MiCollab General Information Guide

- MiVoice Office 400
- MiVoice 5000
- MiVoice MX-ONE

RELEASE 8.1.1
DECEMBER 2018
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MiCollab General Information Guide
Release 8.1.1
December 2018

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Chapter 1

INTRODUCTION
ABOUT THIS DOCUMENT

PURPOSE
This guide provides an overview of the Mitel® MiCollab solution. It describes the MiCollab product and provides details about the supported applications, platforms, and deployment configurations.

AUDIENCE
This guide is intended for the following audience:
• Customers
• Solution Providers
• Sales Executives
• Sales Engineers

ABOUT MICOLLAB DOCUMENTATION
The documentation set consists of guides in PDF format and online help systems that you can view using an Internet browser:

The following documents are the main source of information for the MiCollab platform:
• MiCollab Engineering Guidelines provide information about the characteristics, requirements, configurations, capacities, and performance of the MiCollab solution.
• MiCollab Installation Guide provides installation instructions for the MiCollab software and for the supported applications.
• MiCollab Platform Integration Guide describes how to deploy MiCollab with Mitel communication platforms.
• Virtual Appliance Deployment Solutions Guide provides engineering guidelines for deploying Mitel Virtual Appliances and applications in a VMware virtual infrastructure.
• MiCollab Administrator Online Help Systems provide administration and programming procedures for the MiCollab applications.

Additional guides and help systems are available that provide instructions on how to configure and use the individual Mitel applications that are supported on MiCollab. The complete documentation set is listed in the MiCollab Installation and Maintenance guide.

To access the MiCollab product documentation set:
1. Log on to Mitel MiAccess (formerly known as Mitel Connect).
2. From the left menu, select eDocs.
3. Click Applications and then select MiCollab.
ABOUT MICOLLAB

MiCollab unifies Mitel applications into an easy-to-use, cost effective communications solution for small, medium, and enterprise sized businesses. MiCollab provides co-residency of applications that support the following business needs:

• Mobility
• Collaboration
• Casual or Work-group Customer Interaction
• Communications Usage Reporting
• Voice Messaging
• Unified Messaging

MiCollab

Users have single point of access to all their Mitel applications through the MiCollab End User portal, a web-based interface. The MiCollab End User portal allows users to

• set personal settings, such as passwords and phone numbers.
• configure and maintain their communication applications, such as voice mail and MiCollab Audio, Web, and Video (AWV) Conferencing.

Installation and management costs are minimized because multiple communication applications are consolidated on a single industry-standard server. MiCollab can also be installed as a virtual application running in a VMware or Hyper-V environment.

IMPROVE YOUR BUSINESS COMMUNICATIONS

The MiCollab applications are designed to simplify and improve communication between employees, workgroups, and customers:

• MiTeam is a collaboration tool that enables teams to create work spaces in their MiCollab clients and share content, ideas, and solutions. Users can store files, hold chats, create to-do lists, and set up online meet sessions.
• MiCollab Client converges the call control capabilities of Mitel communications platforms with contact management, Dynamic Status, and collaboration applications, to simplify and enhance real-time communications.
• MiCollab Audio, Web, and Video (AWV) Conferencing allows your employees to collaborate in real time, give presentations, and conduct interactive online meetings
• MiVoice Border Gateway (MBG) provides the following services:
  - Teleworker service to connect remote employees with the main office while minimizing communication costs

Note: Referred MBG Teleworker is for MiCollab Clients.
• Secure Recording Connector (SRC) service allows you to record system calls using third-party call recording equipment. MiVoice Skype for Business provides seamless integration with Microsoft Skype clients through the Mitel Skype Plugin. Mitel Skype plug-in is an application that integrates with Microsoft Skype Client and allows Skype users to use Mitel telephony functionality through its feature rich MiCollab Client infrastructure.

• NuPoint Unified Messaging™ provides extensive voice mail and FAX messaging capabilities.

REDUCE COSTS AND IMPROVE EFFICIENCIES

Cost reduction while improving efficiency is a challenge for most businesses. The MiCollab solution is designed to help you meet this challenge. Consolidating Mitel applications on a single MiCollab platform provides the following benefits:

• decreases costs by reducing the number of application servers (all applications can be installed on a single server platform or as a single virtual machine in a cloud environment)

• reduces initial installation time (single install)

• simplifies ongoing administration through a single web-base administrator portal

• provides users with single-point of access to all their application settings through the MiCollab End User portal

MiCollab deployments are supported for

• small business sites to up to 500 users

• mid-market business sites up to 1500 users

• enterprise single or multi-application sites up to 5000 users

• multi-MiCollab server sites up to 20,000 users (MiVoice 5000)

• multi-MiCollab server sites up to 40,000 users (MiVoice MX-ONE)

Note: System capacities and performance levels are dependent upon the type of MiCollab platform, the number of users, and the installed applications. Refer to MiCollab System Capacities, Performance and Constraints in the MiCollab Engineering Guidelines for details.

IMPROVE EMPLOYEE PRODUCTIVITY

The MiCollab applications provide employees with the following features and capabilities:

• receive all their calls at a single phone number and voice mail box regardless of their location with MiCollab Client.

• view emails, listen to voice mails, direct FAXs, from any location with Unified Messaging

• share presentations and conduct interactive online meetings with Mitel Conferencing.

• extend office communications to their home office using the Teleworker service of MBG.
USER WEB PORTAL

Users can access their MiCollab End User portal web page using a single URL, user ID, and password from a PC on the corporate LAN or from a PC on the internet. Secure connection for users on the internet is supported through the MBG web proxy on an MBG server that is located in the DMZ. From their MiCollab End User portal, users can manage all their application settings and access application features. Because all the user’s applications are unified within a single web portal interface, the user experience is simplified and training costs reduced.

Users can configure general application settings such as:

- configure their email address.
- set the language of their telephone user interfaces (TUI) to one of the available supported languages. From the administrator web portal, the administrator can also apply a system preferred TUI language for all users.
- select the default page that the MiCollab End User portal will display after log in.
- change their portal login password. The administrator sets the password strength at Weak, Medium, or Strong for all users.

NUPOINT UNIFIED MESSAGING

The NuPoint Unified Messaging component allows users to configure and manage their Web View and Call Director settings.
WEB VIEW

The NuPoint Unified Messaging Web View allows users to access and manage voice, fax, and recorded messages from their e-mail client or web browser. It allows users to

- manage personal Web View settings
- record mailbox greetings
- create and manage personal distribution lists
- play a voice or Record-A-Call (RAC) message over PC speakers or over the phone
- record a phone conversation
- read, print, and send faxes
- reply to a voice, RAC, or fax message with a text message
- forward a message
- call back the message sender from a mobile device.

CALL DIRECTOR

Call Director allows users to create an automated attendant application (known as a call flow) to handle their calls when they can't answer them personally.

A call flow is a collection of call-processing actions programmed by the call flow owner to control how an incoming call is handled. Call flow owners can be either the end user of the phone, or the system administrator. The user programs personal call flows, which are associated with their own voice mailboxes. Users can create call flows that direct NuPoint Unified Messaging to:

- play a message
- perform a call transfer (blind, supervised, or screened) to an extension or external phone
- forward a call to a specified voice mailbox
- send a page or a text message
- send the caller to the dial-by-name application, or
- hang up.

MICOLLAB AWV

MiCollab AWV users can schedule and manage conferences through the MiCollab End User portal. From the interface, users can manage three types of conferences: Audio and Web, Audio only, and Web only.

Audio conferences allow users to

- upload documents to present to callers during a conference call
- mute, drop, and add participants, and place individual participants on hold while the call is in progress

When hosting a Web conference, users can

- upload documents, transfer files, record the conference, chat online, and broadcast videos
- share applications or desktop and use white board features.

**TYPES OF USERS**

MiCollab supports several types of users

**USERS WITH MICOLLAB SERVICES**

These are users who are assigned MiCollab services.

**MiVoice Office 250 and MiVoice Office 400**: Administrators must provision users separately on both systems. Single point of provisioning is not supported.

**MiVoice 5000 and MiVoice MX-ONE**: User provisioning is performed from the MiVoice 5000 or MiVoice MX-ONE management interfaces. They have presence monitoring and the functionality provided by MiCollab Client. Typically, a UCC Entry, Standard, or Premium role would be applied during user creation. For this user class, external numbers are not sent to MiCollab Client. End users can provision them in their MiCollab Mobile or Desktop Client. Flow Through Provisioning is not supported for these communications platforms.

**Note**: Initial user provisioning can be performed using comma separated value (csv) import.

**CORPORATE CONTACTS WITH MONITORING**

Some users may require presence monitoring but not availability or any additional MiCollab services. Typically corporate contacts are created using the UCC Basic or Teamwork Mode role. For this user class, external numbers are not sent to MiCollab Client. End users can provision them in their MiCollab Mobile or Desktop Client.

**CORPORATE CONTACTS WITHOUT MONITORING**

Some Mitel communications platforms have a greater user capacity than a single MiCollab server. To support the MiCollab Client "Click-to-Call" feature to the other non-MiCollab users, the IDS connector from the MiCollab obtains the user accounts from the communications platform directory and adds them to the MiCollab Client directory as corporate contacts without monitoring.

These accounts are created as contacts from the MiVoice 5000 or MiVoice MX-ONE management interfaces. External numbers are sent to MiCollab Client for this user class.

**NON-CORPORATE CONTACTS**

External contacts are provisioned in MiCollab via a directory services synchronization initiated from MiCollab IDS to either the MiVoice 5000 Manager or Active Directory. For MiVoice MX-ONE the synchronization is done between MiCollab IDS and Active Directory. This synchronization polls the directory and creates, updates, or deletes contacts as needed in MiCollab Client Service. The external numbers for non-corporate contacts are sent from the directory server to the MiCollab Client Corporate Directory.
USER PROVISIONING

MIVOICE 5000 USER PROVISIONING

User and services provisioning is performed from the MiVoice 5000 administration interfaces -- not from the MiCollab Users and Services application.

- To add or modify MiCollab services, assign a role to the user from the MiVoice 5000 management interface. For example, to add a NP-UM mailbox to a user, the administrator assigns a Role that contains a mailbox to the user. To delete a mailbox, the administrator assigns the user with a Role that does not include a mailbox.

- Most of the fields and buttons within the MiCollab Users and Services application are disabled since the administrator configures users from the communications platform administration interfaces.

- Assign a role to a new user to apply the associated MiCollab template and configure the user with the application services that are defined in the template. The MiVoice 5000 periodically performs an automatic synchronization to update the MiCollab database. After the synchronization, the application services are enabled for the user.

- If you remove a role from a user on the MiVoice 5000, the user is deleted from MiCollab after the next synchronization event.

- If you change a user’s role, the user’s application services are updated with the new service mix that is defined in the role’s template. For MiVoice 5000 integrations this occurs after the next synchronization.

MX-ONE USER PROVISIONING

You perform all user add, change, and delete operations from the MiVoice MX-ONE administration interface.

- To add or modify MiCollab services, assign a role to a new user to apply the associated MiCollab template and configure the user with the application services that are defined in the template. MiVoice MX-ONE automatically applies the update to the MiCollab database (a periodic synchronization is not required)

- If you remove a role from a user on the MiVoice MX-ONE, a synchronization is not required. The deletion is applied automatically. The licenses associated with those services become available on MiCollab.

- If you change a user’s role, the user’s application services are updated with the new service mix that is defined in the role’s template. For MiVoice MX-ONE integrations, you must re-apply the role to the user manually because there is no automatic sync.

ABOUT THE PROVISIONING MANAGER (PM)

The MiVoice MX-ONE provisioning tool is called the Provisioning Manager (PM). It is used to perform user adds, moves, and changes in MiCollab.

There are two basic tasks for adding users via the Provisioning Manager in MiCollab:
• Add task to add a single user
• Export task to add multiple users.

PROVISIONING USERS

After the Subsystem setup is done and the roles are defined in the MiCollab Server, users can be deployed into the system using the
• Provisioning Manager User task or
• Provisioning Manager Export tool.

MIVOICE OFFICE 400

Initial user provisioning can be performed by exporting user entries from the communications platform and then importing them into MiCollab. Afterwards, all changes, including additions and deletions, must be done manually on both MiCollab and the communications platform.

**Note:** User are deleted manually. Imported users cannot be modified or removed through another import.

**Note:** Mitel 6800 and 6900 Series SIP Phones can be used as Teleworker devices on a MBG in conjunction with a MiVoice Office 400 communication platform. The devices will not be visible or managed through MiCollab Users and Services. The system administrator is responsible to set up Mitel 6800/6900 series SIP phones using a configuration file. For instructions, see *Mitel SIP Teleworker via MBG on MiVoice Office 400 Deployment Guide.*
SYSTEM STRUCTURE

The MiCollab system is comprised of the Mitel Standard Linux (MSL) operating system and a combination of the following software applications:

- **Users and Services**: solution software that provides seamless interaction between co-resident applications to provide consolidated administrator and MiCollab End User portals. It allows the administrator to manage users’ phone services and applications.

- **MiCollab Audio Web and Video Conferencing**: provides flexible, cost-effective audio and web collaboration tools

- **MiVoice Border Gateway Application**: Teleworker connects a remote office user to the corporate voice network to provide full access to voice mail, collaboration tools and all the other features of the office phone system.

- **NuPoint Web Console**: Mitel’s powerful call routing, voice, and unified messaging system.

- **MiCollab Client Service**: supports communications client that integrates presence and availability, secure instant messaging, audio conferencing and web and video collaboration with the call control capabilities of Mitel Communications Platforms. MiCollab Client also integrates with leading business productivity tools like Google®, Microsoft® Exchange/Outlook® and Office as well as IBM® Lotus Notes®.

- **MiCollab Client Deployment**: supports the simplified deployment of MiCollab for Mobile. End users are no longer required to enter configuration settings such as server and SIP credentials. Administrators configure these settings and MiCollab for Mobile clients are deployed Over the Air (OTA). The administrator portal enables administrators to:
  - deploy large groups
  - leverage profiles
  - download multiple files to the clients
  - update clients.

- **Vidyo**: a video conferencing solution that provides users with high definition, low-latency video to mobile phones, desktops, and meeting rooms.
Figure 2 illustrates how the MiCollab system is structured:

**Application Databases**

**Figure 2: MiCollab Architecture**

- User and services provisioning is supported through the Bulk User Provisioning tool. This tool allows administrators to import a comma separated value (CSV) file or LDAP Data Interchange Format (LDIF) file of entries into the MiCollab User and Services database.

- The Administrator portal allows the administrator to access the server manager console. This web-based administration interface allows the administrator to provision the user data and services, perform server administration and configuration, and set security parameters.

- The MiCollab End User portal allows users to
  - control their general settings: password, TUI personal identification number, and preferred language
  - access their application settings: voicemail, FAX, call director, and conferencing.

- Users access application features and functions through the application TUIs and end user interfaces.

- The MiCollab server is the repository for the application databases.

- The suite applications function separately and are supported in any combination.

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**Note:** Not all applications are supported on the MiVoice 5000, MiVoice MX-ONE, or MiVoice Office 400.
# GLOSSARY OF TERMS

The following table provides a glossary of the terms used in the MiCollab documentation suite.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMC</td>
<td>Application Management Center</td>
<td>A web-based service that handles licensing of Mitel products</td>
</tr>
<tr>
<td>ARID</td>
<td>Application Record ID</td>
<td>An identification number obtained from the Mitel Application Management Center (AMC). Used to license software on a specific Mitel product.</td>
</tr>
<tr>
<td></td>
<td>Authorized Partner</td>
<td>Dealers, resellers, and solutions providers who are authorized by Mitel to sell and service Mitel products and solutions.</td>
</tr>
<tr>
<td>BUP</td>
<td>Bulk User Provisioning</td>
<td>A software tool within the USP application that allows you to bulk import user data from a CSV or LDIF file; use Quick Add to provision a single user; program a range of fields using Auto-Fill; apply roles to multiple users; and resolve detained and failed IDS updates.</td>
</tr>
<tr>
<td>CA</td>
<td>Certificate Authority</td>
<td>To securely authenticate connections, applications may request a security certificate signed by the MSL server using a Mitel Certificate Authority (CA). You can manage Certificate Signing Requests (CSRs) and issued certificates using the Certificate Management panel in the MiCollab Server Manager.</td>
</tr>
<tr>
<td>CESID</td>
<td>Caller Emergency Service Identification.</td>
<td>A number that uniquely identifies the device that dialed 911. The CESID is fed into the automatic location identification (ALI) database at the Public Safety Answering Point (PSAP) so that emergency services can be dispatched to the correct location</td>
</tr>
<tr>
<td></td>
<td>Detained Queue</td>
<td>The Detained Queue in the Bulk User Provisioning tool lists the detained and failed Integrated Directory Services operations:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Detained IDS operations are operations that have been performed on the directory server that have not been applied to the USP database yet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Failed IDS operations are directory server updates that the Mitel Applications Suite system could not apply to the USP database. From the Detained Queue, you can save or delete IDS operations that have been detained.</td>
</tr>
<tr>
<td>DID</td>
<td>Direct Inward Dial</td>
<td>Also known as DDI (Direct Dialing Inwards). Allows an external caller to dial an internal extension without having to go through an attendant or operator.</td>
</tr>
<tr>
<td></td>
<td>Directory Server</td>
<td>A directory server is not simply a form of database, but a specialized server for directories. A directory can be distinguished from a general-purpose database by the usage pattern. A directory contains information that is often searched but rarely modified. Host names or user names, for example, are assigned once and then looked up thousands of times. Directory servers are tuned for this type of usage, whereas relational databases are much more geared toward maintaining data that's constantly changing. Another difference is that relational databases store information in rows of tables, whereas in directory server they use object-oriented hierarchies of entries.</td>
</tr>
</tbody>
</table>
**TERM** | **NAME** | **DESCRIPTION**
---|---|---
DMZ | Demilitarized Zone | A computer host or small network inserted as a “neutral zone” between a company’s private network and the outside public network. It prevents outside users from getting direct access to a server that has company data.

ESX Hypervisor | Main Hypervisor from VMware. Phased out in favor of ESXi in Release 4.1.

ESXi Hypervisor | The latest variant of Hypervisor. It has a smaller footprint because it does not require or include the ESX Service Console.

Hunt Groups | A hunt group is a group of stations to which incoming calls are directed by dialing a master number. Two types of hunting are provided by the system, circular and terminal: - Circular hunting starts at the extension after the last extension in the hunt group to which a call was completed (the extension rung), and hunts overall extensions in the hunt group in the sequence programmed. Hunting stops at the first idle extension found. - Terminal hunting starts at the first extension in the hunt group and terminates at the first idle extension found. Hunting takes place in the order in which the extensions were programmed into the hunt group.

Hypervisor | A platform that allows multiple operating systems to run on a host computer at the same time.

ICP | Integrated Communications Platform

IDS | Integrated Directory Services | Synchronizes user and service data between a corporate directory server and the MiCollab-IDS using the Lightweight Directory Access Protocol (LDAP). Once the data is synchronized, it is distributed from the MiCollab-IDS to the various member elements in the System Data Synchronization (SDS) network or cluster.

LAN Mode | Local Area Network Mode | A deployment model for the MiCollab (or Mitel Standard Linux) server. When MiCollab is deployed in server-only mode, it provides the network with services, but not the routing and security functions associated with the role of "gateway". The LAN mode configuration is typically used for networks that are already behind a separate firewall. In other words, a separate firewall fulfills the role of gateway, providing routing and network security. (Also known as Server-only mode).

LDAP | Lightweight Directory Protocol | Lightweight Directory Access Protocol is a software protocol for enabling anyone to locate organizations, individuals, and other resources such as files and devices in a network. LDAP is a "lightweight" (smaller amount of code) version of DAP (Directory Access Protocol), which is part of X.500, a standard for directory services in a network.

MBG | MiVoice Border Gateway | Formerly known as the Multi-Protocol Border Gateway. MBG software supports teleworking and call recording services. The MBG server supports the Teleworker service in the DMZ.

MiCollab | Mitel software solution that enables applications to be co-resident on one server.

MiCollab Audio, Web, and Video (AWV) Conferencing | Mitel software solution that provides conferencing and collaboration services using a Web-based browser. In previous MiCollab releases, the product name for this application was Mitel Conferencing Advanced.
## Introduction

<table>
<thead>
<tr>
<th>TERM</th>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiCollab Advanced Messaging (AVST)</td>
<td>An optional standalone server that provides voice messaging services to MiVoice Office 400, MiVoice 5000 and MiVoice MX-ONE communication platforms.</td>
<td></td>
</tr>
<tr>
<td>MiCollab Client</td>
<td>Software solution that provides clients (MiCollab Client deskphone users or MiCollab Client softphone users) with a single access point for communication and collaboration needs. It converges the call control capabilities of Mitel communications platforms with contact management, Dynamic Status, and collaboration applications, to simplify and enhance real-time communications</td>
<td></td>
</tr>
<tr>
<td>MiCollab Client Integration Wizard</td>
<td>A software application (wizard) that integrates MiCollab Client user and phone data with the MiCollab USP data (see MiCollab Client Integrated Mode). If you are installing a new MiCollab system into an existing site that consists of one or more MiVoice Business platforms, you can use this wizard to update the MiCollab database with the user and phone data from the MiVoice Business.</td>
<td></td>
</tr>
<tr>
<td>MiCollab Client Integrated Mode</td>
<td>In this mode, the MiCollab system keeps the Users and Services database and MiCollab Client database synchronized so they function like a single database on the MiCollab server. This mode is only supported for MiCollab with MiVoice Business systems. It allows you to provision MiCollab Client services from the MiCollab Users and Services application and supports Single Point of User Provisioning of the MiCollab Client services on the MiVoice Business platform(s). This is the recommended mode for sites that meet the integration requirements.</td>
<td></td>
</tr>
<tr>
<td>MiCollab Client Co-located Mode</td>
<td>In this mode, the Users and Services data and MiCollab Client data are contained in separate, independent databases on the MiCollab server. This mode is supported for sites with either MiVoice Business or MiVoice Office platforms. With this mode, you must provision MiCollab Client services separately from the MiCollab Client Server Application interface.</td>
<td></td>
</tr>
<tr>
<td>MiCollab Client Integration Wizard</td>
<td>Migrates the MiCollab Client database in a MiCollab system from co-located mode to integrated mode:</td>
<td></td>
</tr>
<tr>
<td>MiCollab Server</td>
<td>MiCollab software installed in conjunction with the MSL operating system on a server platform.</td>
<td></td>
</tr>
<tr>
<td>MiCollab for Microsoft Client</td>
<td>An application that integrates with the Microsoft Skype for Business client and allows Skype users to use Mitel telephony functionality through its feature rich MiCollab Client infrastructure.</td>
<td></td>
</tr>
<tr>
<td>MiVoice 5000 Communications Platform</td>
<td>An enterprise level IP communications platform capable of supporting up to 20000 users. You can network multiple MiVoice 5000 platforms together and manage them from a MiVoice 5000 Manager (AM7450).</td>
<td></td>
</tr>
<tr>
<td>MiVoice MX-ONE Communications Platform</td>
<td>An enterprise level IP communications platform capable of supporting up to 500,000 users.</td>
<td></td>
</tr>
<tr>
<td>MiVoice Office 400 Communications Platform</td>
<td>Mitel IP communications platform that supports up to 1200 users.</td>
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</table>
## MiCollab General Information Guide

<table>
<thead>
<tr>
<th>TERM</th>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOL</td>
<td>Mitel Online</td>
<td>Mitel’s web portal for authorized dealers and technicians.</td>
</tr>
<tr>
<td>MSL</td>
<td>Mitel Standard Linux</td>
<td>The operating system that supports MiCollab software; along with Mitel SDK components, it comprises a base for all MiCollab software.</td>
</tr>
<tr>
<td>MWI</td>
<td>Message Waiting Indication</td>
<td>Line keys on multi-line phones can be programmed as message waiting indicators which are associated with the mailboxes of other phones. The indicator flashes when a message is waiting in the associated mailbox.</td>
</tr>
<tr>
<td>NP-UM</td>
<td>NuPoint Unified Messaging</td>
<td>Server-based voice processing system that provides call processing along with voice messaging and paging support.</td>
</tr>
<tr>
<td>OVA</td>
<td>Open virtual appliance or application</td>
<td>A packaging format for virtual machines that allows virtual machine templates to be distributed, customized, and instantiated on any OVA supporting VMM/hypervisor.</td>
</tr>
<tr>
<td>OVF</td>
<td>Open Virtualization Format</td>
<td>A distribution format for virtual appliances that uses existing packaging tools to combine one or more virtual machines with a standards-based XML wrapper. OVF gives the virtualization platform a portable package containing all required installation and configuration parameters for virtual machines. This format allows any virtualization platform that implements the standard to correctly install and run virtual machines.</td>
</tr>
<tr>
<td>PRI</td>
<td>Primary Rate Interface</td>
<td>A standardized telecommunications service level within the Integrated Services Digital Network (ISDN) specification for carrying multiple DS0 voice and data transmissions between a network and a user. PRI is the standard for providing telecommunication services to offices. It is based on the T-carrier (T1) line in the US and Canada, and the E-carrier (E1) line in Europe. The T1 line consists of 24 channels, while an E1 has 32.</td>
</tr>
<tr>
<td>Role</td>
<td></td>
<td>A role defines the task, position, or responsibilities for a type of user within the organization. Roles are associated with user templates that define the common phone and application service settings for the roles.</td>
</tr>
<tr>
<td>Server Console</td>
<td></td>
<td>A text-based control panel built into the Mitel Standard Linux operating system that technicians use to perform maintenance tasks such as:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• install the MiCollab software</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• configure network parameters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• perform upgrades and software updates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• upgrade application suite licensing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• perform backups.</td>
</tr>
<tr>
<td>Server-gateway mode</td>
<td></td>
<td>See Network Edge mode.</td>
</tr>
</tbody>
</table>
### Introduction

**Server Manager**
A web-based control panel, also called the "server manager", that administrators use to
- configure and administer the MAS applications
- perform server administration tasks, such as view logs, display system information, assign system users, and perform backups
- configure network and server security settings
- set system-wide parameters, such as system language and password strength.

**Server-only mode**
See LAN mode.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NAME</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>SIP</td>
<td>Session Internet Protocol</td>
<td>IP is an ASCII-character-based signaling protocol designed for real-time transmission using Voice over IP (VoIP). The appeal of SIP is the promise of interoperability of telephones from propriety PBXs. SIP extends the foundation of open-standards from the Internet to messaging, enabling disparate computers, phones, televisions and software to communicate. SIP is a streamlined protocol, developed specifically for IP telephony. It is smaller and more efficient than H.323. SIP takes advantage of existing protocols to handle certain parts of the process. For example, Media Gateway Control Protocol (MGCP) is used by SIP to establish a gateway to connect to the PSTN system. SIP operates independently of the underlying network transport protocol and is indifferent to media. Instead, it defines how one or more participant's end devices can create, modify and terminate a connection whether the content is voice, video, data or Web-based. Using SIP, programmers can add new fragments of information to messages without compromising connections.</td>
</tr>
<tr>
<td>SRC</td>
<td>Secure Recording Connector</td>
<td>Formerly a standalone call recording product, SRC is now incorporated in the MBG software.</td>
</tr>
<tr>
<td>SWAS</td>
<td>Software Assurance</td>
<td>A Mitel subscription-based service that provides customers with access to new software releases, software upgrades, and product support services for all users (ports) on a given Application Record ID (ARID).</td>
</tr>
<tr>
<td>Template</td>
<td>A User and Services template</td>
<td>defines the user information, phone services, and applications for a type of user. You can use templates to provision users quickly. User and Services templates are comprised of sub-sections that define each service.</td>
</tr>
<tr>
<td>TW</td>
<td>Teleworker</td>
<td>Software that connects a remote office to the corporate voice network to provide full access to voice mail, conferencing and all the other features of the office phone system.</td>
</tr>
<tr>
<td>TSL</td>
<td>Transport Layer Security.</td>
<td>A communication security protocol used for LDAP connections. TLS is a successor to SSL (Secure Sockets Layer).</td>
</tr>
<tr>
<td>UCC Licensing</td>
<td>Unified Communications and Collaboration Licensing</td>
<td>Mitel’s licensing model. The platform and application user licenses are bundled together to meet the needs of different user levels (for example, Entry, Standard, and Premium). Instead of ordering an MiVoice Business user license and multiple individual applications licenses for each MiCollab user, you order a single UCC license per user.</td>
</tr>
<tr>
<td>TERM</td>
<td>NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>MiCollab End User portal</td>
<td>A MiCollab web interface (formerly known as My Unified Communications portal) that provides a common portal for users to update/enter user-configurable information for all applications.</td>
<td></td>
</tr>
<tr>
<td>USP</td>
<td>Users and Services</td>
<td>Refers to the interface used to provision users and services on MiCollab.</td>
</tr>
<tr>
<td>VA</td>
<td>Virtual Appliance</td>
<td>Defined by VMware as: &quot;a pre-built software solution, comprised of one or more virtual machines that is packaged, maintained, updated, and managed as a unit.”</td>
</tr>
<tr>
<td>vCenter</td>
<td>VMware's management system</td>
<td>A management system that runs on top of a Windows server to organize a collection of VMware ESXi hosts and offer advanced VMware feature and solutions (such as clustering and Site Recovery Manager).</td>
</tr>
<tr>
<td>vCloud</td>
<td>VMware's administration interface</td>
<td>An administration layer on top of VMware vSphere, that uses vSphere resources, and provides users with an abstracted view of vSphere resources. vCloud Director uses VMware vShield Edge to create secured organization networks and other networking constructs; this is largely invisible to the user.</td>
</tr>
<tr>
<td>Vidyo</td>
<td></td>
<td>A a video conferencing solution that provides user with high definition, low-latency video to mobile phones, desktops, and meeting rooms. Refer to the Vidyo Product Documentation and the Mitel Vidyo Quick Reference Administrator Guide for details.</td>
</tr>
<tr>
<td>VM</td>
<td>Virtual Machine</td>
<td>Virtual machines allow the sharing of the underlying physical machine resources between different virtual machines, each running its own operating system. The software layer providing the virtualization is called a hypervisor. A hypervisor can run on bare hardware (Type 1 or native VM) or on top of an operating system (Type 2 or hosted VM).</td>
</tr>
<tr>
<td>vMiCollab</td>
<td>Virtual MiCollab</td>
<td>MiCollab running as a virtual application (vApp) within the VMware vSphere environment.</td>
</tr>
<tr>
<td>vSphere</td>
<td>VMware's Cloud Operating System</td>
<td>Cloud computing is Internet-based computing. VMware’s Cloud Operating system provides software resources and information to computers and other devices on-demand over the Internet.</td>
</tr>
<tr>
<td>vSphere Standalone</td>
<td>VMware vSphere deployed as a standalone ESX/ESXi host.</td>
<td></td>
</tr>
<tr>
<td>vSphere Managed</td>
<td>VMware vSphere deployed as a vCenter Server “managed” environment with ESX/ESXi hosts.</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 2
SERVICES AND APPLICATIONS
INTRODUCTION

MiCollab supports the following services and applications:

- MiCollab Team (MiTeam)
- MiCollab Client
- MiCollab Audio, Web and Video Conferencing
- MiVoice Border Gateway
- NuPoint Unified Messaging
- MiCollab Advanced Messaging (Optional standalone server)
- Resiliency
- Integrated Directory Services

MICOLLAB TEAM (MITEAM)

MiTeam is a cloud-based mobile first collaboration tool that allows teams to work together in real time no matter where they are. It is integrated into the iOS and Android native mobile clients and launched from the MiCollab Client for Mobile left tab.

MiTeam includes the following user features:

- Create collaboration channels (streams)
- Hold chat sessions with associated annotation features, pages, to-do lists
- Participate in real-time meetings hosted through AWV technology
- Invite participants to streams as guests.

SUPPORTED COMMUNICATION PLATFORMS

MiTeam is supported for single and multiple MiCollab server deployments on the following Mitel communication platforms:

- MiVoice MX-ONE
- MiVoice 5000
- MiVoice Office 400

MiTeam is only supported in MiCollab Client Integrated Mode. It is not supported for MiCollab Client Co-located mode or on MiCollab Client stand-alone systems.

SUPPORTED CLIENTS

MiTeam is supported with the following MiCollab clients:

- MiCollab for PC Client for Windows (Windows 7 and 10 only)
• MiCollab Web client for PCs (Windows/MAC only)
• MiCollab for Mobile clients (iOS/Android only).

The following minimum operating systems are required:
• iPhone (5 +)/iOS 10.3.3 + (not supported on iPad or iPod)
• Android Phone 6.0 +

MiTeam is not supported on the following clients:
• Legacy MiCollab Desktop clients
• Legacy Web Clients

MICOLLAB CLIENT

This application provides a single access point for all your business communication and collaboration needs. It converges the call control capabilities of Mitel communications platforms with contact management, Dynamic Status, and collaboration applications, to simplify and enhance real-time communications. It gives you unprecedented control over your communications and allows real-time access to everyone in the organization, on or off the premises, with user and phone presence information that makes every phone call or instant message (IM) count. Employees can find, communicate, and collaborate with others quickly, simply, and in the moment.

MiCollab Client is a solution that meets the needs of your user communities. It delivers increased efficiency and productivity, reduced costs, enhanced responsiveness, and streamlined business operations.

SOFTPHONE, WEB PORTAL, AND MOBILE SUPPORT

You can access features from the following interfaces:
• MiCollab Desktop Client
• MiCollab MAC Desktop Client
• MiCollab Web Client
• MiCollab WebRTC Client
• MiCollab for Mobile for Android® and iPhone™
• MiVoice for Skype® for Business

INTEGRATED APPLICATIONS

The following Mitel applications are accessible from the clients:
• **MiTeam**: Provides users with the ability to create collaboration spaces and share information.

• **MiCollab Audio, Web and Video Conferencing**: Provides access to collaboration features such as real-time audio, video, and Web conferencing, annotation, desktop and application sharing, and file transfer from the MiCollab Desktop Client.
MiCollab General Information Guide

- **MiCollab Unified Messaging™ (UM):** Provides access to voice mail and FAX messages from the MiCollab Client interfaces.

- **MiVoice Border Gateway** Provides a secure communications path for remote MiCollab Client users to the MiCollab Client Service.

**FEATURES AND FUNCTIONALITY**

- **Simplified MiCollab for Mobile deployment:** MiCollab for Mobile and MiCollab MAC Desktop client deployment has been simplified. This solution is supported in integrated and co-located MiCollab Client deployments. End users are no longer required to enter configuration settings such as server and SIP credentials. Administrators configure these settings and MiCollab for Mobile clients are deployed Over the Air (OTA). The administrator portal enables administrators to:
  - deploy large groups
  - leverage profiles
  - download multiple files to the clients
  - update clients

A new customizable deployment email with end user credentials is available.

- **Simplified Call Management and Logging:** Provides users with the advanced call management features of the Mitel communications platform. The server logs incoming calls for the MiCollab clients, even when the MiCollab client software is not running. When a MiCollab client is re-started, the server updates the client with all the cached call log information since the last session. It also stores frequently dialed phone numbers and allows users to call these numbers from a drop-down menu.

- **Dynamic Presence and Availability:** Informs you of a person’s availability -- whether they are on the phone, away from their desk, or available for secure instant chat or collaboration. You can also tag selected users so that you get a visual indication when they log into MiCollab Client.

- **Contact Grouping:** Combines Corporate, Personal and Favorite contact groups into a single view. A Corporate directory group is visible with the flexibility to create additional groups. Personal contacts from Google® or Microsoft® Exchange® can also be integrated and imported into the MiCollab Client application.

- **Teamwork mode:** Allows MiCollab clients to work without being associated with a PBX device. A subset of features such as contact grouping, presence, dynamic status and chat are supported in Teamwork Mode.

- **Corporate Secure Instant Messaging:** Facilitates secure instant messaging and file sharing. Initiate a single or multi-party chat at the click of a mouse and, at the same time, share documents by dragging and dropping files into the chat session.

- **Dynamic Status:** Provides the user with an easy method of specifying Instant Messaging, presence, and call routing options when showing a specific Dynamic Status. The status can be changed from within MiCollab Client or it can be automatically updated based on the user’s Microsoft® Outlook® calendar information. Although the MiVoice 5000 and the MiVoice MX-ONE support dynamic status, they do not support the selective ringing of devices in the users’ ring groups.
• **Dynamic Location**: Allows Mobile Client users to define the GPS locations to associate with each Dynamic Status and automatically changes Dynamic Status based on GPS location or by manual selection.

• **Client Only Software Delivery**: delivers Windows Desktop Client and mobile clients software without having to upgrade the MiCollab server version. Supported clients: Desktop, Android, and Web clients.

• **Dialed Digits Processing Flexibility**: allows the administrator to modify the dialed digit processing logic to suit their site specific needs. When a user dials a telephone number from the client, MiCollab Client can apply pre-defined digit modification rules (such as pre-pending the PBX outgoing prefix) before the number is dialed out.

**SUPPORTED INTEGRATIONS**

• **Integration with MiVoice 5000, MiVoice MX-ONE or MiVoice Office 400**: MiCollab for Mobile client softphones are supported on the Internet. After you configure a user with a softphone in the MiCollab Client application, a deployment email is sent to the user with simplified configuration instructions on how to set it up.

  Note that MiCollab Client is only supported in Integrated mode for the MiVoice 5000, MiVoice MX-ONE and MiVoice Office 400.

• **Integration with Mitel Teleworker Service**: Teleworker allows users to access their corporate voice network through the MiCollab Client softphone, from home or on the road, without the need for a virtual private network (VPN) connection.

• **Integration with MiCollab Audio, Web and Video Conferencing**: integration with this application allows users to place a video call with the click of a button, and create or schedule collaboration sessions.

• **Integration with Business Applications**: integrates with popular communications and productivity tools such as Outlook and Microsoft Office. Users can dial from their Outlook contact list, integrate their Dynamic Status with their Outlook calendar, and click-to-dial using smart tags. MiCollab Client integrates with Outlook to provide MiCollab Client Presence status information and IM availability in Outlook contact card.

  MiCollab Client also integrates with IBM Lotus Notes, allowing users to launch web / video collaboration sessions and integrate their Dynamic Status with their calendar.

• **Integration with MiVoice for Lync®**: supports seamless integration with Microsoft Lync clients through the Mitel Lync Plugin. Mitel Lync plug-in is an application that integrates with Microsoft Lync Client and allows Microsoft Lync users to use Mitel telephony functionality through its feature rich MiCollab Client infrastructure.

• **Integration with User and Services Provisioning**: MiCollab Client is supported in integrated mode only on the MiVoice 5000 or MiVoice MX-ONE. In this mode, the MiCollab system keeps the User and Services database and client database synchronized so they function like a single database on the MiCollab server. On the MiVoice 5000 and MiVoice MX-ONE user provisioning is performed from the call manager platform.

• **MiCollab for Microsoft Client**: supports seamless integration with Microsoft Skype clients through the Mitel Skype PlugIn. Mitel Skype plug-in is an application that integrates with Microsoft Skype Client and allows Microsoft Skype users to use Mitel telephony functionality through its feature rich MiCollab Client infrastructure.
• **Integration with Mitel InAttend**: MiCollab Client supports integration with Mitel InAttend using SIP SIMPLE presence connection. MiCollab Telephony Presence is not supported in Mitel InAttend.

**Note:** MiCollab Client integration with Mitel InAttend is supported on MiVoice MX-ONE and MiVoice 5000 communication platforms only.
## Unsupported Features

**Table 1: Unsupported Features**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>PLATFORM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Routing of Preferential Contacts | MiVoice 5000 and MiVoice MX-ONE | The MiCollab Client Call Forwarding feature allows users to:  
  - Forward to any non-PRG destinations.  
  - Add special routing for preferential contacts.  
  - Send calls to dynamic extensions.  
  There is no option to set the preferential routing information via CSTA on the MiVoice 5000 or MiVoice MX-ONE. |
| Call Handoff | MiVoice 5000 and MiVoice MX-ONE | Users on Mobile device can use the Call Handoff feature (ability to push a call to other devices within the Personal Ring Group). This feature is limited to users on MiVoice Business communication platforms only. |
| Conference | MiVoice 5000 and MiVoice MX-ONE | Allows you to create a conference between you, the caller on a current call, and the contacts that you select. After you establish a conference, you can then exit the conference. |
| Split Conference Split | MiVoice 5000 and MiVoice MX-ONE | Allows you to split a three-party conference into two separate calls. When a three-party conference is split, the last party added to the conference is placed on hold, while you remain connected to the first party. After you split a conference, you cannot reconnect all parties into one call. |
| Auto Answer | MiVoice 5000 and MiVoice MX-ONE | Incoming calls are answered at the first ring by the selected device (Desk Phone or Softphone). Users enable and disable this feature from the Dynamic Status dialog box on the Desktop Client. |
| Attendant/Receptionist Console Features and Presence | MiVoice 5000 and MiVoice MX-ONE | Provides attendants and receptionists with console features and presence information allowing them to process calls efficiently. |
| Call Information (Call with info) | MiVoice 5000 and MiVoice MX-ONE | The <info> part of “Call with info” is handled within MiCollab Client application, not inside the PBX. This feature is not supported because of the MiCollab Client in SIP softphone mode doesn’t support “Call with info”. |
| Hot Desking | MiVoice 5000 and MiVoice MX-ONE | Hot Desking allows anyone with a Hot Desk D and User PIN to log in to an available hot desk-enabled telephone. Once logged in, the user can:  
  - Receive incoming calls at the set  
  - Place outgoing calls  
  - Retrieve voice messages  
  - Program and use feature keys |
| External Hot Desking User | MiVoice 5000 and MiVoice MX-ONE | External Hot Desking extends hot desking capabilities to an external device, which makes it appear as an extension on the system. When the external hot desk user (EHDU) is logged in to the communications platform, a caller only needs to dial the extension number assigned to the user and the system automatically rings the user's cell phone, home phone or other device of choice - including an extension on another private network or PBX. |
| Mobile Clients | MiVoice 5000 and MiVoice MX-ONE | iPad™ is not currently supported. |
INTEGRATED OR CO-LOCATED WITH USER AND SERVICES PROVISIONING

MiCollab Client is supported in either integrated or co-located mode:

- **Integrated Mode**: In this mode, the MiCollab system keeps the User and Services database and client database synchronized so they function like a single database on the MiCollab server. It allows you to provision client services from the User and Services application and supports single point provisioning of the client services on the MiVoice Business platform(s). This is the recommended mode for sites that meet the integration requirements.

- **Co-located Mode**: In this mode, the Users and Services data and client data are contained in separate, independent databases on the MiCollab server. This mode is not supported for MiVoice 5000, MiVoice MX-ONE or MiVoice Office 400 platforms.

By default, a MiCollab system is in co-located mode. You must run the MiCollab Client Integration Wizard to put it into integrated mode.

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<table>
<thead>
<tr>
<th>FEATURE</th>
<th>PLATFORM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Status - Selective Ringing</td>
<td>MiVoice 5000 and MiVoice MX-ONE</td>
<td>Although the MiVoice 5000 and the MiVoice MX-ONE support dynamic status, they do not support the selective ringing of devices in the users' ring groups.</td>
</tr>
<tr>
<td>Console</td>
<td>MiVoice 5000 and MiVoice MX-ONE</td>
<td>Provides attendants and receptionists with console features and presence information allowing them to process calls efficiently.</td>
</tr>
<tr>
<td>MX-ONE Parallel Ringing</td>
<td>MiVoice 5000 and MiVoice MX-ONE</td>
<td>Allows an incoming call to ring several phones (deskphones, softphones or mobile phones) that are registered with different extension numbers simultaneously. The call can then be answered on any of the phones. This feature requires all the phones involved to be defined in a Parallel Ringing list. One phone in the list is configured as the main extension and only calls to this extension are distributed among the other phones in the list. MiCollab can only support application services to the main extension in the Parallel Ringing list.</td>
</tr>
</tbody>
</table>
| MiCollab PC Desktop Client Softphone | MiVoice Office 400 | • Users cannot initiate a conference call  
• Users cannot reject incoming calls (for example, users are unable to redirect an incoming call to their voicemail) |
| MiCollab PC Desktop Client (CTI mode) | MiVoice Office 400 | Users cannot perform unsupervised (blind) transfers |
| MiCollab Mobile Client Softphone | MiVoice Office 400 | Users cannot switch between an active call and a call on hold (Broker’s Call) |
| MiCollab WEB-RTC Client on PC | MiVoice Office 400 | • Hold, Inquiry, and Conference features are not supported  
• Unsupervised (Blind) Transfer is not supported |
MICOLLAB AUDIO, WEB AND VIDEO CONFERENCEING

MiCollab Audio, Web and Video Conferencing allows users to schedule and create audio or web conferences. A web-based interface is used to schedule conferences, and to view conference calls. Conferencing configuration is performed from the MiCollab administrator portal. All interfaces are directly accessed through the secure HTTPS protocol. Authorization and authentication allows only valid users to access the services. Secure Sockets Layer (SSL) encryption for secured messages and server-side digital certificates are used to meet the highest security requirements.

MiCollab Audio, Web and Video Conferencing is integrated into the MiCollab End User portal and provides the following features:

- **Instant, flexible calling**: Initiate an instantaneous call or to create a conference call from a two-party call. A conference call can also be pre-scheduled.

- **Complete call control and management**: Add and drop other call participants as well as mute, hold, or transfer the call directly from the desktop. A call detail record (CDR) provides a log of all calls. The CDR includes the dates and times of all calls, call duration of all calls for billing purposes. Conference accessibility via personal identification is also available for an even more secure experience.

- **Cost-effective conferencing**: Delivers the most cost-effective group calling, with ultimate flexibility to customize solutions to best meet individual needs.

- **Web-based collaboration tools**: Facilitate online meetings, training, and presentations with features designed for sharing your desktop or individual applications. Enhance conferences to increase participation and understanding by using interactive markup tools, user polling, and video-conferencing. Use the file transfer utility to immediately share the outcome of online collaborative sessions by transmitting updated files and presentations to conference participants.

- **Conference archiving**: Create recordings of conference calls and collaborative sessions for playback later.

MIVOICE BORDER GATEWAY

The MiVoice Border Gateway (MBG) is a multi-service software solution that provides the following functionality:

- **Web proxy blade**: provides a secure method for MiCollab end user web clients to connect with their LAN-based applications.

- **Teleworker service**: connects MiCollab Client mobile softphones to the corporate voice network providing full access to voice mail, collaboration tools, and all the other features of the office phone. When configured for teleworker use, the remote device:
  - has a secure, encrypted, voice path between the IP Phone and the system across the Internet.
  - has adaptive jitter buffering and other software enhancements to improve voice quality over the Internet.
- uses G.729 compression to reduce bandwidth requirements.
- operates in the same manner as any other phone connected to the network
- operates over any broadband LAN connection that provides connectivity back to the corporate office where the MiCollab is visible from the Internet Mobility Solutions
- directly accesses the corporate office phone system (for example, voice mail and collaboration tools).
- supports SIP protocol for the MiCollab Client softphones.

• **Web Proxy Service**: An MBG server with web proxy installed in the Demilitarized Zone (DMZ) protects the MiCollab server in the LAN from Internet exposure. In a DMZ configuration, the firewall is the gateway for all IP network traffic with the Internet. The Web Proxy blade provides
  - provides a secure method for remote web browser users, such as web conferencing users, to connect with a MiCollab server located on the corporate LAN.
  - provides Internet based clients (for example, clients) with access to a MiCollab system located on the LAN. Remote web browser users and clients connect to MiCollab in the LAN through the Web Proxy blade that is installed on a separate MBG server in the DMZ.
  - acts as a reverse proxy, providing a secure method for Mitel end user web clients to connect with their LAN-based applications on the MiCollab system. In the current release, the Web Proxy supports desktop and conferencing clients.
  - restricts access only to those Purls that belong to the end user web interfaces for the applications.
  - provides secure Internet access from an Internet-accessible server to an Internet-protected server on the LAN.

• MBG supports MiCollab Client softphones and MiCollab for Mobile clients for integrations with Mitel communications platforms. Teleworker service is supported.

• Remote Proxy services (web proxy to MiCollab) is supported.

• Secure Recording Connector service to facilitate the recording of Mitel-encrypted voice streams by third-party call recording equipment.

**TELEWORKER SERVICE**

To deploy Teleworker service you must

• install MiCollab in LAN mode and install a separate MBG server in the DMZ to support the teleworker services (see Figure 3).
The Teleworker service connects remote office phones to the corporate voice network providing full access to voice mail, collaboration tools, and all the other features of the office phone system. Teleworker service can be completely configured at the head office using most models of MiVoice IP phones. On the telephone keypad, you enter the IP address of the MBG server that is installed at the head office. Using a two-click process, you can set a MiVoice IP phone to operate in teleworker mode. 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 MBG server 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.

When configured for teleworker use, the remote IP Phone has the following capabilities:

- Encryption to provide a secure voice path between the phone and the system across the Internet
- Adaptive jitter buffering and other software enhancements to improve voice quality over the Internet
- G.729 and G.711 compression to reduce bandwidth requirements
- Operates in the same manner as any other phone connected to the network
- Operates over any broadband LAN connection that provides connectivity back to the corporate office where the MiCollab is visible from the Internet Mobility Solutions
- Directly accesses the corporate office phone system (for example, voice mail and collaboration tools)
• Support for the SIP protocol
• Support for browser-based voice and video calling using Web Real-Time Communication (WebRTC).
• MiVoice Border Gateway scales teleworker functionality for large enterprise.

SECURE RECORDING CONNECTOR SERVICE

• The Secure Recording Connector (SRC) allows you to record Mitel-encrypted voice streams using third-party call recording equipment (CRE). SRC is positioned between the ICP and the sets to be recorded, where it accepts requests from an authorized CRE to establish taps in the voice stream. These taps are separate (mirrored) streams from the SRC service to the CRE.

Note: The Secure Recording Connector (SRC) service is not supported for MiVoice Office 400.

NUPOINT UNIFIED MESSAGING

NuPoint Unified Messaging is a powerful, voice processing application that provides voice messaging and paging support. Users can access their voice mails remotely and can be notified by telephone or pager when a voice message is left for them. Users can also use NuPoint's Unified Messaging capabilities to listen to their voicemails through their Lotus Notes, Novell GroupWise, or Microsoft Outlook clients with Message Waiting Indicator (MWI) on playback via a URL. In addition, they can play their emails through the Telephony User Interface. Messages between these clients and the NuPoint TUI are synchronized for message playback. NuPoint Unified Messaging also offers desktop access of voice messages from an email client or web browser.

NUPOINT UNIFIED MESSAGING FEATURES

Features of the NuPoint Unified Messaging application include:
• Scalability from small to large enterprise systems.
• Advanced call processing and automated attendant.
• Unified Messaging with the ability to send, receive, forward, save, and sort voice and fax messages from the PC. Unified Messaging emails contain Caller ID information. Users who receive UM email notifications on mobile devices (such as iPhone device) can click the text to return a call.
• Multiple language support per system. Callers can select from up to five languages at the Auto Attendant. Once selected, all remaining prompts will be played in the selected language.
• Speech Navigation enables users to manage their mailboxes using voice commands in North-American English.
• Integration to MiVoice Business, MiVoice Office 250, MiVoice 5000 and MiVoice MX-ONE platforms.
• Streamlined management support for SNMP and remote system management and administration.

• Ability to respond to voice mail messages by dialing back to the caller who left the message.

• Ability to dispatch alarm messages to email addresses as well as SNMP management systems. Administrators can configure alarm notification frequency and create alarm reports using the Web console.

• Per-user voice mailbox licensing

• Outbound FAX

Refer to the *NuPoint Unified Messaging General Information Guide* for a description of the features provided by the NuPoint Unified Messaging application.

• For MiVoice Office 250 communication platforms, the NuPoint Unified Messaging application is supported. See the *NuPoint Unified Messaging General Information Guide* for details.

• For MiCollab with MiVoice 5000 or MiVoice MX-ONE integrations, NuPoint Unified Messaging application is supported with some limitations. Refer to the following sections for a summary of the features that are not supported for the MiVoice 5000 or MiVoice MX-ONE.

• For MiCollab with MiVoice Office 400 integrations, NuPoint Unified Messaging is not supported.

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**Note:** Mitel’s NuPoint UM application is also available as a separate standalone product that is distinct from the MiCollab-NuPoint UM application. The NuPoint UM application on the MiCollab product does not support all the same features and functionality of the NuPoint standalone version.

**MiVoice 5000 NP-UM Unsupported Features**

• **Voice Mail Soft keys:** The Voice Mail Soft keys feature allows users to control voice mail functions through context-sensitive keys on the telephone.

• **Record-A-Call:** an optional feature that allows mailbox subscribers to record both ends of a two-party external call in progress at their phone. Recorded conversations are delivered to the user’s voice mailbox. Unlike regular voice mail messages, Record-A-Call messages are stored immediately as saved messages, so they do not trigger Message Waiting Indicators on the user’s telephone.

• **Speech Auto Attendant:** a speech recognition application that allows users to place calls to people quickly and efficiently by speaking names, department names or telephone numbers.

• **Email Playback:** Users cannot play their emails through the NuPoint Unified Messaging telephone user interface. This functionality is supported on MiVoice Business platforms only.

• **Resilient Voicemail Services:** Only supported on MiVoice Business platforms.
MIVOXE MX-ONE NP-UM UNSUPPORTED FEATURES

- **Voice Mail Soft keys**: The Voice Mail Soft keys feature allows users to control voice mail functions through context-sensitive keys on the telephone.

- **Record-A-Call**: an optional feature that allows mailbox subscribers to record both ends of a two-party external call in progress at their phone. Recorded conversations are delivered to the user's voice mailbox. Unlike regular voice mail messages, Record-A-Call messages are stored immediately as saved messages, so they do not trigger Message Waiting Indicators on the user's telephone.

- **Speech Auto Attendant**: a speech recognition application that allows users to place calls to people quickly and efficiently by speaking names, department names or telephone numbers.

- **Resilient Voicemail Services**: Only supported on MiVoice Business platforms.

MICOLLAB ADVANCED MESSAGING (OPTIONAL)

MiCollab Advanced Messaging is an optional voice messaging product that runs on a separate server. It is not included with the MiCollab server. MiCollab Advanced Messaging provides

- advanced call processing
- voicemail
- e-mail integration,
- personal assistant
- fax
- speech and notifications.

MiCollab Advanced Messaging can be deployed on a MiCollab site as an alternative to MiCollab NuPoint Unified Messaging.

**Note**: MiVoice Office 400 uses embedded voice mail service.
## END USER APPLICATIONS - LANGUAGE SUPPORT

The following table indicates which languages are supported in MiCollab end user applications.

<table>
<thead>
<tr>
<th>Language</th>
<th>MiCollab End User Portal</th>
<th>MiCollab NuPoint Unified Messaging</th>
<th>MiTeam</th>
<th>MiCollab PC Client</th>
<th>MiCollab for Mobile</th>
<th>MiCollab Web Client</th>
<th>MiCollab Vidyo</th>
<th>NuPoint Unified Messaging Web Client</th>
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Chapter 3

INSTALLATION AND MAINTENANCE FEATURES
INSTALLATION

EASY-TO-INSTALL SOFTWARE

MICOLLAB SERVER PLATFORM

To simplify software installation for the technician, the MiCollab applications are installed as a product rather than as a collection of separate software components. The MiCollab software installation wizard guides the technician through the software installation process to prevent any possibility of error.

The software required for each installation is determined by an Application Record ID (ARID). Technicians create an ARID for the MiCollab installation in their AMC license account. All the software installation components (MSL operating system and MiCollab application software) are available for download from Mitel Online.

After technicians obtain the MiCollab software and copy it to CD/DVDs or to a USB stick, they can install it on the MiCollab hardware platform on site. Based on the Application Record ID, the installation wizard prompts the technicians to copy the required applications to the system. If any of the software applications are an out-of-date version, the wizard automatically prompts the technician to obtain the correct version.

MICOLLAB VIRTUAL APPLIANCE PLATFORMS

You can deploy MiCollab as virtual machine in the VMware vSphere or Microsoft Hyper-V cloud environments.

- For VMware deployments, MiCollab is installed as a virtual appliance on a VMware vSphere Standalone host or via a vCenter Server. The entire MiCollab virtual appliance is installed as an image in OVF package format (file ending in OVA). The OVA file contains the VMware tools, MSL operating system, MiCollab software, and MiCollab applications as an image.

- For Microsoft Hyper-V deployments, you create a virtual machine and then install and configure the MiCollab system on it. The Virtual Appliance Deployment Solutions Guide lists the MiCollab Hyper-V virtual machine resource requirements.

SIMPLIFIED INITIAL USER PROVISIONING

Initial provisioning of MiCollab is simplified with the use of the Bulk User Provisioning tool. This tool allows you to bulk import user data from a comma-separated value (.csv) file or an LDAP Data Interchange Format (LDIF) file into the MiCollab system’s Users and Services database.

- For MiCollab integrations with the MiVoice 5000 and MiVoice MX-ONE, user provisioning is performed from the platform management platform. The administrator assigns roles to the primary directory number of the user on the MiVoice 5000 or MX-ONE. The roles on the communications platform correspond to roles on the MiCollab system. The roles map to MiCollab USP templates that define the required service application for the user type. When you add, update or delete a user from the platform management interface, the user’s services are updated on MiCollab based on the assigned template on the next manual immediate synchronization or during the next scheduled database synchronization.
For MiCollab integrations with MiVoice Office 250 and MiVoice Office 400, you must provision users separately on the MiCollab system and on the communications platform.

### ROLES AND TEMPLATES

You can use roles and templates to apply common configuration data across multiple user entries. This approach greatly reduces the amount of time that it takes to enter customer data. Roles define the task, position, or responsibilities for a type of user within the organization. Roles are associated with user templates that define the common phone and application service settings for the roles.

You identify types of users within the enterprise that have common phone and application service needs and then create user templates that define the required services for each user type. After creating the user templates, the administrator assigns a role to each template and applies the templated information to new users using any of the following methods:

- **Bulk User Provisioning**: allows you to import a CSV or LDIF file of user entries and specify user roles for the entries. The roles reference templates that automatically apply common data during the import process. You also have the ability to auto-fill a selection of user entries in the bulk user provisioning tool with roles, directory entries, and e-mail addresses.

- **Provisioning with IDS**: When a directory server is integrated with MiCollab, you can map a directory service attribute to a MiCollab role. When a user is provisioned in the directory service and synchronized with the MiCollab database, the associated template data is applied to user entry that is created in the MiCollab database.

Default roles and templates are provided with the system.

### MICOLLAB CLIENT INTEGRATION WIZARD

The MiCollab Client Integration Wizard allows administrators to integrate the MiCollab Client application database with the USP application database. Note that integrated mode is not supported for MiVoice Office 250 platforms. The Integration Wizard steps the administrator through the process of integrating the databases and provides instructions on how to resolve any configuration issues or database conflicts.
MAINTENANCE

COMPREHENSIVE ADMINISTRATION AND MAINTENANCE TOOLS

Maintenance and system administration are performed from the following interfaces:

- **Server Console**: a text-based control panel built into the MSL operating system that technicians use to perform maintenance tasks such as
  - install the MiCollab software
  - configure network parameters
  - perform upgrades and software updates
  - upgrade application suite licensing
  - perform backups.

- **MiCollab Administrator Portal**: a web-based control panel, also called the “Server Manager” that administrators use to
  - configure and administer the MiCollab applications
  - perform server administration tasks, such as view logs, display system information, assign system users, and perform backups
  - configure network and server security settings
  - set system-wide parameters, such as system language and password strength.

REMOTE MANAGEMENT OF MICOLLAB VIA MBG REMOTE PROXY SERVICES

MiCollab supports secure remote access from clients on the internet to the MiCollab server manager interface through a standalone MBG server. The standalone MBG server requires the Remote Proxy Services application to support this functionality.

INTEGRATED DIRECTORY SERVICES

The following sections highlight the MiCollab integrated directory services. Refer to the Integrated Directory Services book in the MiCollab server manager help for details.

MICOLLAB WITH MVOICE 5000 OR MVOICE MX-ONE

For integrations with these communications platforms, Integrated Directory Services supports the provisioning of contacts within the MiCollab Client application so that the contacts appear as entries in the MiCollab Client corporate directory. The contacts from the directory server are provisioned in the MiCollab Client corporate directory so that MiCollab Client users are able to "Click-to-call" them. These contacts can be corporate or non-corporate numbers.

- On a site with MiVoice 5000 only, contacts are only synchronized from the directory service in the MiVoice 5000 server.
- On a site with MiVoice 5000 Manager, contacts can be synchronized either from the MiVoice 5000 Manager or from an Active Directory server, but not both.
• On a site with a MiVoice MX-ONE contacts are only synchronized via an Active Directory server.

The contacts are synchronized in one direction only, from the directory service to the MiCollab database. Flow Through Provisioning is not supported.

MICOLLAB WITH MVOICE OFFICE 400

MiCollab Integrated Directory services is not supported with the MiVoice Office 400.

MICOLLAB WITH MIVOICE OFFICE 250 OR NON-MITEL PBX

For integrations with MiVoice Office 250, or Non-Mitel PBX communications platforms, Integrated Directory Services provisions the MiCollab database with user data and MiCollab Client contacts from the corporate directory server using Lightweight Directory Access Protocol (LDAP).

Data is synchronized in one direction only, from the directory server to the MiCollab database. Flow Through Provisioning is not supported.

ACTIVE DIRECTORY AUTHENTICATION

You can configure the integrations described above with Active Directory Authentication. This feature allows users to log into their MiCollab applications interfaces (for example: MiCollab End User Portal) using their Active Directory server credentials (login name and password). See Configure Active Directory Authentication for details.

EXTERNAL (OFF-BOARD) DIRECTORY

You can configure the MiCollab Client Service with access to a large, external off-board LDAP directory, such as Mitel MetaDirectory. MiCollab Client users can then search for corporate contacts from a very large number of entries.

The directory entries from multiple databases, such as Lotus Notes or Microsoft Exchange can be aggregated within the metadirectory. Typically, you would not synchronize contacts from the external directory to the MiCollab Client service.

The following diagram shows an overview of the solution:
You can also partition (filter) the external corporate directory such that users are only presented a subset of the corporate directory contact entries. For example, supplier contacts could be excluded from the directories of users who do not need to call these numbers.

You can partition the directory by organizational unit or by attribute:

- **Organizational unit**: When users perform a search, the results are only drawn from the entries in their organizational unit.
- **Attribute**: When users perform search, only results that share the same attribute are presented.
SUPPORT FOR SSL CERTIFICATES

The MiCollab server manager allows you to request and import SSL certificates from a trusted Certificate Authority. An SSL certificate authenticates the identity of a web site and encrypts information between a server and a client using Secure Sockets Layer (SSL) technology. The presence of an SSL certificate on the MiCollab web server also prevents security alert warnings from appearing in your browser when users access the MiCollab web portals. To purchase a SSL Certificate, you send the Certificate Signing Authority a Certificate Signing Request (CSR). The Certificate Signing Authority sends back an SSL certificate that can be imported into system by the administrator via the MiCollab server manager.

FLEXIBLE BACKUP AND RESTORE

MICOLLAB SERVER AND MICOLLAB SERVER APPLIANCE PLATFORMS

Technicians and administrators can back up system data (including all application data) from either the server manager interface or from the server console:

- **Server manager "Backup" option**: Supports database backups to a local workstation or to a network file server. When backing up to a network file server, you can perform an immediate backup (Backup Now) or schedule automatic backups on a daily, weekly, or monthly basis.
- **Server console "Perform Backup" option**: Supports database backups to a USB stick or to a network file server.

Backups can also be performed remotely by leaving a non-bootable USB device permanently attached to the MiCollab server and logging into the console via Secure Shell (SSH). For more information about the server console, backups, and SSH, refer to the *Mitel Standard Linux Installation and Administration Guide* available at Mitel OnLine.

Database restores are performed from the server console by selecting the "Do you wish to restore from backup?" option.

RESILIENCY

**MiCollab for Mobile Softphone Resiliency**: In MiCollab Release 7.0 and later, MiCollab Client for Mobile softphones support Domain Name System (DNS)-based SIP resiliency with MiVoice Border Gateways (MBGs). Refer to the *MiCollab for Mobile Resiliency Guide* for the DNS configuration required to support SIP resiliency for MiCollab Client for Mobile softphones in an Enterprise or Cloud environment.
Chapter 4

LICENSING
INTRODUCTION

MiCollab is licensed as a base package with a series of optional, add-on specialty application packages. There are several core packages available. Add-on packages enhance the base package functionality.

The base package provides application software and a minimal number of user licenses that allows customers to evaluate the applications. Customers then have the option of purchasing uplift license packages for each application to increase capacity up to the supported system maximums as defined in the system capacity tables of the MiCollab Engineering Guidelines.

AMC LICENSING

MiCollab supports licensing through the Mitel Application Management Center (AMC) and the Mitel Software Assurance (SWAS) program. The Mitel AMC manages the software licensing and entitlement of the Software Assurance Program. After you obtain an Application Record ID (ARID) from the AMC, the AMC uses your Application Record ID (ARID) to provide you with access to licenses, software releases, and upgrades.

The Application Management Center (AMC) allows licensing keys to be automatically created at all times (24 hours a day, 7 days a week) through remote license keys generation.

The AMC is also the procurement and provisioning interface for AMC-delivered products and services. As a reseller of Mitel products, you receive a unique licensing account on the AMC. By logging in to the AMC with the username and password you are given when you obtain your account, you can view a list of your AMC-enabled products, check their status, and add services to any of them.

When you place a new order for products with the Mitel Customer Care Center, the order information is entered into the AMC system. The AMC places the purchased licenses into your licensing account for use in creating an application record. You must then log in to the AMC and create the application record; assign purchased products, features, and options to that application record; and then activate the customer's Mitel Standard Linux (MSL) operating system (OS) before you can install the MiCollab application.

MiCollab uses the AMC to obtain licensing information, which is required for installing main base software, for installing upgrade software, and for installing system option upgrade software. You must install MiCollab and then register it with the AMC online.

When you install MiCollab, MSL generates a unique Hardware ID that includes the MAC address of the server. When you connect to the AMC over the Internet, MSL uses the Hardware ID and the Application Record ID to communicate with the AMC to obtain licensing information (also called "sync").

SOFTWARE ASSURANCE

The Mitel Software Assurance (SWAS) Program is a subscription-based service that provides customers with access to new software releases, software upgrades, and product support services for all users (ports) on a given application record. The Mitel Applications Management Center (AMC) manages the entitlement of the Software Assurance Program, determining
whether a given application record ID for a customer is entitled to a specific software installation or upgrade. Refer to the MiCollab Ordering Guide for details.

MICOLLAB VIRTUAL APPLIANCE LICENSING DETECTION AND VIOLATION MODE

MiCollab appliances must maintain online connectivity to the AMC at all times. Loss of AMC connectivity for a short period of time due is tolerated by the system. However, AMC connectivity must be re-established without delay in order to maintain access to all system functions and features. If AMC connectivity is lost for an extended period of time, an automatic email alert is generated and sent to the named Channel Partner AMC account administrator. If AMC connectivity is not re-established, then the virtual appliance system goes into license violation mode and certain capabilities are no longer be accessible.

Mitel recognizes that in some deployment situations, it is not practical to implement online connectivity to the AMC from each virtual appliance deployed at a customer's site. For this reason, Mitel supports the ability to proxy online AMC connectivity from each Virtual Appliance through a single named proxy within the customer data center environment. This enables AMC online connections to be managed and controlled from one central point within the data center rather than from each individual product.

UCC LICENSING

Unified Communications and Collaboration (UCC) licensing helps to simplify the selling and ordering process because it bundles the platform and application user licenses together. Instead of ordering a MiVoice Business user license and multiple individual applications licenses for each MiCollab user, you order a single UCC license per user. The existing "à la carte" licensing options will still be available; however, UCC licensing offers the following benefits:

- Simplifies the licensing of a MiCollab user by bundling an MiVoice Business user license with a specific set of application user licenses.
- Offers a significant pricing discount over "à la carte" licenses.
- Provides tiered functionality with progressive discounts. The following UCC user licenses are available:
  - **UCC Entry license**: provides an MiVoice Business user license, voicemail, and unified messaging.
  - **UCC Standard license**: adds the UCC desk and web client and full audio and web collaboration to the Entry license.
  - **UCC Premium license**: adds full mobile UCC functionality to the Standard license.

Refer to the MiCollab Ordering Guide for a definition of the licenses contained in each tier.

- Software assurance is more cost effective: The Mitel Software Assurance (SWAS) Program is a subscription-based service that provides customers with access to new software releases, software upgrades, and product support services for all users (ports) on a given application record. Under the SWAS program, software upgrades are provided at no additional cost without any of the new features or functionality that are available in the base upgrade package.
- Offers license packs for Standard and Premium licenses with discounted pricing for volume.
MiTeam is only available to users who are assigned with a UCC Premium bundle and who have an active MiTeam subscription. Each UCC Premium user is granted free subscription to MiTeam for a period of 365 days. The 365-day period begins as soon as the MiCollab for Mobile Client is started or invited to a stream. Before the free period ends, you must contact Mitel and obtain a MiTeam subscription license for the user to maintain his or her MiTeam service. If the user is not licensed after the free period ends, the user's account is disabled and there is a 30-day grace period during which time the user's account data is maintained. At the end of the 30-day grace period, if the user is still not licensed, the user's MiTeam account is deleted.

Prior to licensed grace period expiry, administrators will receive reminders and warnings to ensure that users' MiTeam licenses do not lapse accidentally, resulting in a loss of MiTeam services and account data:

Administrators can also generate a report that shows the status of MiTeam users.
Chapter 5

SUPPORTED CONFIGURATIONS
OVERVIEW

This chapter provides an overview of the required hardware platforms, supported communication platforms, deployment topologies, and supported applications. Refer to the MiCollab Engineering Guidelines for detailed information.

HARDWARE PLATFORMS

MiCollab is available on the following hardware platforms:

- Industry Standard Server
- Virtual Appliance

**Note:** System capacities and performance levels are dependent upon the type of platform, the number of users, and the installed applications. Refer to MiCollab System Capacities, Performance and Constraints in the MiCollab Engineering Guidelines for details.

INDUSTRY STANDARD SERVER

This option provides a small enterprise solution for up to 1500 users. Customers have the flexibility of purchasing their own MSL qualified server and then installing the MSL operating system software and MiCollab software on it.

VIRTUAL APPLIANCE

MiCollab can be deployed as a

- virtual appliance (vApp) within the VMware vSphere Cloud Operating System, or
- on a Microsoft Hyper-V virtual machine.

MiCollab Virtual Appliance deployments on VMware are supported for

- small business multi-application sites to up to 500 users,
- mid-range business multi-application or single application sites up to 1500 users
- enterprise multi-application sites up to 5000 users.
- enterprise single-application sites (MiCollab Client or AWV) up to 5000 users.
- large scale multi-MiCollab deployments up to 40,000 users

MiCollab Virtual Appliance deployments on Hyper-V are supported for

- small business multi-application sites to up to 500 users,
- mid-range business multi-application or single application sites up to 1500 users
- large scale multi-MiCollab deployments up to 40,000 users
MITEL COMMUNICATIONS PLATFORMS

You can integrate MiCollab with the following Mitel communications platforms:

- **MiVoice Business:**
  - MiVoice Business for 3300 controller
  - MiVoice Business for Industry Standard Servers (MiVoice Business-ISS)
  - MiVoice Business Virtual Appliance
- **MiVoice 5000**
- **MiVoice MX-ONE**
- **MiVoice Office 400**
- **MiVoice Office 250**
- **Multi Instance Communications Director (MICD)**

MiCollab is not available for integration with the following Mitel communications platforms:

DEPLOYMENT TOPOLOGIES

MiCollab is supported in the following deployment topologies:

Small Business
• LAN Deployment (Server-only mode)

Mid-range Business/Enterprise Site
• LAN Deployment with Separate MBG Server in DMZ

Note: Refer to the MiCollab Engineering Guidelines for details.

Large scale Multi-MiCollab Deployments
• with MiVoice 5000 (up to 20,000 users),
• with MiVoice MX-ONE (up to 40,000 users)

LAN DEPLOYMENT (SERVER ONLY)

In this configuration, the MiCollab server is located in the LAN with the communications platform. This configuration does not support MBG Teleworker service with teleworker phones configured in MiCollab. Firewall configuration and port forwarding must be configured to allow internet access to the Application Management Center (AMC).

This deployment configuration
• supports all MiCollab applications that do not require Internet access (for example, Nupoint Unified Messaging). Note: Internet based services, such as MBG Teleworker service and remote audio and web conferencing clients, are not supported for this configuration.
• requires firewall configuration. You must configure port forwarding to allow application clients on the public network to connect through the firewall to the MiCollab server on the private network.

Figure 6: LAN Deployment
LAN DEPLOYMENT WITH SEPARATE MBG

To support applications that have clients on the Internet, such as, MBG-Teleworker, MiCollab Client and MiCollab AWV, you require a separate MBG server running the Web Proxy application to protect the MiCollab server in the LAN from Internet exposure. This deployment configuration:

- supports all MiCollab applications.
- provides the highest level of security. It uses the separate MBG server as a stateful proxy for Internet communications.

This configuration uses a MiCollab server connected to a second MBG server the following deployment:

- MiCollab in LAN mode with Web Proxy running on a second MBG server in the DMZ (see Figure 7)

The deployment of MiCollab server in the Local Area Network (LAN) connected to a second MBG server in the Demilitarized Zone (DMZ) supports two variants:

- The **Web Proxy** deployment consists of a MiCollab server on the corporate LAN with Web Proxy running on an MBG server in the DMZ. Remote web browser users connect to the MiCollab server through the Web Proxy service that is running on the MBG server in the DMZ.

- The **Teleworker Service and Web Proxy** deployment consists of a MiCollab server on the corporate LAN with Teleworker and Web Proxy on a MBG server located in the DMZ. The MBG is a multi-service software application with a Web Proxy that provides a secure method for Teleworker Web clients to connect to the LAN. Teleworker service is installed on both the MiCollab and MBG servers. The Teleworker service in the MiVoice Border Gateway (MBG) is used to support the teleworkers in the DMZ. The Teleworker service in the MiCollab server is only used to remotely manage the Teleworker phones that are configured on the MBG server. The Web Proxy service is also installed in this configuration.
MiCollab supports the Secure Recording Connector (SRC) services in the following deployment configurations:

- MiCollab in LAN Mode
- MiCollab in LAN Mode with MBG Server in Network Gateway Mode
- MiCollab in LAN Mode with MBG Server in the DMZ

**MICOLLAB IN LAN MODE**

In this configuration, MiCollab is installed in LAN mode with either the MiCollab Server Software Base Package or MiCollab Virtual Appliance Software Base Package which include the MBG application. The MBG application on the MiCollab platform provides SRC services for devices on the LAN only. SRC services are not supported for teleworker devices.
Refer to the *MiCollab Engineering Guidelines* for deployment configuration details.

**Figure 8: MiCollab with SRC in LAN Mode**

**MICOLLAB IN LAN MODE WITH MBG SERVER IN NETWORK EDGE OR DMZ**

In this configuration, you deploy the MiCollab in the LAN or DMZ with the MiCollab Base Software Package. This software package allows the teleworker and SRC licenses to be shared with an MBG server in the network edge or DMZ. A separate MBG server is installed in the network edge or DMZ. The MBG application on the MiCollab platform:

- provides the SRC services for the LAN devices, and
- allows you to manage the teleworker devices supported by the MBG server that is located on the network edge or in the DMZ.

The standalone MBG server on the network edge or DMZ provides the teleworker and SRC services for all WAN devices. Cluster zoning is used to minimize the teleworker and call recording licensing requirements on the LAN side. After you create a cluster and divide it into two zones: MiCollab server in a “LAN” zone and MBG in the “Default” zone, the teleworker and call recording licenses are shared between the MiCollab and MBG servers. The devices in the “LAN” zone each consume one call-recording license (when in use) but no teleworker licenses. Teleworker sets in the “Default” zone each consume one Teleworker license, and if required one call recording license (when in use).
LARGE SCALE MULTI-MICOLLAB DEPLOYMENTS

The following large scale multi-MiCollab deployments are supported:

- Up to eight MiCollab servers with 40,000 users in MiCollab, requiring 80,000 SIP registrations in MiVoice MX-ONE (based on a SIP deskphone and SIP softphone per user). Refer to the MiCollab Platform Integration Guide for configuration instructions.

- MiVoice 5000 supports up to 20,000 users in MiCollab.

Active Directory is not supported for multiple MiCollab servers.
SUPPORTED APPLICATIONS

The applications supported by a MiCollab installation are dependent on the following criteria:

- Communications platform
- Deployment configuration, and
- MiCollab platform.

MIVOICE OFFICE 250 PLATFORMS

The following MiCollab applications are supported:

- NuPoint Unified Messaging
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway: MiVoice Border Gateway: Refer to the *MiVoice Border Gateway Installation and Maintenance Guide* for a table of the supported features.
- Legacy MiVoice for Skype for Business

MIVOICE OFFICE 400 PLATFORMS

The following MiCollab applications are supported:

- MiCollab Client
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway: MiVoice Border Gateway: Refer to the *MiVoice Border Gateway Installation and Maintenance Guide* for a table of the supported features.

MIVOICE 5000 AND MIVOICE MX-ONE PLATFORMS

The following MiCollab applications are supported:

- NuPoint Unified Messaging
- MiCollab Client
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway: MiVoice Border Gateway: Refer to the *MiVoice Border Gateway Installation and Maintenance Guide* for a table of the supported features.
- MiCollab for Microsoft Client
- Vido

CLIENT STATION SUPPORT

MiCollab clients (for example, MiCollab End User portal, MiCollab System Administrator portal, MiCollab AVV clients, and so forth) are supported on various operating systems. Refer to the *MiCollab Engineering Guidelines* document for details.
Appendix A

MICOLLAB CLIENT FEATURE SUPPORT
FEATURE SUPPORT

The tables in this appendix list the features supported on the clients for the platforms. In order for a feature to be supported on the client on a specific communications platform, the feature must be "Yes" in both the client column and the platform column.

CONTACT MANAGEMENT FEATURES

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<th>FEATURES</th>
<th>MICCOLLAB CLIENTS</th>
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<tr>
<td></td>
<td>MOBILE CLIENTS</td>
<td>WEB</td>
<td>MAC</td>
<td>NG PC CLIENT</td>
<td>DESKTOP (LEGACY) CLIENT</td>
<td>MIVB</td>
<td>MX-ONE</td>
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<td>Corporate contacts</td>
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CONTACT ACCESS

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## CALL FEATURES

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# DESKPHONE CALL CONTROL

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MiCollab Client Feature Support

SOFTPHONE CALL CONTROL (SIP)

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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Record video</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Integration with Vidyo - Meeting Room (HD) Video system</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

n/a = not applicable

Note: Softphone is available on Android and iOS mobile operating systems.
## USABILITY

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>MOBILE CLIENTS</th>
<th>WEB</th>
<th>MAC</th>
<th>NG PC CLIENT</th>
<th>DESKTOP (LEGACY) CLIENT</th>
<th>MIVB</th>
<th>MX-ONE</th>
<th>MIV 5000</th>
<th>MIV400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mute key (for softphone)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Handset receiver volume control (for softphone)</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Plantronics RCC (SDK)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Jabra RCC (SDK)</td>
<td>Yes (selected devices)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Redial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Incoming call audio notification</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>System tray status icon</td>
<td>n/a</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ability to switch modes (desk/softphone)</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Speaker phone</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Avatar support on client</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Avatar support on MiVoice 69xx IP Phones</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Select dialed device preference - member of PRG</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Active call window</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Visual voice mail - play, delete Messages</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>MiCollab advanced messaging support</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>n/a</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>VM - sync MWI</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Program Mitel desktop phones - favorite contacts / speed dial</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Launch pad - speed-dial / application launch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>User log-in notification</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Preferential contacts</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>MiCollab - console</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
### MiCollab Client Feature Support

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>MICOLLAB CLIENTS</th>
<th>MOBILE CLIENTS</th>
<th>WEB</th>
<th>MAC</th>
<th>NG PC CLIENT</th>
<th>DESKTOP (LEGACY) CLIENT</th>
<th>MIVB</th>
<th>MX-ONE</th>
<th>MIV 5000</th>
<th>MIV400</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESENCE AND STATUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice presence - on/off hook</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Presence of any device in ring group - i.e. softphone</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Video Presence - available to receive video calls</td>
<td></td>
<td>Set Availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dynamic Status - control incoming call based on presence</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dynamic status change based on calendar (Exchange)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dynamic status change based on time of day</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dynamic Status change based on geographical location</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Auto IM responder - based on dynamic status</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Advisory message - free form</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Appendix B

MICOLLAB NUPOINT FEATURE SUPPORT
FEATURE SUPPORT IN MICOLLAB-NUPOINT

This appendix describes the NuPoint features supported by MiCollab with MiVoice Business integrations.

The MiCollab-NuPoint product does not support all of the same features and functionality of NuPoint UM standalone. The following section outlines the differences between the two implementations of the NuPoint UM product.

GENERAL DIFFERENCES

• MiCollab-NuPoint is licensed on a per mailbox basis. NuPoint standalone is licensed on a per port basis.

• Single Point User Provisioning applies to MiCollab applications, including MiCollab-NuPoint, but does not apply to NuPoint standalone.

• The MiCollab NuPoint application is supported as a trusted service on MiVoice Business systems. NuPoint standalone is not supported as a trusted service on MiVoice Business.

• UCC licensing bundles apply to MiCollab-NuPoint; they are not applicable to NuPoint standalone.

• MiCollab-NuPoint is available as a software only solution, a turnkey platform, and as a virtual application.

• MiCollab platforms can be deployed on the LAN or on the network edge.

PBX AND EMAIL SUPPORT

MiCollab-NuPoint supports the following:

• Integration with Mitel Axxess PBX through a 5000 Gateway over IP.

• Integration with MiVoice Business/3300 ICP.

• Integration with MiVoice MX-ONE.

• Integration with MiVoice Office 5000.*

• Integration with MiVoice Office 250.*

  * NuPoint standalone does not support these integrations.

MiCollab-NuPoint does not support the following:

• Integration with MiVoice Office 400

• Integration with Mitel SX-200.

• Integration with Mitel SX-2000.

• Integration with third-party PBX integrations (for example, Dialogic Media Gateway 1000).

• T1/E1 integrations.

• Integration with the Mitel Messaging Gateway.

• Integration with multiple PBXs.
• MWI information shared between multiple PBXs.
• Message Waiting Notifications for PBXs that do not support MWI.

USER INTERFACE, LANGUAGE AND PROMPT SUPPORT
• MiCollab-NuPoint does not support the Competitive Telephone User Interface feature.
• MiCollab systems support either numeric or mnemonic prompts in North American English. The option to provide some users with mnemonic prompts and other users with numeric prompts in a single system is not available with MiCollab-NuPoint. See “System Prompt Language Support” on page 74 for details.
• MiCollab-NuPoint and NuPoint standalone support different languages. See “MiCollab-NuPoint Language Support” on page 75 for details.
• MiCollab-NuPoint supports only English TUI prompts for Call Director (Personal Edition).
• MiCollab-NuPoint supports Speech Auto Attendant and Text-to-Speech only in North American and UK English. MiCollab-NuPoint does not support the bilingual capability.
• With MiCollab-NuPoint, the languages for the GUIs and TUIs are set from the MiCollab administrator portal, not from NuPoint via an LCOS setting. End users can set their own prompt language on the Settings page of their My Unified Communications portal.

BASE FEATURE SUPPORT
• On a MiCollab-NuPoint system, while all languages are included in the base pack, features that require multiple mailboxes may require you to purchase additional mailbox licenses.
• MiCollab-NuPoint supports up to 50 simultaneous Web View sessions.
• On MiCollab-NuPoint, every mailbox includes a Call Director license.
• The NuPoint Multilingual Service feature provides support for up to five prompt languages. However, on MiCollab-NuPoint systems, the following configuration options are not supported:
  - Custom language selection prompt
  - Language selection prompt timeout
  - Play only second language selection prompt.

Also note the following concerning the NuPoint Multilingual Service feature:
• On MiCollab-NuPoint, the Language Selection Template in Call Director is assigned to users through LCOS.
• MiCollab-NuPoint does not provide an option to create custom language prompts. System prompts must be used on MiCollab systems.

OPTIONAL FEATURE SUPPORT
• MiCollab-NuPoint and NuPoint standalone support different numbers of Advanced and Standard Unified Messaging users. See “Summary of Standard and Optional Features” on page 72 for details regarding system capacities.
• MiCollab-NuPoint cannot be integrated with third-party databases such as Active Directory for Speech Auto Attendant phonebook and presence information. On MiCollab-NuPoint, SAA must collect its user data from the MiCollab database.

• MiCollab-NuPoint does not support Hospitality features and applications.

• MiCollab-NuPoint does not support Voice Mail Networking using the Audio Messaging Interchange Specification (AMIS).

• MiCollab-NuPoint does not support SMS.

SYSTEM ADMINISTRATION AND MAINTENANCE DIFFERENCES

• In MiCollab-NuPoint, user and mailbox administration is performed in the MiCollab User and Provisioning application rather than through the NuPoint application. The User and Provisioning application provides a single point of provisioning for MiCollab applications.

• In MiCollab-NuPoint, system administration for NuPoint is accessed through the MiCollab Administrator web portal.

• In MiCollab-NuPoint, system administration for Active Directory is accessed through the MiCollab Administrator web portal.

• Backups and restores are performed for all MiCollab applications. You cannot back up and restore only the NuPoint database.

• The configurable passcode expiry feature is not supported in MiCollab-NuPoint.

• The Hot Desk PIN synchronization feature is available in MiCollab-NuPoint. To enforce a controlled level of security for Hot Desk users, administrators can configure passcode synchronization. Hot Desk PINs can then be synchronized with NuPoint TUI passcodes and managed through the NuPoint voice system.

• In MiCollab-NuPoint, upgrades and migrations are performed through MiCollab, not through the NuPoint application.

• In MiCollab-NuPoint, software assurance and licensing are managed through MiCollab, not through the NuPoint application.
PLATFROM COMPATIBILITY - COMMON FEATURES

This section lists the most common features supported by NuPoint UM for the MiVoice Business, MiVoice Office 250, MiVoice MX-ONE and MiVoice 5000 call control platforms.

Table 3: Platform Compatibility - Features

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>MIVOICE BUSINESS</th>
<th>MIVOICE OFFICE 250</th>
<th>MIVOICE MX-ONE</th>
<th>MIVOICE 5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td>MiTAI</td>
<td>SIP</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Call Transfers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Blind Transfers: A Blind Transfer dials the destination and then releases the call regardless whether the destination is busy or not answering.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Supervised Transfer: A Supervised Transfer waits for the called party to answer before completing the transfer. If the call is not answered or the called party is busy, it returns to the call flow for further processing.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Screened Transfer: A Screened Transfer, is similar to a Supervised Transfer, except that the caller's name is first recorded and then played back to the called person. The called person has the option to accept or reject the call.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Alternate Transfer: An Alternate Transfer is used to route calls to an external destination, such as a cell phone or pager, and for text messaging.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message Waiting Indicator (MWI): MWI synchronization.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pager:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Pager application causes the NuPoint Unified Messaging server to initiate, rather than receive, a telephone call. It is used for sending messages to pagers, but also for a number of other functions that require out dials. An out dial is a call placed by the server.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiving and replying to fax messages.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTMF:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual tone multi frequency (DTMF) recognition and collection.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.729 Support:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the system is licensed for G.729, when you program a line group you can select between two audio codecs, G.711 (the default) and G.729. Without a license, only G.711 is supported.</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech Recognition Features: Speech Auto Attendant and Speech Navigation.</td>
<td>Yes</td>
<td>Yes for MiVoice Office 250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In MiCollab NP, Speech Auto Attendant is available in North American (NA) and UK English, and Speech Navigation is available in NA English.</td>
<td>Yes</td>
<td></td>
<td>Not available for MX-ONE and MiVoice 5000.</td>
<td></td>
</tr>
</tbody>
</table>
### SUMMARY OF STANDARD AND OPTIONAL FEATURES

Table 4 lists the standard and optional features that are available with a NuPoint UM application on the MiCollab platform. Refer to the *NuPoint Unified Messaging General Information Guide* for descriptions of these features:

**Table 4: Standard and Optional Features**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>MiCollab-NuPoint Product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Features</strong></td>
<td></td>
</tr>
<tr>
<td>Mailbox Support</td>
<td>Yes</td>
</tr>
<tr>
<td>Greetings</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---

**Table 3: Platform Compatibility - Features (continued)**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>MVOICE BUSINESS</th>
<th>MVOICE OFFICE 250</th>
<th>MVOICE MX-ONE</th>
<th>MVOICE 5000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text to Speech (TTS):</strong></td>
<td>Yes</td>
<td>Yes for MiVoice Office 250</td>
<td>Not available for MX-ONE and MiVoice 5000.</td>
<td></td>
</tr>
<tr>
<td>TTS is used to read email to Advanced UM users in North American (NA) English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Resiliency:</strong></td>
<td>Yes</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>When NuPoint UM is integrated with a resilient MiVoice Business system, resiliency is supported for the voicemail services. When in resilient mode, voice mail ports conform to the behavior of resilient IP phones. It is not necessary to configure the NuPoint UM system for resiliency on MiCollab; it is configured entirely on the MiVoice Business communications platform.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Voice Mail Soft Keys:</strong></td>
<td>Yes</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>The Voice Mail Soft Keys feature allows users to control voice mail functions through context-sensitive keys on the telephone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Record-A-Call (RAC):</strong></td>
<td>Yes</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>RAC is an optional feature that allows mailbox subscribers to record both ends of a two-party external call at their phone. Recorded conversations are delivered to the user's voice mailbox. Unlike regular voice mail messages, RAC messages are stored immediately as saved messages, so they do not trigger Message Waiting Indicator on the user's telephone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>FEATURE</th>
<th>Availability on MiCollab-NuPoint Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution Lists</td>
<td>Yes</td>
</tr>
<tr>
<td>Message Management</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Receptionist</td>
<td>Yes</td>
</tr>
<tr>
<td>Multilingual Service</td>
<td>Yes</td>
</tr>
<tr>
<td>Call Director - Corporate Edition</td>
<td>Yes</td>
</tr>
<tr>
<td>Classes of Service</td>
<td>Yes</td>
</tr>
<tr>
<td>System Day/Night Hours</td>
<td>Yes</td>
</tr>
<tr>
<td>Dial-by-Name</td>
<td>Yes</td>
</tr>
<tr>
<td>Dial-Back</td>
<td>Yes</td>
</tr>
<tr>
<td>System Prompts</td>
<td>Yes</td>
</tr>
<tr>
<td>Wait Prompts</td>
<td>Yes</td>
</tr>
<tr>
<td>Pager Application</td>
<td>Yes</td>
</tr>
<tr>
<td>RAD Support</td>
<td>Yes</td>
</tr>
<tr>
<td>Message Waiting Notification</td>
<td>Yes</td>
</tr>
<tr>
<td>Unified Messaging (STMP)</td>
<td>Yes</td>
</tr>
<tr>
<td>Functionally Partitioned System Administration (FPSA) for Web Console and Text Console</td>
<td>Yes</td>
</tr>
<tr>
<td>Visual Voice Mail</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Optional Features**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>Availability on MiCollab-NuPoint Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Directory Integration</td>
<td>Yes (via MiCollab-IDS)</td>
</tr>
<tr>
<td>Call Detail Recorder</td>
<td>Yes</td>
</tr>
<tr>
<td>Call Directory - Personal Edition</td>
<td>Yes</td>
</tr>
<tr>
<td>Competitive TUI Emulator</td>
<td>No</td>
</tr>
<tr>
<td>DMG Integrations</td>
<td>No</td>
</tr>
<tr>
<td>Hospitality</td>
<td>No</td>
</tr>
<tr>
<td>Language Support</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Cut Through Paging</td>
<td>Yes</td>
</tr>
<tr>
<td>NP FAX Services</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Forms</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Net</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Ondemand</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Ondemand</td>
<td>Yes</td>
</tr>
<tr>
<td>NP Rapid Dial</td>
<td>Yes</td>
</tr>
<tr>
<td>NP TDD</td>
<td>No</td>
</tr>
<tr>
<td>NP Wakeup</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 4: Standard and Optional Features (continued)

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>Availability on MiCollab-NuPoint Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP-UM IP Miscellaneous Applications</td>
<td>Yes</td>
</tr>
<tr>
<td>PMS Integration</td>
<td>No</td>
</tr>
<tr>
<td>Record A Call (see Note 1)</td>
<td>Yes</td>
</tr>
<tr>
<td>Redundancy - NP-UM System</td>
<td>No</td>
</tr>
<tr>
<td>Redundancy - Hard Disk</td>
<td>No</td>
</tr>
<tr>
<td>Resiliency - Voice Mail Resiliency in MiVoice Business Clusters (only)</td>
<td>Yes</td>
</tr>
<tr>
<td>Softkey Support (see Note 1)</td>
<td>Yes</td>
</tr>
<tr>
<td>SMS Notification (UK only)</td>
<td>Yes</td>
</tr>
<tr>
<td>Speech Auto Attendant (See Note 2)</td>
<td>Yes</td>
</tr>
<tr>
<td>Speech Navigation (See Note 3)</td>
<td>Yes</td>
</tr>
<tr>
<td>Text to Speech (See Note 2)</td>
<td>Yes</td>
</tr>
<tr>
<td>Unified Messaging - Standard</td>
<td>Yes</td>
</tr>
<tr>
<td>Unified Messaging - Advanced</td>
<td>Yes</td>
</tr>
<tr>
<td>Visual Voice Mail (MiVoice Business only; See Note 4)</td>
<td>Yes</td>
</tr>
<tr>
<td>Voice Profile for Internet Mail (VPIM)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note 1: No charge option.
Note 2: Speech Auto Attendant and Text to Speech are available in North-American (NA) English and UK English only.
Note 3: Speech Navigation is available in North-American (NA) English only.
Note 4: Only users on MiVoice Business platforms can view Visual Voice Mails on their phones. However Visual Voice Mail to MiCollab Client is supported on all the MiVoice platforms (that is, MiCollab Client users can see a NuPoint UM visual voice mail message regardless of which MiVoice Call Control platform they are supported on).

SYSTEM PROMPT LANGUAGE SUPPORT

Table 5 summarizes the system prompt language support for MiCollab-NuPoint:

Table 5: Summary of System Prompt Support for MiCollab-NuPoint

<table>
<thead>
<tr>
<th>PROMPT SET</th>
<th>WHAT IS IT?</th>
<th>SUPPORTED PROMPT LANGUAGES</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numeric</td>
<td>Press 7 to play</td>
<td>See Table 6</td>
<td>NA English and choice of one other language is included in NuPoint UM base software</td>
</tr>
<tr>
<td>Numeric (default) or Mnemonic</td>
<td>Press 7 to play OR Press P to play</td>
<td>NA English</td>
<td>Included in NuPoint UM application software</td>
</tr>
</tbody>
</table>

Note 1: The prompt sets default to Numeric.
### MICOLLAB-NUPOINT LANGUAGE SUPPORT

Table 6 summarizes the languages supported for NuPoint UM features on MiCollab:

#### Table 6: Summary of Language Support

<table>
<thead>
<tr>
<th>LANGUAGES</th>
<th>NP-UM ON MICOLLAB PROMPTS</th>
<th>WEB VIEW</th>
<th>GUI</th>
<th>CALL DIRECTOR PERSONAL EDITION (SEE NOTE 1)</th>
<th>TEXT -TO-SPEECH (SEE NOTE 2)</th>
<th>FAX PROMPTS</th>
<th>SAA FOR NP-UM ON MICOLLAB PROMPTS</th>
<th>EXTENDED ABSENCE GREETING PROMPTS</th>
<th>CLOCK FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>24</td>
</tr>
<tr>
<td>Danish</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>24</td>
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<tr>
<td>Dutch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>24</td>
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<tr>
<td>English (NA)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>English (UK)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>12</td>
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<tr>
<td>Finnish</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>French (Canadian)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>French (European)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>German</td>
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<td>Italian</td>
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<td>Mandarin</td>
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<td>Norwegian</td>
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<td>Portuguese (Brazil)</td>
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<tr>
<td>Portuguese (European)</td>
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<td>Spanish (LA)</td>
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<td>No</td>
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<tr>
<td>Spanish (European)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Swedish</td>
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<td>No</td>
<td>Yes</td>
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<td>24</td>
</tr>
</tbody>
</table>

**Note 1:** Call Director - Personal Edition TUI prompts are only supported in English.

**Note 2:** Text to Speech is used in SAA for playing Mailbox and Directory names and used in Advanced UM Email playback. Text to Speech is available in NA and UK English only.