MX-E and MX-SE premise-based IP phone systems include a SIP gateway right out of the box. Zultys MXvirtual is a fully integrated unified communication solution and IP phone system in a VMware®-Ready virtual appliance.

Innovative, reliable and scalable, the MX series of IP phone systems integrates voice, video, and other business-enhanc-

ing features such as Unified Communications, integrated Fax, Voice Mail, Contact Center, Presence, Instant Messaging, Zultys Mobile Communicator™, integrated MXconference™ audio conferencing and more, to optimize collaboration and communications for businesses of all sizes.

The features and operation of the MXvirtual and premise-based MX-E and MX-SE are identical and can be integrated into a company-wide MXnetwork™. The Zultys MXnetwork feature enables multiple IP phone systems to be connected in a peer-to-peer architecture to provide organization-wide Unified Communications across 128 different locations with up 10,000 employees total.

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The NEC SL2100 and SV9100 Communications solutions are robust, feature-rich, Unified Communications enabled systems that are ideal for small and medium-sized businesses. Each solution is designed to help solve today's communications challenges and is built with your migration path in mind, so you can scale your communications as your business grows.

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For Service, call 630-293-0000 and press option 2. After hours, you will also have an option to choose for emergencies. You can also email service@bb-networks.com at any time.

Our service rates are as follows:

Onsite service - \$155 to come to site, and then \$155 per hour. The minimum onsite time that you will be charged for is ½ hour, therefore the minimum onsite service cost is \$232.50.

Remote service - \$155 per hour, divisible in quarter hours. The minimum remote service cost is \$38.75.

Overtime rates: Holidays, weekends and times outside of 8-5 during the week

Onsite after hours service - \$155 to come to site, and then \$232.50 per hour. The minimum onsite time that you will be charged for is ½ hour, therefore the minimum onsite after hours service cost is \$271.25.

Remote after hours service - \$232.50 per hour, divisible in quarter hours. The minimum remote after hours service cost is \$58.13.

VILLAGE OF GILBERTS SAMPLE PROJECT MILESTONES & DELIVERABLES TIMELINE						
Deliverables/Milestones	Responsible Party's	Due Date	Revised Due Date	Status	Comments	
Contract for Mitel Solution received	B&B/Village					
Project Kick Off Meeting	B&B/Village				Introduce Project Team Members - Review Master Cut Sheet -Install and training dates	
Mitel Database discovery Meetings	B&B/Village				Village of Gilberts to provide Staff Extension Directories, Building maps with telephone jack #'s and locations marked. Detailed listing of phone numbers, port assignments and any details needed for requested "As Builts". Network topology with detailed information.	
PSALI Database for 911 notification	Village of Gilberts				Village of Gilberts to order PSALI database from carrier for 911 compliance if not already in place or if not being coordinated by B&B Networks.	
Project Equipment & Licensing Ordered	B&B Networks					
Project Update meeting	B&B/Village					
Data network configurations verification and confirmations	B&B/Village				Dependency...need Village of Gilberts voice network IP Scheme,virtual server provisiong (if applicable), DHCP, Voice Vlan set up.....	
Mitel Hardware Set up on B&B Networks Test Bench and Licensed	B&B Networks				uppack and set up equipment on test bench, license and update all applications build MiCollab Server and any options	
Mitel Programming Database due to B&B Networks	Village of Gilberts					
Floor plans/blueprint layout for phone placement	Village of Gilberts				need no later than two weeks prior to cut over	
SIP Trunking	Village of Gilberts				Is Carrier good to go? Did provisioning if any get completed? Due date?	
Network infrastructure complete.	Village of Gilberts				POE and Cable infrastructure ready for IP Phone placement.	
Final programming to B&B Networks - no changes until after cut-over	Village of Gilberts					
Bring hardware to site, rack controlles. Store phones in secure staging location provided by Client. Investigate Page Systems and connections.	B&B Networks				Rack and Stack all core voice and application servers.Dependency...switch room infrastructure ready...space, power etc.	
Remote Access when controllers are installed.	B&B/Village				District to work with B&B Networks to provide Remote Access to controllers and servers	
Database uploaded to all Mitel application	B&B Networks				Mitel Programming, MiCollab and application for paging	
IP Phone Placement and testing	B&B Networks				Dependency... access to all areas where phone placement required...network POE cable infrastructure readiness	
Pre-Cutover Meeting - review pre-cut checklists	B&B/Village					
Voice and Applications Systems database testing and verification.	B&B/Village					
Go live on intercom only system	B&B/Village					
Training	B&B/Village				Staff Training	
SIP Cut Over	Village of Gilberts/Carrier/B&B					
Removal of Existing Toshiba for Customer Disposal	B&B Networks/Village					
First day in service support.	B&B/Village				Punch List, Move Add Change procedures	
Post cut testing and verification of all required svcs.	B&B Networks				Utilizing post cut check lists and testing formats along with any custom test procedures established.	
Post cut assessment and regular project update meeting.	B&B/Village				Meeting to review post cut in service status, punch lists, changes etc.	
Delivery & Acceptance	B&B/Village	within 30 days of gainful use				
Mitel Administration Training	B&B Networks	December 2021			System Admin Training	
	Customer Signature					



**Village of Gilberts
Mitel MiVoice Business VoIP Solution**

Village of Gilberts				
<u>Part No.</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Extended</u>
Applications				
54005968	MiVBus Enterprise SW for 3300 (no users)	1	747.50	747.50
Licences - Licences System				
54004491	SIP TRUNKING CHANNEL PROXY	15	25.00	375.00
54004571	Mitel Border Gateway base Software	2	125.00	250.00
54005441	MiCollab Base Software	1	497.50	497.50
Licences				
54001627	NPUM Record A Call	1	0.00	0.00
54002390	MiVoice Business License - SIP Trunk x1	5	50.00	250.00
54004762	MiCb NPUM Mailbox Calldir x1	8	20.00	160.00
54004975	MiVoice Bus License - Enterprise User	10	87.50	875.00
54005380	MiCClient Licnse - Peering Adv Server	1	0.00	0.00
54005381	MiCClient Licnse - Federation Adv Server	1	0.00	0.00
54005400	MiVoice Business SIP Trunks x10	1	450.00	450.00
54005610	MiCollab NPUM MiVBus Mailbox Licensesx10	2	175.00	350.00
54006539	UCCv4.0 Entry User for MiVoice Bus x1	17	112.50	1,912.50
54006542	UCCv4.0 STND User for MiVoice Bus x1	4	162.50	650.00
Software Assurance				
54009186	SWA Std 1y MiCollab System	1	60.00	60.00
54009189	SWA Std 1y MiCollab UM Mailbox	28	2.10	58.80
54009208	SWA Std 1y UCC Entry MiVB	17	7.20	122.40
54009209	SWA Std 1y UCC Std MiVB	4	13.20	52.80
54009220	SWA Std 1y MiVBus System	1	75.00	75.00
54009224	SWA Std 1y MiVBus User	10	6.60	66.00
54009229	SWA Std 1y MiV BG System	2	15.00	30.00
54009230	SWA Std 1y MiV BG SIP Connect	15	3.60	54.00
System - Boards				
50006271	PWR CRD C13 10A 125V - NA Plug	1	8.75	8.75
System				
50006266	3300 CX(i) II Controller SATA SSD	1	150.00	150.00
50006729	3300 CX II w/ 1GB RAM Controller	1	825.00	825.00
Terminals - Accessories				
50006921	6900/6800 Wall Mount Kit (10 Pack)	1	145.00	145.00
Terminals - IP Phones				
50006767	6920 IP Phone	28	147.50	4,130.00
50006769	6930 IP Phone	3	246.00	738.00



Mitel MiVoice Business VoIP Solution

<u>Part No.</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Extended</u>
51306580	BT Speakerphone	3	375.00	1,125.00
ATS-423CMP-6-NS-B	CAT 6 PLENUM 400MHZ BLUE	1	304.00	304.00
ATS-SFP-4-W	4 PORT FACE PLATE WHITE	5	1.13	5.65
ATS-BI-W	Blank Insert Wht Pack of 10	2	1.60	3.20
ATS-6-B	RJ45 CAT6 SNAP IN JACK BLUE	10	4.33	43.30
EXR1000RT2U	Minuteman UPS	1	842.67	842.67
256-001	GAI-Tronics Outdoor Telephone Keypad	1	839.17	839.17
393-002	GAI-Tronics Single Button Outdoor Telephone	1	1,130.55	1,130.55
FW2B	Server for MiVoice Border Gateway SIP Trunking	1	346.67	346.67
FW2B	Server for MiVoice Border Gateway UCC Mobility	1	346.67	346.67
R230	Server for MiCollab Rack Mount	1	909.33	909.33
Mitel Hardware-Software Sub-Total				\$ 18,929.46
Public Sector Competitive Discount				Included
Implementation, Training and One Year Warranty				\$ 6,510.00
Solution Total				\$ 25,439.46

* Public Sector Discount is one time based on the system configuration and is subject to change

* Quote based on Mitel Sourcewell formerly NJPA contract #022719-MBS



B&B Networks, Inc.
245 W. Roosevelt Road
Building 3, Suite 16
West Chicago, IL 60185
Phone No.: 630-293-0000
Fax: 630-293-0003

**Mitel MiVoice Business VoIP Solution
Prepared For:**

Village of Gilberts

On 10/14/2021

Prepared by Sylvia Hasty

Quantity	Description	Unit Price	Extended
1	54004571 Mitel Border Gateway base Software for Industry Standard Server	\$125.00	\$125.00
1	54009229 SWA Std 1y MiV BG System	\$15.00	\$15.00
1	54005968 MiVBus Enterprise SW for 3300 (no users)	\$747.50	\$747.50
15	54004491 SIP TRUNKING CHANNEL PROXY	\$25.00	\$375.00
1	54004571 Mitel Border Gateway base Software for Industry Standard Server	\$125.00	\$125.00
1	54005441 MiCollab Base Software	\$497.50	\$497.50
1	54001627 NPUM Record A Call	\$0.00	\$0.00
5	54002390 MiVoice Business License - SIP Trunk x1	\$50.00	\$250.00
8	54004762 MiCb NPUM Mailbox Calldir x1	\$20.00	\$160.00
10	54004975 MiVoice Bus License - Enterprise User	\$87.50	\$875.00
1	54005380 MiCClient Licnse - Peering Adv Server	\$0.00	\$0.00
1	54005381 MiCClient Licnse - Federation Adv Server	\$0.00	\$0.00
1	54005400 MiVoice Business SIP Trunks x10	\$450.00	\$450.00
2	54005610 MiCollab NPUM MiVBus Mailbox Licensesx10	\$175.00	\$350.00
17	54006539 UCCv4.0 Entry User for MiVoice Bus x1	\$112.50	\$1,912.50
4	54006542 UCCv4.0 STND User for MiVoice Bus x1	\$162.50	\$650.00
1	54009186 SWA Std 1y MiCollab System	\$60.00	\$60.00
28	54009189 SWA Std 1y MiCollab UM Mailbox	\$2.10	\$58.80
17	54009208 SWA Std 1y UCC Entry MiVB	\$7.20	\$122.40
4	54009209 SWA Std 1y UCC Std MiVB	\$13.20	\$52.80
1	54009220 SWA Std 1y MiVBus System	\$75.00	\$75.00

10	54009224 SWA Std 1y MiVBus User	\$6.60	\$66.00
1	54009229 SWA Std 1y MiV BG System	\$15.00	\$15.00
15	54009230 SWA Std 1y MiV BG SIP Connect	\$3.60	\$54.00
1	50006271 PWR CRD C13 10A 125V - NA Plug	\$8.75	\$8.75
1	50006266 3300 CX(i) II Controller SATA SSD	\$150.00	\$150.00
1	50006729 3300 CX II w/ 1GB RAM Controller	\$825.00	\$825.00
1	50006921 6900/6800 Wall Mount Kit (10 Pack)	\$145.00	\$145.00
22	50006767 6920 IP Phone	\$147.50	\$3,245.00
6	50006769 6930 IP Phone	\$246.00	\$1,476.00
3	50008271 6970 IP Conference Phone	\$544.80	\$1,634.40
1	ATS-423CMP-6-NS-B CAT 6 PLENUM 400MHZ BLUE	\$304.00	\$304.00
5	ATS-SFP-4-W 4 PORT FACE PLATE WHITE	\$1.13	\$5.65
2	ATS-BI-W Blank Insert Wht Pack of 10	\$1.60	\$3.20
10	ATS-6-B RJ45 CAT6 SNAP IN JACK BLUE	\$4.33	\$43.30
1	EXR1000RT2U Minuteman UPS	\$842.67	\$842.67
2	E-1600-45A-EWP Viking ADA Compliant Emergency Phone with EWP	\$508.66	\$1,017.32
1	FW2B Server for MiVoice Border Gateway SIP Trunking	\$346.67	\$346.67
1	FW2B Server for MiVoice Border Gateway UCC Mobility	\$346.67	\$346.67
1	R230 Server for MiCollab Rack Mount	\$909.33	\$909.33

Sub Totals			\$18,339.46
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Quantity	Description	Unit Price	Extended
1	I-10 Project Management, Installation and Training	\$6,510.00	\$6,510.00
Sub Total			\$6,510.00

Sub-Total:	<u>\$24,849.46</u>
Performance Bond:	\$248.00
Solution Total:	\$25,097.46

Prices are firm until 12/14/2021

Terms: 50% down, 40% at install
and 10% net 30 days acceptance

Quoted by: Sylvia Hasty

Accepted by: _____ **Date:** _____



Disclaimer

- 1.Price is for installation during normal business hours, M-F, 8-5, unless otherwise specified.
 - 2.B&B Networks is not responsible for delays to do the 3rd parties. Such delays may increase billing to end user.
 - 3.Price does not include network programming unless otherwise specified.
 - 4.B&B Networks must receive programming information in a timely manner.
 - 5.Rental equipment remains the property of B&B Networks unless otherwise specified.
 - 6.B&B Networks is not responsible customers internet performance.
 - 7.All permits required are a client responsibility, unless otherwise agreed upon.
 - 8.All work outside original scope will be billed separately.
 - 9.If, upon arrival to customers site, we cannot perform the installation due to site circumstances or the installation is delayed due to site circumstances, additional installation charges may apply.
 - 10.Price does not include conduit unless otherwise specified.
 - 11.B&B Networks is not responsible for e911 compliance unless otherwise specified in this agreement. Please refer to our website www.bb-networks.com for information about e911 compliance.
 - 12.All recurring payment customers will be charged a \$100.00 re-instatement charge in the event that service is turned off for non-payment unless otherwise specified in this agreement.
 - 13.If the client fails to make any payment as agreed, or ceases doing business as a going concern, or becomes insolvent, or makes an assignment for the benefit of creditors, or a petition is filed by or against client under bankruptcy act, or if any representation, warranty or financial information made or submitted by client shall be untrue or unperformed in any material respect, or if client defaults hereunder in any other respect, the entire amount due under this agreement for the balance of the agreement period shall become immediately due and payable. In the event of such a default the client hereby consents to B&B Networks immediately entering the aforesaid premise or any other premise where the property of said B&B Networks may be located for the purpose of removing the equipment belonging to B&B Networks; upon the expiration of this agreement or any renewal term thereof, or upon the happening of any other contingency set forth herein, B&B Networks may immediate enter said premise and remove the equipment with or without process of law and without liability of damage to person or property arising out of such entry or taking of possession. Removal of the equipment by B&B Networks shall not be considered to constitute a waiver of any of its rights under the terms of this agreement, nor shall B&B Networks be liable for any normal damage caused to the premise by installation or removal of its equipment.
 - 14.Monthly recurring agreements must be paid with ACH or Credit Card.
- 15. The Village VoIP Telecommunications System RFP dated September 3, 2021 including Addendum #1 and #2 and B&B Networks Response become part of this Agreement.**
- 16. Quote based on Mitel Sourcewell formerly NJPA contract #022719-MBS.**
- 17. Mitel Public Sector Discount is one time based on the system configuration and is subject to change.**



Harness the power of flexible connections

SIP Trunking

A BETTER CONNECTION FOR YOUR BUSINESS COMMUNICATIONS

SIP Trunking replaces the physical connections to your communications system with less expensive and more flexible SIP connections. SIP Trunking eliminates the need for traditional analog, T1 or PRI lines and moves your business into the advanced world of IP communications.

SAVINGS & SCALABILITY TODAY ENHANCED SERVICES TOMORROW

LOWER COSTS | GREATER FLEXIBILITY | FUTURE-PROOF

+ Right-size Your Costs

SIP Trunking is a future-proof solution that expands in lockstep with your business. Unlike traditional PRI connections, our service lets you buy exactly the number of call paths you need, so you can right-size your costs.

+ Leverage Your Existing PBX

Our SIP Trunking service has been tested for interoperability with all major SIP-enabled PBX brands. Not on our list or need to keep a traditional connection to your PBX? Gateways can connect your PBX to our service.

+ Easily Upgrade to Cloud Solutions

SIP Trunking preserves your PBX investment while easing a future upgrade to a hosted PBX service. Or, cap hardware spend and add cloud with our hybrid SIP-Hosted PBX solution.

+ Quickly Scale Your Call Capacity

With traditional PRIs, adding capacity takes time because physical connections must be installed. Our SIP Trunking service can be increased to any capacity that the IP connection will support within hours or less if needed.

+ Ensure Business Continuity

In the event of an emergency or when all lines are busy, SIP Trunking allows you to immediately and easily reroute traffic to another location or phone number, so you never miss a call.

+ Get Unlimited Calling with Predictable Costs

With SIP Trunking, you get predictable monthly costs and unlimited local and long distance calling. Plus, we offer competitive international rates when needed.

LESS COST, MORE FLEXIBILITY

Often the tradeoff for lower-cost services is reduced functionality. Not with our SIP Trunking service – you get the quality of a traditional connection plus a unique set of features. That's because SIP (Session Initiation Protocol) supports voice calls, conference calls, multimedia and more. Plus, SIP transmits call-related info, such as caller ID, enabling enhanced functionality.



Keep Your Phone Numbers

Keep the phone numbers your customers know (and are in your advertising) even if you move to a new area code.



Understand Your Usage

Monitor your capacity patterns and usage so you can adjust capacities to your changing needs.



Stay Connected to E911

Get complete support for both 911 calling and Enhanced 911 (E911), so you can access emergency services.



Forward Calls When Busy

Send calls to alternate numbers when your PBX can't be reached because all SIP Trunks are busy.



Ensure Business Continuity

Calls to your main number – and every DID – can be forwarded to another location, mobile numbers, an answering service or voice mail in the event of power loss or Internet failure.



Enable a Hybrid SIP-Hosted PBX

Begin your move to cloud by networking your SIP-enabled on-premises PBX with our hosted PBX at branch offices, enabling dial by extension and call transfer companywide.



Route & Rollover Calls by Location

Route your calls by geography and/or send overflow calls to another location, maximizing capacity across your organization.



Choose Your Calling ID

Determine how customers see your phone number – a single companywide number or each individual phone number.



Experience a High-Quality Network

Rest assured that our service is delivered over a carrier-class network based on technology from Metaswitch.



Do Business As Usual

Reach customers and suppliers as usual through our network of more than 12,000 local calling areas in the US and Canada.



Establish Virtual Local Presence

Obtain local phone numbers for any areas in which you want to project local presence even if they're out of your area. Calls to these numbers won't incur long distance charges for you or your incoming caller.



Record Your Calls

Enable advanced call recording by individual DID with this optional feature. Search and playback recordings through a simple web-based interface.

SIP TRUNKING COMMPORTAL ADMIN

Get control of critical capabilities with our web-based SIP Trunking CommPortal Admin. Uniquely, all of these services are enabled at the network level, ahead of your PBX, for improved reliability, business continuity and assured compliance with the latest 911 rules.

- ✓ Call Analytics
- ✓ Call Forwarding
- ✓ Account Code
- ✓ Emergency Call Notification
- ✓ Selective Call Rejection
- ✓ Short Code Configuration

FOR MORE INFORMATION

630-293-0000, press 1 for Sales

www.bb-networks.com

BB  **HV**
B&B Hosted Voice



NETWORKS

Phone: (630) 293-0000
Fax: (630) 293-0003
<https://www.bb-networks.com/>

Service Activation Form

Proposal #: 26433

Date: 10/8/2021
Quote Valid Until: 1/6/2022
Order Type: New Proposal
Sales Representative: Sylvia Hasty
Sales Rep Email: shasty@bb-networks.com
Sales Rep Phone: (640) 957-4111 ext. 311

Contract Start: 11/15/2021
Contract Terms: 36 Months
Contract End: 11/15/2024

Customer Information

Company: Village of Gilberts
Main TN: (847) 428-2861
Contact: Riley Lynch
Phone: (847) 428-2861
Email: rlynch@villageofgilberts.com

Billing Address
87 GALLIGAN RD GILBERTS, IL 60136

Shipping Address
86 Railroad St Gilberts, IL 60136

Monthly Recurring Charges (MRC)

Qty	Item ID	Product	Unit Price	Extended Price
1	WCPBGA	SIP Trunks Com Portal Admin	\$12.00	\$12.00
15	WIPTL1	SIP Trunk	\$12.00	\$180.00
5	W911	911 Service (per number)	\$2.00	\$10.00
40	WDIDNN	DID Numbers - National	\$0.50	\$20.00
			Total:	\$222.00

Non-Recurring Charges (NRC)

Qty	Item ID	Product	Unit Price	Extended Price
4	LNP2	Local Number Porting (for DID's and #'s in addition to Seats)	\$3.00	\$12.00
			Total:	\$12.00



NETWORKS

Phone: (630) 293-0000
Fax: (630) 293-0003
<https://www.bb-networks.com/>

Service Activation
Form

Proposal #: 26433

Date: 10/8/2021 **Contract Start:** 11/15/2021
Quote Valid Until: 1/6/2022 **Contract Terms:** 36 Months
Order Type: New Proposal **Contract End:** 11/15/2024
Sales Representative: Sylvia Hasty
Sales Rep Email: shasty@bb-networks.com
Sales Rep Phone: (640) 957-4111 ext. 311

Company: Village of Gilberts
Main TN: (847) 428-2861
Contact: Riley Lynch
Phone: (847) 428-2861
Email: rlynch@villageofgilberts.com

Summary	
Monthly Recurring Cost :	\$222.00
Non-Recurring Cost:	\$12.00
Total Estimated Surcharges and Taxes	\$70.20
Total Due At Signing:	\$304.20

By signing this order I agree that I have read and understand the Terms and Conditions located at <https://www.bb-networks.com/>.

Signature:

Title:

Print Name:

Date:

VILLAGE OF GILBERTS

RESOLUTION 27-2021

A RESOLUTION AUTHORIZING APPROVAL OF AN AGREEMENT WITH B&B NETWORKS FOR THE PURCHASE AND INSTALLATION OF A MITEL MIVOICE BUSINESS VOIP SOLUTION IN AN AMOUNT NOT-TO-EXCEED \$26,400 AND FOR ONGOING MONTHLY PHONE SERVICE

WHEREAS, the Village of Gilberts (“Village”) requires a telecommunications system and services; and

WHEREAS, the Village’s current telecommunications system is over 15 years old and relies on traditional phone lines; and

WHEREAS, the Village budgeted for a telecommunications system upgrade as part of the FY2022 Budget; and

WHEREAS, the Village issued a public Request for Proposals (RFP) for a telecommunications system with the lowest responsive and responsible proposal being provided by B&B Networks.

THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF GILBERTS, ILLINOIS, as follows:

Section 1. Recitals. The recitals set forth above are hereby incorporated into and made a part of this Resolution as though set forth in this Section 1.

Section 2. Approval; Authorization. The Village Board of Trustees hereby authorizes the Village Administrator to execute agreements and other necessary documents with B&B Networks for the purchase and installation of a Mitel MiVoice Business VoIP Solution in an amount not-to-exceed \$26,400. The Village Board of Trustees hereby further authorizes the Village Administrator to execute agreements and other necessary documents with B&B Networks for ongoing monthly phone service for the Mitel MiVoice Business VoIP Solution.

Section 3. Effective Date. This Resolution shall be in full force and effect after its approval in the manner provided by law.

PASSED BY VOTE OF THE BOARD OF TRUSTEES of the Village of Gilberts, Kane County, Illinois, this ____ day of _____ 2021.

Ayes Nays Absent Abstain

Trustee Dave LeClercq	_____	_____	_____	_____
Trustee Dan Corbett	_____	_____	_____	_____
Trustee Justin Redfield	_____	_____	_____	_____
Trustee Jeanne Allen	_____	_____	_____	_____
Trustee Lou Hacker	_____	_____	_____	_____
Trustee Brandon Coats	_____	_____	_____	_____
President Guy Zambetti	_____	_____	_____	_____

APPROVED THIS _____ DAY OF _____, 2021

Village President, Guy Zambetti

(SEAL)

ATTEST: _____
Courtney Baker, Village Clerk