

# General Information Guide

Release 7.1

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### **General Information Guide**

Release 7.1

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# Chapter 1

## INTRODUCTION





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## 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 any of the following browsers:

- Microsoft Edge 20
- Microsoft® Internet Explorer 10.0 or 11.0
- Google Chrome (version 46 or higher)
- Mozilla® Firefox® 41 or higher.

The following documents are the main source of information for the MiCollab platform:

- [MiCollab Installation and Maintenance Guide](#) provides installation instructions for the MiCollab software and for the supported applications.
- [MiCollab Engineering Guidelines](#) provide information about the characteristics, requirements, configurations, capacities, and performance of the MiCollab solution.
- [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 OnLine.
2. Click **Support** and then click **Product Documentation**.

3. Click **Applications & Solutions** and then click **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:

- Voice Messaging
- Speech Auto Attendant
- Unified Messaging
- Mobility
- Collaboration
- Communications Usage Reporting
- Casual or Workgroup Customer Interaction

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:

- NuPoint Unified Messaging™ provides extensive voice mail and FAX messaging capabilities.
- Speech Auto Attendant provides a speech-enabled auto attendant with Microsoft Office Communications Server presence.
- 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.
- MiVoice Border Gateway (MBG) provides the following services:
  - Teleworker service to connect remote employees with the main office while minimizing communication costs
  - Secure Recording Connector (SRC) service allows you to record system calls using third-party call recording equipment

- MiCollab Audio, Web, and Video (AWV) Conferencing allows your employees to collaborate in real time, give presentations, and conduct interactive online meetings
- MiVoice for 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.

## 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 250 users,
- mid-market business sites up to 1500 users
- enterprise single or multi-application sites up to 5000 users



**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.
- place calls by speaking a person's name, department name, or telephone number with Speech Auto Attendant.
- 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.

When MiCollab is used in conjunction with an MiVoice Business platform, user updates to phone parameters, such as Passcode, can be automatically updated in the MiVoice Business programming database via single-point provisioning (see “Flow through Provisioning” on page 35).

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

**Table 1: MiCollab 7.1 application end user language support**

Language	MiCollab End User Portal		MiCollab Desktop Client	MiCollab for Mobile	MiCollab Web Client	MiCollab Vidyo	NuPoint Unified Messaging Web Client
	MiCollab AWW	NuPoint Unified Messaging					
Chinese (Simplified)			Y	Y			
Chinese (Traditional)			Y	Y			
Dutch	Y	Y	Y	Y	Y	Y	Y
English (UK)	Y	Y	Y	Y			
English (US)	Y	Y	Y	Y	Y	Y	Y
Finnish	Y	Y	Y	Y	Y	Y	Y
French (Canada)	Y	Y	Y	Y	Y	Y	Y
French (Europe)	Y	Y	Y	Y	Y	Y	Y
German	Y	Y	Y	Y	Y	Y	Y
Italian			Y	Y	Y	Y	
Norwegian	Y	Y	Y	Y	Y	Y	Y
Portuguese (Europe)				Y	Y	Y	
Portuguese (LA)			Y	Y		Y	
Spanish (Europe)	Y	Y	Y	Y	Y	Y	Y
Spanish (LA)			Y	Y		Y	Y
Swedish	Y	Y	Y	Y	Y	Y	Y

The screenshot displays the 'Settings for Malcolm Urquhart' page in the MiCollab End User Portal. The interface includes a sidebar on the left with navigation options: 'Settings', 'Portal Password', 'Passcode', 'NuPoint Unified Messaging Mailbox 3333', and 'Audio, Web and Video Conferencing'. The main content area is titled 'Settings for Malcolm Urquhart' and contains a 'Save' and 'Cancel' button. Below this, there are sections for 'User Information' and 'Preferences'. The 'User Information' section includes fields for 'Email Address' (malcolm\_urquhart@mitel.com), 'Department' (MAS), and 'Location' (Kanata). The 'Preferences' section includes 'Prompt Language' (System Default - English (United States)) and 'Default Page' (NuPoint Unified Messaging: Mailbox 3333). There are also three 'Phone' sections, each with a 'Number' field (3333, 3334, and 3335). The footer of the page reads 'Mitel Networks Corporation'.

**Figure 1: MiCollab End User portal General Settings**

Users can configure general application settings such as

- configure their email address
- select the default page that the MiCollab End User portal will display after log in
- set their Speech Auto Attendant contact number
- change their portal login password. The administrator sets the password strength at Weak, Medium, or Strong for all users
- 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
- search contact information for a MiCollab user.

## 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.

# CONSOLIDATED CONFIGURATION AND ADMINISTRATION

Administrators can enter the system configuration and administration settings for all the applications in a single web-based interface. Common data elements are shared among the applications, reducing both the need for duplicate entry and the possibility for error.

The Users and Services Provisioning application is a single, easy-to-use interface that administrators use to add, edit, or delete user data and to modify users' application settings. This application significantly reduces administration costs.

The system can automatically send Service e-mails to users that contain the user's communications settings, such as login ID, password, primary e-mail address, phone type and number, and service information. You can send the Service e-mail with a default or custom greeting message. With the exception of the custom greeting, the information can be sent in two languages.

Flow-Through provisioning is supported for MiVoice Business platforms, reducing data entry requirements (see "Flow through Provisioning" on page 35 for details).



**Note:** Flow-Through provisioning is not supported for MiVoice 5000, MiVoice MX-ONE, or MiVoice Office 250 platforms.

The screenshot displays the 'Users and Services' provisioning interface. The top navigation bar includes the Mitel logo, 'MiCollab', the user email 'admin@masdi2.mitel.com', a 'Warning' status indicator, and a 'Logout' button. The left sidebar contains a menu with categories like 'Applications', 'ServiceLink', 'Administration', and 'Configuration'. The main content area is titled 'Users and Services' and includes a search bar, a table of users, and various action buttons.

<input type="checkbox"/>	Last Name	First Name	Phone(s)	NuPoint Unified Messaging	MiCollab Client	Audio, Web and Video Conferencing	Teleworker	Vidyo
<input checked="" type="checkbox"/>	<a href="#">Addala</a>	Pradyumna	72047 7*2047 72*047	✓	✓	✓	✓	
<input type="checkbox"/>	<a href="#">Anzarouth</a>	Ralph	71344 73773 73*773	✓	✓	✓	✓	
<input type="checkbox"/>	<a href="#">Armstrong</a>	Ken			✓			
<input type="checkbox"/>	<a href="#">Bechamp</a>	Billy			✓	✓		
<input type="checkbox"/>	<a href="#">Benoit</a>	Christophe	71353 713*53	✓	✓	✓	✓	
<input type="checkbox"/>	<a href="#">Bhat</a>	Avinash	3214		✓	✓	✓	
<input type="checkbox"/>	<a href="#">Bjorkner</a>	Jorgen			✓	✓		
<input type="checkbox"/>	<a href="#">Bontemps</a>	Julia	53639	✓	✓	✓	✓	

Figure 2: Users and Services Provisioning

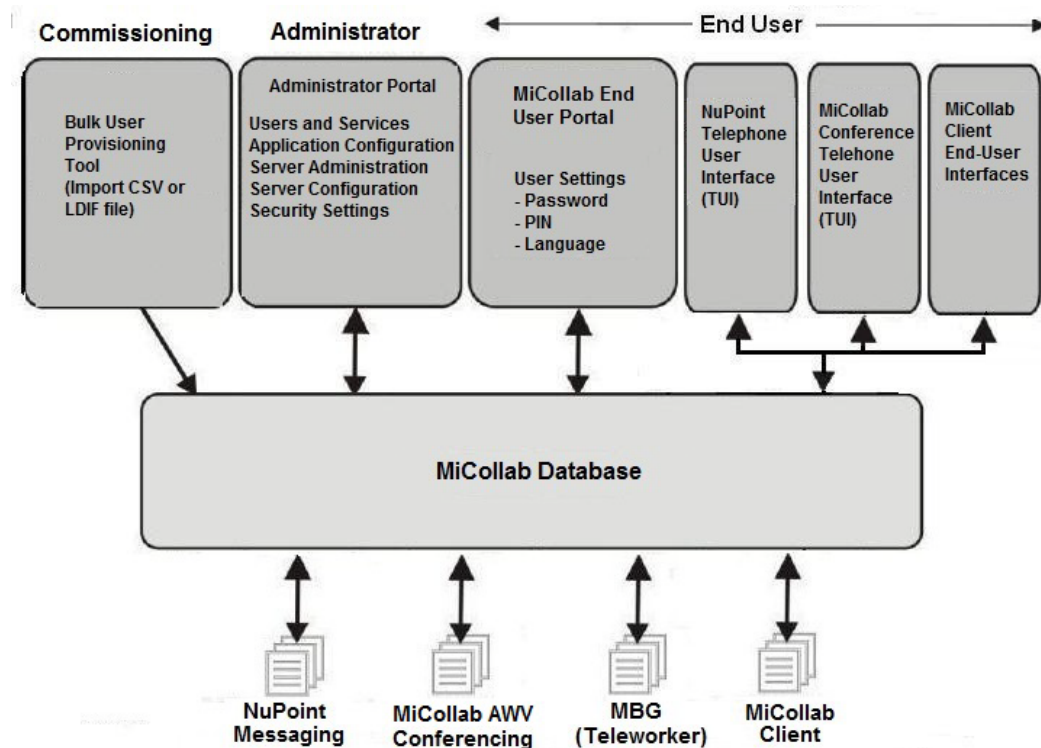
## SYSTEM STRUCTURE

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

- **Suite Application Services:** solution software that provides seamless interaction between co-resident applications to provide consolidated administrator and MiCollab End User portals.
- **MiCollab NuPoint Unified Messaging:** Mitel's powerful call routing, voice, and unified messaging system.
- **Speech Auto Attendant:** speech-enabled auto attendant with Microsoft Office Communications Server presence.
- **MiCollab Client:** 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<sup>®</sup>, Microsoft<sup>®</sup> Exchange/Outlook<sup>®</sup> and Office as well as IBM<sup>®</sup> Lotus Notes<sup>®</sup>.
- **MiCollab AWW:** provides flexible, cost-effective audio and web collaboration tools.
- **Mitel MBG with Teleworker and Secure Recording Connector:** 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; Secure Recording Connector facilitates the recording of Mitel-encrypted voice streams by third-party call recording equipment.
- **Vidyo:** a video conferencing solution that provides user with high definition, low-latency video to mobile phones, desktops, and meeting rooms.



Figure 3 illustrates how the MiCollab system is structured:



### Application Databases

**Figure 3: 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.



**Note:** Not all applications are supported on the MiVoice 5000, MiVoice MX-ONE, or MiVoice Office 250 communication platforms.

## GLOSSARY OF TERMS

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

TERM	NAME	DESCRIPTION
3300 ICP	3300 IP Communications Platform	Mitel IP communications platform supporting 30 to 60,000 users. The 3300 ICP is the hardware platform that runs the MiVoice Business (MiVoice Business) software.
AMC	Application Management Center	A web-based service that handles licensing of Mitel products
ARID	Application Record ID	An identification number obtained from the Mitel Application Management Center (AMC). Used to license software on a specific Mitel product.
Authorized Partner		Dealers, resellers, and solutions providers who are authorized by Mitel to sell and service Mitel products and solutions.
BRI	Basic Rate Interface	ISDN standards and specifications for provision of low-speed ISDN services. Supports two B-channels of 64Kbps each and one D-channel of 16Kbps on a single wire pair.
BUP	Bulk User Provisioning	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.
CA	Certificate Authority	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.
CESID	Caller Emergency Service Identification.	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
Cluster		Refers to a grouping of elements (for example, a network of MiVoice Business systems) that share common dialing plans, or common directory information, such as Remote Directory Numbers with Telephone Directory.
COR	Class of Restriction	A programming feature of the MiVoice Business that gathers Class of Restriction numbers into groups. The COR Groups define which Classes of Restriction cannot access an outgoing trunk route. COR group numbers are assigned to users to restrict their outgoing call privileges.
COS	Class of Service	A programming feature of the MiVoice Business that specifies the optional features associated with that COS. Classes of Service, identified by Class of Service numbers, are assigned to MiVoice extensions and trunks.

TERM	NAME	DESCRIPTION
Detained Queue		<p>The <i>Detained Queue</i> in the <i>Bulk User Provisioning</i> tool lists the detained and failed Integrated Directory Services operations:</p> <ul style="list-style-type: none"> <li>Detained IDS operations are operations that have been performed on the directory server that have not been applied to the USP database yet.</li> <li>Failed IDS operations are directory server updates that the Mitel Applications Suite system could not apply to the USP database.</li> </ul> <p>From the Detained Queue, you can add, update, or delete IDS operations that have been detained.</p>
DID	Direct Inward Dial	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.
Directory Server		<p>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.</p>
DLM	Designated License Manager	The Designated License Manager (DLM) connects with an Application Group on the AMC in order to obtain licenses which may then be shared among the group members. The DLM also tracks license usage and violations for the group, and provides statistics to the AMC. The DLM requires a Group Application Record ID (GARID) with Enterprise License Sharing enabled.
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.
Flow Through Provisioning		<p>A MiCollab feature that allows an administrator to perform user and service provisioning for a cluster of MiVoice Business elements from a single administration interface (that being the MiCollab Users and Services application).</p> <p>Flow Through Provisioning synchronizes updates made between the MiCollab and MiVoice system databases using System Data Synchronization (SDS). The following data is synchronized:</p> <ul style="list-style-type: none"> <li>user and services data</li> <li>Programmable Ring Groups (PRGs)</li> <li>Multi-Device User Groups</li> <li>roles, and</li> <li>templates.</li> </ul>

TERM	NAME	DESCRIPTION
Hot Desk		<p>Hot Desking allows a number of users to share one or more hot desk sets. Anyone with a Hot Desk DN and User PIN can log in to an available hot desk-enabled telephone. Once logged in, the user can</p> <ul style="list-style-type: none"> <li>• Receive incoming calls at the set</li> <li>• Place outgoing calls</li> <li>• Retrieve voice messages</li> <li>• Program and use feature keys</li> </ul> <p>Hot Desking is ideal for telecommuters, sales agents, and other employees who spend only part of their time in the office. With Hot Desking, a company does not have to provide a dedicated phone for each of these employees. Instead, the company can make a pool of shared phones available on a first-come, first-served basis.</p>
Hunt Groups		<p>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.</p>
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 know as the Multi-Protocol Border Gateway. MBG software supports teleworking and call recording services. The MBG server supports the Teleworker service in the DMZ.

TERM	NAME	DESCRIPTION
MCS	Mitel Communications Suite	This communications platform consists of MiVoice Business call processing software running on an SUN Microsystems server. MiCollab is supported for the MCS platform.
MiCollab		Mitel software solution that enables applications to be co-resident on one server.
MiCollab Client		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
MiCollab Client Integration Wizard		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.
MiCollab Client Integrated Mode		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.
MiCollab Client Co-located Mode		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.
MiCollab Client Integration Wizard		Migrates the MiCollab Client database in a MiCollab system from co-located mode to integrated mode:
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.
MiCollab Server		MiCollab software installed in conjunction with the MSL operating system on a server platform.
MiCollab Virtual Appliance		MiCollab system deployed as a virtual appliance (vApp) running in a VMware vSphere or vCloud environment.
MICW	Mitel Integrated Configuration Wizard	A standalone software application that performs initial system setup of the MiCollab server and the MiVoice Business software.

<b>TERM</b>	<b>NAME</b>	<b>DESCRIPTION</b>
MiVoice for Skype for Business		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.
MiVoice Business	MiVoice Business	MiVoice Business (MiVoice Business) is the brand name of the call-processing software that runs on hardware platforms, such as 3300 ICP controllers.
MiVoice Business-ISS	MiVoice Business for Industry Standard Servers	This communications platform consists of MiVoice Business call processing software running on an industry standard platform. MiCollab is supported for the MiVoice Business-ISS platform.
MiVoice 5000	MiVoice 5000 Communications Platform	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).
MiVoice MX-ONE	MiVoice MX-ONE Communications Platform	An enterprise level IP communications platform capable of supporting up to 500,000 users.
MiVoice Office 250	MiVoice Office 250 Communications Platform	Mitel IP communications platform (formerly Inter-Tel 5000 Network Communications Solutions) supporting up to 250 users.
MOL	Mitel Online	Mitel's web portal for authorized dealers and technicians.
MSL	Mitel Standard Linux	The operating system that supports MiCollab software; along with Mitel SDK components, it comprises a base for all MiCollab software.
MWI	Message Waiting Indication	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.
Network Edge Mode		<p>A type of deployment for the MiCollab (or Mitel Standard Linux) server. In this deployment configuration, MiCollab manages the connection to the Internet by routing Internet data packets to and from the network (which allows all the computers on the network to share a single Internet connection) and by providing security for the network, minimizing the risk of intrusions.</p> <p>When one of the computers on the local network contacts the Internet, MiCollab not only routes that connection, but seamlessly interposes itself into the communication. This prevents a direct connection from being established between an external computer on the Internet and a computer on the local network, which significantly reduces the risk of intrusion. (Also known as Server-gateway mode).</p>
NP-UM	NuPoint Unified Messaging	Server-based voice processing system that provides call processing along with voice messaging and paging support.
Oria		A system management and customer self-service application. It allows a service provider to manage and deploy hosted voice services to their customers. Oria also allows a service provider to offer each of their customers an administration and self-service portal to make site specific moves, adds, changes, and deletes.

TERM	NAME	DESCRIPTION
OVA	Open virtual appliance or application	A packaging format for virtual machines that allows virtual machine templates to be distributed, customized, and instantiated on any OVA supporting VMM/hypervisor.
OVF	Open Virtualization Format	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.
PRI	Primary Rate Interface	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.
Reach Through		<p>MiCollab Reach Through provides you with the ability to access MiVoice Business System Administration System Administration tool (ESM) forms from links or drop-down menus within specific USP pages. Because you have logged into the MiCollab server manager, you are allowed direct access and do not have to log in separately to the MiVoice Business.</p> <p>This functionality reduces that amount of time it takes to perform programming tasks, such as modifying a user's MiVoice Business phone and group settings, that require configuration on the MiVoice Business.</p>
Reconcile Wizard		The Reconcile Wizard pairs user entries in the MiCollab database with matching user entries in the MiVoice Business databases in a network that is being configured to support Flow Through Provisioning. (See "Flow Through Provisioning" on page 13.). It also identifies any user data conflicts between the databases so you can manually resolve them.
Role		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.
SAA	Speech Auto Attendant	Speech-enabled software application that allows users to place calls quickly and efficiently by speaking a person's name, a department name, or telephone number.
SAS	Suite Applications Services	This application provides single-point user services provisioning and centralized management of shared system resources for all the MiCollab applications. This application also provides the My Unified Communications web portal.
SDS	System Data Synchronization	An MCD feature that shares system programming data among a network or cluster of elements (MiCollab and MiVoice Business systems) and synchronizes the system data of those elements with the data of a master element. This application reduces the amount of time required to maintain consistent data across the elements. SDS also allows you to share user and device data between a primary and secondary controller.

TERM	NAME	DESCRIPTION
Server Console		<p>A text-based control panel built into the Mitel Standard Linux operating system that technicians use to perform maintenance tasks such as</p> <ul style="list-style-type: none"> <li>• install the MiCollab software</li> <li>• configure network parameters</li> <li>• perform upgrades and software updates</li> <li>• upgrade application suite licensing</li> <li>• perform backups.</li> </ul>
Server-gateway mode		See Network Edge mode.
Server Manager		<p>A web-based control panel, also called the "server manager", that administrators use to</p> <ul style="list-style-type: none"> <li>• configure and administer the MAS applications</li> <li>• perform server administration tasks, such as view logs, display system information, assign system users, and perform backups</li> <li>• configure network and server security settings</li> <li>• set system-wide parameters, such as system language and password strength.</li> </ul>
Server-only mode		See LAN mode.
SIP	Session Internet Protocol	<p>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.</p>
SMDR	Station Message Detail Recording	<p>Records and prints out the details of incoming and outgoing trunk calls. Such details include the numbers of all parties involved in the call, the time and duration of each call, account codes and other pertinent details.</p>
Speech AA	Speech Auto Attendant	<p>A speech-enabled application that allows users to place calls to people quickly and efficiently by speaking their names. In addition to placing calls by name, users can say a department name or telephone number. A tutorial introduces users to the system features, and voice-based help is available to answer questions.</p> <p>The SAA feature uses an automated attendant to route incoming calls based on spoken commands. Typically, you say the name of the person you want to speak to and the system transfers your call to the requested party.</p>



TERM	NAME	DESCRIPTION
SPP	Single Point Provisioning	A pre-MiCollab Release 7.0 feature that allowed an administrator to perform user and service provisioning for a MiVoice Business platform from a single interface -- the MiCollab Users and Services application. SPP uses MiMXL to apply updates to the MiVoice Platform. Updates made on the MiVoice Office are not distributed back to the MiCollab. SPP is not supported in MiCollab Release 7.0 or later; Flow Through Provisioning is supported instead. (See "Flow Through Provisioning" on page 13.)
SRC	Secure Recording Connector	Formerly a standalone call recording product, SRC is now incorporated in the MBG software.
STT	Speech to Text	An optional, licensed feature of NuPoint UM that converts voice mail messages to text, allowing users to discreetly access voice messages in a text format.
SWAS	Software Assurance	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).
Template		A User and Services template 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.
TW	Teleworker	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.
TSL	Transport Layer Security.	A communication security protocol used for LDAP connections. TLS is a successor to SSL (Secure Sockets Layer).
UCC Licensing	Unified Communications and Collaboration Licensing	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.
MiCollab End User portal		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.
USB	Universal Serial Bus	A connection standard used by computers and other devices like smartphones, flash drives, cameras, and such.
USP	Users and Services	Refers to the interface used to provision users and services on MiCollab.
VA	Virtual Appliance	Defined by VMware as: "a pre-built software solution, comprised of one or more virtual machines that is packaged, maintained, updated, and managed as a unit."
vCenter	VMware's management system	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).

TERM	NAME	DESCRIPTION
vCloud	VMware's administration interface	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.
Vidyo		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 <i>Mitel Vidyo Quick Reference Administrator Guide</i> for details.
VM	Virtual Machine	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).
vMiCollab	Virtual MiCollab	MiCollab running as a virtual application (vApp) within the VMware vSphere environment.
vSphere	VMware's Cloud Operating System	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.
vSphere Standalone		VMware vSphere deployed as a standalone ESX/ESXi host.
vSphere Managed		VMware vSphere deployed as a vCenter Server "managed" environment with ESX/ESXi hosts.

# Chapter 2

## SOFTWARE APPLICATIONS

## INTRODUCTION

MiCollab supports any combination of the following applications. Customers have the flexibility to choose only those applications that meet their business needs:

- NuPoint Unified Messaging
- Speech Auto Attendant
- MiCollab Client
- MiVoice Border Gateway
- MiCollab Audio, Web and Video Conferencing

## 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.

If NuPoint Unified Messaging 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 Unified Messaging application for resiliency on MiCollab; it is configured entirely on the MiVoice Business platform.

## 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 Apple iPhone or Windows Mobile devices) can click the text to return a call.
- NuPoint Unified Messaging includes the Speech Auto Attendant (SAA) application (see "Speech Auto Attendant" on page 23 for details).
- 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 complete description of the available features.



**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. Refer to "MiCollab NuPoint Feature Support for MiVoice Business Integrations" on page 55 for a list of the supported features.

## SPEECH AUTO ATTENDANT

The NuPoint Unified Messaging Speech Auto Attendant (SAA) is a speech-enabled application that allows users to place calls to people quickly and efficiently by speaking their names. In addition to placing calls by name, users can say a department name or telephone number. A tutorial introduces users to the system features, and voice-based help is available to answer questions.

Speech Auto Attendant has the ability to store four numbers per person and provides the configurable option for the user to select which phone number will be called. Department names are also supported and can be heard after speaking the "Department" command. The auto attendant provides users with the ability to optionally play back the current presence state of the matched person prior to transferring a caller. This feature is supported:

- via integration with IBM Sametime, or
- via integration with Microsoft Live Communications Server (LCS), and Microsoft Office Communications Server (OCS).

The supported languages for Speech Auto Attendant are North-American (NA) English and United Kingdom (UK) English.

Speech Auto Attendant is not supported on the MiVoice 5000 or MiVoice MX-ONE communication platforms.

## 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 CLIENT SUPPORT

- **Softphone:** provides mobile users with access to MiVoice Business features from a remote PC or laptop. When remotely connected to a MiVoice Business or MiVoice Office platform via a secure network connection, users can make and receive calls as though they were on the corporate network.
- **Softphone (SIP-based):** supports the use of Session Initiation Protocol (SIP) softphones from remote PCs or laptops as well as Mobile devices. Desktop clients utilizing SIP-based softphone can also take advantage of video calling functionality.
- **Web Portal:** provides a web-based interface to a key subset of client features, perfect for users who are remote from the office.
- **Mobile Clients:**
  - MiCollab for Mobile is supported on BlackBerry, Android, iPhone, and Windows 8 and Windows 10 devices.

## 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:** The MiCollab desktop client provides users with the advanced call management features of the MiVoice Business or MiVoice Office 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.

- **Presence and Availability:** This feature 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:** Corporate, Personal and Favorite contact groups are combined 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.
- **Dynamic Presence:** This feature allows the server to automatically track and update presence information.
- **Hot Desking:** The Desktop Client supports Hot Desking in and out of supported PBX endpoints. This feature is available on MiVoice Business systems only.
- **Call Handoff:** The Desktop Client supports the handoff of an active call to another device. It can also pick up an active call from another device (such as a softphone). This feature is available on MiVoice Business systems only.
- **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.
- **Visual Voice Mail:** provides the user with an intuitive interface to view and listen to Mitel NuPoint Unified Messaging™ (UM) voice mail messages.
- **Corporate Secure IM:** 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 IM, 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 Google® or Microsoft® Outlook® calendar information.
- **Dynamic Location:** allows 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.
- **Console:** provides attendants and receptionists with console features and presence information allowing them to process calls efficiently.
- **Client Only Software Delivery:** delivers Windows Desktop Client and mobile clients software without having to upgrade the MiCollab server version. Supported clients: Desktop, Android, BlackBerry and Web clients.
- **Dialed Digits Processing Flexibility:** allows the admin 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.
- **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.

- **MiCollab Client Desktop MiNET Softphone - Server Independence:** If the MiCollab server is taken out of service, for example due to an upgrade or hardware failure, the Desktop MiNET softphone continues to provide the limited functionality. Refer to the MiCollab Client Desktop MiNET Softphone - Server Independence Guide for details.

## SUPPORTED INTEGRATIONS

- **Integration with MiVoice 5000 or MiVoice MX-ONE:** MiCollab Mobile Client Next Generation softphones are supported on the internet (only the Next Generation variants of the Desktop Client softphones are supported). 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 the following:

- A BluStar server is required to integrate the MiCollab Client application with either a MiVoice 5000 or MiVoice MX-ONE.
- Only MiCollab Integrated mode is supported for the MiVoice 5000 and MiVoice MX-ONE.
- **Integration with Mitel Teleworker Solution (MiVoice Business Platforms only):** 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 Mitel Dynamic Extension and Dynamic Extension Express:** A MiCollab client user who also has Dynamic Extension or Dynamic Extension Express can answer an incoming call directed to their desk phone on a device of their choice – for example, on a cell phone or home phone. When the call is answered, the MiCollab Client application changes the user's telephony presence to "off hook." This enables MiCollab Client to display the correct telephony status for a user, regardless of whether the call was answered on a user's desk phone, softphone, or mobile device.
- **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 also integrates with IBM Lotus Notes, allowing users to dial from their contact list, launch web / video collaboration sessions, and integrate their Dynamic Status with their calendar.
- **MiVoice for Skype for Business:** 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.
- **Vidyo:** 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.





**Note:** Standard ACD is not supported in MiCollab. MiCollab only supports provisioning for ACD hotdesk agents, but MiCollab Client does not support ACD hotdesk agents.

## 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:** Prior to MiCollab Release 4.0, the MiCollab Client application is only supported in 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 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 Service Administration interface. Single point provisioning of MiCollab Client services is not supported.

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

## MIVOICE BORDER GATEWAY

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

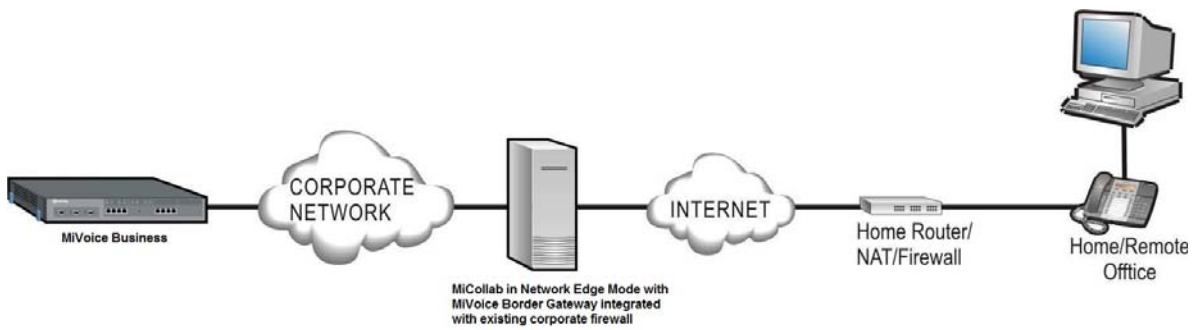
- Teleworker service
- Web proxy blade that provides a secure method for MiCollab end user web clients to connect with their LAN-based applications
- Secure remote SIP access for IP phones on the MiVoice Business and an outbound proxy for SIP trunking from internal MiVoice Businesses to external third-party SIP providers
- Secure Recording Connector service to facilitate the recording of Mitel-encrypted voice streams by third-party call recording equipment.

## TELEWORKER SERVICE

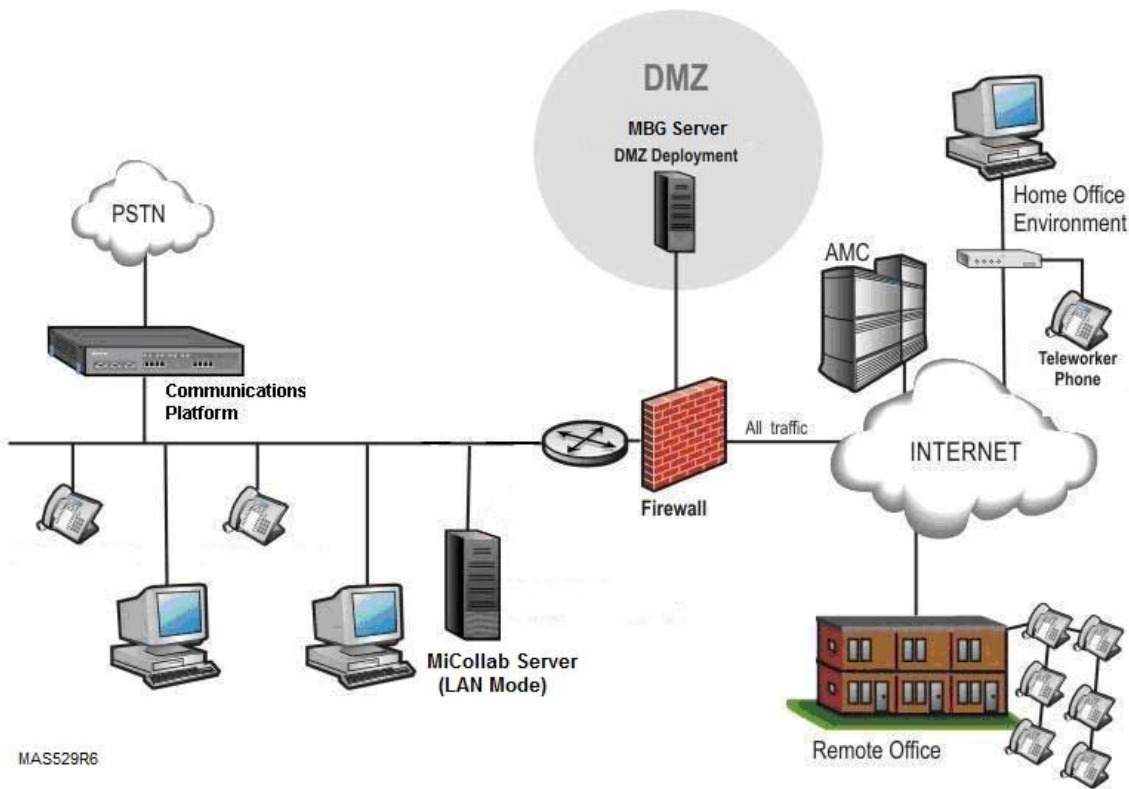
To deploy Teleworker service you must

- install MiCollab in Network Edge mode (see Figure 4), or
- install MiCollab in LAN mode and install a separate MBG server in the DMZ to support the teleworker services (see Figure 5).

A MiCollab server, by itself in LAN mode, does not support Teleworker service.



**Figure 4: MiCollab in Network Edge Mode Running MiVoice Border Gateway (Teleworker) Solution**



MAS529R6

**Figure 5: MiCollab in LAN Mode with MBG Server in DMZ**

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.
- Teleworker functionality is not supported on MiVoice Office 250 platforms.

## SIP TRUNK PROXY SERVICE

The MBG application on the MiCollab server supports SIP trunk proxy service.

You can use SIP trunks provided by an Internet Telephony Service Provider to connect your communications platform to the traditional PSTN network. Three components are required to successfully deploy SIP trunks:

- a Mitel communications platform with SIP-enabled trunk side
- an Internet telephony or SIP Trunking service provider
- MiCollab with MBG SIP Trunk proxy service to connect the service provider to the ICP on the LAN. The MBG SIP Trunk Proxy service on MiCollab also serves as a SIP-aware firewall and eliminates the need for 3rd party firewalls, simplifying configuration and deployment.

A "SIP trunk" in the context of the MBG blade is simply a pair of endpoints, defined by their IP addresses and signaling ports. One of the endpoints is usually your ICP, and the other is your SIP provider's firewall or SBC.

A trunk can have any number of "channels," each of which corresponds to an active media stream. A channel license is required for each active channel, so you will need enough channel licenses to cover the maximum number of active calls. As an analogy, an ISDN PRI link contains 23 B channels for audio and one D channel for signaling, and can carry a maximum of 23 simultaneous calls. This would be equivalent to a SIP trunk with 23 channel licenses.

For SIP Trunking support, you require one SIP Trunking Channel license for each of the maximum number of simultaneous calls you estimate to make. No extra licenses are required for SIP device support.

## 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.

## MICOLLAB AUDIO, WEB AND VIDEO CONFERENCING

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.

# 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.

## MINIMAL INSTALLATION WITH MICOLLAB SERVER APPLIANCE

You also have the option of purchasing the MiCollab Server Appliance. This server has the MSL and MiCollab software pre-installed. The technician only has to set up the server, configure some site-specific values and system attributes, and provision users. Then, the MiCollab Server Appliance is up and running. You can complete user provisioning quickly using the Bulk User Provisioning Tool.



**Note:** the MiCollab Server Appliance is currently only available in North America and UK.

Refer to the [MiCollab Installation and Maintenance Guide](#) for more information.

## 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.



**Note:** 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, edit 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.



Figure 6: Bulk User Provisioning Tool

## 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:

- **Quick Add:** allows you to create a new user through the User and Services application and apply a role in the Users tab. The role automatically applies the associated template data to the user entry.
- **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.

## FLOW THROUGH PROVISIONING

When you add or delete information for a single user on MiCollab, you can optionally update the MiVoice Business system database at the same time. If Flow Through Provisioning is enabled, new configuration data that you enter into MiCollab (such as phone and mailbox creation, COS option setup, and Call Forwarding setup) is automatically updated in the MiVoice Business programming database at the same time.

MiVoice Business system programming forms are updated with data via Flow Through Provisioning. For example:

- User and Device Configuration
- Telephone Directory Assignment
- Station Service Assignment
- Multiline Set Key Assignment
- User Call Forwarding
- Class of Service
- Personal Ring Groups



**Note:** Flow Through Provisioning is not supported for the MiVoice Office 250, MiVoice 5000, or MiVoice MX-ONE communications platforms.

When you use Flow Through Provisioning in conjunction with roles and templates, bulk user provisioning, Integrated Directory Services, or Quick Add you can further minimize the time spent user provisioning.

## RECONCILE WIZARD

The Reconcile Wizard pairs user entries in the MiCollab database with matching user entries in the MiVoice Business databases in a network that is being configured to support Flow Through Provisioning. It also identifies any user data conflicts between the databases so you can manually resolve them.

## REACH THROUGH

MiCollab Reach Through provides you with the ability to access MiVoice Business System Administration System Administration tool (ESM) forms from links or drop-down menus within specific USP pages. Because you have logged into the MiCollab server manager, you are allowed direct access and do not have to log in separately to the MiVoice Business. This functionality reduces that amount of time it takes to perform programming tasks, such as modifying a user's MiVoice Business phone and group settings, that require configuration on the MiVoice Business.

The MiVoice Business also supports Reach Through. It allows administrators to link directly to MiCollab USP forms from specific MiVoice Business system administration tool programming forms.

### 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 only supported for MiVoice Business, MiVoice 5000, and MiVoice MX-ONE platforms. After the databases are integrated, you can manage client services from the USP application. Single point provisioning of client services from the USP application is supported to the MiVoice Business 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.

Installers can also use the Integration Wizard when they are installing a new MiCollab system into a site with existing MiVoice Business platforms. In this scenario, the wizard can be run to update the MiCollab database with the user and phone data from the MiVoice Business platforms.

## 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

You can integrate the user database of a corporate directory service with the MiCollab database to minimize data entry and administration. The user data on the corporate directory server is synchronized with the MiCollab database using Lightweight Directory Access Protocol (LDAP). If single point provisioning is enabled, then MiCollab distributes the user data to the MiVoice Business platforms. Synchronization occurs in one direction only—from the directory server to MiCollab. To move updates in the other direction, you must export an LDAP Data Interchange Format (LDIF) file from MiCollab and then import it into the directory server.

On the directory server, you can assign an attribute such as "employeeType" to each user data record. The "employeeType" attribute maps to a "role" in the MiCollab database which corresponds to a User and Services template. The User and Services template allows you to apply additional personal data, application services, and telephony features to the user entry.

MiCollab detects updates that are made on the directory server via polling. MiCollab polls the directory server on a pre-specified interval or on-demand.

### 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.

#### MICOLLAB VIRTUAL APPLIANCES

You can perform backups using the MiCollab server manager or server console. You can recover a virtual MiCollab system database on the same virtual machine by deploying the latest virtual MiCollab OVF file, restoring your virtual MiCollab database backup, and then installing the latest application software.

# Chapter 4

## LICENSING



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## 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.



# 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
- Server Appliance
- 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.

### SERVER APPLIANCE

This option provides a small business solution for up to 150 users. The MiCollab Server Appliance is a rack-mount Dell PowerEdge server with the MSL operating system software and MiCollab software pre-installed at Mitel. After the technician configures the server site-specific values, the MiCollab Server Appliance is ready to use. This option simplifies the installation process and reduces the time on site required to get the system up and running.



**Note:** the MiCollab Server Appliance is currently only available in North America and UK.

### 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 AWW) up to 5000 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.

## 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 250

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

- SX-2000, SX-200, SX-200 ICP, Mx Server, Multi Instance Communications Director (MICD), or MiVoice Business-Unified IP Client (UIPC).

## DEPLOYMENT TOPOLOGIES

MiCollab is supported in the following deployment topologies:

### Small Business

- Network Edge Deployment (Server-gateway mode)
- LAN Deployment (Server-only mode)

### Mid-range Business/Enterprise Site

- LAN Deployment with Separate MBG Server in DMZ
- LAN Deployment with Separate MBG Server in Network Edge



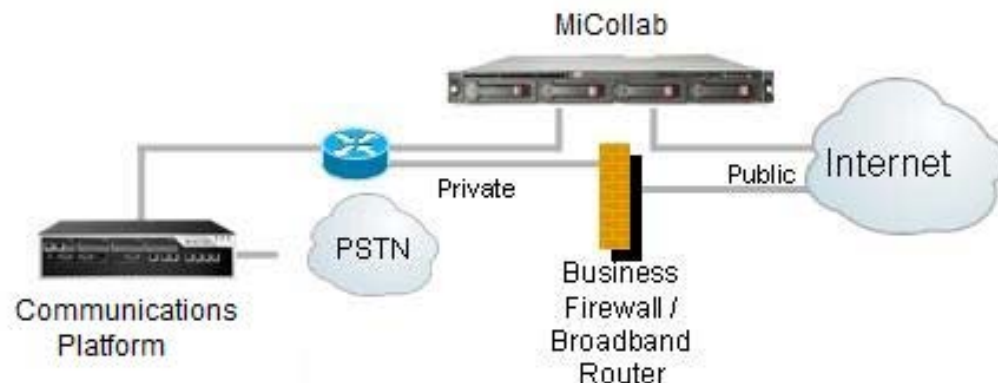
**Note:** Refer to the [MiCollab Engineering Guidelines](#) for details.

## NETWORK EDGE DEPLOYMENT (SERVER GATEWAY)

In this configuration, MiCollab is installed on an internet-facing server with firewall capability.

This deployment configuration

- supports all MiCollab applications
- provides a high level of security by using the MSL firewall with pre-configured filtering and port forwarding.



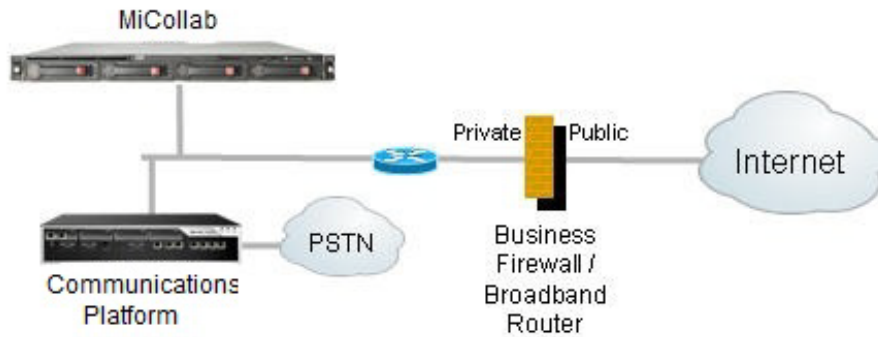
**Figure 7: Network Edge Deployment**

## 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 8: 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 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.

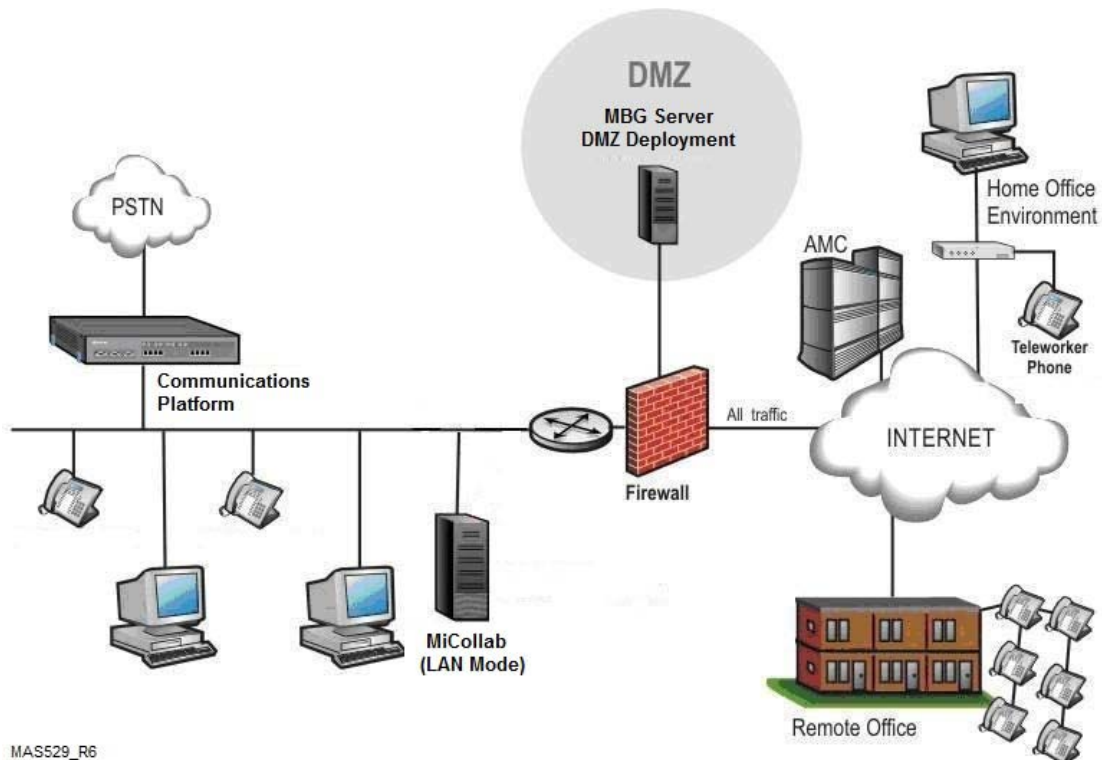
This configuration uses a MiCollab server connected to a second MBG server in one of the following deployments:

- MiCollab in LAN mode with Web Proxy running on a second MBG server in the DMZ (see Figure 9), or
- MiCollab in LAN mode with Web Proxy running on a second MBG server on the network edge (see Figure 10).

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.



MAS529\_R6

Figure 9: LAN Deployment with MBG in DMZ

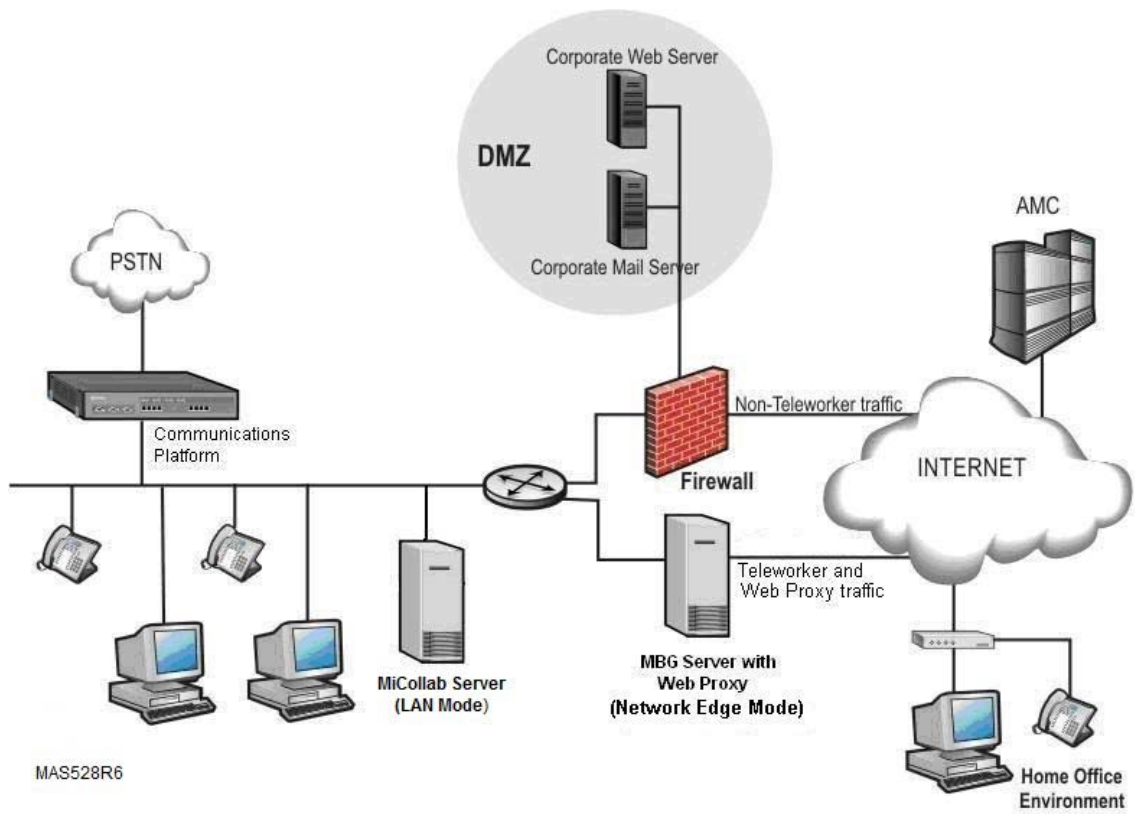


Figure 10: LAN Deployment with MBG on Network Edge

## SECURE RECORDING CONNECTOR DEPLOYMENTS

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

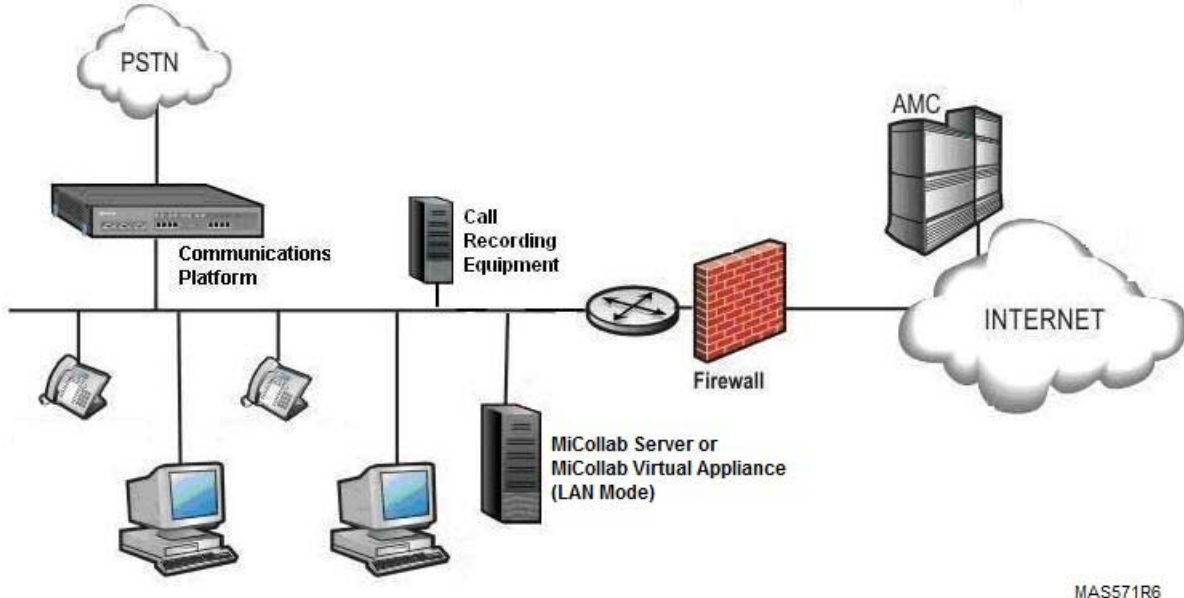
In this configuration, MiCollab is installed in LAN mode with either the MiCollab Server Software Base Package or MiCollab Virtual Appliance Software Base Package which include the MBG application. The MBG application on the MiCollab platform provides SRC services for devices on the LAN only. SRC services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



**Note:** MiCollab with SRC is not supported in Network Edge mode.



Refer to the [MiCollab Engineering Guidelines](#) for deployment configuration details.



**Figure 11: 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).

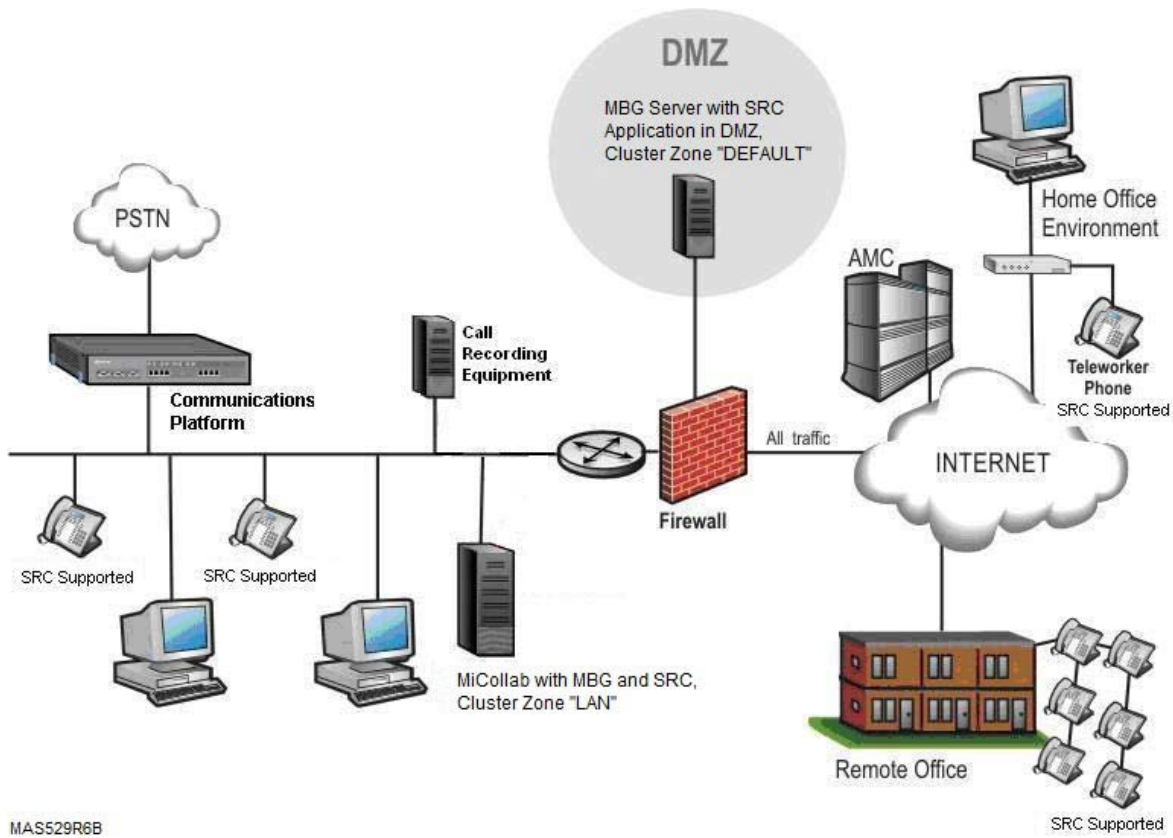


Figure 12: MiCollab with SRC in LAN Mode with MBG Server with SRC in DMZ

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## SUPPORTED APPLICATIONS

### MIVOICE BUSINESS PLATFORM

The following MiCollab applications are supported:

- Nupoint Unified Messaging
- Speech Auto Attendant
- MiCollab Client
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway (MBG) services.

### MIVOICE 5000 AND MIVOICE MX-ONE PLATFORMS

The following MiCollab applications are supported:

- Nupoint Unified Messaging (limited set of features)
- MiCollab Client Next Generation Softphone support
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway (MBG) SIP services



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**Note:** For MiVoice 5000 and MiVoice MX-ONE integrations some MiCollab application features are not supported. Refer to the *MiCollab Platform Integration Guide* for details.

### MIVOICE OFFICE 250 PLATFORM

For the MiVoice Office platform, the following MiCollab applications are available:

- Nupoint Unified Messaging
- Speech Auto Attendant
- MiCollab Client
- MiCollab Audio, Web and Video (AWV) Conferencing
- MiVoice Border Gateway (MBG) Teleworker and SIP Trunking services.



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**Note:** The MiVoice Border Gateway SRC and Web Proxy services are not supported for the MiVoice Office platform.



# Appendix A

MICOLLAB NUPOINT FEATURE

SUPPORT FOR MIVOICE BUSINESS

INTEGRATIONS



## FEATURE SUPPORT IN MICOLLAB-NUPOINT

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



**Note:** For the MiVoice 5000 and MiVoice MX-ONE integrations, a limited set of NuPoint applications features is supported. Refer to the *MiCollab Platform Integration Guide* for details.

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 Release 4.0 and later NuPoint application is supported as a trusted service on MiVoice Business Release 5.0 SP1 and later 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 250.\*
- Integration with MiVoice Office 5000.\*

\* NuPoint standalone does not support these integrations.

MiCollab-NuPoint does not support the following:

- Integration with Mitel SX-200.
- Integration with Mitel SX-2000.
- Integration with third-party PBX integrations (e.g. 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 61 for details.
- MiCollab-NuPoint and NuPoint standalone support different languages. See “MiCollab-NuPoint Language Support” on page 62 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 59 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.

**SUMMARY OF STANDARD AND OPTIONAL FEATURES**

Table 2 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 2: Standard and Optional Features**

FEATURE	Availability on
	MiCollab-NuPoint Product
<b>Standard Features</b>	
Mailbox Support	Yes

**Table 2: Standard and Optional Features (continued)**

FEATURE	Availability on
	MiCollab-NuPoint Product
Greetings	Yes
Distribution Lists	Yes
Message Management	Yes
NP Receptionist	Yes
Multilingual Service	Yes
Call Director - Corporate Edition	Yes
Classes of Service	Yes
System Day/Night Hours	Yes
Dial-by-Name	Yes
Dial-Back	Yes
System Prompts	Yes
Wait Prompts	Yes
Pager Application	Yes
RAD Support	Yes
Message Waiting Notification	Yes
Unified Messaging (STMP)	Yes
Functionally Partitioned System Administration (FPSA) for Web Console and Text Console	Yes
Visual Voice Mail	Yes
<b>Optional Features</b>	
Active Directory Integration	Yes (via MiCollab-IDS)
Call Detail Recorder	Yes
Call Directory - Personal Edition	Yes
Competitive TUI Emulator	No
DMG Integrations	No
Hospitality	No
Language Support	Yes
NP Cut Through Paging	Yes
NP FAX Services	Yes
NP Forms	Yes
NP Net	Yes
NP Ondemand	Yes
NP Rapid Dial	Yes
NP TDD	No
NP Wakeup	Yes

**Table 2: Standard and Optional Features (continued)**

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

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**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 3 summarizes the system prompt language support for MiCollab-NuPoint:

**Table 3: Summary of System Prompt Support for MiCollab-NuPoint**

PROMPT SET	WHAT IS IT?	SUPPORTED PROMPT LANGUAGES	COST
Numeric	Press 7 to play	See Table 4	NA English and choice of one other language is included in NuPoint UM base software
Numeric (default) or Mnemonic	Press 7 to play OR Press P to play	NA English	Included in NuPoint UM application software

**Note 1:** The prompt sets default to Numeric.

# MICOLLAB-NUPOINT LANGUAGE SUPPORT

Table 4 summarizes the languages supported for NuPoint UM features on MiCollab:

**Table 4: Summary of Language Support**

LANGUAGES	PROMPTS NP-UM ON MICOLLAB	NP RECP	WEB VIEW	CALL DIRECTOR PERSONAL EDITION (SEE NOTE 1)	TEXT -TO-SPEECH (SEE NOTE 2)	FAX PROMPTS	SAA FOR NP-UM ON MICOLLAB	EXTENDED ABSENCE GREETING PROMPTS
English (NA)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
English (UK)	Yes	Yes	No	No	Yes	Yes	Yes	Yes
English (Australia)	No	Yes	No	No	No	No	No	No
English (New Zealand)	No	Yes	No	No	No	No	No	No
French (Canadian)	Yes	Yes	Yes	No	No	Yes	No	Yes
French (European)	Yes	Yes	Yes	No	No	Yes	No	Yes
Spanish (European)	No	Yes	Yes	No	No	No	No	No
Spanish (LA)	Yes	Yes	Yes	No	No	No	No	Yes
Portuguese (Brazil)	No	Yes	No	No	No	No	No	No
Dutch	Yes	No	Yes	No	No	Yes	No	Yes
Italian	No	No	No	No	No	No	No	No
German	Yes	No	Yes	No	No	No	No	No
Finnish	Yes	No	Yes	No	No	Yes	No	No
Swedish	Yes	No	Yes	No	No	Yes	No	No
Norwegian	Yes	No	Yes	No	No	Yes	No	No
Japanese	No	Yes	No	No	No	No	No	No
Korean	No	Yes	No	No	No	No	No	No
Mandarin	No	Yes	No	No	No	No	No	No

**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.

