

# MiCollab Client

## ADMINISTRATOR GUIDE

Release 7.2



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## **MiCollab Client Administrator Guide**

Release 7.2

June 2016

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# Chapter 1

## Overview

# Introduction

Mitel® MiCollab Client® converges the call control capabilities of Mitel communications platforms with contact management, Dynamic Status, and collaboration to simplify and enhance communications.

As a MiCollab Client administrator, you will be accessing the **MiCollab Client Service** to configure and manage MiCollab Client. MiCollab Client Service provisions users with MiCollab Client features and provides communication paths to the Private Branch Exchange (PBX) telephone system, voice mail, collaboration server, and other integrated applications.

Users access MiCollab Client features from the following interfaces:

- MiCollab Desktop Client
- MiCollab MAC Desktop Client
- MiVoice for Skype for Business
- MiCollab Web Client
- MiCollab WebRTC Client
- MiCollab for Mobile
  - Android™
  - BlackBerry®
  - iPhone™
  - Windows Phone

### Notes:

- The MiCollab for Mobile Softphone is designed for use on mobile phones. Although it can be installed on tablet devices, the user interface is currently not designed for use on tablets. These devices will be supported in an upcoming release.
- MiCollab Client functionality described in documentation refers to enterprise as a single company entity. In scenarios where multiple server domains are created, it is understood to be within a single company environment where multiple MiCollab Client Services or mixed PBX nodes are required to manage the solution.

## About This Guide

This administrator guide contains information about configuring MiCollab Client on a Mitel communications platform, and is organized as follows:

- [Overview](#)
- [Features](#)
- [Specifications](#)
- [Installation and Configuration](#)
- [Maintenance](#)
- [Troubleshooting](#)

## Audience

This document is intended for MiCollab Client and network administrators. This administrator guide assumes that you are familiar with the system administration interfaces for the PBX platform you are connecting to. It also assumes that your MiCollab Client site has already purchased MiCollab Client and the necessary MiCollab Client, PBX, and integrated application hardware, software, and licenses. Review the Release Notes before installing MiCollab Client.

This document is intended for MiCollab Client standalone installations; if you are working with MiCollab Client integrated with MiCollab, see the MiCollab documentation suite.

**Note:**

This document assumes that the MiCollab Client administrator and the MSL administrator are the same person.

## Terminology

The following terms are used throughout this guide:

- The term **PBX** (Private Branch Exchange) refers to the communication platform that MiCollab Client is connected to. See [“Supported Communication Platforms \(PBXs\)” on page 18](#) for more information about supported Mitel PBXs.
- The term **PIM** (Personal Information Manager) refers to a supported PIM application (for example, Google® Contacts, Microsoft® Outlook® or IBM® Lotus Notes®). See [“Optional third-party integrated applications” on page 19](#) for a list of supported PIMs.
- The term **softphone** refers to the software-based IP or SIP phone that is available with the MiCollab Desktop Client and MiCollab for Mobile clients.
- The term **desk phone** refers to the physical phone on the user’s desk that is controlled by MiCollab Client.
- The term **peering** refers to the server configuration where MiCollab Client Service is connected to and communicating with another MiCollab Client Service and contacts for both servers are visible in the respective MiCollab Desktop Client applications. Contact-related features are accessible to all peered servers.
- The term **federation** refers to the server configuration where the MiCollab Client Service Extensible Messaging and Presence Protocol (XMPP) server is connected to and communicating with an external Instant Messaging (IM) XMPP server for the purposes of sharing IM presence and providing IM features.
- The product names **VMware View** and **VMware Horizon View** are used interchangeably throughout this guide. These are trademarks of VMware Incorporated.

## Features, enhancements, and changes

This MiCollab Client Administrator Guide was last published as Issue 7.1. This section provides information about the features, enhancements and changes included in the MiCollab Client 7.2 release.

### Release 7.2

**MiTeam Integration:** MiTeam is a Cloud-based social collaboration tool that integrates with the MiCollab for Mobile client, web client for PCs (Windows/MAC), and mobile clients (iOS/Android). See MiTeam Integration in the MiCollab Client Administrator Guide.

**Support for Additional Languages:** The following new languages are now supported: Danish, European Spanish, Italian, and European Portuguese.

**Enable E911 Warning:** This new account setting displays a warning whenever the user launches the MiCollab Client. The warning states that the softphone may not be able make calls to the appropriate emergency number, for example 911, in some locations. This setting is disabled by default. You can change this setting from the server manager in the following page: **MiCollab Client Service > Configure MiCollab Client Service > Enterprise > Settings > Default Account Settings**.

#### Functionality Available in MiCollab Release 7.2.1 and Later

**Web Real-Time Communication (WebRTC):** Provides a Real-Time Communication version of the MiCollab Web Client. See “WebRTC Client Configuration” on page 154.

**Support for Polish Language:** The MiCollab for Mobile Client and MiCollab Web Client user interfaces are available in Polish. The MiCollab Client Quick Reference Guide will also be available in Polish; however, the online help is not available for this release.

**MiVoice Office 400 Support:** When deployed in a MiCollab environment, MiCollab Client can be integrated with the MiVoice Office 400. See the *MiCollab Platform Integration Guide* for configuration instructions.

#### MiCollab Client Desktop Enhancements

**Microsoft Office Click to Call from Contact Card:** In an open mail message, users can open the Contact Card of a contact and then place a call to that contact using the MiCollab Desktop Client. To place the call, click the contact's phone number and then click Dial. By default, this feature is enabled. To disable this feature, select **Configuration > Click to Call** in the MiCollab Desktop Client. Under **Microsoft Office Click to Call from Contact Card**, clear the check box. The following conditions apply to this feature:

- The email account configured in Outlook and the MiCollab user account should match (MiCollab user can have multiple email, but the list should contain the email with which outlook is configured).
- Outlook must be restarted for the integration to take affect.
- Outlook 2013 and onwards is supported (Feature does not work with 2010 version).

- **Synchronization of Presence Status (MiVoice MX-ONE only):** The MiCollab Client presence status (for example In a Meeting, Lunch break, or Away from desk) that is set on the user's client is synchronized with the presence status that is displayed on the user's deskphone. This feature is supported for Desktop Client and MiCollab for Mobile Clients on the MiVoice MX-ONE only. Note that users cannot modify MiVoice MX-ONE statuses in the Manage Status page of the client. The client will display an error if users attempt to change a status that is presented from the MiVoice MX-ONE.
- MiCollab Client supports Microsoft Office 2016 including Microsoft Outlook 2016
- Exchange 2016 integration
- New language support for Polish and Portuguese (European).

### **MiCollab Client Deployment Service enhancements**

**Run Diagnostics:** You can now run diagnostic tests from the MiCollab Client Deployment Service to verify if Internet connectivity is available to support client deployment. It is recommended that you run the diagnostic test against a profile prior to deploying the clients. The associated online help provides tables with error messages and possible corrective actions.

## MIVOICE SKYPE FOR BUSINESS 1.3

**MS Office 2016 Support:** MiVoice for Skype for Business supports MS Office 2016.

## Release 7.1

### Overlapping DN support

MiCollab Client allows two or more user accounts with MiNET softphones to have the same DN on MiVoice Business implementations. A random, unique MAC address is generated for each MiNET softphone, allowing the same DN to be used on multiple MiVoice Business platforms connected through a shared MBG.

To avoid issues with previous releases of MiCollab Desktop Client, it is recommended users upgrade to the latest version.

Note the following:

- MAC addresses are generated for MiNET softphones only. In the case of deskphones and SIP softphones, the MAC address is blank.
- If the generated MAC address conflicts with an existing MAC address, you will be notified and the softphone is not provisioned.
- The MAC address is not generated for existing users with Minet softphones.
- When upgrading to Release 7.1, the MAC address is not generated for existing softphones.
- You can assign MAC addresses to existing softphones as required.
- When in co-located or standalone mode, you need to update the MAC address on MiCollab Client, MiVoice Business and MBG manually.
- If there are changes to the MAC address for existing users, they need to upgrade MiCollab Desktop Client while registering via MBG.

- If the MAC address is configured or updated while the user is logged in, they need to restart MiCollab Desktop Client.

See **MiCollab Client Administrator help** for more information.

### CSTA settings

When MiCollab Client is integrated with MiCollab and MiVoice MX-One or MiVoice 5000, you can configure the CSTA settings in MiCollab Client configuration. Administrators for standalone MiCollab Client deployments will not see the associated fields.

See *MiCollab Client Administrator help*, PBX Nodes topic.

### Enabling or disabling TLS

Enable or disable TLS in MSL configuration.

### MiCollab MAC Desktop Client

MiCollab Client 7.1 introduces the MiCollab MAC Desktop Client. The MiCollab MAC Desktop Client is deployed to users through MiCollab Client Deployment administration. A deployment e-mail with installation and login information is sent to users.

[insert screen capture when available]

See [Table 4, “MiCollab MAC Desktop Client UI features,” on page 39](#) for a list of supported features.

See [“Basic Bundle” on page 69](#) and [“Entry Bundle” on page 70](#) for licensing information.

### MiCollab Web Client

MiCollab Web Client has been redesigned for ease of use. It is supported on the following browsers:

- Apple Safari version 9
- Internet Explorer version 9, 10, or 11
- Google Chrome version 46 or higher
- Microsoft Edge
- Mozilla® Firefox® version 41 or higher

[insert screen capture when available]

See [Table 6, “MiCollab Web Client UI features,” on page 44](#) for a list of supported features.

### MiCollab Client Deployment enhancements

You can now load the default subject line and e-mail body for the deployment e-mail.

See *MiCollab Client Deployment help* for more information.



## MiCollab for Mobile enhancements

The MiCollab for Mobile application has been enhanced with the following features:

- Long tap on a search result provides a dialog box allowing the user to select the device used to establish a call.
- Windows 10 support
- Call Forward
- Auto Answer with softphone
- In/out group
- Hotkey dialing
- Video call and presence
- Call forward configuration: users can configure call forward settings based on their Dynamic Status

**Note:** The following must be true in order for users to make use of this feature:

- MiCollab Client is connected to the MiCollab server
  - PBX supports call forwarding
  - Target number for the rule is valid
- MiVoice Office 250 support

## MiCollab Desktop Client enhancements

### *Windows 10 support*

MiCollab Client is supported in a Windows 10 environment.

### *Headset support*

MiCollab Desktop Client supports accept, end, and mute call with approved Plantronics SpokesWrapper 3.x SDK headsets and approved Jabra Connect desktop client headsets. Refer to [www.Plantronics.com](http://www.Plantronics.com) and [www.Jabra.com](http://www.Jabra.com) for more information on supported models.

## MiVoice for Skype for Business Release1.2

### *Click to Call*

Click to Call allows users to highlight a number in an open document and enter a hot key shortcut to make a call from MiCollab Desktop Client. The hot key is a combination of the **Ctrl** button and a hot code selected from a pulldown menu.

Enable and customize the Click to Call feature in **Settings, General** in MiVoice for Skype for Business.

By default this feature is disabled.

Supported applications:

- Internet Explorer 2010 and later
- Google Chrome 33.x and later
- Mozilla Firefox
- Windows 7 Notepad
- Microsoft Excel 2013
- Microsoft Outlook 2016
- Microsoft Word 2013

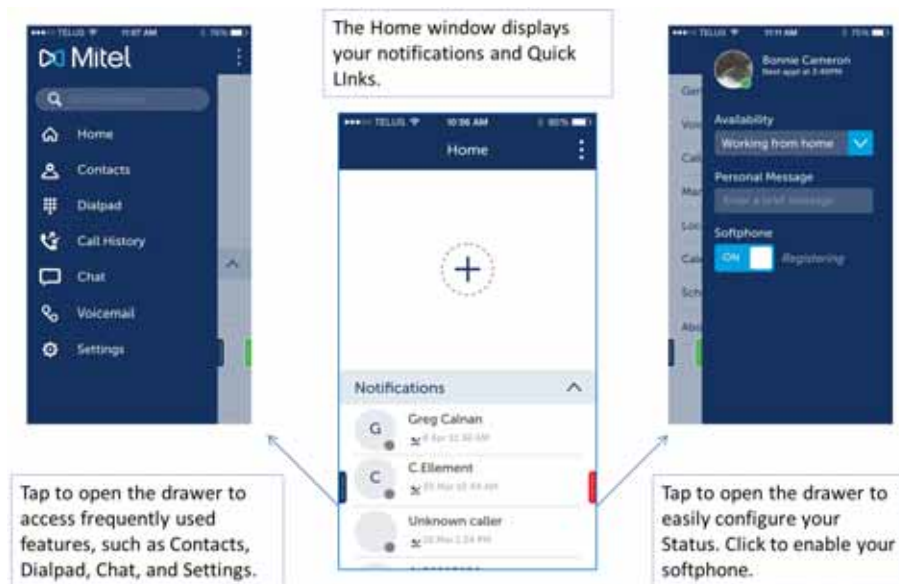
### *Duplicate DN support*

MiVoice for Skype for Business supports duplicate DNs in MiVoice MX-One and MiVoice 5000 integrations, allowing users to have the same DN for their softphone and deskphone. Users can now select which device to use to place calls.

## Release 7.0

### MiCollab for Mobile application

MiCollab 7.0 introduces MiCollab for Mobile, a new, simplified user application for mobile devices. MiCollab UC-Client Release 6.1 (previously named MiCollab Mobile Client), is still available with MiCollab 7.0.



**Figure 1: MiCollab for Mobile application**

The MiCollab for Mobile application is available for the following devices:

- BlackBerry 10.3 or later
- Google™ Android™ 4.4, 5.0 or later
- iPhone iOS Version 8, 8.1, 8.2, 8.3, 9.0 or later

- Windows Phone 8.0, 8.1, 8.2, 8.3 or later

**Note:**

The MiCollab for Mobile Client Softphone is designed for use on mobile phones. Although it can be installed on tablet devices, the user interface is currently not designed for use on tablets. These devices will be supported in an upcoming release.

The MiCollab for Mobile application is represented on mobile devices by the following icon:



In MiCollab Release 7.1 and later, MiCollab Client for Mobile softphones support Domain Name System (DNS)-based SIP resiliency with MiVoice Border Gateways (MBGs). See *MiCollab Client for Mobile Resiliency Guide* for more information.

MiCollab UC-Client is still available for the following devices:

- BlackBerry® v4.5, v4.6, v4.7, v5.0, v6.0 and v7.0
- Google™ Android™, 4.0, 4.1, 4.2, 4.3, and 4.4, 5.0 or later
- iPhone and iPad iOS Version 6.0, 7.0, 8.0, 8.1, 8.2, 8.3, 9.0 or later

The MiCollab UC-Client application is represented on mobile devices by the following icon:



For more information, see [See “MiCollab UC-Client Application” on page 203.](#)

### *Group Presence feature*

The MiCollab for Mobile application allows the members of call groups to make themselves absent or present in a group from the MiCollab for Mobile application.

This feature is supported on MiVoice Business only. The feature supports:

- Ring and Hunt Groups
- Local and resilient remote groups

MiCollab for Mobile users can:

- Get Group List (Ring and Hunt Groups)

- Update group presence (Present/Absent)

**Note:**

The Group Presence Control COS option must be enabled for extensions on MiVoice Business for this feature to work.

For more information, see *MiCollab Client Administrator* help.

### MiCollab for Mobile simplified deployment

MiCollab Client 7.0 introduces a new blade which allows for the simplified deployment of MiCollab for Mobile. This solution is supported in integrated and co-located MiCollab Client deployments.

**Note:**

A trusted third party Secure Sockets Layer (SSL) web certificate is required for MiCollab Client deployment. Secure Sockets Layer (SSL) is an encryption technology that creates a secure connection between a web server and a client's web browser. Information that is transmitted must be encrypted to prevent security issues such as eavesdropping or data tampering. An SSL web certificate is purchased from a Certificate Authority and installed on the web server to enable encryption. SSL encryption is required between the MiCollab servers and MiCollab for Mobile phone users because sensitive user information and configuration data is transmitted during the deployment of the clients. The SSL web certificate ensures that the MiCollab for Mobile clients establish secure connections during deployment.

Refer to the *MiCollab Client Deployment* help for instructions.

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 e-mail with end user credentials is sent to MiCollab for Mobile users.

**Note:**

The first time you log into MiCollab Client Deployment, connect MBGs for user import before importing user records. Go to Configuration, Connections to MBGs.

If you change a user's ID, you need to factory reset and redeploy the MiCollab for Mobile application. A new deployment e-mail needs to be sent to the user.

### *SIP transport protocol considerations for Android devices*

Some versions of the Android OS do not allow large SIP packets from being sent to port 5060 when the SIP transport protocol is configured as TCP. To prevent this issue, set the SIP transport protocol to UDP or TLS. TLS directs all SIP traffic to port 5061 by default.

Go to **MiCollab Client Deployment, Deployment Profiles, SIP transport protocol**.

The list of known devices include the following:

- HTC One M7
- HTC One Mini 601n
- HTC One M8
- HTC One M9
- HTC One X
- Sony Xperia Z
- Sony Xperia Z2
- Sony Xperia Z3
- Sony Xperia Z3 Compact
- Cat B15Q
- YotaPhone 2

**Note:**

Administrators may find it helpful to associate users with these devices in a separate deployment profile.

This list is subject to change. Please retrieve the latest version of this guide to ensure accuracy.

### *Migrating existing MiCollab UC-Client users to MiCollab for Mobile*

If you are deploying MiCollab for Mobile to existing MiCollab UC-Client users, the users need to remove the MiCollab UC-Client application from their devices. When you deploy MiCollab for Mobile to these user accounts using MiCollab Client Deployment in MiCollab administrator programming, users receive a deployment e-mail with installation options.

If existing or new users have multiple devices, they need to install the client on each device.

For more information about simplified deployment configuration, see *MiCollab Client Deployment* help.

For more information about MiCollab UC- Client deployment, see [See “MiCollab UC-Client Application” on page 203](#).

### *MiVoice 5000 and MiVoice MX-One integration*

When deployed in a MiCollab environment, MiCollab Client can be integrated with MiVoice 5000 and MiVoice MX-One.

For more information, see *MiCollab Installation Guide*.

### *MiCollab Vidyo integration*

MiCollab Desktop Client supports VidyoDesktop integration, allowing users to click an icon to join another user’s personal Vidyo Room.

Vidyo and MiCollab Audio, Web and Video Conferencing can be supported simultaneously. MiCollab Desktop Client users can select the conference type.

Users with Vidyo integration supported receive their login information in their Welcome e-mail.

**Note:**

Vidyo integration is supported in MiCollab integrated mode only.

Vidyo administration is performed through the Vidyo portal. MiCollab supports the following Video components:

- Vidyo Portal / Router: Version 3.3.4
- Vidyo Gateway: Version 3.3.2
- Vidyo Desktop Client: Version 3.4 and 3.5

MiCollab Vidyo is part of UCC V3.1 licensing across all platforms supported with UCC licensing.

See *Vidyo Integration Quick Reference Administrator Guide* and the *Vidyo Integration Quick Reference User Guide*.

### MiCollab corporate directory

MiCollab Client now supports 20,000 contacts in the corporate directory with eight peered servers.

MiCollab Desktop Client loads the corporate directory during MiCollab Desktop Client startup. If the number of contacts in the corporate directory is more than preconfigured number on the server, the default view displays the Favorites and the Custom Group folders. If the number of contacts in the corporate directory is less than the preconfigured number on the server, the corporate directory contacts are stored locally.

MiCollab Desktop Client searches for contacts from the corporate directory and the favorite folders. The search merges and displays the local contacts and the search results from server. For more information, see the MiCollab Client Administrator help.

### Basic MiCollab Desktop Client and MiCollab Web Client enhancements

Basic MiCollab Desktop Client users and Basic and full MiCollab Web Client users can set their deskphones to Do Not Disturb, Call Forwarding and Auto Answer. When selected, these features apply to all user devices.

**Note:**

The Auto Answer feature is not supported on MiVoice 5000 and MiVoice MX-One. These integrations support Do Not Disturb and Call Forwarding for Basic MiCollab Desktop Client and MiCollab Web Client.

The default user profile must be in use for these features to be available to basic level users. For more information, see [“Basic Bundle” on page 69](#).

For a list of MiCollab Web Client features, see [“MiCollab Web Client features” on page 44](#)

## MiCollab Desktop Client

### *Upgrading Basic and Entry users*

MiCollab Desktop Client 7.0 does not display Dynamic Status for users who do not have the Presence and Smart Status licensed features.

If a MiCollab Desktop Client 6.0 Basic or Entry user sets Dynamic Status to Do not Disturb with an associated Away availability and then upgrades their client to 7.0, the Dynamic Status cannot be changed by the user. The administrator needs to reset the Dynamic Status for the user.

### *SIP credentials*

**MiVoice 5000 and MiVoice MX-One integrations:** End users not using Teleworker mode, are no longer required to enter their SIP credentials in Softphone configuration.

### *Click to Call*

Click to Call allows users to highlight a number in an open document and enter a hot key shortcut to make a call from MiCollab Desktop Client. The hot key is a combination of the CTRL key and a hot code selected from a pull-down menu.

Enable and customize the Click to Call feature in the Configuration dialog box in MiCollab Desktop Client.

By default this feature is disabled.

Supported applications:

- Internet Explorer 2010 and later
- Google Chrome 33.x and later
- Mozilla Firefox
- Windows 7 Notepad
- Microsoft Excel 2013
- Microsoft Outlook 2016
- Microsoft Word 2013

This feature is supported on MiVoice Business, MiVoice Office, MiVoice MX-One and MiVoice 5000 platforms.

For more information, see *MiCollab Desktop Client* help file.

### *Microsoft Office Click to Call from Contact Card*

In an open mail message, you can open the Contact Card of a contact and then place a call to that contact using MiCollab Desktop Client.

To enable this feature:

1. In the MiCollab Desktop Client, select **Configuration > Click to Call**.

2. Under **Microsoft Office Click to Call from Contact Card**, select **Enable Call through MiCollab Client**.

**Note:** After enabling this feature, restart Outlook for the new integration to work.

To place the call, click the contact's phone number and then click **Dial**.

To disable this feature:

1. In the MiCollab Desktop Client, select **Configuration > Click to Call**.
2. Under **Microsoft Office Click to Call from Contact Card**, clear the check box.

### *SSL certificate validation*

MiCollab Desktop Client now performs SSL certificate validation. Note the following:

- If the SSL certificate cannot be validated, the user is prompted for confirmation. Once confirmed, the certificate is stored in the Windows certificate store under the name **Mitel Trusted** for use in future connections. Any change to the certificate results in MiCollab Desktop Client prompting the user for confirmation.
- If the certificate has expired, the user receives a popup message informing them of the expiration and that required functionalities, such as download peered contact picture from peered server and Vidyo conference, are not available from that server.

The message is displayed once. Further requests for access to that server are rejected silently.

- If no certificate is presented, the connection is rejected.

**Note:**

It is recommended you use a trusted certificate issued by third-party certificate authority for SSL.

To delete the certificate from the Windows store:

1. Type **certmgr.msc** in a command line window to open the Windows Certificate Store.
2. Open the **Certificates** folder under the **Mitel Trusted** folder.
3. Locate the certificate and select **Delete**.

### *Accented character support*

You can enter accented characters in the MiCollab Client supported languages as follows:

**Table 1: Accented Character Support**

Field	Compliance	Remarks
First Name	UTF-8	Ordinal indicator characters are not displayed correctly in the first name and last name fields across MiCollab applications.
Last Name	UTF-8	



**Table 1: Accented Character Support**

Field	Compliance	Remarks
Login ID	ISO-8859-1	Limited to ISO-8859-1 characters. The system derives the Login ID from the First Name and Last Name fields. If either of these fields contains unsupported characters, the characters will be replaced with ISO-8859-1 characters.
Password	ISO-8859-1	Limited to ISO-8859-1 characters.
e-mail	ASCII	Limited to ASCII (non-accented) characters.

## MiVoice for Skype for Business 1.1 SP3 enhancements

MiVoice for Lync has been renamed MiVoice for Skype® for Business.

### *MiVoice MX-One and MiVoice 5000 integration*

MiVoice for Skype for Business can be integrated with MiVoice 5000 and MiVoice MX-One. Please note the following exceptions:

- AutoAnswer is not available with MiVoice 5000 and MiVoice MX-One
- Conditional forwarding is not available with MiVoice MX-One

### *Installation wizard - Default language selection*

The installation wizard now prompts users to select the default language. For more information, see [“Install MiVoice for Skype for Business Client” on page 126](#).

# Server and Client components

The MiCollab Client Service communicates with the phone system (see [“Supported Communication Platforms \(PBXs\)” on page 18](#)) and other integrated applications (see [“Mitel integrated applications” on page 19](#)) to provide MiCollab Client features and functionality to the user interfaces.

The MiCollab Client product includes the MiCollab Client Service components and user interfaces described in this section.

## MiCollab Client Service

The MiCollab Client Service software can reside as a stand-alone application on an MSL v10.3 or later approved hardware platform or as part of an integrated system with MiCollab, either on the physical server, or on VMware or Hyper-V. The MiCollab Client virtual appliance can be deployed in a VMware environment. See *Virtual Appliance Deployment Solutions Guide*.

MiCollab Client Service software components include:

- **ADEPM:** Manages Active Directory communication for account synchronization.
- **CSTAProxy:** For MiVoice 5000 and MiVoice MX-One deployments only. Manages logging.
- **CTIMon:**
- **DSM:** Analyzes accounts in the PBX database or Active Directory and maintains the account representation in the MiCollab Client Service.
- **EPM:** Manages MiXML-based communication with the MiVoice Business PBX for account synchronization.
- **FEDERATIONGW:** Handles the XMPP federation with third-party systems such as Skype for Business, Google or IBM Lotus Sametime Server.
- **IM:** Handles Instant Messaging between Desktop Clients and provides page mode, conversation mode, and conference mode instant messages.
- **JBoss:** Provides the various administrator features and Web services.
- **PbxProxy:** Maintains MiTAI connections and receives call and feature events from the MiVoice Business PBX. Publishes the events on the MiCollab Client Service internal message bus.
- **Proxy5k:** Maintains OAI connections and receives call and feature events from the MiVoice Office 250 PBX. Publishes the events to the MiCollab Client Service internal message bus.
- **Presence:** Handles subscriptions and notifications for presence, calls, message waiting etc.
- **RPS:** Includes the server component for the MiCollab Client Service peered connection. This component “listens” on TCP port 36009 for incoming connection requests from the RTC component on a peered MiCollab Client Service.
- **RTC:** Includes the client component for the MiCollab Client Service peered connection. This component connects to the RPS component on a peered MiCollab Client Service.
- **SEE:** Provides the advanced call processing services such as preferential contact call routing.
- **SIPProxy:** Receives SIP messages from the network and routes them to the corresponding MiCollab Client components, such as the SIP Registrar, Presence and IM.

- **SIPRegistrar:** Manages the SIP registrations from the MiCollab Desktop Client and notifies other MiCollab Client components whenever registration is added or removed.
- **Watchdog:** Maintains and monitors other MiCollab Client Service components.
- **WSP:** Web Socket Proxy handles the connections from the MiCollab for Mobile for real-time notifications.

Administrators can provision, maintain, and troubleshoot MiCollab Client from the MiCollab Client Service Administration interface.

The MiCollab Client Service software blade includes the client software for MiCollab Client. The following user interfaces provide access to MiCollab Client features:

- [“MiCollab Desktop Client” on page 17](#)
- [“MiVoice for Skype for Business client” on page 18](#)
- [“MiCollab Web Client” on page 18](#)

The MiCollab Client Deployment blade includes the software for the MiCollab for Mobile application. See [“MiCollab for Mobile” on page 18](#) for more information.

**Note:**

Some MiCollab Client features require specific PBX software versions as detailed in the Notes column for the end-user feature tables starting on [page 33](#).

## MiCollab Desktop Client

MiCollab Desktop Client is an application that is installed on the user's computer. MiCollab Desktop Client allows users to control their desk phone and associated devices from their computer. MiCollab Desktop Client includes an embedded softphone, providing users with two devices, if both are configured on the PBX. The softphone requires a separate license (see [Table 2 on page 24](#).)

MiCollab Desktop Client requires the Microsoft.NET Framework (see [“MiCollab Desktop Client requirements” on page 81](#)). This component must be installed on the user's computer prior to the installation of the MiCollab Desktop Client.

See [“MiCollab Desktop Client features” on page 33](#) for a list of MiCollab Desktop Client features.

## MiCollab MAC Desktop Client

MiCollab MAC Desktop Client is an application that is installed on the user's computer. MiCollab MAC Desktop Client allows users to control their desk phone and associated devices from their computer.

See [“MiCollab MAC Desktop Client requirements” on page 83](#) for a list of MiCollab MAC Desktop Client features.

### MiVoice for Skype for Business client

MiVoice for Skype for Business is an application that is installed on the user's computer and integrates seamlessly with Skype for Business 2015, Lync 2010 and 2013 clients. It allows Skype for Business users to use Mitel telephony features through its feature rich MiCollab Client infrastructure.

**Note:**

MiVoice for Skype for Business is supported on MiCollab deployed MiCollab Client only.

### MiCollab Web Client

The MiCollab Web Client interface provides remote access to a subset of MiCollab Client features from a Web browser on a computer or mobile device.

See [“MiCollab Web Client features” on page 44](#) for a list of Web Client features.

### MiCollab WebRTC Client

The MiCollab Web Real Time Communications Client interface provides remote access to a subset of MiCollab Client features from a Web browser on a computer or mobile device.

See [“MiCollab Web Client features” on page 44](#) for a list of Web Client features.

### MiCollab for Mobile

MiCollab for Mobile for is a stand-alone client that users install on their mobile device. The client provides Dynamic Status, access to call logs, messages, and corporate contacts. To install and use MiCollab for Mobile, users must have a mobile device that meets the documented requirements. See [“MiCollab for Mobile for requirements” on page 84](#) for device requirements. You must be licensed to use MiCollab for Mobile.

See [“MiCollab for Mobile features” on page 47](#) for a list of MiCollab for Mobile features.

## Supported Communication Platforms (PBXs)

The following Mitel communication platforms provide call control for MiCollab Client desk phones and softphones:

- **MiVoice Business Release 7.2 SP1:** Formerly known as Mitel 3300 IP Communications Platform (ICP), the MiVoice Business call processing software is configured through the MiVoice Business Administration Tool. **MiVoice Business v5.0 SP2 is required for MiCollab Client SIP softphone functionality.**
- **MiVoice Office 250 Release 6.1:** The MiVoice Office 250 call processing software is configured through the MiVoice Office 250 Database Programming interface. **MiVoice Office 250 v5.0 or later is required for MiCollab Client SIP softphone functionality.**

When deployed in a MiCollab environment, MiCollab Client can also be integrated with:

- **MiVoice 5000 Release 6.2:** The MiVoice 5000 call processing software is configured through the MiVoice 5000 administrator interface.
- **MiVoice MX-One Release 6.0 SP2:** The MiVoice MX-One call processing software is configured through the MiVoice MX-One administrator interface.
- **MiVoice Office 400 Release 4.1:** This communications platform is configured through the MiVoice Office 400 Database Programming interface.

Users can access and use the communication system features provided by the communications platform from the MiCollab Client interfaces. Note that some features may not be supported on the user's desk phone or softphone.

## Mitel integrated applications

The following Mitel application components and versions are integrated with MiCollab Client:

- **MiCollab Audio, Web and Video Conferencing** - formerly known as Mitel Collaboration Advanced (MCA): Access to MiCollab Audio, Web and Video Conferencing is integrated within MiCollab Client. If users are licensed for MiCollab Audio, Web and Video Conferencing, they can use collaboration features (see [“About Collaboration” on page 64](#)) such as video calls, audio conferencing, web conferencing, annotation, chat, file transfer, and desktop sharing.
- **MiCollab Unified Messaging (UM):** Provides access to Visual Voice Mail (MiCollab UM voice mail and FAX messages) from the MiCollab Client interfaces.
- **MiVoice Border Gateway:** MiVoice Border Gateway provides a secure communications path for remote MiCollab Client users to the MiCollab Client Service. This product is supported for MiVoice Business communication systems only. **MiVoice Border Gateway v7.1 and later is required.**
- **Mitel Remote Proxy Services:** Remote Proxy Services provide a secure communications path for remote MiCollab Web Client users. This product is supported for MiVoice Business communication systems only.

## Optional third-party integrated applications

MiCollab Client includes support for the following third-party integrated applications:

- **Personal Information Manager (PIM)s:** PIMs allow users to easily import personal contacts into MiCollab Client. Supported PIMs include:
  - Microsoft Outlook 2007, 2010 (32-bit and 64-bit), 2013 (32-bit and 64-bit)
  - IBM Lotus Notes Server and Client 8.0, 8.5, 8.5.2, and 9.0
  - Sage® Software Act!® 2007, 2008, and 2011
  - Google Calendar and contact integration
- **Instant Messaging Clients:** MiCollab Client includes its own integrated chat component. It also supports launching the following Instant Messaging clients when they are installed and running on the user's computer:

- Skype for Business, Lync 2010 and 2013
- **Federation Servers:** Federation provides a communication path between a single MMiCollab Client Service and one or more external IM servers to provide MiCollab Client users with presence and chat features for external IM contacts (see [page 28](#)). MiCollab Client supports IM and presence federation with the following servers:
  - Skype for Business 2015, Lync 2010 and 2013 Server
  - IBM Lotus Sametime® Server 8.5 and 9.0
- **Exchange Server:** Exchange server integration enables users to integrate their dynamic status with their calendars whether or not they are logged into their PIM. This feature can be used with Microsoft Exchange 2007, Exchange 2007 SP1, Exchange 2010, Exchange 2010 SP1, Exchange 2010 SP3, and Exchange 2013 SP1.
- **Office 365 Server:** Office 365 server integration enables users to integrate their dynamic status with their Office 365 calendars.
- **Google Server:** Google server integration enables users to integrate their dynamic status with their Google calendars.

## Documentation

Documentation for MiCollab Client includes the following:

- Administrator documentation includes:
  - **MiCollab Client Engineering Guidelines:** The *MiCollab Client Engineering Guidelines*, part number 835.3288, provides system requirements, configuration information, network diagrams, virtualization information, performance recommendations, system capacities, etc. for sites installing the MiCollab Client product.
  - **MiCollab Client Administrator Guide:** This *MiCollab Client Administrator Guide*, part number 835.3246, includes PBX configuration information, MiCollab Client specifications and hardware configuration information, and configuration information for integrated applications.
  - **MiCollab Client Administrator Online Help:** Embedded in the MiCollab Client Service Administrator Interface, this help system provides a high-level overview of the provisioning process with links to task-related instructions. The task-related instructions provide detailed descriptions for fields and options. To open the help, access the Mitel MiCollab Client Service Configuration Web pages and click the help icon.
  - **MiCollab Vidyo Quick Reference Guide for Administrators:** Provides configuration steps for MiCollab Vidyo integration.
- End-user documentation includes:
  - **MiCollab Client Quick Reference Guide:** Provides installation, basic feature and usage information for the MiCollab Desktop Client, Web Client and Mobile for BlackBerry, Android, iPhone, and Windows 8 devices. A link to the MiCollab Client Quick Reference Guide on the Mitel eDocs Web site is included in the Welcome e-mail message generated from the MiCollab Client Service.
  - **MiTeam Reference Guide:** Provides installation, basic feature and usage information for the MiTeam collaboration tool.
  - **MiCollab Client and BluStar Features Quick Reference Guide:** Provides a feature comparison for MiCollab Client and BluStar.
  - **MiCollab Client Features Quick Reference Guide:** Provides a feature comparison for MiCollab Desktop, Web and Mobile clients.
  - **MiCollab Vidyo Quick Reference Guide for Users:** Provides MiCollab VidyoDesktop users with quick installation and usage information.
  - Online Help: Embedded in the user interface, the following help systems focus on interface elements, supported features, and task-related instructions:
    - *MiCollab Desktop Client Help:* To open the online help, select **Help** from the main menu or press the F1 function key on your keyboard.
    - *MiCollab Web Client Help:* To open the Help, click the **Help** link at the top of the page.
    - *MiVoice for Skype for Business Help:* To open the Help, click the menu icon and select **Help**.

User documentation for MiCollab Client is available in the following languages:

- Dutch
- Danish
- English (US)
- French (Canadian)
- French (European)
- German
- Italian
- Polish
- Portuguese (European)
- Portuguese (Brazilian)
- Spanish (European)
- Spanish (Latin America)
- Swedish
- Norwegian
- Finnish

**Note:**

The user interface supports the following languages:

Chinese (Simplified), Chinese (Traditional), Danish, Dutch, English (US), English (UK), French (Canadian), French (European), German, Italian, Polish, Portuguese (European), Portuguese (Brazilian), Spanish (European), Spanish (Latin American), Swedish, Norwegian, and Finnish.

- **MiCollab Client SDK Programmers Guide:** The *MiCollab Client Software Developers Kit and SDK Programmers Guide*, part number 835.3246, are optional components for software developers designing third-party applications that integrate with MiCollab Client. See the [Mitel Solutions Alliance \(MSA\) Web page](http://www.mitel.com/DocController?documentId=9971) for more information (<http://www.mitel.com/DocController?documentId=9971>).

Documentation for the following Mitel integrated applications is available on the [Mitel eDocs Web site](http://edocs.mitel.com) (<http://edocs.mitel.com>):

- Mitel Standard Linux® (MSL)
- MiCollab
- MiCollab Audio, Web and Video Conferencing
- MiVoice Border Gateway and Remote Proxy Services
- Virtual Appliance Deployment
- VMware Horizon View Support



# Chapter 2

## Features

## Introduction

This chapter provides information about MiCollab Client features.

There are a total of 29 licensed features for MiCollab Client. Two of the features are server-level licensed features ("[Federation](#)" on page 28, and "[Peering](#)" on page 30), and are considered to be "in use" at all times.

The remaining 27 licensed features are user-level licensed features (see "[Client interface features](#)" on page 33), and are allocated to a specified user. These types of features are considered to be "in use" when you assign them to the user, regardless of whether or not the user is actually using the feature.

"[MiCollab Client licensed features](#)" on page 24 describes the MiCollab Client licensed features.

**Table 2: MiCollab Client licensed features**

Feature Name	Description
Auto Answer <sup>1</sup>	Incoming calls are answered at the first ring by the selected device. Users enable and disable this feature from the Dynamic Status dialog box on the MiCollab Desktop Client.
Call Forwarding	<p>The Call Forwarding feature allows users to:</p> <ul style="list-style-type: none"> <li>• forward to any non-Personal Ring Group (PRG) destinations.</li> <li>• add preferential contacts.</li> <li>• send calls to dynamic extensions.</li> </ul> <p>When users are not licensed for Call Forwarding, they can still send calls to their desk phones, softphones, and voice mail. In addition, users can set Do-Not-Disturb and Auto Answer options.</p>
Chat	Users can participate in online chat sessions with other users also licensed for chat. Users access the Chat submenu option when they right-click a contact from the Contacts view. The maximum chat file transfer size is 20 megabytes.
Collaboration Integration	<p>Users can access Collaboration features including the Collaboration submenu (available from the main menu) and the Start Collaboration option when the user right-clicks one or more contacts.</p> <p>See "<a href="#">Server-Level features</a>" on page 28 for more information about collaboration.</p>
Compact Mode	Users can switch between the full mode and Compact mode MiCollab Desktop Client interfaces.
Console Option <sup>2</sup>	Users have access to the Console view from the main menu. The Console view provides access to attendant functions such as answer, transfer, hold, and the ability to view and change another user's status.
Desk Phone	Users' desk phone extensions, as programmed on the PBX, are integrated with MiCollab Client.
Desktop client SDK	<p>This license is required for MiVoice for Skype for Business feature.</p> <p><b>Note:</b> MiVoice for Skype for Business Deskphone only users: those users only require the <b>Desktop client and Desk phone SDK</b> feature. MiVoice for Skype for Business Softphone only users OR those users with a Softphone and an associated Deskphone will require the <b>Softphone</b> feature in addition to the <b>Desktop client SDK</b> feature.</p>

**Table 2: MiCollab Client licensed features (continued)**

Feature Name	Description
Do-Not-Disturb (DND)	Users can enable and disable DND to override current Dynamic Status settings. When DND is enabled, callers receive a busy tone and a Do-Not-Disturb message and incoming calls are not logged in the call log.
Dynamic Status	<p>Users can manually change their Dynamic Status at any time using the MiCollab Client interface, which is then communicated to other MiCollab Client users. In addition, Dynamic Status can also be configured to be automatically updated in response to many events, such as a user's Calendar availability. Users can also add statuses and configure the following Dynamic Status elements:</p> <ul style="list-style-type: none"> <li>• Status Message (for example, In the office or Gone for the day)</li> <li>• Optional custom text (for example, Reviewing reports or Back on Thursday)</li> <li>• Instant Message and Video Call availability</li> <li>• Preferential Contacts</li> <li>• Phone Settings (Busy/no answer routing, DND, Auto Answer). Call routing options are not supported on MiVoice MX-One and MiVoice 5000 platforms.</li> </ul> <p>When users are not licensed for Dynamic Status, they have only one status. This status provides call forwarding capabilities as long as the user is licensed and configured to use the Call Forwarding feature.</p>
External Dial	Users can dial an external number from an integrated application such as Microsoft Word, Outlook, Internet Explorer®, and IBM Lotus Notes. The user may need to complete some configuration in the application to enable external dialing.
Federation	<p>The Federation feature provides MiCollab Client users with expanded IM capabilities. When the MiCollab Client Service is licensed for this feature, you can configure federation from the Federation Tab, and users can view IM presence and chat with federated IM contacts using the MiCollab Desktop Client's Chat window. See <a href="#">“Server-Level features” on page 28</a> for more information about federation.</p>
Knowledge Management	Users can index computer files and documents associated with a contact. When the user receives an incoming call, the Knowledge Management popup window appears presenting the user with a list of files associated with the caller including e-mail messages, contact entries, and documents (Microsoft Word, Excel® Power Point®, Outlook and Adobe® Portable Document Format).
Launchpad	Users can access the Launchpad view, which provides quick access to frequently completed actions, from their MiCollab Desktop Client. Actions include dialing a number, browsing to a URL, running a program, and exploring a folder.
Peering	<p>The Peering licensed feature allows you to configure communication paths with other MiCollab Client Services for the purposes of sharing presence information and providing communication features between multiple MiCollab Client Services. See <a href="#">“Peering” on page 30</a> for more information about peering.</p>
Phone Button Programming	<p>Users can configure the buttons on their 5312, 5320, 5324, 5330, 5340, or 5360 IP phone from the MiCollab Desktop Client.</p> <p>This feature is limited to users on MiVoice Business communication platforms only.</p>

**Table 2: MiCollab Client licensed features (continued)**

Feature Name	Description
Presence	<p>The Presence Server provides the following types of presence for MiCollab Client users:</p> <ul style="list-style-type: none"> <li>• Dynamic Status</li> <li>• Telephony presence</li> <li>• MiCollab Client chat presence</li> <li>• IM presence</li> <li>• Video presence</li> </ul> <p>See <a href="#">“About Presence” on page 59</a> for more information about presence.</p>
Presence on Mitel Sets	<p>Users can configure presence information for speed call keys on their 5320, 5330, 5340, or 5360 IP phone from the MiCollab Desktop Client.</p> <p>This feature is limited to users on MiVoice Business communication platforms only.</p>
RSS Window	<p>Users have access to the RSS window (Rich Site Summary), located at the bottom of the MiCollab Desktop Client UI. Typically, RSS feeds provide syndicated content such as events listings, news stories, headlines, excerpts from discussion forums, or corporate information to the user.</p>
Softphone	<p>Users' softphone extensions, as programmed on the PBX, is integrated with MiCollab Client. The WebRTC client is included in all licensing bundles that provide the PC client with softphone.</p>
Stand-alone MiCollab Web Client	<p>The MiCollab Web Client provides users with remote access to a subset of MiCollab Client features. This interface allows users to configure and change their Dynamic Status, access call history data, view corporate contacts, access voice mail messages, and configure account options.</p>
MiCollab for Mobile	<p>Users can install and use the MiCollab for Mobile client application on their Android, BlackBerry, iPhone, Windows 8, or Windows 10 mobile device. MiCollab for Mobile application provides an integrated environment in which users can manage Dynamic Status, communicate with corporate contacts, and access visual voice mail and call history. Depending on the device, shortcuts and widgets provide customization options for users. When using the MiCollab Client Service Configuration interface to assign licenses, this feature will appear as “MiCollab Client Mobile for Smart Devices” and will represent a consolidated license count for the Android, BlackBerry, and iPhone licenses.</p> <p>The MiCollab Client <b>Mobile for Smart Devices</b> was previously known as the <b>Locator</b>.</p>
Video Calls	<p>Users have access to video presence for Corporate Contacts and can participate in point-to-point and multi-party video sessions. Video services for the MiCollab Desktop Client are provided by MiCollab Audio, Web and Video Conferencing and MiCollab Vidyo. See MiCollab Audio, Web and Video Conferencing and MiCollab Vidyo documentation, available on <a href="#">Mitel eDocs</a> Web site, for additional licensing information.</p>
Visual Voice Mail	<p>Users have access to the following MiCollab Unified Messaging (UM) voice mail features from the Visual Voice Mail view:</p> <ul style="list-style-type: none"> <li>• Receive message waiting indications</li> <li>• Play, forward, and delete voice mail messages</li> <li>• View, forward, and delete fax messages</li> <li>• Change the voice mail PIN</li> </ul> <p>Supported on systems with MiCollab UM voice mail only.</p>

1. The Auto Answer feature conflicts with the MiVoice Office 250 Dynamic Extension Express feature.
2. SIP softphone should not be used with MiCollab Client console. MiCollab Client console is not supported on Citrix, VMWare or Windows Terminal Server.

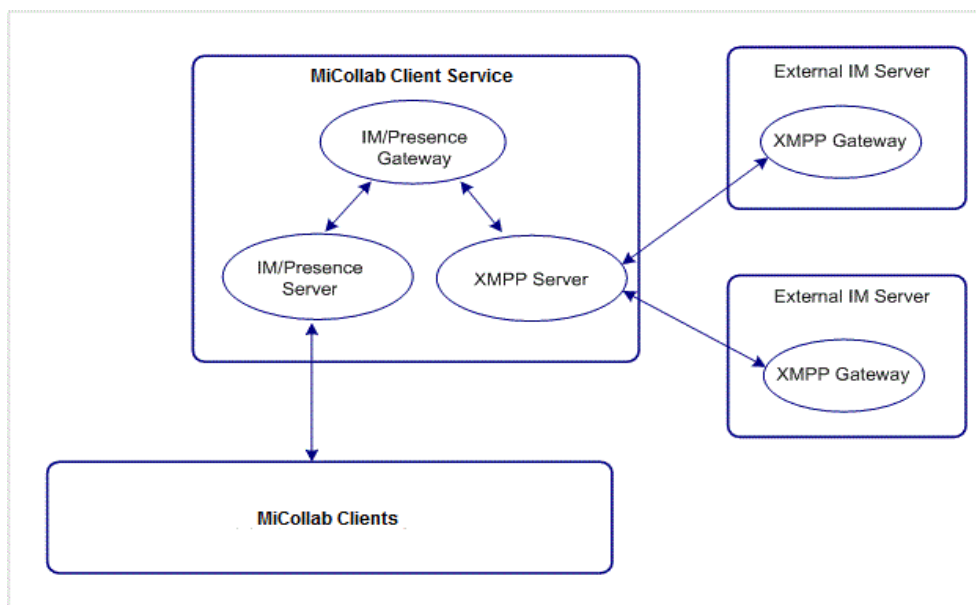
## Server-Level features

Server-level licensed features include:

- [Federation](#), below
- “[Peering](#)” on page 30

### Federation

Federation provides a communication path between a single MiCollab Client Service and one or more external IM servers to provide MiCollab Client users with presence and chat features for external IM contacts. The communication path between the MiCollab Client Service and the external IM server uses the Extensible Messaging and Presence Protocol (XMPP). [Figure 2](#) provides a basic federation configuration diagram.



**Figure 2: Federated servers**

**Note:**

For v6.0, external IM server support is limited to Microsoft Lync 2010, Google and IBM Lotus® Sametime® Server 8.5, 8.5.1, and 8.5.2.

MiCollab Client Service federation capabilities are provided by the following services:

- **Subscription Federation service:** Creates subscriptions for local MiCollab Client users to external presence servers.
- **Presence Gateway service:** Sends presence information to/from the MiCollab Client Presence Server (see “[Presence server](#)” on page 59) and the external IM presence server. This service translates information from SIP to XMPP, and vice versa. The Presence Gateway service allows

MiCollab Desktop Client users to view and refresh IM presence information for external IM contacts. MiCollab Client account presence (Dynamic Status) and telephony presence is not available through this service.

- **Instant Messaging (IM) service:** Allows MiCollab Desktop Client users to chat (point-to-point) with external IM contacts using the MiCollab Desktop Client Chat window. Federated chat sessions are page-mode conversations, similar to a two-way pager device or Short Message Service (SMS), where a small number of independent messages are exchanged between two participants and are perceived as part of the same conversation. Page mode does not support multi-party chat or file transfer.

There are two options you can use to configure Federation using the MiCollab Client Service Administrator interface:

- Configure an external IM server and perform an AD/LDAP synchronization with the server from the Peer Server Details page. After synchronization, the IM server contacts are imported to the MiCollab Client Service database (visible from the Corporate Directory Tab, see [Figure 4 on page 31](#)) and federation is automatically enabled. When you configure federation this way, federated contacts are displayed in a separate list in the user's corporate directory from the MiCollab Desktop Client's Contacts View, similar to peered contacts (see [Figure 4 on page 31](#)).
- Enable Federation and configure the federated server domain from the Federation Tab. When you configure federation this way, instruct users to manually add the federated contacts. Users should create a new personal contact, and then add the IM login information for the contact using the **MiCollab ClientLogin** option.

See the MiCollab Client Service Administrator interface online help for information and instructions about configuring federation for MiCollab Client Service.

Note the following guidelines for Federation:

- The site must purchase the Federation license for MiCollab Client Service (see [Table 2 on page 24](#)).
- The external IM server must be installed and the IM server's XMPP gateway must be deployed before you can configure federation for MiCollab Client Service. See the IM server's documentation for information about configuring federation for the IM server.

**Note:**

Google Federation specific: Google Apps server hostname domain must be different from the MiCollab Client Service hostname domain for the federation to work. In addition, the MiCollab Client Service hostname domain should not have the same root parent domain as the Google Apps server.

For example, Google Federation will not work if MiCollab Client Service hostname is usmas12.company.com and Google Apps server hostname is google.company.com.

See *MiCollab Client Engineering Guidelines* for further details.

- Presence for federated contacts is limited to IM presence only. MiCollab Client account and telephony status is not provided.

- Chat for federated contacts is limited to point-to-point only. Multi-party chat and file transfer is not available.

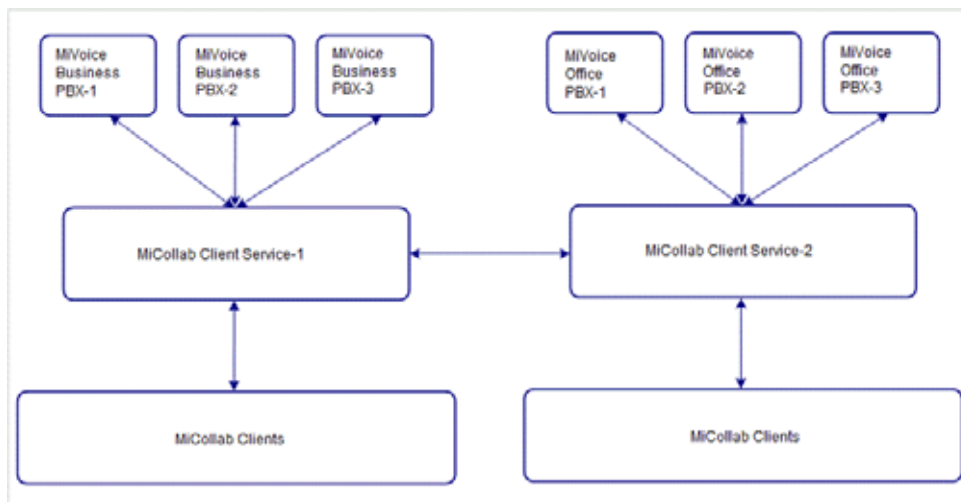
**Note:**

Federation with Border Gateway in the network path between MiCollab Client Service and the federated server (Skype for Business, IBM Sametime or Google server) is supported as of MiCollab Client 6.0. This is accomplished by adding Border Gateway connector for TCP port 5269 in Border Gateway v8.0.

## Peering

MiCollab Client Service Peering configures a communication path between a local MiCollab Client Service and one or more peered MiCollab Client Services within the same company or between different companies on the same server. Peering MiCollab Client Services provides greater scalability for the MiCollab Client product. MiCollab Client Service peering supports a combined maximum of 20,000 clients in the configuration.

It is possible to peer a MiCollab Client Service connected to multi-node MiVoice Business system with a MiCollab Client Service connected to a multi-node MiVoice Office 250 system (see [Figure 3](#)).



**Figure 3: Peered MiCollab Client Services**

To configure MiCollab Client Service peering, add one or more MiCollab Client Services from the Peering Tab – **Peer Server Details** page in the MiCollab Client Service Administrator interface.

**Note:**

The enterprise domain should be unique for each MiCollab Client Service peer. See the MiCollab Client Service Administrator interface online help for details.

In addition to peering with MiCollab Client Services, you can configure Federation with an external IM server from the Peer Server Details page by adding the external server and performing an



AD/LDAP synchronization with the server. See [“Federation” on page 28](#) for details about Federation configuration.

See the MiCollab Client Service Administrator interface online help for information and instructions about configuring peering for MiCollab Client Service.

After peering has been established and a synchronization performed, peered contacts are displayed on the Corporate Directory tab in the MiCollab Client Service Administrator interface. Peered corporate directories appear as sub-folders to the top-level local Corporate Directory (see [Figure 4 on page 31](#)). For each peered server, the directory tree structure displayed under the local Corporate Directory folder mirrors the corporate directory structure on the peer server itself.

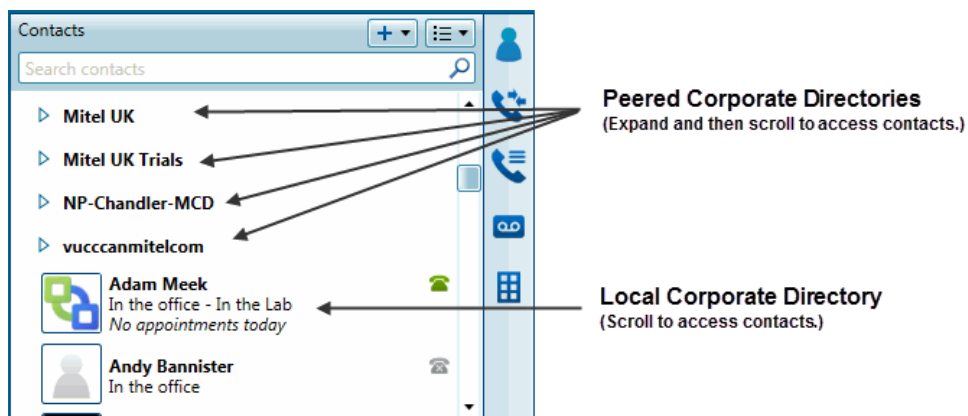


**Figure 4: Peered Corporate Directories-MiCollab Client Service Administrator Interface**

Peered contacts are located in the MiCollab Desktop Client Contacts view, and are organized within the expanding peered server corporate directory (see [Figure 5](#)). MiCollab Desktop Client users can view presence information for peered contacts and can use MiCollab Client communication features such as chat, video, and collaboration with peered contacts.

Users can expand each peered server corporate directory to access peered contacts. Local corporate contacts appear below the peered corporate directories.

Figure 0-1



**Figure 5: Peered Corporate Contacts-MiCollab Desktop Client**

Note the following guidelines for peered MiCollab Client Services:

- All peered MiCollab Client Services must be running identical versions of MiCollab Client software.

- To peer with another MiCollab Client Service, a site must purchase the Peering license (see [Table 2 on page 24](#)). The Peering license controls the connection initiated by the local MiCollab Client Service and not the connection established from the peer MiCollab Client Service.
- Each MiCollab Client Service in a peered configuration operates independently and is maintained and managed by the administrator assigned to that server. If a MiCollab Client Service in a peered configuration is unavailable, the other servers in the configuration are not affected.
- If contacts are hidden from the corporate directory on the local MiCollab Client Service, they will also be hidden on a peered MiCollab Client Service.
- Call routing rules must be configured properly in the PBX to route calls properly to the peered server. The Peer Server Details page includes a field called **Peer Dialing Prefix**. The value you enter for the Peer Dialing Prefix corresponds with the dialing prefix (not including the outgoing call digit) that PBX users must dial to call an extension on the networked PBX. The Peer Dialing Prefix is only required for PBX-to-PBX calls where the networked PBXs are not configured for transparent extension dialing.
- When MiCollab Client Services are peered, the voice mail systems between the servers must be networked and configured properly so that users are able to forward voice mail messages to users on other servers.

## Client interface features

MiCollab Client includes the following interfaces, which provide access to user-level features:

- MiCollab Desktop Client (see [Table 3 MiCollab Desktop Client UI features](#))
- MiCollab MAC Desktop Client (see [Table 4 MiCollab MAC Desktop Client UI features](#))
- MiVoice for Skype for Business Client (see [Table 5 MiVoice for Skype for Business UI features](#))
- Web Client (see [Table 6 MiCollab Web Client UI features](#))
- MiCollab for Mobile (see [Table 7 MiCollab for Mobile features](#))

This section describes the main features provided by the end-user interfaces.

### MiCollab Desktop Client features

[Table 3](#) provides descriptions for the main features accessed from the MiCollab Desktop Client UI.

**Table 3: MiCollab Desktop Client UI features**

Feature Name	Description	Notes
Account Options	The My Account dialog box provides configuration options that the user can set for his or her account. Options include uploading a photo, changing password and log in options, and adding phone, e-mail, and IM contact information for publication and routing purposes.	
ACD	<p>The MiCollab Desktop Client provides the ACD view for ACD hunt group agents using the communication system ACD features. MiCollab Client supports the following types of ACD:</p> <ul style="list-style-type: none"> <li>• ACD traditional agents (MiVoice Business communication system)</li> <li>• ACD Hunt Groups (MiVoice Office 250 and communication system)</li> </ul> <p>The ACD view is an optional component for MiCollab Client.</p>	
Auto Answer	When the Auto Answer feature is enabled, incoming calls are answered at the first ring by the selected device (Desk Phone or Softphone). Users enable and disable this feature from the Dynamic Status dialog box on the MiCollab Desktop Client.	
Calendar Integration	Calendar integration provides Dynamic Status updates based on the user's Busy and Out of Office settings in their Google Calendar, Outlook, Lotus Notes, Office 365, or Exchange calendar.	
Call Annotation	<p>Call Annotation features are displayed in the Call Window when you are on an active call and include:</p> <ul style="list-style-type: none"> <li>• <b>Notes:</b> Provides a text box to add notes about the call.</li> <li>• <b>Recorder<sup>1</sup>:</b> Records the current call.</li> </ul>	The recorder function is provided by the MiCollab Client embedded softphone, which is a licensed feature (see <a href="#">Table 2 on page 24</a> ).

Table 3: MiCollab Desktop Client UI features (continued)

Feature Name	Description	Notes
Call Control	<p>Call Control features are displayed in the Call Window and provide one-click access to the following call control features:</p> <ul style="list-style-type: none"> <li>• <b>Call Me Back (MiVoice Business systems):</b> Provides call me back notifications for internal calls only.</li> <li>• <b>Leave Station Message (MiVoice Office 250 systems):</b> Delivers a station message (flashing LED indicator) on the internal destination device.</li> <li>• <b>Hold/Retrieve Held:</b> Places/retrieves a call on hold.</li> <li>• <b>End Call:</b> Ends the call.</li> <li>• <b>Transfer, Conference:</b> Allows the user to complete a transfer or conference. Includes the complete, cancel, or consult associated actions.</li> <li>• <b>Split:</b> Places the party that joined the call last on hold. This feature is not supported by the MiVoice Office 250 communication system.</li> <li>• <b>Trade:</b> During a consult call or a split call, this control places the active party on hold, and makes the other party active.</li> </ul>	<p>Call Me Back and Split are supported on MiVoice Business systems only.</p> <p>Leave Station Message is supported on MiVoice Office 250 systems only.</p>
Call Forwarding	The Call Forwarding feature allows users to forward calls to non-Personal Ring Group (PRG) destinations and dynamic extensions. In addition, users can configure forwarding for preferential contacts.	
Call Handoff	The Call Handoff feature allows users to either push an active call to another device or pull in a call to a selected device within their Personal Ring Group.	
Call History	Provides a list of missed, received, and dialed calls that includes caller ID and presence information for known contacts.	There is no specific limit to the number of Call History records that are saved.
Chat	Provides multi-party chat functionality for corporate contacts. Chat features include emoticons, timestamp, file transfer, chat history, and user configurable chat alert sounds.	The maximum chat file transfer size is 20 megabytes.
Collaboration	Collaboration is an optional component that provides extended conferencing functions as well as provide annotation, file transfer, application sharing, desktop sharing, and video capabilities from a Mitel integrated conferencing product.	
Compact Mode	Compact Mode provides access to frequently-used MiCollab Client features from a minimized interface that can be moved to any area of your desktop.	

Table 3: MiCollab Desktop Client UI features (continued)

Feature Name	Description	Notes
Configuration Options	<p>Configuration options allow the user to customize the following features for the MiCollab Desktop Client:</p> <ul style="list-style-type: none"> <li>• Appearance</li> <li>• Calendar Integration</li> <li>• Call Notification</li> <li>• Chat Settings</li> <li>• Knowledge Management</li> <li>• Login Notification</li> <li>• PIM Integration</li> <li>• RSS Window</li> <li>• Teleworker</li> <li>• Softphone Settings</li> <li>• Contacts View</li> </ul>	
Conference	<ul style="list-style-type: none"> <li>• <b>Conference:</b> Allows a user to go from a point-to-point call to a multi-party call.</li> <li>• <b>Split:</b> Once a three-party conference call is established, any participant can split the conference. One participant will go on hold and the other two will remain connected.</li> <li>• <b>Trade:</b> During a consult call or a split call, this control places the active party on hold, and makes the other party active.</li> </ul>	<p>In MiVoice MX-ONE and MiVoice 5000 systems, conference through deskphone using MiCollab Desktop Client is limited to three parties only (although MiVoice MX-ONE supports maximum up to eight participants in audio conference).</p> <p><b>Note:</b> Conference feature specific to Softphone (SIP-based):</p> <ol style="list-style-type: none"> <li>1. Setting up a conference call on the MiVoice Business or MiVoice Office systems is not supported.</li> <li>2. Setting up a conference call on the MiVoice MX-ONE and MiVoice 5000 systems is not supported.</li> <li>3. Setting up a conference call using MiCollab Audio, Web and Video Conferencing is supported.</li> </ol>

Table 3: MiCollab Desktop Client UI features (continued)

Feature Name	Description	Notes
Console <sup>2</sup>	The MiCollab Client Console is an optional component that provides attendant call handling functions such as answer, transfer, hold, and conference. When a user is licensed for the console, it is available from the MiCollab Desktop Client main menu and Dynamic Status view.	Split Conference is supported on MiVoice Business systems only. Transfer to Hold is supported on MiVoice Office 250 systems only. Console is not supported on MiVoice MX-One and MiVoice 5000 systems.
Contact Management	Corporate contacts are provided by the MiCollab Client corporate directory. Users can view detailed information (including uploaded photos) for each corporate contact, as well as presence information. Users can import personal contacts from their PIMs, or create them manually, and then organize them into groups.	
Dynamic Status	Dynamic Status provides customized call routing, IM and video presence, and calendar integration for MiCollab Client users. In addition to displaying the user's current Dynamic Status, the Dynamic Status view includes communication notification icons, which indicate new messages and missed calls.	
External Dialing	MiCollab Client provides external dialing functionality for the following applications: <ul style="list-style-type: none"> <li>• <b>Microsoft Word and Excel:</b> Users must configure Smart Tags/Actions for external dialing from Word and Excel.</li> <li>• <b>Microsoft Outlook:</b> Users must configure Smart Tags/Actions for external dialing from Outlook.</li> <li>• <b>IBM Lotus Notes:</b> The Lotus Notes Toolbar provides external dialing from Lotus Notes.</li> <li>• <b>Microsoft Internet Explorer:</b> The MiCollab Client Dialing Helper Add-On provides external dialing in IE.</li> </ul>	
Favorites	Favorites include the list of corporate and personal contacts that the user has assigned as a Favorite.	
Hot Desking	Provides the ability to Hot Desk in and Hot Desk out of supported systems by a simple right-click operation.	This feature is limited to users on MiVoice Business communications platform only.
IM Client Integration	Users licensed for Office Communicator Integration can launch an IM session from the MiCollab Desktop Client with any contact who has a corresponding login for the application and is currently logged in to the application.	
Knowledge Management	Provides indexing and search functions to correlate files and e-mail messages with users' contacts.	
Launchpad	Provides easy access to frequently-performed tasks. Launchpad items are associated with actions (Dial a number, Browse to a URL, Run a program, and Explore a folder) and appear on the Launchpad as buttons.	

Table 3: MiCollab Desktop Client UI features (continued)

Feature Name	Description	Notes
Notifications	Popup windows (incoming call, call me back, chat invitation, collaboration invitation, and login notification) and auditory alerts (new chat, chat received, knowledge management window, and login notification) provide users with notification when events occur.	
Phone Button Programming	Buttons can be configured by users on their 5312, 5320, 5324, 5330, 5340, or 5360 IP phone from the MiCollab Desktop Client.	This feature is limited to users on MiVoice Business communication platforms only.
PIM Integration	Creates a connection between MiCollab Client and the contacts in the user's PIM. Supported PIMs include Microsoft Outlook, IBM Lotus Notes, and Sage Software ACT!	
Presence	Presence information (telephony, video, MiCollab Client chat, integrated IM) for corporate contacts uses <b>Dynamic Presence</b> (replacement for Universal Presence and On-Demand Presence).	
Presence on Mitel Sets	Users can configure presence information for multiple contacts on their 5320, 5330, 5340, or 5360 IP phone from the MiCollab Desktop Client.	This feature is limited to users on MiVoice Business communication platforms only.
RSS Content	The RSS window provides access to scrolling Rich Site Summary (RSS) content such as news headlines, excerpts from discussion forums, or corporate information displayed in the RSS Window. The RSS window provides links to Web content and additional RSS feeds, as well as navigation capabilities.	
SIP-Based Softphone	Provides a SIP-Based Softphone to the MiCollab Desktop Client	This feature is supported on MiVoice Business systems running 5.0 SP2 or MiVoice Office 250 running 5.1 or later release.
Softphone	The MiCollab Desktop Client provides an embedded softphone that users can use with a USB headset or handset to place and receive calls. The softphone extension must be configured on the PBX.	
Teamwork Mode	Teamwork Mode provides the ability for a desktop user to have certain MiCollab Client functions without having a Mitel phone (without being tied to a PBX). Non-telephony based features such as contact grouping, presence, dynamic status and chat are supported.	
Teleworker	Teleworker mode allows MiVoice Business users to connect to and access their MiVoice Business voice network through the MiCollab Client softphone or IP desk phone from a remote location. In Teleworker mode, the remote MiCollab Client uses a secure SSL connection with the MiVoice Border Gateway for all communication between the client and the MiCollab Client Service.	Supported on MiVoice Business systems with an Border Gateway installed on site.

**Table 3: MiCollab Desktop Client UI features (continued)**

Feature Name	Description	Notes
Tray Icon and Menu	Provides a visual indication of the user's telephony presence, message waiting indication, and menus for frequently-used features such as Set Status, Voice Mail, Missed Calls, and Do-Not-Disturb.	
Video Call/Presence	A video call includes an audio call established by the PBX and a video broadcast established by MiCollab Audio, Web and Video Conferencing. The user can configure video presence for each Dynamic Status to indicate if he or she is available for video calls. The Video Contacts view provides a list of contacts available for video calls.	Requires MiCollab Audio, Web and Video Conferencing 4.0 or later.
Visual Voice Mail	Provides access to the following voice mail features: <ul style="list-style-type: none"> <li>• Receive message waiting indications</li> <li>• Play, forward, and delete voice mail messages</li> <li>• View, forward, and delete fax messages</li> <li>• Change the voice mail PIN</li> </ul>	Visual Voice Mail is only available on systems with MiCollab UM voice mail.

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1. The embedded softphone records and saves call recordings to the user's computer. It does not save the recordings in the user's voice mailbox like the PBX Record-A-Call (RAC) feature. Note that users cannot use the Recorder option in the MiCollab Desktop Client and PBX RAC feature simultaneously. To use the MiCollab Client record feature, the user must be provisioned with the Softphone licensed feature (see [Table 2 on page 24](#)).
2. SIP softphone should not be used with MiCollab Client console.



## MiCollab MAC Desktop Client features

Table 4 provides descriptions for the main features accessed from the MiCollab MAC Desktop Client UI.

**Table 4: MiCollab MAC Desktop Client UI features**

Feature Name	Description	Notes
Account Options	The My Account dialog box provides configuration options that the user can set for his or her account. Options include uploading a photo, changing password and log in options, and adding phone, e-mail, and IM contact information for publication and routing purposes.	
Auto Answer	When the Auto Answer feature is enabled, incoming calls are answered at the first ring by the selected device (Desk Phone or Softphone). Users enable and disable this feature from the Dynamic Status dialog box on the MiCollab MAC Desktop Client.	
Calendar Integration	Calendar integration provides Dynamic Status updates based on the user's Busy and Out of Office settings in their Google Calendar, Outlook, Lotus Notes, Office 365, or Exchange calendar.	
Call Control	<p>Call Control features are displayed in the Call Window and provide one-click access to the following call control features:</p> <ul style="list-style-type: none"> <li>• <b>Call Me Back (MiVoice Business systems):</b> Provides call me back notifications for internal calls only.</li> <li>• <b>Leave Station Message (MiVoice Office 250 systems):</b> Delivers a station message (flashing LED indicator) on the internal destination device.</li> <li>• <b>Hold/Retrieve Held:</b> Places/retrieves a call on hold.</li> <li>• <b>End Call:</b> Ends the call.</li> <li>• <b>Transfer, Conference:</b> Allows the user to complete a transfer or conference. Includes the complete, cancel, or consult associated actions.</li> <li>• <b>Split:</b> Places the party that joined the call last on hold. This feature is not supported by the MiVoice Office 250 communication system.</li> <li>• <b>Trade/Toggle:</b> During a consult call or a split call, this control places the active party on hold, and makes the other party active.</li> <li>• <b>In/Out group (MiVoice Business Call manager integration)</b></li> </ul>	<p>Call Me Back and Split are supported on MiVoice Business systems only.</p> <p>Leave Station Message is supported on MiVoice Office 250 systems only.</p>
Call Forwarding	The Call Forwarding feature allows users to forward calls to non-Personal Ring Group (PRG) destinations and dynamic extensions. In addition, users can configure forwarding for preferential contacts.	

**Table 4: MiCollab MAC Desktop Client UI features (continued)**

Feature Name	Description	Notes
Call Handoff	The Call Handoff feature allows users to either push an active call to another device or pull in a call to a selected device within their Personal Ring Group.	Requires a 3300 system running 10.3 and higher as well as MiVoice Business 5.0 SP2 or higher
Call History	Provides a list of missed, received, and dialed calls that includes caller ID and presence information for known contacts.  Missed calls trigger notifications visible in the notification center.	There is no specific limit to the number of Call History records that are saved.
Chat	Provides multi-party chat functionality for corporate contacts. Chat features include emoticons, timestamps, file transfer, chat history, and user configurable chat alert sounds.  New chat requests trigger notifications visible in the notification center.	The maximum chat file transfer size is 20 megabytes.
Collaboration	Collaboration is an optional component that provides extended conferencing functions.  MiCollab MAC Desktop Client can receive requests to join adhoc sessions from a user on the MiCollab Desktop Client. When accepted, the configured default device rings and the MiCollab Audio, Web and Video Conferencing viewer is launched.	
Compact Mode	Compact Mode provides access to frequently-used MiCollab Client features from a minimized interface that can be moved to any area of your desktop.	
Configuration Options	Configuration options allow the user to customize the following features for the MiCollab Desktop Client: <ul style="list-style-type: none"> <li>• Appearance</li> <li>• Calendar Integration</li> <li>• Call Notification</li> <li>• Chat Settings</li> <li>• Login Notification</li> <li>• PIM Integration</li> <li>• Softphone Settings</li> <li>• Contacts View</li> </ul>	
Contact Management	Corporate contacts are provided by the MiCollab Client corporate directory. Users can view detailed information (including uploaded photos) for each corporate contact, as well as presence information. Users can import personal contacts from their PIMs, or create them manually, and then organize them into groups.	

Table 4: MiCollab MAC Desktop Client UI features (continued)

Feature Name	Description	Notes
Dynamic Status	Dynamic Status provides customized call routing, IM and video presence, and calendar integration for MiCollab Client users. In addition to displaying the user's current Dynamic Status, the Dynamic Status view includes communication notification icons, which indicate new messages and missed calls.	
Favorites	Favorites include the list of corporate and personal contacts that the user has assigned as a Favorite.	
Hot Desking	Provides the ability to Hot Desk in and Hot Desk out of supported systems by a simple right-click operation.	This feature is limited to users on MiVoice Business communications platform only.
Hotkey Dialing	MiCollab Client provides external dialing by highlighting a phone number on the screen and clicking a predefined hot key or combination of keys to dial the highlighted number.	
IM Client Integration	Users licensed for federation integration with a supported third party IM server can launch an IM session from the MiCollab MAC Desktop Client with any contact who has a corresponding login for the application and is currently logged in to the application.	
Launchpad	Provides easy access to frequently-performed tasks. Launchpad items are associated with actions (Dial a number, Browse to a URL, Run a program, and Explore a folder) and appear on the Launchpad as buttons.	
Message Wait Indicator	Message Wait Indicator is supported for integrated voicemail when NuPoint is not in place (for example, MiVoice MX-One).	
Notifications	Notification center within the notification center (incoming call, call me back, chat invitation, collaboration invitation, new NuPoint voicemail and login notification) and auditory alerts (new chat, chat received, and login notification) provide users with notification when events occur.	
PIM Integration	Creates a connection between MiCollab MAC Desktop Client and the contacts in the user's PIM. Supported PIMs include Microsoft Outlook, IBM Lotus Notes, and Sage Software ACT!	
Presence	Presence information (telephony, video, MiCollab Client chat, integrated IM) for corporate contacts uses <b>Dynamic Presence</b> (replacement for Universal Presence and On-Demand Presence).	
Shortcuts	Provides easy access to frequently-performed tasks. Launchpad items are associated with actions (Dial a number, Browse to a URL, Run a program, and Explore a folder) and appear on the Launchpad as buttons. Administrators can provision a predefined list of shortcuts.	

**Table 4: MiCollab MAC Desktop Client UI features (continued)**

Feature Name	Description	Notes
Teamwork Mode	Teamwork Mode provides the ability for a desktop user to have certain MiCollab Client functions without having a Mitel phone (without being tied to a PBX). Non-telephony based features such as contact grouping, presence, dynamic status and chat are supported.	
Teleworker	Teleworker mode allows MiVoice Business users to connect to and access their MiVoice Business voice network through the MiCollab Client softphone or IP desk phone from a remote location. In Teleworker mode, the remote MiCollab Client uses a secure SSL connection with the MiVoice Border Gateway for all communication between the client and the MiCollab Client Service.	Supported on MiVoice Business, MiVoice MX-One and MiVoice 5000 systems with an Border Gateway installed on site.
Tray Icon and Menu	Provides a visual indication of the user's telephony presence, message waiting indication, and menus for frequently-used features such as Set Status, Voice Mail, Missed Calls, and Do-Not-Disturb.	
Video Call/Presence	A video call includes an audio call established by the PBX and a video broadcast established by MiCollab Audio, Web and Video Conferencing. The user can configure video presence for each Dynamic Status to indicate if he or she is available for video calls. The Video Contacts view provides a list of contacts available for video calls.	Requires MiCollab Audio, Web and Video Conferencing 4.0 or later.
Visual Voice Mail	Provides access to the following voice mail features: <ul style="list-style-type: none"> <li>• Receive message waiting indications</li> <li>• Play, forward, and delete voice mail messages</li> <li>• View, forward, and delete fax messages</li> <li>• Change the voice mail PIN</li> </ul>	Visual Voice Mail is only available on systems with MiCollab UM voice mail.

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## MiVoice for Skype for Business features

Table 5 provides descriptions for the main features accessed from MiVoice for Skype for Business UI.

**Table 5: MiVoice for Skype for Business UI features**

Feature Name	Description	Notes
Auto Answer	When the Auto Answer feature is enabled, incoming calls are answered at the first ring by the selected device (Deskphone or Softphone).	
Conference	Allows the user to add a third-party to the call.	
Call Forwarding	The Call Forwarding feature allows users to forward calls using Call Forward Always, Call Forward No answer or Call Forward Busy options.	
Call History	Provides a list of missed, received, and dialed calls that includes caller ID (if available).	There is no specific limit to the number of Call History records that are saved.

**Table 5: MiVoice for Skype for Business UI features**

Feature Name	Description	Notes
Do Not Disturb	Users can enable and disable Do Not Disturb (DND). When DND is enabled, callers receive a busy tone or go to Voicemail (if programmed).	
Edit Dial Strings	Users have the option to edit dial strings for outbound calls.	
Smart Tags	Users can use Smart Tags, known as Actions in Office 2010. When you enable Smart Tag/Actions in Microsoft Word, Excel and Outlook, you can select proper names or numbers and then call the number using MiVoice for Skype for Business.	
Transfer	Allows the user to transfer the call (supervised and unsupervised transfers are supported).	

**Note:** MiNET softphone is not supported with current version of MiVoice for Skype for Business.

**Note:** MiVoice for Skype for Business does not support making calls from Outlook using TAPI.

## MiCollab Web Client features

Table 6 provides descriptions for the main features accessed from the MiCollab Web Client.

**Table 6: MiCollab Web Client UI features**

Feature Name	Description	Notes
Account Options	Provides a way for users to edit their Dynamic Extensions, update their password, and change their time zone.	
Auto Answer	When the Auto Answer feature is enabled, incoming calls are answered at the first ring by the selected device (Desk Phone or Softphone). Users enable and disable this feature from the Dynamic Status dialog box on the MiCollab Desktop Client.	
Call Forwarding	The Call Forwarding feature allows users to forward calls to non-Personal Ring Group (PRG) destinations and dynamic extensions. In addition, users can configure forwarding for preferential contacts.	
Call Handoff	The Call Handoff feature allows users to either push an active call to another device or pull in a call to a selected device within their Personal Ring Group.	MiVoice Business systems only.
Call History	Provides call history information for missed, received, and placed calls.	There is no specific limit to the number of Call History records that are saved.

Table 6: MiCollab Web Client UI features (continued)

Feature Name	Description	Notes
Conference	<ul style="list-style-type: none"> <li>• <b>Conference:</b> Allows a user to go from a point-to-point call to a multi-party call.</li> <li>• <b>Split:</b> Once a three-party conference call is established, any participant can split the conference. One participant will go on hold and the other two will remain connected.</li> <li>• <b>Trade:</b> During a consult call or a split call, this control places the active party on hold, and makes the other party active.</li> </ul>	<p>In MiVoice MX-ONE and MiVoice 5000 systems, conference through deskphone using MiCollab Desktop Client is limited to three parties only (although MiVoice MX-ONE supports maximum up to eight participants in audio conference).</p> <p><b>Note:</b> Conference feature specific to Softphone (SIP-based):</p> <ol style="list-style-type: none"> <li>1. Setting up a conference call on the MiVoice Business or MiVoice Office systems is not supported.</li> <li>2. Setting up a conference call on the MiVoice MX-ONE and MiVoice 5000 systems is not supported.</li> <li>3. Setting up a conference call using MiCollab Audio, Web and Video Conferencing is supported.</li> </ol>
Chat	Provides multi-party chat functionality for corporate contacts. Chat features include emoticons, timestamp, file, chat history, and user configurable chat alert sounds.	The maximum chat file transfer size is 20 megabytes.
Contacts	Provides a list of corporate contacts, a search function, and a way to view contact details. With MiCollab Client 5.0 you can also group contacts.	
Do Not Disturb	Users can enable and disable DND to override current Dynamic Status settings. When DND is enabled, callers receive a busy tone and a Do-Not-Disturb message and incoming calls are not logged in the call log.	
Dynamic Status	Displays users' current status and allows them to change, add, edit, and delete Dynamic Statuses.	

**Table 6: MiCollab Web Client UI features (continued)**

Feature Name	Description	Notes
Messages	Provides a list of users' current voice mail and FAX messages, access to initialize and change the voice mail PIN, and a way to download them to the device.	
MiTeam	<p>MiTeam is Mitel's Cloud-based collaboration tool that provides mobile users with the ability to access features, such as</p> <ul style="list-style-type: none"> <li>• <b>Collaborate:</b> Manage collaboration streams</li> <li>• <b>Chat:</b> Hold chat sessions and receive chat notifications</li> <li>• <b>Pages:</b> add white-board pages</li> <li>• <b>To-Do:</b> Create to-do lists</li> <li>• <b>File Sharing:</b> Store and share files, and</li> <li>• <b>MiTeam Meet:</b> Perform audio and web sharing within a team.</li> </ul>	Windows/MAC only
OfficeLink	Allows users to place calls from the Web Client using one of the devices configured for their MiCollab Client account. You must have Personal Ring Groups (PRG) configured to use OfficeLink.	See <a href="#">"OfficeLink functionality" on page 67</a> for OfficeLink information.
Teamwork Mode	Teamwork Mode provides the ability for a Web-based client to have certain MiCollab Client functions without having a Mitel phone (without being tied to a PBX). Non-telephony based features such as contact grouping, presence, dynamic status and chat are supported.	
Transfer / Consult	Allows users to transfer an active call or consult a third-party. This action can also initiate a multi-party conference.	
WebRTC Softphone	The MiCollab WebRTC provides users with a web-based softphone that they can access from a browser. The softphone supports audio calls using the PC microphone and speakers.	

**Note:** MiVoice Office 250 does not support Web Client mid-call features.



## MiCollab for Mobile features

Table 7 provides descriptions for the main features accessed from the MiCollab for Mobile client.

**Table 7: MiCollab for Mobile features**

Feature Name	Description	Notes
Call History	The user can access call history for missed, received, and dialed calls.	There is no specific limit to the number of Call History records that are saved.
Chat	Provides multi-party chat functionality for corporate contacts. Chat features include emoticons, timestamp, file transfer, chat history, and user configurable chat alert sounds.	The maximum chat file transfer size is 20 megabytes.
Calendar Integration	Integrates MiCollab Client with either your Google, Office 365, or Exchange Server. Regardless of whether or not you are logged into your Calendar or Microsoft Outlook, your MiCollab Client Dynamic Status can access your calendar information directly from the server and update your Dynamic Status appropriately.	
Configuration	After the application is installed, the user must run the <b>Setup Wizard</b> to configure basic MiCollab Client options. The user can access credentials and settings at any time from the Settings – Options menu.	
Corporate Contacts	Allows the user to access all corporate contact information stored on the MiCollab Client Service.	
Dynamic Status	This screen allows users to view and change Dynamic Status and add custom text to their Dynamic Status. The <b>Update Status</b> option in the main menu allows users to update their status based on the current GPS or Bluetooth location.	
Messages	The user can call voice mail, view, and play received messages.	
MiTeam	MiTeam is Mitel's Cloud-based collaboration tool that provides mobile users with the ability to access features, such as <ul style="list-style-type: none"> <li>• <b>Collaborate:</b> Manage collaboration streams</li> <li>• <b>Chat:</b> Hold chat sessions and receive chat notifications</li> <li>• <b>Pages:</b> add white-board pages</li> <li>• <b>To-Do:</b> Create to-do lists</li> <li>• <b>File Sharing:</b> Store and share files, and</li> <li>• <b>MiTeam Meet:</b> Perform audio and web sharing within a team.</li> </ul>	iOS/Android only
Presence	Telephony, Instant Messaging and dynamic status presence.	
Scheduler	Configures GPS and Bluetooth search intervals and time-out options to conserve battery power on your mobile device.	
Teamwork Mode	Teamwork Mode provides the ability for an Android user to have certain MiCollab Client functions without having a Mitel phone (without being tied to a PBX). Non-telephony based features such as contact grouping, presence, dynamic status, and chat are supported.	

## Communication platform features

In addition to the licensed features provided by MiCollab Client (see [Table 2 on page 24](#)), users can access and use the features provided by the following supported communication platforms:

- [MiVoice Business features](#), below
- “1. ACD Silent Monitor is supported for ACD hot desk agents on MiNET softphones only.” on [page 54](#)
- “About Account Synchronization” on [page 58](#)

Some PBX features may not be supported on the user’s desk phone or softphone. In the following tables, supported features are indicated by ✓ and features not supported are indicated by ✕.

### MiVoice Business features

[Table 8](#) provides the MiVoice Business PBX feature matrix.

**Table 8: MiVoice Business PBX feature matrix**

Features	MiCollab Client	
	Desk Phone	Softphone
Ability to work offline	✓	✓
Account Codes <sup>1</sup> – Default	✓	✓
Account Codes – System	✓	✓
Account Codes – Verified and Non-verified	Non-verified <sup>2</sup>	Non-verified <sup>2</sup>
ACD Support	✓	✓
Add Held	✓	✓
Advisory Message	✓	✓
Auditory Alerts (accessibility/disability)	✓	✓
Auto Answer	✓	✓
Auto-Answer	✓	✓
Auto-Hold	✓	✓
Broker’s Call	✕	✕
Calculator	✕	✕
Call Duration Display	✓	✓
Call Forward	✓	✓
Call Forward – Cancel All	✓ <sup>2</sup>	✓ <sup>2</sup>
Call Forward – Delay	✓ <sup>2</sup>	✓ <sup>2</sup>
Call Forward – Follow Me – End Chaining	✓	✕
Call Forward – Follow Me – Reroute when Busy	✓	✕

**Table 8: MiVoice Business PBX feature matrix (continued)**

Features	MiCollab Client	
	Desk Phone	Softphone
Call Forward – Forced	✓	✓
Call Forward – Override	✓ <sup>2</sup>	✓ <sup>2</sup>
Call Forward profiles	✓	✓
Call Handoff	✓	✓
Call History	✓	✓
Call history / logs – local	✓	✓
Call history / logs – server-based	✓	✓
Call Me Back	✓	✓
Call Park	✗	✗
Call Park Retrieve	✗	✗
Call Pickup (Dialed, Directed, Clustered)	✓ <sup>2</sup>	✓ <sup>2</sup>
Call Privacy	✗	✗
Call timer and annotation tools	✓	✓
Call Waiting – Swap Automatic	✗	✗
Callback	✓	✓
Caller ID-based call routing	✓	✓
Camp-on	✗	✗
Clear All Features	✗	✗
Compression Support	✓	✓
Conference <sup>3</sup>	✓	✓ <sup>3</sup>
Conference Application (controls Conference Unit)	✗	✗
Conference Split	✓ <sup>2</sup>	✓ <sup>2</sup>
Conference Unit Support (5305/5310)	✗	✗
Contact sync from Outlook to MiCollab Client	✓	✓
Corporate Directory	✓ <sup>2</sup>	✓ <sup>2</sup>
Corporate Directory – LDAP sync (inc. Active Directory)	✓	✓
Corporate Directory – sync to MiVoice Business directory	✓	✓
Destination-based Call Display	✗	✗
Dial from PIM – Outlook and Lotus Notes	✓	✓
Dial Tone – Outgoing Calls	✓	✓
Dialed Number Editing	✓	✓

**Table 8: MiVoice Business PBX feature matrix (continued)**

Features	MiCollab Client	
	Desk Phone	Softphone
Direct Outward Dialing (DOD)	✓	✓
Direct Page – Initiate	✓ <sup>2</sup>	✓ <sup>2</sup>
Direct Page – Receive	✗	✗
Do Not Disturb	✓	✓
Drag-and-drop conference calls	✓	✓
Favorites menu	✓	✓
Feature Keys	✗	✗
Flash – Calibrated	✗	✗
Flash – Switchhook	✗	✗
Flash – Trunk	✗	✗
Flexible Answer Point	✓	✓
Gigabit Ethernet Stand Support	✓	✓
Group Listen	✗	✗
Group Page – Initiate	✗	✗
Group Page – Receive	✗	✗
Handset Receiver Volume Control	✓	✓
Handsfree Answerback	✗	✗
Handsfree Operation	✓	✓
Headset Mute Switch	✗	✓
Headset Operation	✓	✓
Hold	✓	✓
Hold Key Retrieves Last Held Call	✓ <sup>2</sup>	✓ <sup>2</sup>
Hold on Hold	✓	✓
Hot Desking	✓	✓
Hot Line	✗	✗
In-call control window allowing transfer, conference, hold and hang up	✓	✓
Knowledge Management	✓	✓
Language Change	✓	✓
Launch of MiCollab Client at computer start	✓	✓
LCS integration	✓	✓
Licensing through the Mitel AMC	✓	✓

**Table 8: MiVoice Business PBX feature matrix (continued)**

Features	MiCollab Client	
	Desk Phone	Softphone
Line Interface Module Support	✗	✗
Line Types and Appearances	✓	✓
Meet Me Answer	✗	✗
Messaging – Advisory	✓ <sup>2</sup>	✓ <sup>2</sup>
Messaging – Callback	✗	✗
Messaging – Dialed	✓	✓
Mobile Extension	✓	✗
Multiple Message Waiting Indicator	✗	✗
Music	✓	✗
Mute Key	✗	✓
Off-Hook Voice Announce	✗	✗
Override	✗	✗
Override Security	✗	✗
PC Programming Application Support (Desktop Tool)	✓ <sup>2</sup>	✓ <sup>2</sup>
Personal Directory	✓	✓
Phonebook	✓	✓
PIM Integration – ACT!	✓	✓
PIM Integration – Lotus Notes	✓	✓
PIM Integration – Outlook	✓	✓
PKM Support	✗	✗
Presence Indicator – Busy Lamp Field (BLF)	✓	✓
Presence Indicator – Computer	✓	✓
Privacy Release	✗	✗
Record a Call	✗	✓
Redial	✓ <sup>2</sup>	✓ <sup>2</sup>
Redial – Saved Number	✓ <sup>2</sup>	✓ <sup>2</sup>
Release	✓ <sup>2</sup>	✓ <sup>2</sup>
Reminder	✗	✗
Resiliency Support	✓	✓ <sup>4</sup>
Ringer Control (Pitch and Volume)	✗	✓
Ringing Line Select	✗	✗
RSS Window	✓	✓

**Table 8: MiVoice Business PBX feature matrix (continued)**

Features	MiCollab Client	
	Desk Phone	Softphone
Screen-pops on calls with ability to forward, send to voice mail	✓	✓
Secure instant messaging (chat) with file transfer	✓	✓
Silent Monitor	✗	✗
Simplified Account Code Entry	✗	✗
SIP Support	✗	✗
Softkey Support	✗	✗
Speaker Volume Control	✓	✓
Speed Call – Pause	✗	✗
Speed Call – Personal	✓ <sup>2</sup>	✓ <sup>2</sup>
Speed Call – System	✗	✗
Speed Call Keys	✓ <sup>2</sup>	✓ <sup>2</sup>
Station-to-Station Dialing	✓	✓
SuperKey	✗	✗
Swap	✓	✓
System tray status icon	✓	✓
Tag Call (Malicious Call Trace)	✗	✗
Teleworker Support	✓	✓
Tone Demonstration	✗	✗
Transfer	✓	✓
Trunk Access	✗	✗
Trunk Answer From Any Station (TAFAS)	✗	✗
Visual Voice Mail	✓	✓
Voice Mail	✓	✓
Web browser	✓ <sup>2</sup>	✓ <sup>2</sup>
Wireless LAN Stand Support	✓	✓
WLM Integration	✓	✗

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1. Account code dialing is not supported on SIP softphone.
2. Functionality is limited or provided in a way different from a non-MiCollab Client desk phone.
3. Conference feature is not supported on SIP-based softphone.
4. Resiliency is supported for Minet softphone using a 5020 IP set type. In MiCollab Release 7.1 and later, MiCollab Client for Mobile softphones support Domain Name System (DNS)-based SIP resiliency with MiVoice Border Gateways (MBGs). See *MiCollab Client for Mobile Resiliency Guide* for more information.

For MiVoice Business communication systems, any number dialed from the MiCollab Desktop Client that exceeds the Extension Length configured for the communication system will be automatically prefixed with the Dialing Prefix. To dial a number “as is,” start the number with a hyphen (-) character.

Table 9 provides the MiVoice Business Feature Access Codes (FACs).

**Table 9: MiVoice Business Supported Feature Access Codes**

Feature Number	Feature Name	Desk Phone	Softphone
2	ACD Silent Monitor	✓	✓ <sup>1</sup>
3	ACD Agent Login	✓	✗
4	ACD Agent Logout	✓	✗
5	Make Busy Setup	✓	✗
6	Make Busy Cancel	✓	✗
10	Call Forwarding – Busy – External Only	✗	✓
11	Call Forwarding – Busy – External and Internal	✗	✓
12	Call Forwarding – Follow Me	✓	✓
13	Cancel Call Forwarding – Busy – External and Internal	✗	✓
16	Call Forwarding – Follow Me	✓	✓
17	Cancel Call Forwarding – Follow Me	✓	✓
21	Call Forwarding – I Am Here	✓	✓
22	Call Forwarding – No Answer – External Only	✓	✓
23	Call Forwarding – No Answer – External and Internal	✓	✓
24	Call Forwarding – No Answer – Internal Only	✓	✓
25	Cancel Call Forwarding – No Answer – External and Internal	✓	✓
27	Cancel All Forwarding	✓	✓
29	Call Hold – Remote Retrieve	✓	✓
32	Call Pickup – Dialed	✓	✓
33	Call Pickup – Directed	✓	✓
40	Do Not Disturb	✓	✓
41	Do Not Disturb – Cancel	✓	✓
42	Do Not Disturb – Cancel Remote	✓	✓
43	Do Not Disturb – Remote	✓	✓
47	Last Number Re-dial	✓	✓
48	Message Waiting – Activate	✓	✓

**Table 9: MiVoice Business Supported Feature Access Codes (continued)**

Feature Number	Feature Name	Desk Phone	Softphone
49	Message Waiting – Deactivate	✓	✓
50	Message Waiting – Inquire	✓	✓

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1. ACD Silent Monitor is supported for ACD hot desk agents on MiNET softphones only.

## MiVoice Office 250 Communication platform features

Table 10 provides the MiVoice Office 250 feature matrix.

**Table 10: MiVoice Office 250 PBX feature matrix**

Feature Name	Code	MiCollab Client	
		Desk Phone	Softphone
Account Code <sup>1</sup> – All Calls Following	391	✓	✓
Account Code – Optional	390	✓	✓
ACD Agent Login	326	✓	✓
ACD Agent Logout	327		
ACD Agent Login/Logout Toggle	328		
ACD Agent Wrap-Up Terminate	329	✓	✓
Activate Door Relay <sup>2</sup>	332	✓	✓
Agent Help	375	✗	✗
Agent Help Reject	376	✓	✓
Answer (Ringing Call)	351	✓	✓
Audio Diagnostics	320	✗	✗
Automatic CO Access On/Off	360	✓	✗
Automatic IC Access On/Off	361	✓	✗
Automatic Trunk Answer	350	✓	✗
Background Music On/Off	313	✓	✓
Barge-In	386	✗	✗
Call Forward All Calls	355	✓	✓
Call Forward If Busy	357	✓	✓
Call Forward If No Answer	356	✓	✓
Call Forward If No Answer/Busy	358	✓	✓
Call Logging	333	✓	✓

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**Table 10: MiVoice Office 250 PBX feature matrix**

Feature Name	Code	MiCollab Client	
		Desk Phone	Softphone
Change Language	301	✓	✗
CO Hookflash	330	✓	✓
Conference <sup>3</sup>	5	✓	✓ <sup>3</sup>
Data	340	✓	✗
Default Phone	394	✓	✗
Directories	307	✓	✗
Display Outside Party Name On/Off	379	✓	✗
Display Time/Date (ITP) Show IP Address (SIP)	300	✓	✗
Do-Not-Disturb	370	✓	✓
Do-Not-Disturb Cancel	371		
Do-Not-Disturb On/Off	372		
Do-Not-Disturb Override	373	✗	✗
Dynamic Extension Express On	363	✓	✓
Dynamic Extension Express Off	362		
Dynamic Extension Express On/Off	364		
Dynamic Extension Express – Handoff	388	✓	✓
Enhanced Speakerphone Enable	310	✗	✗
Feature Key Default	395	✓	✗
Group Listen	312	✗	✗
Handsfree On/Off	319	✓	✓
Headset Enable	315	✓	✗
Headset Disable	316		
Headset On/Off	317		
Hold – Individual	336	✓	✓
Hold – System	335	✗	✗
Hot Desk On/Off <sup>4</sup>	348	✓	✗
Hunt Group Remove	322	✓	✓
Hunt Group Replace	323		
Hunt Group Remove/Replace	324		
LCD Contrast Adjustment	303 <sup>5</sup>	✓	✗
Message	365	✓	✗
Message – Cancel	366	✓	✓
Message – Cancel Current	368	✓	✓

Table 10: MiVoice Office 250 PBX feature matrix

Feature Name	Code	MiCollab Client	
		Desk Phone	Softphone
Message – Silent	367	✓	✓
Mute On/Off	314	✓	✓
Page	7	✓	✓
Page On/Off	325	✓	✗
Program Buttons	397 <sup>5</sup>	✓	✗
Program Phone Password	392	✓	✗
Queue Request	6	✓	✓
Record-A-Call	385	✓	✓
Redial	380	✓	✓
Redirect Call	331	✓	✓
Reminder Message	305	✓	✗
Reminder Message Cancel	306		
Remote Configuration – Disable	343	✓	✓
Remote Configuration – Display License Key	347	✓	✗
Remote Configuration – Enable	342	✓	✓
Remote Configuration – Reset	344	✓	✓
Remote Programming	359	✓	✗
Reverse Transfer (Call Pick-Up)	4	✓	✓
Review Keys	396 <sup>5</sup>	✓	✗
Ring Intercom Always On/Off	377	✓	✓
Ring Tone Selection	398	✓	✗
Routing Off	304	✓	✓
Station Monitor	321	✓	✓
Station Speed Dial	382	✓	✗
Station Speed Dial Programming	383	✓	✗
Steal	387	✗	✗
Switch Keymap	399	✓	✗
System Forward Enable	352	✓	✓
System Forward Disable	353		
System Forward On/Off	354		
System Speed Dial	381	✓	✓
Transfer to Hold	346	✗	✗
Transfer to Ring	345	✓	✓

1. Account code dialing is not supported on SIP softphone.
2. This feature requires an HX Controller and MiVoice Office 250 v4.0 software.
3. Conference feature is not supported on SIP-based softphone.
4. This feature requires MiVoice Office 250 v5.0 software.
5. This feature must be completed on the phone.

Note the following for MiVoice Office 250 systems:

- Any number dialed from the MiCollab Desktop Client that is not equal to the Extension Length configured for the communication system will be automatically prefixed with the Dialing Prefix. To dial a number “as is,” start the number with a hyphen (-) character.
- When entering feature codes in the MiCollab Desktop Client using the Quick Connector, users should enter the hyphen character (-) before the digits to indicate to the MiCollab Client Service that the digits are a feature code.

Also, some feature codes require additional digits to complete the feature. If users need to add digits following the feature code, they should first insert the hyphen character before entering the digits. For example, to use Station Monitor to monitor extension 1000, users would enter -321-1000 in the Quick Connector.

- When entering feature codes using the Dial Pad, users can use the Special button to enter feature codes for on-call features. On call features include:
  - Agent help
  - Audio diagnostics
  - Barge in
  - Do-not-disturb override
  - Group Listen
  - System Hold
  - Steal
  - Transfer to hold

## About Account Synchronization

MiCollab Client supports two types of synchronization to quickly populate the MiCollab Client accounts list based on your existing PBX node, Active Directory (AD), or Lightweight Directory Access Protocol (LDAP) corporate directory. Synchronizer types include:

- **AD/LDAP Synchronizer:** Using this option you can populate the MiCollab Client accounts database using the corporate AD or LDAP directory. The MiCollab Client Service can integrate with single or multiple LDAP v3-enabled directory servers to import accounts. If you intend to use AD/LDAP synchronization to import accounts into MiCollab Client, make sure your directory server supports LDAP v3. The Microsoft 2003 Server LDAP/AD server supports LDAP v3.

**Note:**

See the following topics in the MiCollab Client Service Administrator online help for detailed information about AD/LDAP Corporate Directory Synchronizers:

- Synchronization Tab
  - Adding and Editing AD/LDAP Synchronizers
- 
- **PBX Node Synchronizer:** Select this option if you want to populate the MiCollab Client accounts database using the user/extension information programmed for the MiVoice Business or MiVoice Office 250 PBX.

To provide ongoing synchronization between MiCollab Client and the AD/LDAP or PBX node directories, you can schedule automatic synchronizations. You can also complete manual synchronizations for either type of synchronizer.

In addition to synchronization, you can also populate the MiCollab Client accounts list by manually creating accounts. Accounts that are created manually will automatically be configured with the default account settings.

## About Presence

The MiCollab Client presence feature allows users to monitor other users on the system.

### Presence server

Presence is provided by the Presence Server component on MiCollab Client Service and consists of the following components which provide presence for MiCollab Client users.

- **SIP Proxy:** A SIP-compliant proxy server that routes all the incoming SIP requests to the correct components in MiCollab Client Service.
- **SIP Subscription Manager:** Abstracts the SIP SUBSCRIBE/NOTIFY semantics from the application and implements the application-specific logic.
- **IM Server:** Maintains state information for offline IM messages and conferences. The IM server uses the SIP Subscription Manager to track incoming SIP SUBSCRIBE requests for offline IM and conference states. The SIP Subscription Manager also sends the corresponding SIP NOTIFY requests to subscribers when it receives state changes from the IM Server.

### Presence modes

MiCollab Client utilizes **Dynamic Presence** which means the MiCollab Desktop Client will automatically display presence for the contacts in the current view.

#### Notes:

- When the user is filtering or scrolling the contact list there may be a brief delay between when the contact is displayed and when the presence for the contact is displayed. This delay is the amount of time it takes for the client to request the presence from the server and for the server to respond with the presence updates. This delay is minimal, however there are certain conditions like server load which may increase this delay.
- Users who are licensed for the Console Option will work in much the same way as the main contact list. The client will only subscribe to presence for contacts that are visible. Refer console users to the Contacts Context Menu topic in the MiCollab Desktop Client online help for instructions about showing and hiding presence for contacts.








### Types of presence

When the Presence licensed feature is enabled for a user, the following information is displayed in the MiCollab Desktop Client Contacts view for MiCollab Client contacts:

- **Dynamic Status:** Incorporates the following elements to provide status and availability information for MiCollab Client users:
  - *Dynamic Status Name:* Provides a simple description for the Dynamic Status.
  - *Default message/custom text:* Provides additional information for the selected Dynamic Status.
  - *Calendar advisory text:* Provides advisory messages that indicate a user's calendar availability timing summary based on their Google, Outlook, Lotus Notes, Office 365, or Exchange calendar entries (for example, "In appointment until 2:30 PM", "Free until 11 AM").


**Note:**

By default, all users who log in to MiCollab Client are provided with a list of default Dynamic Statuses. The Status unknown message indicates that the contact has not logged in to MiCollab Client.

- **Telephony presence:** The following icons indicate telephony presence for MiCollab Client corporate and peered contacts:
  -  Indicates that the contact's phone is idle.
  -  Indicates the contact's phone is ringing.
  -  Indicates that the contact is on hold.
  -  Indicates that the contact's phone is busy or has enabled Do-Not-disturb.
  -  Indicates that the contact's telephony presence is offline.
- **MiCollab Client chat presence:** The following icons indicate chat presence for corporate and federated contacts:
  -  Indicates that the contact is online and available for chat.
  -  Indicates that the contact is away from his or her computer.
  - No icon is present when the contact is offline.

**Note:**

The icons above are also used to display IM presence for federated contacts (see "[Federation](#)" on page 28).

- **Video presence:** MiCollab Client displays presence icons for corporate contacts who are configured to engage in video calls:
  -  Indicates that the contact is currently accepting video calls.
  - No icon indicates that the contact is offline for video.

## Dynamic Status

Dynamic Status provides a way for the user to control and communicate their presence and availability, and customize their call routing. MiCollab Client provides default Dynamic Statuses as per [Table 11 Dynamic Status defaults](#). The user can add, edit, and delete Dynamic Statuses as needed on their individual clients (for example, see Manage Statuses on MiCollab Desktop Client).

### Notes:

- Softphone or deskphone2 is treated as Home IP phone.
- Additional EHDU numbers (after the first one) are not taken into account in the setting of dynamic statuses.
- The above logic is executed only when the account has no account statuses defined in the account status table in MiCollab Client Service. The account will be in this default state of 'no statuses' until the user connects to MiCollab Client Service from one of the MiCollab Client s, the very first time.
- If account has one or more valid account status, changes in account's phone numbers or adding voicemail number later will not create additional statuses.
- The web service call to create the default account statuses will also create the favorites and loginNotify group for that account. The loginNotify group is created if it did not exist before. The favorites group is created if no user defined groups exists for that account.

**Table 11: Dynamic Status defaults**

Phone Configuration	In the office	Mobile	Working from home	Do not Disturb	Gone for the day
Deskphone and no Voicemail number	X				
Deskphone and has Voicemail number	X			X	X
Deskphone, softphone and no Voicemail	X		X		
EHDU Deskphone and no Voicemail number	X	X			
Deskphone, Softphone and Voicemail number	X		X	X	X
Deskphone, Softphone, EHDU number and Voicemail (need PRG)		X	X	X	X
Deskphone1, Deskphone2, EHDU and Voicemail (need PRG)	X	X	X	X	X
Deskphone1, Deskphone2 and Voicemail	X		X	X	X

When MiCollab is integrated with MiVoice MX-ONE, MiCollab Client provides default message diversion profiles and uses the associated feature codes (\*23\*<digit 0-9>)# as per [Table 12 Default message diversion profiles and the associated feature codes](#).

**Table 12: Default message diversion profiles and the associated feature codes**

Digit	Status
0	Lunch break
1	Gone for the day
2	Away from desk
3	In a meeting
4	Business trip
5	Visiting customer
6	Vacation
7	Not available
8	Back soon
9	Sick-leave

**Note:** To change the default message diversion activities order, use the script-wise workaround.

## Change the default message diversion activities order

Perform the following procedure to change the default message diversion activities order.

1. Create a script.txt file with the profiles and feature codes.

Example:

```
Diversion Profiles;LunchBreak;0
Diversion Profiles;GoneForTheDay;8
Diversion Profiles;AwayFromDesk;2
Diversion Profiles;InAMeeting;3
Diversion Profiles;BusinessTrip;4
Diversion Profiles;VisitingACustomer;5
Diversion Profiles;Vacation;6
Diversion Profiles;NotAvailable;7
Diversion Profiles;BackSoon;1
Diversion Profiles;SickLeave;9
```

2. Copy the file to directory `/opt/CstaProxy/config`.

3. Open a terminal and switch to this directory.

4. Run the following two commands:

```
sqlite3 csta_config.sqlite "delete from ini where section = 'diversion
profiles';"
```



```
echo -e '.separator ";"\n.import script.txt ini' | sqlite3  
csta_config.sqlite
```

# About Collaboration

Mitel supports the MiCollab Audio, Web, and Video Conferencing - formerly known as Mitel Collaboration Advanced (MCA) product to provide integrated collaboration features to MiCollab Client users. MiCollab Audio, Web and Video Conferencing collaboration features include video calls, audio conferences, web conferences, and other tools such as desktop and application sharing, whiteboarding, and annotation.

The collaboration server is the central hub for all conference sessions. Conferences require a server where the conference sessions are hosted, and all conference information flows through the server before being distributed to the MiCollab Desktop Client.

MiCollab Audio, Web and Video Conferencing is packaged on the MiCollab server, which is connected to the IP network. The MiCollab server provides access to a Web-based administrator interface for configuring MiCollab Audio, Web and Video Conferencing, scheduling conferences, viewing conference calls, and administering collaboration controls. Users can access all interfaces through either HTTP or HTTPS.

For product information for MiCollab Audio, Web and Video Conferencing, see the *MiCollab Installation and Maintenance Manual* on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>).

Note the following when implementing collaboration integration for MiCollab Client:

- To use collaboration features users must be licensed for the Collaboration Integration feature (see [Table 2 on page 24](#)).
- If users receive a licensing error message when attempting to use collaboration features, you may need to increase the number of collaboration port licenses for the MiCollab Audio, Web and Video Conferencing collaboration server.
- The MiCollab Client Service does not control the user limit for the collaboration servers. This is handled by the MiCollab Audio, Web and Video Conferencing collaboration server.
- You can configure only one default MiCollab Audio, Web and Video Conferencing server. If more than one Collaboration server is in use at the site, you must specify which MiCollab Audio, Web and Video Conferencing server should be used on a per-account basis in the MiCollab Client Service Administrator interface (see [page 115](#)).
- MiCollab Client v7.0 requires MiCollab Audio, Web and Video Conferencing 5.0 or later. Earlier versions of MiCollab Audio, Web and Video Conferencing or AWC are not compatible with MiCollab Client v7.0.

## About SIP

MiCollab Client supports SIP - Session Initiation Protocol. MiCollab Desktop Client as well as Mobile Clients (Android and iPhone) all support a SIP softphone and can operate with MiVoice Conference Phone devices and MiCollab Audio, Web and Video Conferencing. In addition, MiCollab Client is capable of operating with a number of third party SIP Servers and SIP end points such as SIP phones, Audio Conference Units and Video Conference Units.

Mitel maintains a SIP Centre of Excellence (SIP CoE); the CoE performs interoperability testing between third party devices and Mitel SIP devices. The CoE generates documents that cover the results of the interoperability tests and how the devices should be configured for successful interoperation.

For the complete list of devices that can interoperate with please see Knowledge Base article called the SIP Technical Reference Guide 08-5159-00014. This Reference Guide can be found on Mitel On-Line under 'Support' and then under 'Mitel Knowledge Base'.

## About OfficeLink

MiCollab Client 3.2 and later includes the OfficeLink feature. Using this feature, users can place calls from the devices configured for them on the PBX from MiCollab Web Client.

### PBX software requirements

Supported device types and OfficeLink functionality are determined by the following factors:

- The PBX that is connected to the MiCollab Client Service
- The software version running on the PBX

At a minimum, the MiCollab Client OfficeLink feature requires the following PBX system software:

- Latest MiVoice Business release with latest SP is recommended (Release 5.0 SP2 is required for SIP softphone)
- Latest MiVoice Office 250 release with latest SP is recommended (Release 5.1 is required for SIP softphone).

**Note:**

OfficeLink is currently not supported on the MiVoice 5000 and MiVoice MX-One platforms.

Devices must be configured as follows in the PBX programming application to be available for use with the MiCollab Client OfficeLink feature:

- **MiVoice Business System Administration Tool:** MiCollab Client users can use devices configured in the user's Personal Ring Group (PRG) for the OfficeLink and Multi-Device User Group (MDUG) features.

PRGs are an association of two or more devices for a single user under a common Directory Number (DN). Complete the following programming from the MiVoice Business System Administration Tool for the OfficeLink feature:

- Configure PRGs using the Personal Ring Group Assignment form. See page 93 for details.
- If required, define a DN to be used as the prime member of the PRG using the Multiline IP Set Configuration form. See page 92 for details.
- Complete these same fields from the MiVoice Business system Administration Tool for the OfficeLink feature for either PRG or MDUG. See page 92 for details.
- **MiVoice Office 250 Database Programming:** MiCollab Client users can use devices configured as the user's Associated Destinations for the OfficeLink feature. Associated Destinations provide advanced call routing capabilities for the PBX and MiCollab Client. Complete the following programming from MiVoice Office 250 DB Programming for the OfficeLink feature:
  - Configure the fields and options for the user in the Users folder (Users -<**User**>). See [“Users” on page 96](#) for details.
  - For MiVoice Office 250 v5.0 and later systems, configure the OfficeLink Assistant (System -Devices and Feature Codes - **Assistants**). See [“System – devices and feature codes – Assistants” on page 95](#) for details.

If you are using PBX synchronization to populate the MiCollab Client account database, after programming the PBX as described above you will need to complete a manual PBX synchronization from the MiCollab Client Service Administrator interface (PBX Nodes tab) to provide OfficeLink functionality to MiCollab Client accounts.

## Supported device types

Depending on the PBX and the software version running on the PBX, the following device types can be used with the MiCollab Client OfficeLink feature:

- **Desk phones:** Includes the list of supported desk phones (see [Table 14 on page 78](#)) for the following PBXs:
  - MiVoice Business v4.2 and later
  - MiVoice Office 250 v3.2 and later
- **Softphones:** Includes the MiCollab Client softphone for the following PBXs:
  - MiVoice Business v4.2 and later (5.0 SP2 required for SIP softphones)
  - MiVoice Office 250 v3.2 and later (5.1 or later for SIP softphones)
- **External Devices:** Includes external devices (for example, mobile devices) that meet the following requirements:
  - *MiVoice Business v4.1 and later:* OfficeLink calls are allowed from external devices that are logged in to the user's External Hot Desk User (EHDU) extension.
  - *MiVoice Office 250 v5.0 and later:* OfficeLink calls are allowed from external devices programmed as a user's Associated Destination.

**Note:**

The OfficeLink feature is not supported for external devices in the MiVoice Business v4.0, and MiVoice Office 250 v4.0 PBXs.

- **SIP Devices:** Includes SIP devices connected to an MiVoice Business 5.0 SP2 or later system.

**Note:**

The OfficeLink feature is not supported for MiVoice Office 250 SIP devices.

## OfficeLink functionality


When users access the OfficeLink feature , the **Place OfficeLink Call** dialog box appears. The example below shows the **Place OfficeLink Call** dialog box from the BlackBerry.

Figure 0-2

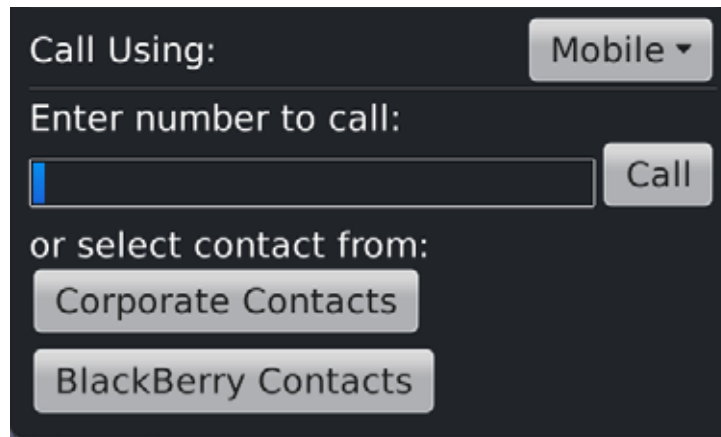


Figure 6: BlackBerry Place OfficeLink call dialog box

From the **Place OfficeLink Call** dialog box, users must specify the following:

- The number to call
- The device to place the call from

When users activate the OfficeLink feature, the response from the PBX varies based on the software version running on the PBX and the device the user has selected.

[Table 13 PBX Response to OfficeLink feature](#) provides the PBX responses which include:

- **Click to Call:** The PBX immediately places a call to the specified number from the specified device. This behavior is also known as Click to Call.
- **Remote Click to Call:** The PBX places a call to the device the user selected. After the user answers the call on the device, the PBX immediately places a call to the specified number. This behavior is also known as Remote Click to Call.

**Note:**

Devices marked as Not Applicable (N/A) are not supported OfficeLink device types for the PBX software version.

Table 13: PBX Response to OfficeLink feature

PBX	Software Version	Device			
		Desk Phone	Soft-phone	External Device	SIP Device
MiVoice Business	4.0	Click to Call	Click to Call	N/A	N/A
	4.1 and later	Click to Call	Click to Call	Remote Click to Call	Remote Click to Call
MiVoice Office 250	4.0	Click to Call	Click to Call	N/A	N/A
	5.0 and later	Click to Call	Click to Call	Remote Click to Call	N/A

## Basic Bundle

MiCollab Desktop Client and MiCollab Web Client can be configured as a basic client using the default MiCollab Client profile.

### *Administration*

Administer the Basic MiCollab Client feature using the portal features tab in MiCollab Client Service administration.

On the MiCollab Client Service, if an account is assigned the Default Profile, it will be treated as a Basic MiCollab Client account. In other words, users will only have access to the allowed features list below.

### *MiCollab Desktop Client and MiCollab Web Client Impact*

Only default profile features listed below are supported.

### *Licensing*

No impact.

### *Allowed features*

MiCollab Client Service will pass the following list of allowed features to the MiCollab Desktop Client or MiCollab Web Client on login:

Allowed Features	MiCollab MAC Desktop Client	MiCollab Desktop Client	MiCollab Web Client
Auto Answer	X	X	X
Blind Transfer		X	X
Call Forwarding	X	X	X
Chat	X	X	X
Click to Call from MiCollab Client contacts	X	X	X
Compact Mode		X	
Contact Groups	X	X	X
Corporate Contact	X	X	X
Desk Phone Button Programming		X	
Do Not Disturb	X	X	X
External Dial		X	X
Import Contacts (Google and Outlook)	X	X	X
Missed Call Logs	X	X	X
Make and Receive Call		X	X
RSS Window		X	
Visual Voice Mail	X	X	X

## Entry Bundle

MiCollab Desktop Client and MiCollab Web Client can be configured as an entry level client using the default MiCollab Client profile.

### *Administration*

Administer the Entry MiCollab Client feature using the portal features tab in MiCollab Client Service administration.

On the MiCollab Client Service, if an account is assigned the Default Profile, it will be treated as an Entry MiCollab Client account. In other words, users will only have access to the allowed features list below.

### *MiCollab Desktop Client and MiCollab Web Client Impact*

Only default profile features listed below are supported.

### *Licensing*

Entry bundle licensing

### *Allowed features*

MiCollab Client Service will pass the following list of allowed features to the MiCollab Desktop Client or MiCollab Web Client on login:

Allowed Features	MiCollab MAC Desktop Client	MiCollab Desktop Client	MiCollab Web Client
Auto Answer	X	X	X
Blind Transfer		X	X
Call Forwarding	X	X	X
Call History	Missed calls	X	X
Chat	X	X	X
Click to Call from MiCollab Client contacts	X	X	X
Compact Mode		X	
Contact Groups	X	X	X
Corporate Contact	X	X	X
Desk Phone Button Programming		X	
Do Not Disturb	X	X	X
External Dial		X	X
Hotdesking	X	X	X
Import Contacts (Google and Outlook)	X	X	X
Knowledge management		X	X
Make and Receive Call		X	X



## Features

Allowed Features	MiCollab MAC Desktop Client	MiCollab Desktop Client	MiCollab Web Client
Presence (IM, voice and video)	X	X	X
RSS Window		X	
Visual Voice Mail	X	X	X

## Teamwork Mode

Teamwork Mode provides the ability for a user to have certain MiCollab Client functions without having a Mitel phone. In other words, a user will still be able to use certain non-telephony based features within the client even though the user does not have a desk phone or softphone.

### *Licensing*

There are no new or additional licenses required specific to the Teamwork Mode feature. Licenses for individual features such as Chat, Visual Voicemail, etc...are still required.

### *Client impacts*

Since Teamwork Mode users have no devices associated with their account, telephony specific features will be hidden or not available on the following clients:

- MiCollab Desktop Client
- MiCollab for Mobile
- MiCollab Web Client

However, features such as contact grouping, presence, dynamic status and chat are supported.

### *User interface*

Teamwork Mode is not something the user can change and therefore there will be no indication that the user is running in Teamwork Mode. A user in Teamwork Mode will still appear in the contact list of other MiCollab Client s but without telephony presence. In addition, a user in Teamwork Mode will still be able to see the telephony presence of other contacts if these are available.

### *Routing information*

The main screen on all mobile and web clients displays routing information for the user's current status. This section will be hidden for users in Teamwork Mode.

### *OfficeLink*

OfficeLink functionality will be hidden from the user in Teamwork Mode. However, native dialing will still be available from the various clients, for example a BlackBerry user is still able to use the BlackBerry Smart Dialing feature to call other MiCollab Client users from the Company Directory.

### *Call History*

The Call History feature will be hidden for Teamwork Mode users.

## MiCollab Client for VMware Horizon view

MiCollab Client version 5.0 introduced support for VMware Horizon View. MiCollab Client for VMware Horizon View now enables a MiCollab Client softphone to function as a plug-in to VMware View virtual desktops.

For more information about supported versions and features, see the Virtual Appliance Deployment Solutions Guide.

The following are the supported VMware Horizon View configuration attributes:

- Linked-Clone virtual desktop pools
- Dedicated-Assignment desktop pools
- Floating-Assignment desktop pools
- Full VM desktop
- View Persona Management

### Notes:

- Floating-Assignment desktop with View Persona Management is strongly recommended. However, there are situations where View Persona Management is not desirable, for example, where the administrator want all data to be wiped clean between sessions (eg. kiosk, guest access).
- Local mode and Windows Roaming Profile are NOT supported.

### *MiCollab Client Direct Media*

With MiCollab Client Direct Media architecture, the real-time sensitive media path flows directly between any two endpoints. It does not need to be processed in the VDI (Virtual Desktop Infrastructure) back end or traverse the WAN/Internet paths between the endpoints and the backend. This architecture prevents “tromboning” which has scalability issues resulting from a topology requiring extensive VDI backend use.

Referring to [Figure 7 on page 74](#), the basic system consists of:

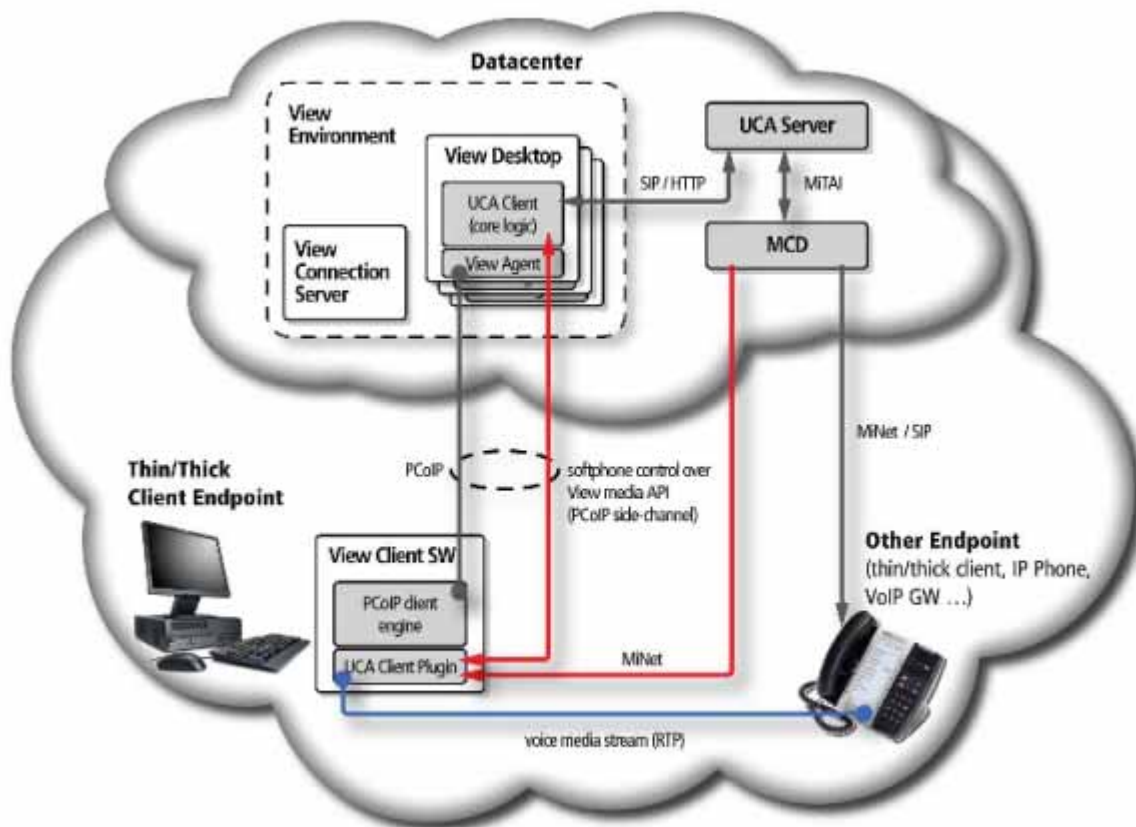
- A collection of View virtual desktops, managed by the View Connection Server
- VMware Horizon View Connection Server - this manages the View sessions
- A collection of physical endpoints (Thin Clients / PC's running View Client), used to present the virtual desktop to the end user
- VMware Horizon View Agent software
- VMware Horizon View Client software
- MiVoice Business
- MiCollab Client Service
- MiCollab Client in the View environment, this resides in the virtual desktop

- MiCollab Client Plugin, installed in the physical endpoint in the View environment, this contains the media portion of the MiCollab Client and handles the actual media streaming.

**Note:** The version of MiCollab Client Plugin installed in the physical endpoint device must align with the version of the MiCollab Client installed in the virtual desktop for correct functioning of MiCollab Client on VMware Horizon View. For more information, see the MiCollab Client Release Notes.

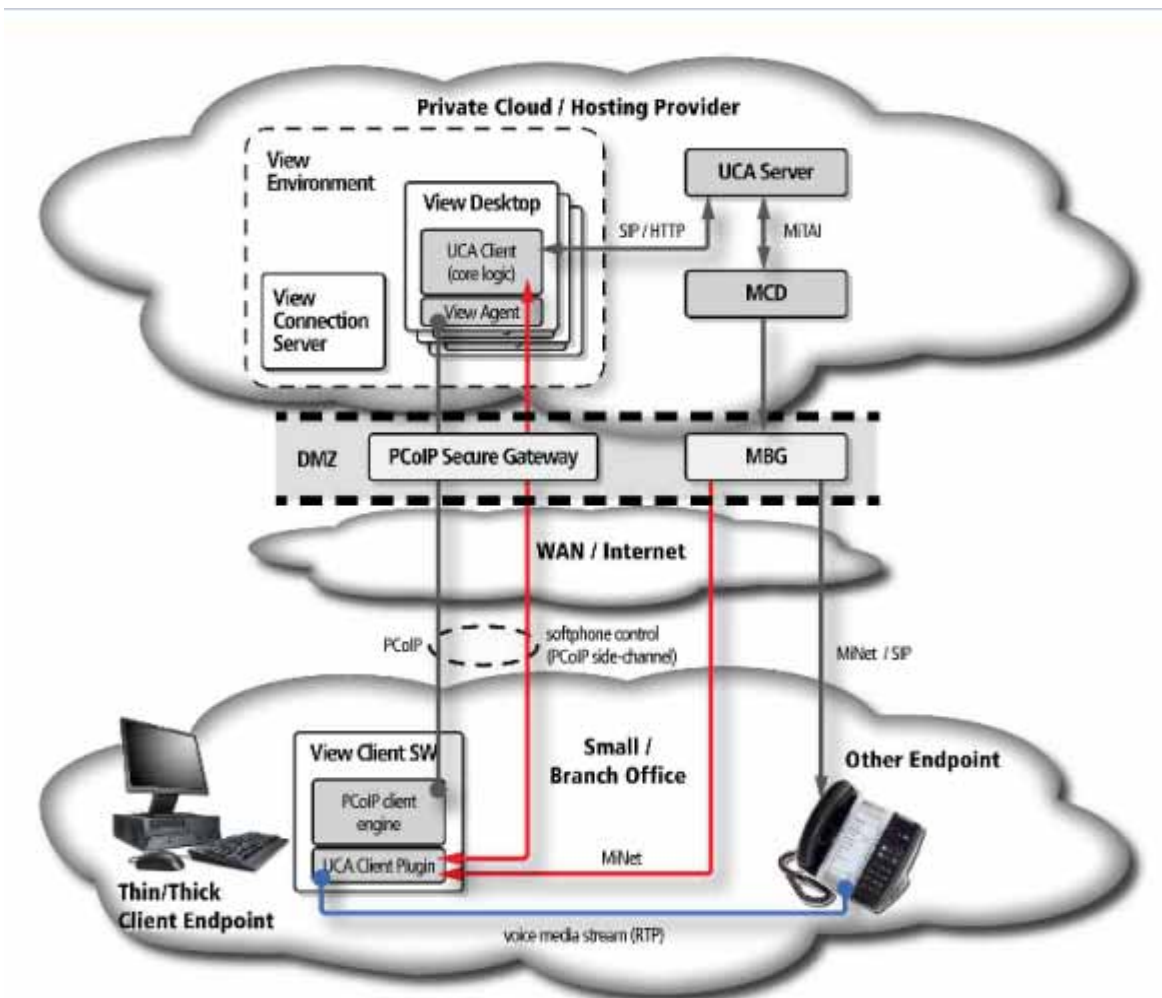
The View media services API, running over the PCoIP side channel to the View client, is used to control media functions of the MiCollab Client Plugin in the physical client device.

See the Virtual Appliance Deployment Solutions Guide for version and feature support.



**Figure 7: Flat network topology**

In a more complex architecture shown in [Figure 8 on page 75](#) below, MiVoice Border Gateways can be used to include remote users such as a branch or small office into the VMware Horizon view solution. A network DMZ configuration is used to contain the PCoIP Secure Gateway (also known as Security Server) and Border Gateway components.



**Figure 8: Remote Office / Hosted Office topology**

More complex configurations are possible. For more information, see the *MiCollab Client Engineering Guidelines*.



# Chapter 3

## Specifications

## Introduction

This chapter provides system hardware and software requirements, capacities, and network guidelines for MiCollab Client installations.

## System requirements

This section provides the system hardware and software requirements for MiCollab Client.

### PBX requirements

To use MiCollab Client, integrated users must have either a desk phone, softphone or both configured on one of the following Mitel communication platforms and versions:

- MiVoice Business v4.2 or later (5.0 SP2 is required for SIP softphone)  
MiVoice Business 7.0 with latest SP is recommended.
- MiVoice Office 250 v3.2 or later (5.1 is required for SIP softphone)  
MiVoice Office 250 6.0 with latest SP is recommended.

When deployed in a MiCollab environment, MiCollab Client can also be integrated with:

- **MiVoice 5000 Release 6.1:** The MiVoice 5000 call processing software is configured through the MiVoice 5000 administrator interface.
- **MiVoice MX-One Release 6.0 SP1:** The MiVoice MX-One call processing software is configured through the MiVoice MX-One administrator interface.

This guide assumes that you are familiar with the programming interface for the PBX installed on site. MiCollab Client requires certain fields and options be programmed correctly for the PBX to provide integration with the communication platform. Programming interfaces include:

- MiVoice Business System Administration Tool
- MiVoice Office 250 Database (DB) Programming

Table 14 [Supported Mitel Phones](#) provides the list of supported desk phones for MiCollab Client. In the following table, supported phones are indicated by ✓ and phones not supported are indicated by ✕.

For MiVoice 5000, see the *MiVoice 5000 Product - Version Compatibility* guide for a list of supported phones.

**Table 14: Supported Mitel Phones**

Mitel Phone Model	MiVoice Business PBX	MiVoice Office 250 PBX
4015 Digital Telephone	✓	✕
4025 Digital Telephone	✓	✕
4150 Digital Telephone	✓	✕
5005 IP Phone	✓	✕

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**Table 14: Supported Mitel Phones (continued)**

<b>Mitel Phone Model</b>	<b>MiVoice Business PBX</b>	<b>MiVoice Office 250 PBX</b>
5010 IP Phone	✓	✗
5020 IP Phone	✓	✗
5140 Digital Telephone	✓	✗
5212 IP Phone	✓	✗
5215 IP Phone	✓	✗
5220 IP Phone	✓	✗
5224 IP Phone	✓	✗
5304 IP Phone	✓	✓
5312 IP Phone	✓	✓
5320 IP Phone	✓	✓
5324 IP Phone	✓	✓
5330 IP Phone	✓	✓
5340 IP Phone	✓	✓
5360 IP Phone	✓	✓
5602 SIP Phone	✓	✗
5603 SIP Phone	✓	✓
5604 SIP Phone	✓	✓
5606 SIP Phone	✓	✗
5607 SIP Phone	✓	✓
5610 SIP Phone	✓	✓
8520 Digital Telephone	✗	✓
8528 Digital Telephone	✗	✓
8560 Digital Telephone	✗	✓
8568 Digital Telephone	✗	✓
8620-2 IP Phone	✗	✗
8622 IP Phone	✗	✓
8660 IP Phone	✗	✗
8662 IP Phone	✗	✓
IP Plus	✗	✗
IPSLA	✗	✗
Navigator IP Phone	✓	✗

Table 14: Supported Mitel Phones (continued)

Mitel Phone Model	MiVoice Business PBX	MiVoice Office 250 PBX
Turret	✓	✗

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**Note:**

SIP phones support a limited PBX feature set.

## MiCollab Client Service requirements

MiCollab Client provides two options for the MiCollab Client Service component:

- **MiCollab Client Software:** Includes the MiCollab Client Service software blade. This option requires the customer to:
  - Purchase and install a Mitel Standard Linux® (MSL) approved hardware platform.
  - Download, install, and configure the MSL operating system on the hardware platform.
  - Download, install, and configure the MiCollab Client software blade on the hardware platform.
- **MiCollab Client Virtual Appliance:** Includes the packaged MSL operating system and MiCollab Client Service software in an Open Virtualization Format (OVA) file. This option requires the customer to purchase a virtualization license and install the virtual appliance in a preestablished VMware environment. Note that the MiCollab Client application is also included as part of the MiCollab virtual appliance as of MiCollab version 3.0.

Requirements for the standalone MiCollab Client Service virtual appliance are listed in the Virtual Appliance Deployment Solutions Guide.

## About virtualization

MiCollab Client Service is provided in virtual appliance form for customers who have an established VMware environment in place. The virtual appliance includes the MSL operating system and the MiCollab Client Service software blade. Running the MiCollab Client Service within a VMware environment requires a license that allows usage in a virtualized environment. For more information, see the Virtual Appliance Deployment Solutions Guide.

For more information about the VMware vSphere infrastructure, ESX, and ESXi, see the VMware documentation available on the [VMware Web site](http://www.vmware.com) (<http://www.vmware.com>).

## Mitel Integrated Application requirements

The following Mitel applications can be integrated with the MiCollab Client installation:

- MiCollab UM Voice Mail application, v4.0 or later (MiVoice Business and MiVoice Office 250 only)
- MiCollab Audio, Web, and Video Conferencing (formerly known as Mitel Collaboration Advanced) application, v4.0 or later
- MiVoice Border Gateway, v8.0 SP2 or later (MiVoice Business only)

Basic server requirements for the integrated Mitel applications are listed in Table 15 [Mitel Integrated Applications Server Requirements](#).

**Table 15: Mitel Integrated Applications Server Requirements**

Component	Requirement	Version
Hardware Platform	An approved MSL hardware platform.	See the <a href="#">Application/MSL Matrix</a> available on Mitel Online for a list of approved hardware platforms.
Operating System	MSL	v10.3

Most of the Mitel applications listed above are integrated components of MiCollab. Each application may include application-specific client and server requirements. See the individual application documentation for application-specific requirements. All Mitel applications are licensed through the Mitel Application Management Center (AMC).

Documentation for MSL, MiCollab, and the integrated applications listed above is available on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>).

## MiCollab Desktop Client requirements

The MiCollab Desktop Client is installed on users' computers at the site. Table 16 [MiCollab Desktop Client Requirements](#) provides the computer hardware and software requirements for the MiCollab Desktop Client.

**Table 16: MiCollab Desktop Client Requirements**

Component	Requirement	Version
Central Processing Unit (CPU)	1.6 GHz or faster	Dual Core
Available Hard Disk Space	100 MB free hard disk space	
Random Access Memory (RAM)	2 GB RAM minimum (4 GB or more recommended)	
Network Interface Card (NIC)	Full duplex 10/100/1000 Mbps (100 Mbps full duplex recommended)	
Sound Card	Full duplex	

**Table 16: MiCollab Desktop Client Requirements (continued)**

Component	Requirement	Version
Operating System	Microsoft Windows 7	Professional/Enterprise/Ultimate 32 or 64-bit
	Microsoft Windows 8	Desktop mode only 32 or 64-bit
	Microsoft Windows 10	Desktop mode only 32 or 64-bit
Microsoft Office Application(s)	Office 2007, Office 2010, Office 2013, Office 365	
Thin Clients <sup>1</sup>	Citrix® XenApp® Client	6.0, 6.5, 7.0, 7.5, or 7.6
	Remote Desktop Services (formerly Windows Terminal Services WTS)	v6.1 (Installed as part of Windows Server 2008 R2) *Windows Terminal Services 2012 is supported as of MiCollab Client 6.0
	VMware Horizon View	4.6, 5.0 <sup>2</sup> , 5.1 or 5.2
Digital Media Player	Windows Media® Player	6 or later
Microsoft Add-on	Microsoft.NET™ Framework	4.0, 4.5

1. Citrix and WTS are supported for desktop phone operation. Citrix Xenapp 7.6 SP3 and above is required for the SIP softphone. WTS does not support the softphone. Citrix and WTS do not support video call features.
2. VMware Horizon View 4.6 and later are supported for desktop phone operation. VMware Horizon View 5.0 and later supports softphone operation.

**Notes:**

WTS deployment:

- The CAL licenses should be Per User Licenses and not Per Device License.
- Initially, upon user login, there may be a spike observed in CPU Usage. This is an expected behavior and the usage should lower after a period of time. This behavior is applicable to both MiCollab Desktop Client and MiVoice for Skype for Business.

Citrix deployment:

- MiCollab Desktop Client and MiVoice for Skype for Business support Citrix XenApp only.

The MiCollab Desktop Client includes an embedded softphone. The user requires the following to use the embedded softphone:

- The softphone license provisioned for the user's account (see Table 2 on [page 24](#))
- A programmed extension for the user on the PBX (see [page 91](#))

- A supported headset or handset

**Note:**

Effective in MiCollab Client 6.0 SP2, when selecting Plantronics headsets under MiCollab Desktop Client Softphone Settings, some functionality are pre-defined (no additional configuration required). The software (known as SPOKES) should download automatically to your PC. If required, go to <https://www.plantronics.com/us/support/software-downloads/spokes-2.jsp> and select Download (Windows) to manually download).

See the *MiCollab Client 7.0 Engineering Guidelines* for a list of tested devices.

## MiCollab MAC Desktop Client requirements

The MiCollab MAC Desktop Client is installed on the computers at the site. Table 17 [MiCollab MAC Desktop Client Requirements](#) provides the computer hardware and software requirements for the MiCollab MAC Desktop Client

**Table 17: MiCollab MAC Desktop Client Requirements**

Component	Requirement	Version
Central Processing Unit (CPU)	1.6 GHz or faster	Dual Core
Available Hard Disk Space	100 MB free hard disk space	
Random Access Memory (RAM)	2 GB RAM minimum (4 GB or more recommended)	
Network Interface Card (NIC)	Full duplex 10/100/1000 Mbps (100 Mbps full duplex recommended)	
Sound Card	Full duplex	
Operating System (OS)		

## MiCollab Web Client requirements

The MiCollab Web Client provides remote access to a subset of MiCollab Client features from one of the following supported computer Web browsers:

- Microsoft Internet Explorer® (IE) 10 or later (see note)
- Mozilla® Firefox® 14 or later
- Apple® Safari 5.6, 6.0 or later
- Google Chrome™ 21 or later

**Note:**

IE8 or IE9 users could use the Google Chrome Frame plug-in to get real-time data and have chat, presence and call control functionality. However, the plug-in will no longer be updated and supported effective Jan 2014. The plug-in will continue to work if you already have it installed otherwise upgrade to IE10 or later to get all the functionality.

## MiCollab for Mobile for requirements

MiCollab for Mobile is a stand-alone client that users install on their mobile device. MiCollab for Mobile provides an integrated environment in which you can communicate with corporate contacts, and access and manage visual voice mail and call history.

MiCollab for Mobile is supported on the following devices:

Device	Requirement
BlackBerry	OS version 10.2.2.x or later
Android	OS version 5.0 or later
iPhone	OS version 8.0, 8.1, 8.2, 8.3, 9.0 or later
Windows 8 phone	OS version 8.0, 8.1, 8.2, 8.3 or later
Windows 10 phone	OS version

## MiVoice for Skype for Business requirements

MiVoice for Skype for Business is installed on users' computers. Table 18 [MiVoice for Skype for Business Requirements](#) provides the computer hardware and software requirements.

**Table 18: MiVoice for Skype for Business Requirements**

Component	Requirement	Version
Central Processing Unit (CPU)	1.6 GHz or faster	Dual Core
Available Hard Disk Space	100 MB free hard disk space	
Random Access Memory (RAM)	2 GB RAM minimum (4 GB or more recommended)	
Network Interface Card (NIC)	Full duplex 10/100/1000 Mbps (100 Mbps full duplex recommended)	
Operating System (OS)	Microsoft Windows Vista®	Business/ Enterprise/Ultimate Service Pack 2 32 or 64 bit
	Microsoft Windows 7	Professional/Enterprise/Ultimate 32 or 64 bit
	Microsoft Windows 8	Desktop Mode only 32 or 64 bit
	Microsoft Windows 10	Desktop Mode only 32 or 64 bit
Server	MiVoice for Skype for Business, Lync 2010 or 2013	
Microsoft Office Application(s)	Office 2010, Office 2013, Office 2016, Office 365	
Microsoft Add-on	Microsoft.NET Framework	4.0, 4.5

**Note:**

MiVoice for Skype for Business in a MiVoice for Office deployment supports 85xx and 86xx sets.

## Optional third-party client components

See “Optional third-party integrated applications” on page 19.

## PBX node environments

The MiCollab Client site's PBX provides call control for MiCollab Client local and remote users. The following PBX configurations are supported for MiCollab Client:

- Single MiVoice Business/ MiVoice Office 250/PBX Node
- Multiple MiVoice Business/ MiVoice Office 250/PBX Nodes
- Multiple mixed MiVoice Business/MiVoice Office 250/PBX Nodes

MiCollab Client Service is capable of communicating with multiple PBXs to provide a global view for the MiCollab Client clients. Call commands from the MiCollab Client interface to the server are directed to the respective PBX by the MiCollab Client Service based on which PBX the account resides.

A single MiCollab Client Service can support MiVoice Business, MiVoice Office 250, and PBX nodes. However, in the MiCollab Client Service Administrator Interface, a single enterprise can be configured with just one PBX type.

Multiple mixed PBX type environments are only supported within the same company and require a separate enterprise per PBX type.

**Note:**

If you need to delete a PBX node with 5,000 users, you need to delete the users first and then you can delete the PBX node.



# Chapter 4

## Installation and Configuration

## Introduction

This chapter describes how to install and configure MiCollab Client.

### Planning considerations

Before implementing the MiCollab Client installation, make sure the site has the required hardware, software, licensing (AMC Application Record), and virtualized environment (if the virtual appliance is used).

**Note:**

A trusted third party SSL certificate is required for MiCollab Client Deployment. Install the certificate on the MBG in the DMZ and on the MiCollab on the LAN. See **Manage Web Server Certificate** in the MSL help file for more information.

Also, determine the following:

- Which communications platform (see [“Supported Communication Platforms \(PBXs\)” on page 18](#)) are you connecting to (MiVoice Business or MiVoice Office 250)?
- Which type of synchronization (see [“About Account Synchronization” on page 58](#)) do you want to use to create accounts (PBX node or AD/LDAP)? You can also manually create accounts.

**Note:**

The MiCollab Client Service can integrate with single or multiple LDAP v3-enabled directory servers to import accounts. If you intend to use AD/LDAP synchronization to import accounts into MiCollab Client, make sure your directory server supports LDAP v3.

- How will remote users connect to the MiCollab Client Service? Options include:
  - Teleworker mode (MiVoice Border Gateway and Remote Proxy Services) for MiVoice Business users (see page 101).
  - Firewall ports for MiVoice Office 250 users (see the *Mitel/MiCollab Client Engineering Guidelines* for details).
  - Virtual Private Network (VPN) connection.
- Which Mitel applications will be integrated with MiCollab Client (e.g., MiCollab UM, MiCollab Audio, Web and Video Conferencing, MiVoice Border Gateway, etc.)? Several features (Video Calls, Collaboration, Visual Voice Mail, MiCollab Client Service Peering, Federation, etc.) require you to configure the associated servers.

Do the following for all integrated applications:

- Make sure that you have downloaded all of the documentation for each product. The individual application documentation includes detailed hardware, software, and licensing requirements as well as installation and configuration instructions.
- Make sure that you have completed the required configuration for each server *before* starting the MiCollab Client installation.
- Review all of the planning information, including the detailed port diagrams, provided in the *MiCollab Client Engineering Guidelines*.

- Which MiCollab Client licensed features does the customer want to purchase and activate in the AMC? Make sure all licenses are purchased before you begin the MiCollab Client installation.
- Note:** All the MiCollab Client s - desktop, web and mobile - use secure connection for signalling and need valid certificates on the MiCollab Client Service.

## High level installation and configuration procedures

The high-level procedure for installing and configuring MiCollab Client is provided below. This procedure applies to installations and to upgrades from MiCollab Client 2.0 and Your Assistant 5.1.

**Note:** The installation and configuration information in this chapter is MiCollab Client-specific. It does not include complete installation and configuration information for MSL, MiCollab, and the Mitel applications that can be integrated with MiCollab Client. For product-specific documentation, see the appropriate documentation on the Mitel eDocs Web site (<http://edocs.mitel.com>).

*To install and configure MiCollab Client, complete the following high-level steps:*

1. Configure the PBX for MiCollab Client using one of the following programming interfaces:
  - System Administration Tool for the MiVoice Business PBX (see [“MiVoice Business PBX” on page 91](#)).
  - DB Programming for the MiVoice Office 250 PBX (see [“MiVoice Office 250 PBX” on page 93](#)).
2. Install and configure the integrated Mitel applications:
  - *If required*, install and configure MiCollab UM, MiCollab Audio, Web and Video Conferencing, and MiCollab for Mobile.
  - *If required*, install and configure MiVoice Border Gateway and Remote Proxy Services (see [“MiVoice Border Gateway and Remote Proxy Services configuration” on page 101](#)).
3. Install and configure MSL and MiCollab Client Service (see [“Install and configure MSL and MiCollab Client Service” on page 104](#)).
4. Access the MiCollab Client Service Administration page (see [“Access the MiCollab Client Service administration page” on page 114](#)).
5. Provision MiCollab Client as documented in the MiCollab Client Service Administrator online help (see [“Provision MiCollab Client” on page 115](#)).
6. Install MiCollab Desktop Clients (see [“Install the MiCollab Desktop Client” on page 117](#)).
7. Install MiVoice for Skype for Business Clients (see [“Install MiVoice for Skype for Business Client” on page 126](#)).
8. Install and deploy the MiCollab for Mobile Client (see [“Deploy MiCollab for Mobile Client” on page 128](#)).
9. Configure access for remote users. Configuration procedures differ based on PBX:
  - For remote users connected to the MiVoice Business PBX, see [“MiVoice Business PBX Configuration for remote users” on page 129](#).
  - For remote users connected to a MiVoice Office 250 PBX, see [“MiVoice Office 250 PBX configuration for remote users” on page 132](#).
10. See [“Softphone \(SIP-based\) specific considerations” on page 132](#).  
Individual client configuration and testing instructions can be found:

- [“Softphone Configuration - MiCollab Desktop Client” on page 135](#)

## Configure the PBX

This section describes how to configure the MiVoice Business and MiVoice Office 250 PBXs for MiCollab Client.

This section assumes that you are familiar with the programming interface for the PBX installed on site. MiCollab Client requires certain fields and options be programmed correctly for the PBX to provide integration with the communication platform. Programming interfaces include:

- MiVoice Business Administration Tool
- MiVoice Office 250 Database (DB) Programming

For additional PBX programming documentation, see the PBX programming interface online help and the supplemental PBX documentation on the Mitel eDocs Web site (<http://edocs.mitel.com>).

### MiVoice Business PBX

All the required configuration to support MiCollab Client for the MiVoice Business PBX is completed using the MiVoice Business System Administration Tool. The information in this section provides guidelines for MiCollab Client -specific configuration only.

The following MiVoice Business System Administrator Tool forms include MiCollab Client-specific fields and options:

- “User Configuration form” on page 92
- “License and Option Selection form” on page 92
- “Class of Service Options form” on page 92
- “Personal Ring Group Assignment form” on page 93

Note the following for MiVoice Business PBXs:

- The primary MiVoice Business should be up and running when MiCollab Client Service starts. If the primary MiVoice Business is not up and running at the time of MiCollab Client Service startup, the Mitai monitors for non-resilient devices are not set and the user cannot control these devices from their MiCollab Client. Select the **Refresh line monitors on save** option in **Account** details to restart the Mitai monitor and receive updated line configuration from MiVoice Business. See the **Adding and Editing Accounts** help topics for details.
- For sites that intend to use ACD PBX features in MiCollab Client, MiCollab Client supports ACD traditional agents only.
- For sites that intend to use the PBX node synchronization method for creating accounts in MiCollab Client, special programming may be required if multiple directory number (DN) records with the same name exist on the PBX. Typically, when MiCollab Client encounters multiple records with the same name during a synchronization with the MiVoice Business PBX, only the highest directory number (DN) is brought over to MiCollab Client. To ensure that all records are included during a synchronization, DNs that share the same name require a unique entry in the **Department** or **Location** fields. See the **User Configuration** and **Device Configuration** forms online help topics for details.

- The MiVoice Business system must be running system software v4.2 or later for remote click to call OfficeLink functionality (see [Table 13 on page 68](#)).
- The MiVoice Business must be running v5.0 SP2 or later for SIP softphone functionality.
- The MBG must be used when using remote SIP softphones connected to MiVoice Business.
- When you make changes to the PBX configuration, you will need to complete a manual synchronization from the MiCollab Client Service Administrator interface to import those changes to MiCollab Client (see [“License and PBX changes” on page 192](#)).

**Note:** Only Mitel MiVoice Business-certified personnel can configure the MiVoice Business PBX.

### User Configuration form

The MiCollab Client Minet softphone must be programmed correctly in the MiVoice Business system. In the User Configuration form (MiVoice Business v4.1 or later), in order to have **resiliency the MiCollab Client Minet softphone must be programmed on the MiVoice Business as 5020 IP set type**.

### License and Option Selection form

In the License and Option Selection form, set the MiTAI Computer Integration option to **Yes**.

### Class of Service Options form

MiCollab Client desk phones and softphones can have different Classes of Service (COS) as long as the COS options below are properly set.

Configure the following fields and options on the Class of Service Options form:

- Group Presence Control: Set to **Yes**
- Group Presence Third Party Control: Set to **Yes**
- HCI/CTI Call Control Allowed: Set to **Yes**
- HCI/CTI Monitor Allowed: Set to **Yes**
- Display Caller ID on multicall/keylines: Set to **Yes**
- Voice Mail Softkey Allowed: Set to **No**<sup>1</sup>

1. If set to Yes, users will not be able to hang up from their voice mailbox when using MiCollab Client.

## Personal Ring Group Assignment form

MiCollab Client users can use devices configured in the user's Personal Ring Group (PRG) for the OfficeLink and Multi-Device User Group (MDUG) features. PRGs are an association of two or more devices for a single user under a common Directory Number (DN).

### Notes:

- Multi-Device User Groups are supported for MiVoice Business 5.0 and later ONLY.
- For multiple devices support also see Synchronization Rules (under Synchronization Tab) on Admin portal online help.
- Mitel recommends using Multi-Device User Group for Softphone deployments.
- Personal Ring Group (PRG) prime device must be an IP device and can not be a DNIC device.

Use the Personal Ring Group Assignment form to configure PRG devices for MiCollab Client users. You will need to define a DN to be used as the prime member of the PRG using the Multiline IP Set Configuration form.

## SIP Softphone settings

MiVoice Business specific settings: To ensure proper functionality, **there are two critical changes that MUST be made on MiVoice Business when configuring a MiCollab Client SIP Softphone:**

- First, you must select a Device Type of MiCollab Client **Endpoint**.
- Second, you must add at least one additional line. This is accomplished by adding a key with a Line Type of Multicall, a Button Dir. Number matching the number of the device, and Ring Type of Ring.

## MiVoice Office 250 PBX

All configuration changes for MiVoice Office 250 are completed using the Mitel MiVoice Office 250 DB Programming interface. The information in this section provides guidelines for MiCollab Client -specific configuration only.

The following MiVoice Office 250 DB Programming folders include MiCollab Client-specific fields and options:

- [“Software license” on page 95](#)
- [“System – devices and feature codes – Assistants” on page 95](#)
- [“System – devices and feature codes – Phones” on page 95](#)
- [“System – IP-related information – Call Configuration \(Softphones Only\)” on page 96](#)
- [“System – Sockets” on page 96](#)
- [“Users” on page 96](#)

Note the following for MiVoice Office 250 PBXs:

- The MiVoice Office 250 system must be running system software v5.0 or later and the system must be programmed correctly to support full remote click to call OfficeLink functionality (see [Table 13 on page 68](#)).
- The MBG must be used when using remote SIP softphones connected to MiVoice Office 250.

- When you make changes to the PBX configuration, you will need to complete a manual synchronization from the MiCollab Client Service Administrator interface to import those changes to MiCollab Client (see [“License and PBX changes” on page 192](#)).
- For sites that intend to use the PBX node synchronization method for creating accounts in MiCollab Client, the MiCollab Client Service retrieves user and/or phone extension information configured in DB Programming to create accounts via the OAI stream for the PBX node synchronization type.

It is important that the information in the **Users** and/or **Phones**<sup>1</sup> folders in DB Programming is configured correctly to avoid the creation of unwanted accounts on the MiCollab Client Service if using PBX synchronization. PBX synchronization looks to the **Users** folder first and then the **Phones** folder to create accounts during the initial synchronization.

- Before you run a PBX Node Synchronization from the **Synchronization** tab, it is recommended that you set the Default feature profile field to the Default Feature Profile. The Default Feature Profile does not apply any features and licenses, so the system will not run out of licenses if there are more phones/accounts than available licenses. Instead, assign phones/accounts with the required licensed features from the MiCollab Client Service **Features** tab after performing the synchronization.

If the **Synchronize Dynamic Extension only** option in the Synchronization tab is enabled, only the extensions listed under Users will be synchronized. This option limits the number of accounts created.

- For sites synchronizing multiple MiVoice Office 250 PBX nodes, all nodes must be entered under PBX Nodes. If using a CT Gateway, all MiVoice Office 250 nodes and the CT Gateway are entered under **PBX Nodes**. See the MiCollab Client Service Online Help for additional details.

**Note:**

The CT Gateway must be programmed to monitor all nodes programmed under PBX Nodes.

Adhere to the following guidelines when using a CT Gateway to synchronize multiple MiVoice Office 250 nodes:

- When using a CT Gateway to communicate with multiple MiVoice Office 250 nodes, each node's session manager must have a DB programming account with the same password that matches the password set at the single PBX node representing the cluster on the MiCollab Client Service.
- The CT Gateway must be running software version 4.4.01 or higher.
- All nodes configured on the CT Gateway must be communicating (up and working) so that the PBX synchronizer will synchronize all of the accounts. If one or more of the MiVoice Office 250 nodes are not communicating with the CT Gateway, the node will not be synchronized as indicated by the message that is generated under the PBX Nodes tab.
- The PBX Node for CT Gateway must have a Voice Mail system pilot number programmed. You must choose a Voice Mail application number from one of the MiVoice Office 250 nodes. This will not impact phone/account voice mail set for each PBX.
- All nodes connected to the CT Gateway must be using OAI protocol version 10.0 or later (MiVoice Office 250 v3.2). Node connections to the CT Gateway that are not running protocol

1. Prior to MiVoice Office 250 v4.0, this folder in DB Programming was named Endpoints.



version 10.0 or later must be removed from the CT Gateway, or the nodes must be upgraded to v3.2.

- It is recommended that all duplicate extensions between nodes be removed before installing the CT Gateway. If this is not done, one of the accounts with the duplicate extension information will be deleted during the synchronization.

See Mitel Knowledge Base article number [4376](#) for additional MiVoice Office 250 configuration information.

**Note:**

Only MiVoice Office 250-certified personnel can configure the MiVoice Office 250 PBX.

### Software license

The **Software License** folder in DB Programming displays the licenses currently uploaded to the system. The features common to all licenses are displayed in this folder along with the value for each feature according to the current software license. This folder is read-only.

The following MiVoice Office 250 system software licenses must be enabled to provide full integration with MiCollab Client:

- **Dynamic Extension Express:** Dynamic Extension Express provides Ring Group options for MiCollab Client users in the MiCollab Desktop Client. Ring Groups provide call routing options for user's Dynamic Statuses.
- **System OAI 3rd Party Call Control:** Provides call control capabilities from the PBX to MiCollab Client so that users connected to the PBX can access system call features. System OAI 3rd Party Call Control is required to support the Dynamic Extension Express PBX feature.
- **System OAI Events:** Allows MiCollab Client to monitor the devices on the PBX to provide advanced presence. System OAI Events are required to support the Dynamic Extension Express PBX feature.

### System – devices and feature codes – Assistants

For MiVoice Office 250 v5.0 and later systems, configure the OfficeLink Assistant to provide full OfficeLink functionality for MiCollab Client users.

Adding an OfficeLink Assistant allows MiCollab Client users to place OfficeLink calls from any of their ring group devices (including Mobile). If the OfficeLink Assistant is not present (or if using software older than MiVoice Office 250 v5.0), then MiCollab Client users can only place OfficeLink calls from their desk phone and MiCollab Client softphone.

See [page 67](#) for more information about the OfficeLink feature.

### System – devices and feature codes – Phones

The MiCollab Client Service retrieves information programmed in the **Users** and/or **Phones** folders to create MiCollab Client accounts.

If the **Phones** information is configured for the MiVoice Office 250, but the **Users** information is not, the MiCollab Client PBX node synchronizer retrieves the following information from the **Phones** folder in DB Programming to create MiCollab Client accounts:

- System – Devices and Feature Codes – Phones – **Extension**: The value configured in the **Extension** field becomes the desk phone extension for the MiCollab Client account after synchronization.
- System – Devices and Feature Codes – Phones – **Description**: The value configured in the **Description** field becomes the account name for the MiCollab Client account after synchronization. Note the following for the Description field:
  - Configure the user's name in Last name, First Name format for the Description field. This is the format used by the PBX node synchronizer for the account name in MiCollab Client.
  - The Tilde character (~) before the Description and a blank Description field excludes the account from the synchronization.

### Note:

If you create both a desk phone and a MiCollab Client Softphone in DB Programming for a single user, two separate accounts are created in MiCollab Client for the extensions during the PBX node synchronization.

## System – IP-related information – Call Configuration (Softphones Only)

Mitel recommends that you configure audio settings specific to the MiCollab Client Softphone to ensure good audio quality.

Under System – IP-Related Information – Call Configuration, configure the Audio Frames/IP Packet with a value of **2**.

## System – Sockets

To support MiCollab Client, select System – Sockets, and set the System OAI Level 2 option to **Yes**.

## Users

The MiCollab Client Service retrieves information programmed in the **Users** and/or **Phones** folders to create MiCollab Client accounts. See [“About Account Synchronization” on page 58](#).

If the **Users** information is configured for the MiVoice Office 250, but the **Phones** information is not, the MiCollab Client PBX node synchronizer retrieves the following information from the **Users** folder in DB Programming to create MiCollab Client accounts:

- **Users**: Configure the **First Name** and **Last Name** fields. These fields provide the value for the account name on the MiCollab Client Service.

Note the following:

- To exclude a MiCollab Client account from being created during synchronization, insert the Tilde character (~) before the **First Name** or **Last Name**.

**Note:**

If there is a phone programmed with the same extension under the Phones folder and the Description does not include a tilde, the phone will be included in the synchronization.

- If the **First Name** and **Last Name** fields are blank in DB Programming, MiCollab Client will create an account with no name.

**Note:**

If there is a phone programmed with the same extension under the Phones folder and the Phones Extension field matches the User Main Extension field, then the name from the Phones Description field is used for the synchronization.

- If both Phones and Users is programmed in DB Programming, if the Phones **Extension** fields and Users **Main Extension** field match, then only one account is created.
- Users – **<user>**: Configure the following for each user:
  - The value configured for the **Main Extension** field becomes the desk phone or softphone extension for the MiCollab Client account after synchronization. MiCollab Client softphones are allowed as the Main Extension.
  - The **Yes** value configured for the **Enable Dynamic Extension Express** field instructs the PBX node synchronizer to use the programmed Associated Destinations fields when configuring Ring Group devices. In addition, this value instructs AD/LDAP synchronizers to synchronize Dynamic Express Extension information from the PBX.
- **Associated Destinations**: Configure the values for the Associated Destinations sub folder. MiCollab Client users can use devices configured as the user's Associated Destinations for the OfficeLink feature (see [“OfficeLink functionality” on page 67](#)). These values populate the **My Ring Group** devices in the MiCollab Client account after synchronization:
  - Desk, Desk 2
  - Voice Mail
  - Home, Home 2
  - Home IP, Home IP 2
  - Mobile, Mobile 2
  - Softphone, Softphone 2

**Note:**

Associated Destinations must be set to Active to be included in the PBX node synchronization.

## Configure integrated applications

To install and configure the Mitel applications you want to integrate with your MiCollab Client installation, see the documentation that was provided with the application. Documentation is also available on the Mitel eDocs Web site (<http://edocs.mitel.com>).

Mitel integrated applications/products include:

- MiCollab Unified Messaging (UM) v4.0 or later
- MiCollab Audio, Web and Video Conferencing (formerly known as Audio and Web Conferencing) 4.0 or later
- MiVoice Border Gateway v7.1 or later
- MiContact Center v7.1 or later

This section describes basic MiCollab Client configuration requirements for Mitel integrated applications. You may also need to configure integrated third-party application servers and components for use with MiCollab Client. For configuration guidelines for third-party products, see the product documentation.

### MiCollab UM configuration

MiCollab Client includes a Visual Voice Mail view in the MiCollab Desktop Client that provides access to MiCollab UM voice mail and FAX messages. Other Mitel and third-party voice mail systems are not supported by MiCollab Client.

To provide visual voice mail features, the MiCollab UM server must be configured properly as described in the following sections:

- [Visual Voice Mail for Peered MiCollab Client Services](#), below
- [MiCollab configuration options](#), below
- [“FCOS options” on page 99](#)
- [“Port utilization” on page 99](#)

#### Visual Voice Mail for Peered MiCollab Client Services

When MiCollab Client Services are peered, the MiCollab UM voice mail servers must be networked in the peered configuration for the voice mail forwarding and transfer to voice mail features to function. MiCollab Client does not support multiple MiCollab UM voice mail systems for peered MiCollab Client Services.

If MiCollab Client Services are peered and each server is configured with a different voice mail system, the following MiCollab Client voice mail features will not function between the servers:

- A MiCollab Desktop Client user on MiCollab Client Service A cannot forward a voice mail message to a peered contact on MiCollab Client Service B.
- A MiCollab Desktop Client console user on MiCollab Client Service A cannot use the Transfer to Voice Mail feature to transfer a call to a voice mailbox on MiCollab Client Service B.

### MiCollab configuration options

The **Dialer (Pager)** and a **Pager Line Group** must be configured for MiCollab under System Configuration to enable the “Request playback call” function in the MiCollab Desktop Client Visual Voice Mail view. It is not necessary to enable the dialer or pager on each mailbox under Message Waiting.

#### Note:

If your MiCollab UM application is running on a MiCollab server, Mitel recommends upgrading to MiCollab software version R2.0.1.106 or later, which includes several MiCollab UM Dialer updates.

### FCOS options

The following MiCollab UM feature (FCOS) options are required for MiCollab Desktop Client to control voice mail calls within the application:

- FCOS 289 Enable UM-SMTP
- FCOS 290 Enable UM-Web
- FCOS 295 Enable UM Pro

The following features are required for Caller ID to appear in the MiCollab Desktop Client:

- FCOS 262 Store Caller Line ID as Phone Number
- FCOS 263 Store Caller Line ID as Phone or Mailbox Number
- FCOS 264 Play outside caller user interface (With FCOS bit 280)
- FCOS 280 Enable CLI Outside Caller interface (with FCOS bit 264)

### Port utilization

From the Visual Voice Mail view, users can listen to voice mail messages from the MiCollab Desktop Client as follows:

- Direct the voice mail system to place a call to their desk phones and play the message using the “Request playback call” function.
- Play the message on their computer using the default media player.

When users direct the voice mail system to place a call to their desk phone, MiCollab Client consumes outgoing MiCollab UM ports, for the duration of the voice mail message. When users play voice mail messages using their media player, no outgoing ports are consumed.

Be sure you have configured sufficient outgoing MiCollab UM ports for MiCollab Client. If users regularly receive a busy signal when directing the voice mail system to call their desk phone and

play voice mail messages, MiCollab UM may not have sufficient outgoing ports configured. See the **MiCollab UM Port Utilization Report** to capture port utilization details.

**Note:**

Like the MiCollab Client Service, the MiCollab UM server needs to have a publicly-resolvable hostname. This hostname is used by the MiCollab Desktop Client and the Web Client when users listen to voice mail messages using the media player installed on their computer. If users cannot access the MiCollab UM server from their computers, voice mail message playback is limited to the **Request playback call** option from the MiCollab Desktop Client.

### Other Voice Mail systems

The MiVoice Business and MiVoice Office 250 PBXs support embedded legacy and third-party voice mail systems. If the PBX is connected to a voice mail system other than MiCollab UM, the Visual Voice Mail feature will not function. Because the PBX provides call routing to voice mail, only the **Call Voice Mail** and **Send to Voice Mail** features will function in MiCollab Client when the PBX is connected to non-MiCollab voice mail systems.

When the PBX is connected to a non-MiCollab UM voice mail system, note the following configuration information:

- The PBX node must be configured on the PBX Node tab and it must be synchronized with MiCollab Client.
- Some legacy voice mail systems have a different pilot number for the message retrieval application versus the voice mail application. To ensure that MiCollab Client users reach the Message Retrieval application instead of the Voice Mail application when they use the Call Voice Mail function, the MiCollab Client Administrator can configure the Voice Mail Number field on the PBX Details page with the Message Retrieval application extension.
- If MiCollab Client Desktop Clients are open when the administrator makes changes to the PBX configuration in the MiCollab Client Service Administrator interface, they must be closed and reopened for configuration changes to take effect.

After the voice mail systems are configured on the MiCollab Client Service, the Call Voice Mail and Send to Voice Mail features are functional.

## MiCollab Audio, Web and Video Conferencing configuration

MiCollab Audio, Web and Video Conferencing provides collaboration features and video calls for MiCollab Desktop Client users.

To provide access to audio conferencing, Web conferencing, collaboration features and video calls, verify the following for MiCollab Audio, Web and Video Conferencing:

- The MiCollab Audio, Web and Video Conferencing server has sufficient ports and licenses configured for all users – including MiCollab Client users.
- If you know the URL for the MiCollab Audio, Web and Video Conferencing server, you can synchronize the MiCollab Client Service with the MiCollab Audio, Web and Video Conferencing Server during system provisioning (see [“Provision MiCollab Client” on page 115](#)).

## MiVoice Border Gateway and Remote Proxy Services configuration

### Note:

Only MiVoice Border Gateway/Remote Proxy-certified personnel can configure the MiVoice Border Gateway.

If the customer site is using an MiVoice Business PBX and has remote users, you must configure the MiVoice Border Gateway and Remote Proxy Services for use with MiCollab Client as described in this section. Additional configuration for the MiVoice Border Gateway is required after the MiCollab Desktop Clients are installed.

MiVoice Border Gateway provides a secure communications path from remote MiCollab Desktop Client, Mobile Clients as well as softphones and IP desk phones running on the MiVoice Business PBX to the MiCollab Client Service. Remote Proxy Services provide a secure communications path for remote MiCollab Web Client users.

### Notes:

- If the customer is using MiVoice Border Gateway in a perimeter network (DMZ), the firewall that the MiVoice Border Gateway is connected to may have Session Initiation Protocol (SIP) application layer gateway (ALG) functionality turned ON, which may interfere with SIP messaging on MiCollab Client. Mitel recommends that you disable the firewall's SIP ALG for this type of configuration.
- Starting in MiCollab Client v5.1, when teleworker mode is enabled in the MiCollab Desktop Clients and mobile clients, the SIP softphone and Minet softphone route the signaling and media traffic through the MiVoice Border Gateway even when the clients are used in the corporate LAN.

*To configure MiVoice Border Gateway for use with MiCollab Client:*

### Note:

See the appropriate version of MiVoice Border Gateway documentation on the Mitel eDocs Web site (<http://edocs.mitel.com>) for updated information and images.

1. Open a Web browser and navigate to the MSL Server Manager URL (for example, [https://<MSL\\_server\\_FQDN>/server-manager](https://<MSL_server_FQDN>/server-manager)) where the MiVoice Border Gateway/Remote Proxy Services are installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The Welcome to the Server Manager page appears.
3. Under Applications, click **MiVoice Border Gateway**.
4. Click the **Configuration** tab. Click the **ICPs** tab.
5. On the ICP tab, click **Add ICP** to add the MiVoice Business PBX (3300 ICP).
6. Program the ICP settings as described in the online Help.
7. Click **Save**. The Successfully created ICP message appears.
8. Click the **Applications** tab. The Manage Connectors data is displayed.  
Select **MiCollab Client** on the Connectors page, and then click **Edit**.

9. Modify the MiCollab Client connector as follows:
  - Ensure the MiCollab Client connector is enabled.
  - Type the IP address or hostname for the MiCollab Client Service in the following fields:
    - MiCollab Client Service hostname or IP address
    - Collaboration server hostname or IP address
  - Type the IP address or hostname for the MiCollab UM voice mail server in the **MiCollab voicemail hostname or IP address** field.
  - Click **Save**.

*To configure Remote Proxy Services for use with MiCollab Client:*

The external DNS entry for the MiCollab Client Service needs to resolve to the Remote Proxy Services server so that users outside of the internal LAN can use the Remote Proxy Services to access the MiCollab Client Service.

1. Open a Web browser and navigate to the MSL Server Manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiVoice Border Gateway/Remote Proxy Services are installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The Welcome to the Server Manager page appears.
3. Under Applications, click **Remote Proxy Services**.
4. Click **Add new proxied domain**, and create a new proxied domain for the MiCollab Client Service.

## MiCollab Client and Ignite integration

### Note:

MiCollab Client must be Version 6.0 SP3 or later.

Read the following notes and recommendations before installing and running MiCollab Client and Ignite integration:

- The deployment must be licensed for MiCollab Client deskphone and softphone.
- Basic MiCollab Client does not support full MiCollab and Ignite functionality.
- YourSite Explorer and MiCollab Client Agents' first and last names must be the same. If there are two agents with identical first and last names, ensure they have unique e-mail addresses in both YourSite Explorer and MiCollab Client.
- In a Windows 8 environment, ensure the MiCollab Client process runs as administrator by selecting **Run this program as an administrator** in the MiCollab Client properties settings.
- Under **Feature Profile Details**, select the **Desktop client SDK** and **Presence** checkboxes.
- Users need to disable **Show Call Popup Window** in MiCollab Desktop Client to prevent duplicate toasters from displaying on the desktop.
  - Ignite users can enable a more advanced screen pop. See *MiContact Center Solutions User Guide* for more information.
  - If Ignite is shut down users can select the **Show Call Popup Window** checkbox. See



*MiCollab Desktop Client* help for more information.

### Enabling Hot Desking for Ignite Agents

MiCollab Desktop Client users can Hot Desk into their Minet Softphone.

**Note:**

Supported only with MiVoice Business implementation.

1. Log in to MiVoice Business and configure the Hot Desk Agent. Note the **Directory Name**.
2. Configure the soft phone. The softphone **Directory Name** must match the Hot Desk Agent **Directory Name**.
3. Select 5020 IP as the **Device Type**.
4. Synchronize the PBX Nodes on MiCollab Client Service. See the MiCollab Client Administrator online help.

The new account name matches the Directory Name defined in MiVoice Business. The primary number for the desk phone corresponds to the DN of the agent (in this example, 40108). The soft phone device corresponds to the DN of the soft phone (in this example, 30108).

5. Configure the account. Set the **Published** field for the Softphone to No. Leave the default ACD settings.

The Ignite agent can now follow the Hot Desking procedure as described in the MiCollab Desktop Client help.

## Install and configure MSL and MiCollab Client Service

MiCollab Client includes two options for the MiCollab Client Service component: MiCollab Client Software and MiCollab Client Virtual Appliance (see page 80 for details).

If MiCollab Client is being installed as application on MiCollab, see the MiCollab Installation and Maintenance Guide: [http://edocs.mitel.com/default.htm#MiCollab\\_anchor](http://edocs.mitel.com/default.htm#MiCollab_anchor)

High-level installation and configuration steps are provided for each deployment option, below:

- **MiCollab Client Software:** High-level installation and configuration steps include:
  - “Install the MSL operating system” on page 105.
  - “Configure MSL” on page 105.
  - “Install the MiCollab Client Service blade” on page 107.
  - “Verify MiCollab Client Service licensing” on page 108.
- **MiCollab Client Virtual Appliance:** High-level installation and configuration steps include:
  - “Install the MiCollab Client Virtual Appliance” on page 108.
  - “Configure MSL” on page 105.
  - “Verify MiCollab Client Service licensing” on page 108.

**Note:**

This document assumes that the MiCollab Client administrator and the MSL administrator are the same person.

## Software installation options

The MiCollab Client Service software includes both the server and client software for MiCollab Client. Before beginning a software installation for MiCollab Client, review the release notes and the Engineering Guidelines for a comprehensive list of requirements.

There are two methods you can use to install MiCollab Client software:

- Download and install the software blade directly from the AMC using the Server Manager interface.
- Download the ISO software image from Mitel Online, create a software CD, and install from CD.

*To download and install software directly from the AMC:*

1. Open a Web browser and navigate to the MSL server manager URL where the MiCollab Client Service is installed (for example, [https://<MSL\\_server\\_FQDN>/server-manager](https://<MSL_server_FQDN>/server-manager)). The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. In the left navigation pane under ServiceLink, click **Blades**. The available list of blades is displayed.
4. Install the software blade as detailed in the Service Manager online help.

*To download an ISO software image, build a CD, and install from CD:*

1. Log on to Mitel Online.
2. Select Support, and then click **Software Downloads**.
3. Click MiCollab Client – **MiCollab Client Software Download**.
4. Click the appropriate links to download the software.
5. Agree to the download disclaimer.
6. Save the file to a location on your maintenance computer.
7. Insert a CD into the CD/DVD ROM drive of your maintenance computer.
8. Navigate to the stored MiCollab Client Service software ISO image and burn the image to CD.
9. Insert the CD in the hardware platform's CD ROM drive and install the software.

## Install the MSL operating system

MiCollab Client runs on MSL as a stand-alone application. This section describes the high-level MSL installation steps.

### Note:

The procedure in this section applies to the MiCollab Client Software server deployment type. It does not apply to MiCollab Client Virtual Appliance.

For detailed installation instructions for MSL, see the *MSL Installation and Administration Manual* on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>).

*To install the MSL Server:*

1. Install the hardware platform as described in the *MSL Installation and Administration Manual*.
2. Install the MSL v10.x operating system as described in the *MSL Installation and Administration Manual*.

## Configure MSL

This section describes the high-level MSL configuration steps.

### Note:

The procedure in this section applies to both server deployment types:

- MiCollab Client Software
- MiCollab Client Virtual Appliance

For detailed MSL configuration instructions, see the *MSL Installation and Administration Manual* on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>).

To configure MSL:

1. Configure the MSL server settings. The following table lists the information you will need to enter during the MSL configuration process.

MSL Setting	Description
Administrator Password	For password strength, choose a password that contains a mix of uppercase and lowercase letters, numbers, and punctuation characters.
Domain Name	Names must start with a letter; can contain letters, numbers, and hyphens.
System Name	
Local Network Adapters	MSL automatically detects your system's Ethernet adapters and displays them (eth0, eth1) so you can configure a "Local" adapter (for LAN mode) or a "Local" AND a "WAN" adapter (for Network Edge mode). When configuring MiCollab Client Service, only the first local adapter should be configured (for LAN mode).
Local Networking Parameters	The local IP address and subnet mask for the server.
WAN Adapters	This setting is not applicable for MiCollab Client Service configuration.
External Interface Connection	This setting is not applicable for MiCollab Client Service configuration.
Gateway IP Address	The IP address that MiCollab Client Service will use to access the network.
DNS Server IP Address	The IP address of your corporate DNS server. Note the following: <ul style="list-style-type: none"> <li>• If you specify a Corporate DNS server, you must also configure the server's domains to Use Corporate DNS Servers under Configuration – <b>Domains</b> in Server Manager.</li> <li>• If DNS is supplied by your ISP, leave this setting blank.</li> </ul>
IPv6 Configuration	N/A. IPv6 is not currently supported by MiCollab Client Service.

2. Using the Application Record ID you received from the AMC, register the server with the AMC and download licensing information.

**https://<MSL\_server\_FQDN>/server-manager**

**Note:** MSL provides two methods of completing offline synchronizations with the AMC for servers with no direct Internet connection. See the Mitel Standard Linux Installation and Administration Guide for instructions.

3. Log into the MSL server manager interface. The **Welcome to the Server Manager** page appears.
4. In the left navigation pane under **Configuration**, click **E-mail Settings**. The **E-mail configuration** page appears.
5. Click **Change** for the **Forwarding address for administrative e-mail** field.

6. Enter your e-mail address in the box and then click **Save**.

**Note:**

You must configure this field so that e-mail messages generated by the MiCollab Desktop Client Problem Reporting Tool (see “[Problem reporting tool](#)” on page 195) are routed to your e-mail address.

## Install the MiCollab Client Service blade

The MiCollab Client Service blade contains the server and client software for MiCollab Client. *If required*, install the MiCollab Client Service blade.

**Note:**

The procedure in this section applies to the MiCollab Client Software server deployment type. It does not apply to MiCollab Client Virtual Appliance.

*To install the MiCollab Client Service software blade:*

1. Open a Web browser and navigate to the MSL server manager URL where the MiCollab Client Service is installed (for example, `https://<MSL_server_FQDN>/server-manager`). The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. *If you are installing the blade from CD*, insert the CD in your CD ROM drive.  
*If you are installing the blade directly from the AMC*, proceed to the next step.
4. In the left navigation pane under ServiceLink, click **Blades**. The available list of blades is displayed.
5. If you are downloading the software directly from the AMC, click **Update List** to ensure an up-to-date listing.

Skip this step if you are installing from CD.

**Note:**

If the AMC sync process is disabled, the blades list will not be refreshed. The listing will show only installed blades, blades from CD, and entries from the last sync.

6. Click the **Install** link beside the blade you want to install. The licenses page appears displaying the licensing information for the MiCollab Client Service software blade.
7. Review all of the licensing information.
8. Scroll to the bottom of the page and click **Accept All Licenses**. The installation process for the MiCollab Client Service blade begins. The installation screen provides installation **Progress Overview** and **Progress Details** information.

A successful installation message appears below the Process Overview when the blade is completely installed.

9. Click **Clear this report**.

After the MiCollab Client Service blade installation is complete, the MiCollab Client Service automatically starts.

## Verify MiCollab Client Service licensing

Follow the steps below to verify that the required licensing information is available for the MiCollab Client Service.

**Note:**

The procedure in this section applies to both server deployment types:

- MiCollab Client Software
- MiCollab Client Virtual Appliance

*To verify MiCollab Client Service licensing:*

1. Open a Web browser and navigate to the MSL server manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiCollab Client Service is installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. Under Service Link, click **Status**. The current ServiceLink Status information is displayed.
4. Click **Sync** in the bottom right hand corner to download the MiCollab Client license information from the AMC to the MiCollab Client Service. The sync completed successfully message appears.

## Install the MiCollab Client Virtual Appliance

The MiCollab Client virtual appliance allows you to install MSL and the MiCollab Client Service in an existing virtual environment.

This section describes the installation and configuration steps to deploy the MiCollab Client virtual appliance. For other MiCollab Client deployments, see the options listed on page 104.

For more detailed information on virtualization, see the Virtual Appliance Deployment Solutions Guide available on <http://edocs.mitel.com>.

**Note:**

The procedure in this section applies to the MiCollab Client virtual appliance (vMiCollab Client) deployment type. It does not apply to MiCollab Client Software.

The VMware vSphere Client must be installed on the local machine before deploying the MiCollab Client virtual appliance.

*To install the MiCollab Client virtual appliance:*

1. Download the virtual appliance file (.ova) from Mitel OnLine and save it on your local machine.
2. Start the vSphere Client, and then select File – **Deploy OVF Template...**
3. Select **Deploy from file** and then browse to the location on your machine where you saved the file.
4. Click **Next**. The OVF Template Details page appears.
5. Click **Next**. The End User License Agreement page appears.
6. Click **Accept**, and then click **Next**. The Name and Location page appears.
7. Type a name for virtual server, and then click **Next**. Deployment settings for the virtual appliance are shown.
8. Confirm the settings, and then click **Finish** to deploy the file. A dialog box shows the progress of the files being deployed.
9. When the deployment completes successfully click **Close** to continue.
10. In the vSphere client window, expand the VMware host view to show the newly created virtual machine.
11. Click the Console tab. Click the green arrow to power on the virtual machine.
12. After the virtual machine has booted, the Console Tab shows the MSL installation window.

To complete the configuration for the MiCollab Client virtual appliance:

- [“Configure MSL” on page 105.](#)
- [“Verify MiCollab Client Service licensing” on page 108.](#)

## Install and configure MiCollab Client softphone for VMware Horizon View

This section describes how to install and configure MiCollab Client for VMware Horizon View. For more information, see the VMWare Horizon View Solutions Guide.

### *Requirements*

MiCollab Client for VMware Horizon View requires the following:

- The MiCollab Client Plugin - the installer for this is called UnifiedCommunicatorAdvancedVMwareViewplugin.msi and can be found on Mitel Online in the 6.0 Software Downloads folder in the MiCollab Client folder.
- View 5.0, View 5.1, View 5.2 and vSphere 5.0

#### **Note:**

Versions prior to 5.0 are NOT supported.

- Windows 7 virtual desktop

**Note:**

MiCollab Client for VMware Horizon View is NOT supported on the following products:

- Windows Vista or XP, Apple, Android or Linux.

It is assumed that the required VMware and Windows components are set up. These can be obtained through VMware and [www.Microsoft.com](http://www.Microsoft.com) respectively.

### *Installation*

Use the following procedure to install MiCollab Client with VMware Horizon View:

1. Install and configure VMware Horizon View and the virtual desktops following the instructions provided by VMware.
2. **It is strongly recommended that the protocol is set to PCoIP and that other protocols are disallowed.** Failure to do so will result in inconsistent or non-existence audio for users. Perform the following steps:
  - a. In VMware View administration, go to **Inventory>Pools**.
  - b. In **Settings**, go to the **Pool Settings** tab.
  - c. Under Remote Display Protocol, choose **PCoIP** for **Default Display Protocol**. Choose **No** for **Allow Users to Change Protocol**. Click **OK** to save your changes.
3. Install and configure the MiCollab Client 6.0 server.
4. Install MiCollab Client on each virtual desktop (in View backend).
  - a. Install the MiCollab Client (which is downloaded from the MiCollab Client Service) using the instructions found in the Welcome e-mail.

**NOTE:** Virtual clients look exactly like regular desktops, but they exist in the View backend.

5. Install the VMware View Client on each physical desktop (the physical Thin Client or Thick Client/repurposed PC).
  - a. Point your browser to the address of the View Connection Server.
  - b. Ensure that you select the correct version (32-bit or 64-bit) for your physical desktop.

**NOTE:** Local mode is *not* required.

- c. Double click the installer.exe file after it downloads and follow the instructions provided.

Thin Client devices normally come with the View client already installed. If this is not the case for your Thin Client, follow the vendor-specific instructions provided with your Thin Client.

6. Install the MiCollab Client Plugin on each physical desktop. The Plugin is the media driver software that runs on the physical device. This Plugin ensures that voice streams locally through the physical device.
  - a. For the PC/Thick Client - doubleclick the .msi file. A brief progress dialog appears. You do not have to do anything but monitor the progress. Click **Done** when the installation has completed.
  - b. For the Thin Client, perform the following steps:



- Log in as Administrator (see the Thin Client documentation to determine how to log in as Administrator. The default password is vendor-specific.
- Unlock the device. See your vendor documentation to determine the location of the lock application. **The device will reboot when you unlock it.**
- Log in as Administrator again.
- Download and install the correct version of the .msi file.
- Relock the device by performing a reverse of the procedure in substep 2). **The device will reboot when you lock it.**

#### Notes:

- Automated methods for mass deployment of the Plugin to Thin Client is possible using vendor-specific tools (for example, Wyse Device Manager or HP Device Manager). Procedures for using these tools to perform mass deployment are being developed.
- Ensure the Thin Client is set to operate in LAN mode (not Wireless mode).

## Configure user options MiCollab Client for VMware Horizon View

Once the component parts (MiCollab Client Service, MiCollab Client, VMware Horizon View, and the MiCollab Client Plugin) have been installed, the following user configuration steps must be completed for MiCollab Client VMware Horizon View to function properly.

### *Teleworker Configuration*

In MiCollab Client for VMware Horizon View, the teleworker options enable you to properly configure the MiCollab Client software to interact with the VMware Horizon View virtual desktops.

This section outlines how to configure the Teleworker options specifically for use with MiCollab Client for VMware Horizon View. These steps do NOT configure normal Teleworker mode. For information on configuring Teleworker mode in the traditional setup, see MiCollab Desktop Client online help, Teleworker topic.

When MiCollab Client starts it will always try to connect directly to the MiCollab Client Service. If MiCollab Client is unable to connect directly to the server, it will start in Teleworker mode if you have a valid Teleworker certificate or in VMware Horizon View mode if you have the .msi file installed. If MiCollab Client is unable to determine if you have a valid certificate OR if it does not detect a valid VMware Horizon View installation, it will start in offline mode.

To configure the Teleworker options in MiCollab Client for VMware Horizon View, go to the Configuration Screen in the MiCollab Desktop Client and set the following options:

**Directory Number:** Type your remote Softphone or IP desk phone extension in the box. This must be a number ranging from 1 to 99999999.

**Teleworker Gateway IP:** Type the IP address of the MiVoice Border Gateway. The IP address should be in the form of xxx.xxx.xxx.xxx.

If there are any leading zeros in the IP address, do not enter those (for example, if the IP address is 074.xxx.xxx.yyy, enter 74.xxx.xxx.yyy).

For MiCollab Client VMware Horizon View purposes only, you do not need to enable Teleworker mode, nor configure any of the other Teleworker options. You also do not need to have a valid Teleworker certificate. All these options are greyed out.

### *Device Configuration*

After you have configured MiCollab Client for VMware Horizon View, you must configure the devices (headsets) that work when your client is operating in VMware Horizon View mode. Once the MiCollab Client Plugin has been installed, you must configure the MiCollab Client and your virtual desktop to work properly with the endpoint device (Thin or Thick Client).

Use the Softphone Settings in the Configuration menu on the MiCollab Client to configure these devices.

Ensure that you have chosen either Bluetooth or USB audio device as your default audio device for both Playback and Recording. **ONLY** these options work correctly with MiCollab Client for VMware Horizon View:

1. On the physical device, go to Start>Control Panel>Sound.
2. Under both the Playback and Recording tabs, ensure that the default device is the Bluetooth or USB audio device. Click on the proper device. Click on **Set Default** and choose **Default**. Under Properties, ensure **Use this device** is chosen. Confirm all choices.

#### **Note:**

Do not use USB redirection for your audio devices (on the View Client, the option is under Connect USB Device at the top of the screen). Using USB redirection causes audio to flow through the virtual desktop, and results in poor or nonexistent audio.

### *Headsets*

MiCollab Client VMware Horizon View supports several headsets for audio.

### *Softphone settings*

Configuring the softphone settings for MiCollab Client for VMware Horizon View on the MiCollab Desktop Client is very similar to configuring devices for the thick client version. However, there are now additional options specifically for MiCollab Client VMware Horizon View.

In the MiCollab Client Configuration menu, Softphone Settings, you can choose either Local (to your machine) or View (for MiCollab Client VMware Horizon View) options for both the Microphone and the Speaker settings. If you choose local, but no devices are available on your machine, MiCollab Client switches automatically to the VMware Horizon View options.

### *Expected behavior*

The MiCollab Desktop Client operates in one of two modes, namely:

- Local softphone (meaning on the same machine at the MiCollab Desktop Client itself)
- View softphone (meaning as a plug-in to VMware Horizon View).

In order to switch between softphones, MiCollab Client must deregister the current softphone to bring the new active softphone online. This switchover causes a delay - no more than five to ten seconds.

The UI does not directly indicate which mode of softphone is active.

### Access the MiCollab Client Service administration page

The MSL server manager interface provides access to the Mitel MiCollab Client Service Administration page. From this page you can:

- access the MiCollab Client configuration interface to provision MiCollab Client (see [“Provision MiCollab Client” on page 115](#)).
- view and refresh the server status, and start and stop the server (see [“Status” on page 166](#)).
- generate diagnostics information (see [“Diagnostics” on page 167](#)).

*To access the MiCollab Client Service Administration page:*


1. Open a Web browser and navigate to the MSL server manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiCollab Client Service is installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. Under Applications, click MiCollab Client Service. The Mitel MiCollab Client Service Administration page appears.

The page may show a status of **STARTING** while the server is being started. The status changes to **ACTIVE** when the server is operational.

## Provision MiCollab Client

Provision MiCollab Client as documented in the MiCollab Client Service Administrator interface online help. See the **Provisioning MiCollab Client** help topic, which includes the high-level provisioning procedure, with links to detailed instructions and field descriptions.

*To access the MiCollab Client Service administrator interface and online help:*

1. Open a Web browser and navigate to the MSL server manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiCollab Client Service is installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. In the left navigation pane under Applications, click **MiCollab Client Service**. The Mitel MiCollab Client Service Administration page appears.
4. Click **Configure Mitel MiCollab Client Service**. The **Enterprise** tab appears.
5. Click the help icon  to open the online help. The About MiCollab Client Service topic appears.
6. In the Help table of contents, click the **Administrator Tasks** link, and then click the **Provisioning MiCollab Client** link. The Provisioning MiCollab Client topic appears, which includes the high-level steps you should follow to provision the system.

High-level provisioning steps include:

- a. Create an enterprise.
- b. Add Feature Profiles.
- c. Add PBX nodes.
- d. Add collaboration servers (*optional*).
- e. Configure the enterprise fields and options.
- f. Add user accounts using one of the following methods:
  - Add user accounts automatically, by configuring a an Active Directory/Lightweight Directory Access Protocol (AD/LDAP) Corporate Directory Synchronizer, and then completing a manual synchronization.

### Note:

See the following topics in the MiCollab Client Service Administrator online help for detailed information about AD/LDAP Corporate Directory Synchronizers:

- Synchronization Tab
- Adding and Editing AD/LDAP Synchronizers
- Add user accounts automatically, by configuring a Private Branch Exchange (PBX) Node Corporate Directory Synchronizer, and then completing a manual synchronization.

- Add user accounts manually. Accounts that you create manually are not affected if you later configure a Corporate Directory Synchronizer and complete an AD/LDAP or PBX node synchronization.
  - g. Configure Automatic Call Distribution (ACD) settings (*optional*).
  - h. Configure Peering with other MiCollab Client or external servers (*optional*).
  - i. Configure IM and presence Federation (*optional*). Configuration options include:
    - **Peering tab:** Add an external IM server and perform an AD/LDAP synchronization with the server. After synchronization, the IM server contacts are imported to the MiCollab Client Service database (visible from the Corporate Directory tab) and federation is automatically enabled.
    - **Federation tab:** Configure federation from the Federation tab in the MiCollab Client Service Administrator Interface.
- Note:**
- Federation must be fully-configured on the IM server before you configure federation for the MiCollab Client Service (see [“Federation” on page 28](#)).
- j. Send the Welcome E-mail Message to MiCollab Client users (see [page 118](#)).

## Install the MiCollab Desktop Client

The MiCollab Client installer ships as a Windows Installer package. You can use a file server on your network as a software distribution point for the MiCollab Client. When you complete the system configuration, send the Welcome E-mail to users, which includes a link to the software location on the server.

### Software distribution point

A Software Distribution Point uses Active Directory Group Policy objects to deploy MiCollab Client using Active Directory Group Policy objects. This enables MiCollab Client to be run from a single location and appear to be installed on every user's desktop.

Installing MiCollab Client using a distribution point is done with an administrative install of the installer package to a network share. The share point must be accessible to all users who will install MiCollab Client. The command for the administrative installation is:

```
%>msiexec /a UnifiedCommunicatorAdvanced.msi
```

The administrative installation wizard prompts you to enter a location for the administrative image. Users can be instructed to install MiCollab Client from this folder via the network share. The users can run the installation wizard by clicking the file and entering the MiCollab Client Service FQDN when prompted.

Alternatively, a transform file (see “[Creating a transform](#)” on page 123), or the Explorer shortcut that includes the IP property in the command parameters, could be provided:

```
%>msiexec /i UnifiedCommunicatorAdvanced.msi UC_SERVER_HOSTNAME="192.168.1.66"
```

In this example, UC\_SERVER\_HOSTNAME property is set to the IP address of the MiCollab Client Service.

Suppressing the installation wizard dialogs can further customize the installation by using the /qn flag. More customization options can be found in the Windows Installer SDK documentation at <http://msdn2.microsoft.com/en-us/library/aa367988.aspx>.

### User installation permissions

Installing MiCollab Client requires administrator permissions on the user's computer. In Windows Vista/7, the user is prompted to provide User Account Control credentials (standard user) or confirmation (administrator) to install the client. Running the client does not require administrative privileges.

All data files that are modified (logs, config, contact database, recorded calls, etc.) when settings are updated (call forwarding profile, startup mode, etc.) are located in one of the following folders or subfolders:

- Vista/Windows 7: C:\Users\<username>\AppData\Roaming\Mitel\UC

### Client firewalls

A client computer that uses a firewall, such as Windows Firewall or a third-party firewall, must specify MiCollab Client.exe and UCASoftphoneManager.exe as exceptions in the firewall's configuration settings. This allows UCA.exe and UCASoftphoneManager.exe to accept network traffic through the firewall. The MiCollab Client 6.0 client installer adds these exceptions automatically.

### Welcome E-mail message

After you configure the system, you can send the users a Welcome E-mail Message that provides users with the following information and links:

- **The MiCollab Client Service Fully Qualified Domain Name (FQDN):** Required when installing the MiCollab Desktop Client, MiCollab for Mobile for BlackBerry and MiVoice for Skype for Business software.
- **MiCollab Client Login ID and Password:** Used to log in to the MiCollab Desktop Client, Web Client and MiVoice for Skype for Business.
- Softphone and Desk phone extensions.
- **A link to the MiCollab Client URL:** Provides access to the Web Client.
- **A link to the Quick Reference Guide:** Provides installation instructions and a brief overview of the MiCollab Client product.
- **A secure link to the MiCollab Desktop Client Software:** Provides access to the MiCollab Desktop Client software .msi file.
- **A secure link to MiVoice for Skype for Business Software:** Provides access to MiVoice for Skype for Business software.

**Note:**

To configure a secure connection to the MiCollab Client Service from a mobile device, users are required to know the key store password on their device to accept the MiCollab Client Service SSL certificate.

### MiCollab Client Deployment E-mail message

If you deploy MiCollab for Mobile or MiCollab MAC Desktop Client, a separate deployment email will be sent to users. The deployment email provides users with links to install and deploy clients. See **MiCollab Client Deployment help** for more information.



## Microsoft.NET framework

The MiCollab Desktop Client requires the installation of the Microsoft.NET Framework prior to installing the MiCollab Desktop Client. When the user attempts to install the MiCollab Desktop Client, if the NET framework is not detected, he or she will be prompted to download and install it.

After the user installs the .NET framework, he or she will need to restart the MiCollab Desktop Client installation. You can download the [Microsoft.NET Framework v4.5](http://www.microsoft.com/downloads) from the Microsoft Web site ([www.microsoft.com/downloads](http://www.microsoft.com/downloads)).

## Installation procedure

This section describes the procedure used to complete a typical installation for the MiCollab Desktop Client from a computer that has administrator permissions and access to the software. For custom installation options, see [“Install custom options” on page 175](#).

The installation wizard requires the user to provide just one parameter during installation: the FQDN of the MiCollab Client Service. The FQDN is provided in the Welcome E-mail message (see page 118) that you generate at the end of the provisioning process.

### Notes:

- For user level step-by-step basic installation instructions for desktop and mobile clients, go to [“MiCollab Client Considerations:” on page 133](#)
- The “Run Setup Wizard” command previously in the MiCollab Desktop Client Main menu is no longer required and was removed in MiCollab Client 5.1.

*To install the MiCollab Desktop Client:*

1. Close all Windows applications on the computer.
2. Install the Microsoft.NET Framework on the user’s computer (see page 119).
3. Click the link provided in the Welcome E-mail message to access the client software.
4. In the File Download dialog box, click **Run** to launch the client download.
5. In the Security Warning dialog box, click **Run** to launch the client installer. The Welcome dialog box appears.
6. Click **Next**.

### Note:

If the Microsoft.NET Framework is not detected on the computer, you are prompted to download and install it. You must restart the MiCollab Desktop Client installation following the installation of the .NET Framework.

7. Select **I accept the terms of the License Agreement**, and then click **Next**.
8. Select an installation type and then click **Next**. Options include:
  - **Typical Install:** Includes the MiCollab Desktop Client, Dial From IE, and the PIM extensions for the PIMs that are installed on the user’s computer (Outlook, Lotus Notes, or ACT!), the Google, Office 365, or Microsoft Exchange Server information for the user.

- **Complete Install:** Includes all of the Typical Install components and the MiCollab Client SDK.
  - **Custom Install:** Installs the MiCollab Desktop Client and allows the user to deselect or select optional components (see [“Install custom options” on page 175](#)).
9. Type the Fully Qualified Domain Name for the MiCollab Client Service in the box. The FQDN is provided in the Welcome E-mail message (see [“Welcome E-mail message” on page 118](#)).
  10. Select a Default Language, and then click **Next**.
  11. Click **Install**.

The MiCollab Desktop Client software is installed on the computer.
  12. Click **Finish** to complete the installation process.

By default the MiCollab Desktop Client launches automatically.

## Custom installation options

If you do not want to use a software distribution point for the client software, the following options are available for MiCollab Client installation:

- [IntelliMirror](#) below
- [“Logon Script” on page 121](#)
- [“SMS” on page 121](#)
- [“Group policy” on page 121](#)
- [“Citrix deployments” on page 121](#)

### IntelliMirror

Microsoft® IntelliMirror® management technologies can be used with Windows Installer to deploy and manage the installation of Mitel MiCollab Client. Two policies must be addressed when deploying MiCollab Client for IntelliMirror:

- User Data Management
- Software Installation and Maintenance.

MiCollab Client persists user settings such as window settings, the call log, history, personal contacts, and favorites. These settings are saved in the user's Application Data folder.

For deployment, MiCollab Client should be assigned to users such that when a MiCollab Client user logs in to a computer that does not have MiCollab Client installed, MiCollab Client gets installed.

#### Note:

If the site prevents software installations to be performed by the user, automatic upgrades of the MiCollab Client deployed by IntelliMirror will fail during the process. Instead, use your current installation mechanism to deploy any client upgrades.

The MiCollab Client IP property should be set using an installer transform (see [“Creating a transform” on page 123](#)).

For more information see the [Step-by-Step Guide to Software Installation and Maintenance](http://technet.microsoft.com/en-us/windowsserver) (<http://technet.microsoft.com/en-us/windowsserver>).

### Logon Script

The Windows Script Host can also be used to create a logon script for deploying MiCollab Client. Logon scripts use the same installation techniques as the software distribution point, except the mechanism used to run the installer is a script rather than an Explorer shortcut. The logon script is set through an Active Directory Group Policy. An example of a logon script that will install MiCollab Client might be

```
Set oShell = CreateObject("Wscript.Shell")
oShell.Run msixexec /i /q UnifiedCommunicatorAdvanced.msi
```

See the [Windows Management Instrumentation](http://msdn2.microsoft.com/en-us/library/aa286547.aspx) site (<http://msdn2.microsoft.com/en-us/library/aa286547.aspx>) for more information on scripting.

### SMS

Where scheduling, inventory, status, reporting, and support for deployment across a wide area network is required, Microsoft recommends using Systems Management Server 2003 (SMS).

Again, see the syntax shown for Software Distribution Point to create the installer command that SMS will run to install MiCollab Client on the client computer. See [Systems Management Server Home](http://www.microsoft.com/smsserver/) (<http://www.microsoft.com/smsserver/>) for more information on SMS.

### Group policy

You can create a Group Policy object to deploy MiCollab Clients. For a network install, the installer can be assigned to users with a Group Policy object (GPO). The GPO should install the software from an administrative image installed on a network share. For a detailed explanation on how to install software using an Active Directory Group Policy, see [Step-by-Step Guide to Software Installation and Maintenance](http://technet.microsoft.com/en-us/windowsserver) (<http://technet.microsoft.com/en-us/windowsserver>).

### Citrix deployments

The MiCollab Client can be deployed using the Citrix delivery system. MiCollab Client supports both Desktop mode and Web mode. See [“MiCollab Desktop Client Requirements” on page 81](#) for supported versions.

The following restrictions apply when the client is running on a Citrix server:

#### **SIP Softphone on Citrix environment:**

- Citrix supports the MiCollab Desktop Client SIP softphone on Citrix Xenapp 7.6 SP3 and above.
- Media is passed through the Citrix server, resulting in bandwidth limitations in terms of the number of concurrent audio connections (currently 25) and is not recommended for video.

- The SIP softphone uses the "audio features" of Citrix. Therefore, it is recommended that you use Citrix specified Audio policy settings. For optimum bandwidth consumption, set Audio quality to "Medium".
- Refer to the follow information on the Citrix website for details:
  - "Enable and Manage Client Audio Settings for the Citrix Receiver using a Group Policy" in Citrix documentation.
  - "Audio Features" under XenApp and XenApp 7.6 documentation
- Only Audio calls are supported (not Video calls).
- Softphone audio is supported through the server and is not peer-to-peer. Peer-to-peer is not supported.
- On a Citrix receiver client, the user should permit the use of local microphone and speaker when prompted by the Citrix client. If the local microphone and speaker are disabled, the softphone may not work properly.

### Access to Citrix-based resources only

MiCollab Client cannot access resources that reside on the client workstation. This includes the local file system, PIMs, and instant messaging clients. To be accessible to MiCollab Client, these resources must reside on the Citrix server:

- *PIM integration:* MiCollab Client integrates normally with PIMs that are running on the Citrix server.
- *Exchange Server integration:* MiCollab Client integrates normally with the Microsoft Exchange server.
- *Knowledge Management:* The Knowledge Management feature works the same on Citrix, provided the indexed Outlook folders and file paths are on the Citrix server.
- *Instant Messaging:* MiCollab Client integrates normally with Microsoft Messenger and Microsoft Office Communicator (LCS) clients that are running on the Citrix server.

For information about setting up Citrix servers to run MiCollab Client, see the Citrix product documentation.

## Installer transforms

Windows Installer packages can be customized with installer transforms. Installer transforms are files that, when run with the installer package, modify certain installation properties and application features.

The MiCollab Client installer package requires that the MiCollab Client Service IP property be set at install time. If the installer package is executed without any command-line parameters setting this property, the installer package prompts the user for it.

Alternatively, a transform can be created that will set this property. The transform can be specified in the command string used to install MiCollab Client or it can be specified when installing software using an Active Directory Group Policy.

If the server IP property is set in this way, the installer can be run with reduced or “silent” user interaction. More customization options can be found in the [Windows Installer SDK](http://msdn2.microsoft.com/en-us/library/aa367988.aspx) documentation (<http://msdn2.microsoft.com/en-us/library/aa367988.aspx>).

## Creating a transform

You can use third-party tools to create a transform. These tools are usually bundled with MSI authoring tools. However, the transform is simple and can be created with a simple script using COM components deployed on platforms supported by MiCollab Client. The following script will create a transform called **transform.mst**.

### Note:

The following script is an example based on documentation provided by Microsoft. It is not a Mitel supported script and is provided for information only.

```
Option Explicit

Dim wi, basedb, db, fs, sh, infile, ip, sql, view

Const msiTransformValidationLanguage = 1
Const msiTransformErrorNone = 0
Const msiOpenDatabaseModeReadOnly = 0
Const msiOpenDatabaseModeTransact = 1

Set sh = CreateObject("WScript.Shell")

If WScript.Arguments.Count < 2 Then
    WScript.Echo "Usage: maketransform.vbs <input file> <ya server ip>"
    WScript.Quit
End If

Set fs = CreateObject("Scripting.FileSystemObject")
Set wi = CreateObject("WindowsInstaller.Installer")
infile = WScript.Arguments(0)
ip = WScript.Arguments(1)
fs.CopyFile infile, "tmp.msi"

Set basedb = wi.opendatabase(infile, msiOpenDatabaseModeReadOnly)
Set db = wi.opendatabase ("tmp.msi", msiOpenDatabaseModeTransact)
sql = "INSERT INTO Property (Property.Property, Property.Value) VALUES" & _
    "('UC_SERVER_HOSTNAME', '" & ip & "')"
Set view = db.OpenView(sql)
view.Execute
db.Commit
db.GenerateTransform basedb, "transform.mst"
```

```
db.CreateTransformSummaryInfo basedb, "transform.mst", _  
    msiTransformErrorNone, msiTransformValidationLanguage  
Set view = Nothing  
Set db = Nothing  
Set wi = Nothing  
Set sh = Nothing  
fs.DeleteFile "tmp.msi"  
Set fs = Nothing
```

The output is **transform.mst** and this transform file can be used to modify a MiCollab Client installation.

## Installer properties

The following table lists the MiCollab Client installer properties that may be modified to create custom deployments.

web

**Table 19: Modifiable installer properties**

Property	Valid Values	Description
UC_SERVER_HOSTNAME	A valid IP address or computer name.	The PC running the MiCollab Client management software where the user's account is configured.
UC_LANGUAGE	en-US North American English en-GB British English da-DK Danish nl-NL Dutch fr-CA Canada French de-DE German pt-PT European Portuguese pt-BR Brazilian Portuguese it-IT Italian es-MX Latin American Spanish fr-FR European French es-ES European Spanish pl-PL Polish sv-SE Swedish zh-CN Simplified Chinese zh-TW Traditional Chinese	This is the language MiCollab Client will use on its first startup.

## Install MiVoice for Skype for Business Client

Skype for Business deployment is supported in various options as seen in the table below. MiVoice for Skype for Business is a plugin which integrates seamlessly with Skype for Business application.

### Notes:

- MiVoice for Skype for Business is supported on MiCollab deployed MiCollab Client only.
- MiVoice for Skype for Business Deskphone only users: those users only require the MiCollab Desktop Client SDK feature.
- MiVoice for Skype for Business Softphone only users OR those users with a Softphone and an associated Deskphone will require the Softphone feature in addition to the MiCollab Desktop Client SDK feature (see ["MiCollab Client licensed features" on page 11](#)).

**Table 20: Skype for Business Deployment Options**

Skype for Business Server	MiVoice Business	MiCollab Client Service	Supported (Yes/No)
Local	Local	local	Yes
Local	Cloud	Cloud	Yes
Cloud (Office 365)	Local	Local	Yes
Cloud (Office 365)	Cloud	Cloud	Yes

### Information E-mail

#### Note:

Skype for Business should be installed prior to installing MiVoice for Skype for Business.

Once the MiVoice for Skype for Business account is created on the MiCollab Client Service, the user will receive a Welcome E-mail with the following information:

- User client Login ID (Login ID is driven from Active Directory - AD) and password
- Link to download the MiVoice for Skype for Business plug-in software installer
- The Server Fully Qualified Domain Name - FQDN (host name)
- User account information (desk phone, softphone, voice mail, etc...)
- Teleworker (MiVoice Border Gateway) IP Address.

### MiVoice for Skype for Business installer

The following components will be installed on the user's computer (may vary if 2010 or 2013 clients) - the following are major components only and not the complete component list:

- MiVoice for Skype for Business executable file
- Mitel MiCollab Client and Skype for Business client Software Development Kit - SDK components (as .dll files)
- Mitel MiCollab Client headless client



- MiVoice for Skype for Business service
- Configuration settings (like setting to indicate that MiCollab Client shall run without a UI)

### *Installation wizard*

- All the components of MiVoice for Skype for Business will be installed and user will not be able to select/deselect Plug-in components for installation.
- Installer will prompt user to enter configuration options like MiCollab Client Service FQDN etc.
- Installer will prompt user to select default language.
- There will be no desktop/start menu icon specific for MiVoice for Skype for Business client installed on the computer as this application will be launched via Skype for Business.
- User can re-run the installation wizard. This will allow user to change configuration options like MiCollab Client Service FQDN or repair the damaged installation.

### **Notes:**

- In the event that another version of MiCollab Client (or MiVoice for Skype for Business) is already installed on the user's computer, the plugin installer will automatically uninstall the MiCollab Client and install the plugin.
- Ideally MiVoice for Skype for Business installation shall be done after the installation of Skype for Business client only. Installing the Skype for Business client after plug-in installation may override settings/configuration files of plugin and is not recommended. User should re-install the MiVoice for Skype for Business if problem are encountered in this scenario.
- The user must have installation permissions on the computer or provide the administrator credentials when prompted.

# Deploy MiCollab for Mobile Client

MiCollab Client 7.0 introduces a new blade which allows for the simplified deployment of MiCollab for Mobile. 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 e-mail with end user credentials is available.

For more information, see the **MiCollab Client Deployment** help file.

For more information about MiCollab UC- Client deployment, see [See “MiCollab UC-Client Application” on page 203.](#)

## Remote User Configuration

After the MiCollab Desktop Client is installed on a computer that resides outside of the local network, you must configure remote user access to MiCollab Client. Configuration procedures differ for each PBX. See the configuration information that applies to the site's PBX:

- [“MiVoice Business PBX Configuration for remote users”](#) below
- [“MiVoice Office 250 PBX configuration for remote users” on page 132](#)

### *TCP/TLS to UDP Connector*

The TCP/TLS to UDP connector is a feature introduced in MiVoice Border Gateway 7.1 SP2 as part of MiCollab 4.0 SP2. This feature is also available in MiVoice Border Gateway 8.0 as part of MiCollab 5.0. This connector enables MiCollab Client desktop and mobile clients to configure the SIP softphone to use TCP or TLS protocol when connected to MiVoice Border Gateway. MiVoice Border Gateway will convert the TCP or TLS protocol to UDP when communicating to the MiVoice Business or the MiVoice Office 250 PBX. Using the TCP/TLS protocol for SIP softphone eliminates many of the Network Address Translation issues encountered when using UDP for SIP signalling.

This connector is supported in the MiVoice Border Gateway in server gateway mode and in DMZ setup ([“MiVoice Border Gateway and Remote Proxy Services configuration” on page 101](#)). This connector is automatically enabled or disabled when MiCollab Client support on MiVoice Border Gateway is enabled or disabled.

#### **Note:**

This connector is supported only for MiCollab Client SIP softphones and there is no support for any 3rd party SIP phones. The MiCollab Client s must enable teleworker mode for the SIP softphone to use this connector on the MiVoice Border Gateway when the signalling protocol is set to TCP or TLS.

MiVoice Business supports TCP and TLS for SIP in MiVoice Business 6.0 and later versions. The default SIP protocol used by different MiCollab Client s are shown below:

- a. MiCollab Desktop Client version 6.0: defaults to TCP when connecting to MiVoice Business directly. Defaults to UDP in teleworker mode. Defaults to UDP when connecting to 5k PBX.
- b. iOS (iPhone) and Android MiCollab Client s version 5.1: defaults to UDP in all modes.

For MiVoice Office 250 PBX this connector on MiVoice Border Gateway has to be used when TCP or TLS protocol is enabled in the SIP softphone configuration in the MiCollab Client s. MiVoice Office 250 PBX does not support SIP over TCP or TLS.

**Note:**

Mitel recommends that users always set the iOS (iPhone) clients in teleworker mode and set the protocol to TCP or TLS when using MiVoice Border Gateway 7.1 SP2 or later with TCP to UDP connector enabled.

Otherwise, if the SIP protocol is set to UDP, the iOS operating system will not wake up the MiCollab Client application during an incoming call (while MiCollab Client application is in the background).

## MiVoice Business PBX Configuration for remote users

This section describes the required configuration for remote users connected to an MiVoice Business PBX. Remote User Configuration includes:

- [“MiCollab Desktop Client softphone and teleworker settings”](#) below
- [“MiVoice Border Gateway device configuration”](#) on page 130

For additional port information, see the *Mitel MiCollab Client Engineering Guidelines*.

### MiCollab Desktop Client softphone and teleworker settings

Before users can use MiCollab Client softphone features from MiCollab Desktop Client, they must configure as per options under: Main menu – Configuration – **Softphone Settings**.

Additionally, in Teleworker mode, the remote MiCollab Client uses a secure SSL connection with the MiVoice Border Gateway for all communication between the client and the MiCollab Client Service.

Make sure that you provide the information in [Table 21 MiCollab Desktop Client softphone settings](#) to users so that they can configure the Teleworker fields. Refer users to the online help for instructions.

**Table 21: MiCollab Desktop Client softphone settings**

Field	Description
Enable SIP softphone	Enable this option if you wish to use the SIP softphone on this MiCollab Desktop Client
SIP softphone DN	Select SIP softphone extension (Directory Number) to use from pull-down menu.

**Table 21: MiCollab Desktop Client softphone settings**

Field	Description
SIP Connection	Options: Default, TCP, UDP and TLS. Leave at Default. Note: When connected to either MiVoice Office 250 or MiVoice Business PBX, TCP and TLS protocols are only supported when the Use Teleworker for soft phone is enabled. SIP TCP and SIP TLS are supported for endpoints (not trunks) as of MiVoice Business 6.0. (Also see <a href="#">“TCP/TLS to UDP Connector” on page 128</a> ).
This number is used on multiple devices	This feature allows the user to use their SIP extension on other devices such as an iPhone or Android devices. With this option selected, they can register their SIP softphone extension from another device if licensed to do so
Microphone, Speaker, Alerts, Call control	Users can leave at default or select desired devices to suit their needs.
Video Camera	This option will appear only if Enable SIP softphone (above) is set. Select which camera to use from the pull-down menu. Select the video data rate or leave at default based on the camera selected.
Ringtones	Use system default or browse to desired ringtone, click play to test.
Use Teleworker for softphone	If this flag is enabled, the Minet or SIP Softphone will always connect to the MiVoice Border Gateway.
Teleworker Gateway IP	MiVoice Border Gateway IP or FQDN Address is mandatory if <b>Use Teleworker for softphone</b> is set. The IP address should be in the form of xxx.xxx.xxx.xxx.

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**Notes:**

- Teleworkers equipped with both a Mitel deskphone and a Mitel softphone will use two teleworker licenses.
- A MiNet Softphone and SIP Softphone cannot be active at the same time.

**MiVoice Border Gateway device configuration**

To provide access to remote users accessing the MiCollab Client Service through the MiVoice Border Gateway, you must add or enable a device for each remote user:

- [“To add or enable MiNet devices in the MiVoice Border Gateway for remote MiVoice Business users:”](#) below
- [“To add or enable SIP devices in the MiVoice Border Gateway for remote MiVoice Business users:”](#) on page 131

**Note:**

Verify that SIP support is enabled on the MiVoice Border Gateway (it is disabled by default).

Go to **Configuration Settings**, under **SIP Options**.

*To add or enable MiNet devices in the MiVoice Border Gateway for remote MiVoice Business users:*

1. Open a Web browser and navigate to the MSL Server Manager URL (for example, [https://<MSL\\_server\\_FQDN>/server-manager](https://<MSL_server_FQDN>/server-manager)) where the MiVoice Border Gateway/Remote Proxy Services are installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. Under Applications, click **MiVoice Border Gateway**.
4. Click **Services > MiNet Devices**.
5. Add or enable the softphone and desk phones that need to connect to the MiCollab Client Service through the MiVoice Border Gateway.

You must configure a **Device ID** on the MiVoice Border Gateway for each MiNet Directory Number.

**Note:**

The Device ID is a network MAC address consisting of 6 hexadecimal numbers separated by colons. It starts with a1:21:00 and contains the Directory Number within the digits. The 0 (zero) digit is replaced by the letter a, the \* symbol corresponds to the letter b and the # corresponds to the letter c.

For example, a Directory Number of 71\*0#8 would have a Device ID of a1:21:00:71:ba:c8

To add a device:

- a. Click **Add MiNet Device** to add a device to the MiVoice Border Gateway. Configure the device as described in the online Help.
- b. Click **Save**.

To enable a device:

- a. Click the device ID. The device details page appears.
- b. Click **Edit**.
- c. Select the Enabled option and then click **Save**.

*To add or enable SIP devices in the MiVoice Border Gateway for remote MiVoice Business users:*

1. Open a Web browser and navigate to the MSL Server Manager URL (for example, [https://<MSL\\_server\\_FQDN>/server-manager](https://<MSL_server_FQDN>/server-manager)) where the MiVoice Border Gateway/Remote Proxy Services are installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. Under Applications, click **MiVoice Border Gateway**.
4. Click **Services > SIP Devices**.

5. Add or enable the SIP softphone that need to connect to the MiCollab Client Service through the MiVoice Border Gateway. Every unique SIP softphone number used for MiCollab Mobile and MiCollab Desktop clients will need to be added to the MiVoice Border Gateway SIP device services.
6. To add and enable a SIP device:
  - a. Click **Add a SIP Device** to add a device to the MiVoice Border Gateway. Configure the device as described in the online Help.
  - b. Select the **Enabled** option and then click **Save**.

## MiVoice Office 250 PBX configuration for remote users

Remote MiCollab Client users connected to a MiVoice Office 250 PBX access the MiCollab Client Service through the site's firewall ports. Configure the firewall ports to provide access to the MiCollab Client Service and the integrated Mitel applications as documented in the *Mitel MiCollab Client Engineering Guidelines*.

## Softphone (SIP-based) specific considerations

*To configure softphone (SIP-based):*

### 1. Licensing requirements (for MiCollab Desktop, MiCollab for Mobile clients):

For the MiCollab Desktop Client, the existing “**Softphone**” license will cover both the Minet softphone and the new SIP-based softphone.

The mobile clients must have the “**Mobile SIP Softphone**” license in order to configure and use the SIP softphone.

#### Notes:

- On the MiCollab Client Service: you must first select **MiCollab for Mobile for Smart Devices** license then select **Mobile SIP Softphone**.
- The MiCollab Mobile for Smart Devices was previously known as the Locator.

### 2. Quality of Service (QoS):

The softphone supports L3 quality of service (QoS) values as per the Table below. These values are used for audio, SIP signaling, and video streaming.

These values are not accessible on the MiCollab Desktop Client but do appear on the Android and iOS clients under Softphone Advanced Settings at their default values.

Service Class	L3 Values
Telephony (Voice)	46 (EF)
Signaling	24 (CS3)
Multimedia Streaming (Video)	34 (CS4)

### 3. Admin Considerations:

Before a MiCollab Client can use a SIP Softphone, it must be configured on the **PBX, MiVoice Border Gateway, MiCollab Client sever, and MiCollab Client**. For all **MiCollab Client** s, the softphone will be available for use once **MiCollab Client** is launched and running.

Also see [“High level installation and configuration procedures” on page 89](#)

### 4. PBX Considerations:

#### Note:

MiVoice Business 5.0 SP2 or newer release is required.

MiVoice Office 250 running 5.1 or later release is required.

The account code dialing is not supported for SIP softphone on MiVoice Business or MiVoice Office 250 PBX.

MiVoice Office 250 specific: On the MiVoice Office 250 provisioning system, the admin can create a SIP device and assign it to the user. This is necessary to support the softphone on MiCollab Desktop Client and mobile devices.

#### Note:

By default, a MiCollab Client SIP softphone on a MiVoice Office 250 will only allow one incoming call at a time. To handle multiple incoming calls on the MiVoice Office 250, go to the SIP phone group, On-line monitor, Maximum number of calls, then set to two.

MiVoice Business specific: To ensure proper functionality, **there are two critical changes that MUST be made on MiVoice Business when configuring a MiCollab Client SIP Softphone:**

- a. First, you must select a Device Type of **MiCollab Client Endpoint**.
- b. Second, you must add at least one additional line. This is accomplished by adding a key with a Line Type of Multicall, a Button Dir. Number matching the number of the device, and Ring Type of Ring.

### 5. MiVoice Border Gateway and Teleworker Considerations:

Softphone users outside of the PBX/MiCollab Client network will require a connection through an MiVoice Border Gateway for both data and audio/video real-time streaming.

See [“MiVoice Border Gateway and Teleworker Considerations:” on page 134](#),

[“MiVoice Border Gateway and Remote Proxy Services configuration” on page 101](#)

[“Remote User Configuration” on page 128](#).

### 6. MiCollab Client Service Considerations:

Under Accounts tab: select **Phone Numbers**, add **SIP Softphone** type, **Number** and **Video Capable** (if supported).

#### Note:

Step 5 is only required if the account was not synchronized, i.e. in the event the account(s) was created manually in MiCollab Client Service for 6.0.

### 7. MiCollab Client Considerations:

Follow the procedures for the installation, configuration and testing of the MiCollab Client Softphone for each client as listed below. For additional assistance on features, go to each client online Help or <http://edocs.mitel.com/default.htm>

MiCollab Desktop Client - see [“Softphone Configuration - MiCollab Desktop Client” on page 135](#)

### Notes:

- On the MiCollab Desktop Client, in order to use SIP-based video calls, enable the availability for video calls under Dynamic status (Manage Statuses).
- A new checkbox has been added in the Teleworker settings screen on each client that indicates “Prefer Teleworker Connection”. This flag will alert the client to always attempt to connect the softphone through the TW.
- Mitel recommends setting up the softphone as a part of a ring group to avoid missing incoming calls due to the following condition:
- Due to Apple iOS application management, the MiCollab for Mobile application for iPhone may stop running while in the background (consistent with iOS behavior on other iOS Apps). The result is that a MiCollab Client application user may be unaware that the MiCollab Client application has stopped receiving incoming softphone calls and chat messages.
  - Participation in a Ring Group will accommodate missed calls but not missed chat messages.
  - Also see MiVoice Business [“Personal Ring Group Assignment form” on page 93](#) and Mi-Voice Office 250 [“Users” on page 96](#).

### *Migration from Minet Softphone on MiCollab Desktop Client*

A few scenarios to consider:

- Minet Softphone:** The MiCollab Desktop Client will automatically use the Minet softphone when the user has the “Softphone” license, a Minet softphone DN, and no SIP DN.
- SIP Softphone:** The MiCollab Desktop Client will use the SIP softphone when the user has the “Softphone” license, a SIP DN, and no Minet softphone DN. Note that in this case, the user must configure and enable the SIP softphone in the MiCollab Desktop Client (i.e., on first startup, the MiCollab Desktop Client will not automatically start the SIP softphone).

**Minet or SIP Softphone** (depending on user configuration): When the user has the “Softphone” license, a Minet softphone DN, and a SIP DN, the softphone used by the MiCollab Desktop Client depends on whether or not the user has configured the MiCollab Desktop Client to use the SIP softphone. On first startup, the MiCollab Desktop Client will use the Minet softphone. If the user wants to use the SIP softphone, the user must configure and enable the SIP softphone (note that a restart of the client may be necessary). After the SIP softphone has been configured and enabled, the SIP softphone will automatically be used by the MiCollab Desktop Client on subsequent restarts. If the user wants to switch back to the Minet softphone, he must disable the SIP softphone and restart the client.

### *MiVoice Border Gateway and Teleworker Considerations:*

Softphone users outside of the PBX/MiCollab Client network will require a connection through an MiVoice Border Gateway for both data and audio/video real-time streaming. It is expected that the normal setup for such a configuration involves configuring the fully-qualified domain name (FQDN) of both the PBX and the MiCollab Client Service to resolve to the IP address of the MiVoice Border Gateway when outside the corporate network. However, since an FQDN may not be used on the



PBX or MiVoice Border Gateway in all cases, the clients need to support both an internal and external address/hostname for connection.

The clients will always attempt to connect to the local address first and then subsequently try the remote address unless the client is configured to only use the remote address.

The MiVoice Border Gateway IP/hostname and username/password is configurable at the client level.

The SIP softphone should be configured as a normal SIP teleworker device on the MiVoice Border Gateway.

**Note:**

MiCollab Client profile can have different credentials for Teleworker mode and non-Teleworker mode. It is strongly recommended that the credentials be more secure when connecting to an MiVoice Border Gateway.

### Softphone Configuration - MiCollab Desktop Client

The following step-by-step procedure will guide you through installing the MiCollab Client software application onto your MiCollab Desktop Client device and testing basic softphone call functionality. For the purpose of this exercise, a SIP softphone will be used (softphone definition, see [Note 1 page 138](#)).

#### *Requirements:*

- **Wifi** or **Data** connectivity established for your computer.
- **Mitel MiCollab Client Account Credentials** e-mail from your system administrator (also known as Welcome E-mail).

#### *Installing the MiCollab client application*

1. From your desktop device, follow the instructions from your Welcome E-mail to download the MiCollab Desktop Client software. A link has been provided, for example: <https://<your server>/ucs/dl/UnifiedCommunicatorAdvanced.msi>.
2. In the File Download dialog box, click **Run** to launch the client download.
3. In the Security Warning dialog box, click **Run** to launch the client installer. The welcome dialog box appears. Then click **Next** (see [Note 2 page 138](#) if Microsoft.NET Framework is not detected on your computer).
4. Select **I accept the terms of the License Agreement**, and then click **Next**.
5. Select **Typical Install** and then click **Next**.
6. Type the **Fully Qualified Domain Name** for the **MiCollab Client Service Hostname** in the box as provided in your Welcome E-mail.
7. Select a Default Language, and then click **Next**. On the next screen, click **Install**.
8. The MiCollab Desktop Client software is installed on your computer. Click **Finish** to complete the installation process. By default the MiCollab Desktop Client launches automatically.
9. Next you will be prompted to login.
10. Enter your **Credentials** as per your Welcome E-mail then click Log in:
  - Login ID

- Password

### *Enabling your softphone*

**11.** The **MiCollab Client** main screen will appear.

Go to the **Main Menu** by selecting the drop-down symbol next to the name.

**12.** Select **Configuration**, and then select **Softphone Settings**.

There are several fields unique to your individual configuration.

- Click **Enable SIP soft phone**.
- **SIP soft phone DN:** from the pull-down menu, select SIP softphone DN (Directory Number).
- **SIP Connection Options:** Default, TCP, UDP and TLS. Leave at Default unless advised otherwise by your system administrator.
- **This number is used on multiple devices (xxxxx)** is **OFF** (unchecked) by default. Tap the check box if you plan to use this softphone number on more than just your MiCollab Desktop Client. For example if you plan to use this number on another client such as your iPhone or Android client.
- Other options such as **Microphone, Speaker, Alerts, Call Control** and **Ringtone** can be left at default (can be modified later).
- **Video Camera:** will only appear if **Enable SIP softphone** is checked. Select one camera device if you plan to use video with your softphone.
- **Use Teleworker for softphone:** enable this option if you plan to use your MiCollab Desktop Client softphone off your corporate network. If enabled, enter the Teleworker Gateway IP address or FQDN as provided by your system administrator.  
See [note 3 page 138](#).
- Click **OK**.

**13.** Go to the **Main Menu** and then select **Manage statuses**.

- From the pull-down menu **Make my calls from:** select your softphone number.
- From the pull-down menu **Send my calls to:** select My Ring Group or leave at default.
- From the pull-down menu **Video calls:** select **Accept** if you plan to use your softphone for Video calls (including MiCollab Audio, Web and Video Conferencing and UC360 devices).
- Click **Save**.

See [Note 4 page 138](#) for more information on these fields.

### *Testing your softphone*

**14.** From the Home screen.

- Select the softphone from the pull-down menu to originate your call.  
As a test, enter an extension number and select Call.  
A Call screen will be displayed for the duration of the call.

**15.** Answer the call at the far-end.

- Test to ensure that you have 2-way audio and tap **End Call**.

**16.** This step is optional:

- If both your device and the far-end device support video, tap the video icon to escalate your audio call to a video call.
- The far-end must also tap the start video button to get 2-way video.

**17.** Have the far-end call you at your Softphone number, answer the call and test for 2-way audio. Tap **End call**.

Having problems making or receiving a call, see [Note 5 page 138](#).

**To leverage all the functionality of MiCollab Client or need Help, press F1 or select Help from**

the Main Menu or go to <http://edocs.mitel.com/default.htm>

### Notes:

1. **SIP softphone definition:** The MiCollab Client for Mobile devices (such as iPhone and Android) use a SIP-based softphone. SIP stands for **Session Initiation Protocol**, which is an industry-wide standard offering a feature-rich experience and new functionality to your Mobile device. The MiCollab Desktop Client can be configured with a Mitel softphone or a SIP-based softphone. **In this exercise, a SIP-based softphone will be used.**
2. If the **Microsoft.NET Framework** is not detected on the computer, you are prompted to download and install it. You must restart the MiCollab Desktop Client installation following the installation of the .NET Framework.
3. **Teleworker definition:** remote or off-premise worker who needs connectivity to the office. Internet connectivity is often accomplished by the use of the public network internet. **If you plan to use your MiCollab Desktop Client softphone outside of your company's corporate network, you must configure Teleworker Settings.** When the Teleworker Settings are configured and enabled, the softphone will connect and register to the Teleworker server regardless if you are inside or outside your corporate network.  
**Non-Teleworker:** Connecting via VPN from outside is considered being on the corporate LAN. **"Most Desktop users will not be Teleworkers".**
4. **Manage Statuses** (part of Dynamic Status feature) allows you to customize call handling based on your particular MiCollab Client status. For example, you may choose to make and receive calls using a certain number while **In the Office** but utilizing a different profile while **Working from Home**. This is just one of the many features of **MiCollab Client**.
5. Several issues may arise preventing you from making or receiving a call, such as:
  - Lost network connectivity - a message trying to reconnect will appear.
  - Softphone de-activated or registration taken by another device. A notification pop-up will appear near the top of the screen, bring cursor over the notification and click Connect to re-activate your softphone.
  - Dialing a valid number / extension? If dialing an external number, is the prefix (i.e. 8 or 9) for external calls being automatically inserted by your system, try with and without the prefix.
  - Try exiting and re-launching the MiCollab Client application (Main Menu, Exit), double click on the MiCollab Client icon from your desktop.
  - Still having issues, you may need to contact your system or network administrator for assistance.

## Teamwork mode

To support Teamwork Mode functionality, accounts that do not have a desk phone or a softphone will by default operate in Teamwork Mode. See ["Teamwork Mode" on page 72](#).

### Server Admin portal impacts and considerations

In order to support Teamwork Mode, it is possible to have a group of user accounts with no real PBX nodes. By the same token, it is possible to have some accounts operate in Teamwork Mode (without a desk phone or softphone) while other users operate in a traditional mode with either a desk phone, softphone, or both assigned.

The following MiCollab Client Service areas are impacted to support Teamwork Mode:

### *Enterprise Tab*

There are no specific actions required on the Enterprise Tab for Teamwork Mode. However, note that the “Switch type” field is still mandatory. When creating a new enterprise that will not have any PBX nodes and only have Teamwork Mode accounts, the switch type can be left at the default value of “Mitel Communications Director” (the value will be ignored). Otherwise, choose the switch type of your enterprise as usual.

### *Account Tab*

The Account tab displays a PBX Node column for every account. If a user is not assigned to a PBX node or PBX Node is [None] (i.e. the user does not have a desk phone or a softphone), this column will be blank. **Therefore, any account with a PBX Node column blank is considered to be in Teamwork Mode.**

A Teamwork Mode account that has a PBX Node value of [None] can be later moved to a real PBX node if they get assigned a phone on that PBX. However, an account that is assigned to a real PBX node cannot be moved back to Teamwork Mode.

#### **Note:**

When adding an account manually the PBX node must be set to 'None' for account to be in teamwork mode.

When using Active directory sync (see [Synchronization MiCollab Client Teamwork Mode accounts \(i.e. those accounts with no desk phone or softphone\) can be created manually in Server Admin portal or via AD/LDAP synchronization as seen below:](#) for more information), the PBX node value in active directory should be set to <enterpriseld>.local and no desk phone or softphone number must be assigned to the user account in active directory.

### *Account Details Page*

To add a user in Teamwork Mode, in creating an account leave the “PBX node” field set to **[None]**. See [“Synchronization MiCollab Client Teamwork Mode accounts \(i.e. those accounts with no desk phone or softphone\) can be created manually in Server Admin portal or via AD/LDAP synchronization as seen below:”](#) for more information.

#### **Note:**

Prior to MiCollab Client 5.1, the admin was required to select a PBX node when creating an account. If there were no PBX nodes, the admin could not create accounts.

### *Features*

There are no specific features related to Teamwork Mode. You can select any feature for a Teamwork Mode account, however any phone or call control related features (such as Desk phone or Softphone) will be ignored. Also note that licenses for individual features such as Chat, Visual Voicemail, etc are still required.

### *Synchronization*

MiCollab Client Teamwork Mode accounts (i.e. those accounts with no desk phone or softphone) can be created manually in Server Admin portal or via AD/LDAP synchronization as seen below:

#### ☐ **Server Admin portal Teamwork Mode account creation:**

1. From Accounts tab, select **Add Account**.
2. In the new Account Details page, select **[None]** for the PBX Node field.

3. Fill out other fields as you would normally fill them out (if they are available).
4. Select **Create** to create a new Account.
5. On the newly created Account Details page, fill out any other available information if necessary, such as Contact Information or Account Settings.

**Note:**

You should not add any numbers under Phone Numbers since Teamwork Mode accounts shouldn't have a desk phone or softphone and cannot do call control.

6. Select **Save** when finished.

☐ **AD/LDAP Synchronization Teamwork Mode account creation:**

1. Fill out all fields as you would for a regular account except for the following:
  - Set PBX node value to **<enterpriseld>.local**, where <enterpriseld> is the ID of the enterprise being created and can be found on **Enterprise Tab**.
  - Do not fill out fields for desk phone and softphone.
2. Perform AD/LDAP synchronization as usual. Newly created Teamwork Mode account should show **[None]** for PBX Node and no desk phone and softphone numbers on that account's Account Details page.

*Default Account Statuses*

The first time a user logs into a MiCollab Client, the MiCollab Client Service creates the following list of default set of Dynamic Statuses for a Teamwork Mode user:

- In the office
- Do not disturb
- Gone for the day.

## Google Calendar Integration

MiCollab Client provides users with the option to integrate with Google calendar.

### *Licensing*

This feature is available by default and no specific MiCollab Client license is necessary.

### *Admin Portal*

MiCollab Client can support connection to **one Google** enterprise domain. At the enterprise level, the Administrator must select between Exchange Integration, Office 365, or Google Calendar Integration. This selection is accomplished by selecting Calendar Integration option under the Enterprise Tab on the Admin Portal. In addition, the Advanced Calendar Integration Settings can also be found at this same location.

#### **Note:**

MiCollab Client 6.0 release has support for Google calendar integration. If MiCollab Client 5.1 mobile clients try to connect to a MiCollab Client 6.0 server which has Google calendar integration enabled, then the calendar integration feature will not be configurable from the clients. The calendar integration configuration screen on the clients may display a message to this effect: "Calendar integration is not enabled on the server". To make use of Google calendar integration, the clients need to be upgraded to MiCollab Client 6.0 or later software.

### Authentication and access to Google Calendar

To provide the calendar integration feature, MiCollab Client Service will access Google calendars belonging to a specific Google Apps domain. MiCollab Client uses OAuth 2.0 to access Google calendars. One of the strengths of OAuth is that MiCollab Client does not need to know your Google Account credentials, and you can grant and revoke access permissions to MiCollab Client at anytime. MiCollab Client administrator should setup this access as described below.

#### **Notes:**

Calendars with no sharing (Google users can control sharing on their individual calendars) will not publish free/busy information and hence their calendar availability information cannot be accessed by MiCollab Client. MiCollab Client administrators should ensure that users who want to make use of the Calendar Integration feature have shared their calendars.

The following sequence of steps will grant MiCollab Client Service the permission to access free/busy information from calendars belonging to the enterprise's Google Apps domain (subject to sharing constraints as described above). This access privilege can be revoked at anytime (this feature will stop working if privileges are revoked) by logging into Google at:

<https://accounts.google.com/b/0/IssuedAuthSubTokens>

For more information, please see:

<https://developers.google.com/accounts/docs/OAuth2WebServer#tokenrevoke>

The process for granting Google calendar access to applications is described in <https://developers.google.com/accounts/docs/OAuth2ForDevices>. Below are the sequence of steps that need to be performed by the MiCollab Client administrator. For the latest information, please see the Google URL for OAuth2ForDevices (stated above).

1. From a browser, navigate to <https://code.google.com/apis/console#access> and login using your Google Apps credentials.

You can login as the Google Apps domain SuperAdmin or as a Google Apps domain user. Each of these can affect how much information MiCollab Client can access from Google calendars:

- Login as SuperAdmin – This will allow MiCollab Client to access calendar free/busy information even when individual users have not shared their calendars.
- Login as a user – This will allow MiCollab Client to access calendar free/busy information for all the calendars that have been shared at least within your Google Apps domain.

**Note:**

In either of the above cases, MiCollab Client will only present the calendar free/busy information (the start and end times of events). Other details (such as Event subject, content, participant list, etc.) will not be visible to MiCollab Client users even if MiCollab Client is able to access such information from Google calendar.

2. If you haven't registered any applications before, click **Create Project** and accept the Terms of Service. Otherwise, click **Create Project**.
3. Type the **Project Name** and click **Create**.
4. Click **APIs** from the **APIs & auth** menu and turn Calendar API to the **ON** position. This enables Google Calendar API access.
5. Click **Credentials**. Click **Create new Client ID** under the OAuth section.
6. Select **Installed application** as the Application Type. Click **Configure consent screen**.
7. Enter the desired information and click **Save**. The Create Client ID window is displayed.
8. Select **Installed application** as the Application Type. Select **Other** as the Installed Application Type. Click **Create Client ID**.

Google generates a Client ID and Client Secret. These pieces of information are required by Google to track the number of calendar access requests made on behalf of your Google Apps domain, and to throttle/limit the requests and protect the Google Apps infrastructure from overload.

Copy the Client ID and Client secret.

9. Login to MiCollab server-manager and go to the **Installation Application** tab under Configuration > Google Apps. Paste the Client ID and Client Secret provided in the previous step. The product name can be left blank.
10. Click **Save and Generate Authorization Code**. MiCollab now communicates with Google to obtain consent URI: If the information you entered was incorrect (for example, due to some error in copy-pasting), the MiCollab page will display a brief error message. If this happens, make sure to copy the information from Google console correctly and try again.
11. If the Client ID and Client Secret were valid, MiCollab communicates with Google and obtains an authorization code (displayed in bold), and a link to Google.

Copy the authorization code and click the link.

12. Paste the code and click **Continue**. You will now be presented with a form to allow MiCollab Client to access your Google calendar. Click **Accept**.



Once you allow access, within a minute or so, MSL will poll Google and obtain OAuth2 access token. Once this operation is successfully completed, you may logout of your Google account and return to MiCollab Client Service-manager.

When these steps are complete, to verify whether MiCollab Client has access to the tokens, go to Server-Manager -> MiCollab Client Services -> Perform Server Diagnostics -> Calstatus. At the bottom of that page, MiCollab Client lists the recent OAuth2 events that it received.

To enable Google **Calendar Integration** on the server:

1. Select the desired enterprise
2. Under Calendar Integration, select **Google** from drop down Calendar Type list
3. Click the **Enable calendar integration** checkbox
4. Click **Test Connection**.

Once the connection is successful, apply changes and save the enterprise details. Now the MiCollab Client users in that enterprise can enable Google calendar integration by providing their calendar ID from their respective MiCollab Client s.

### Changes to clients

#### *Google Calendar setting*

##### **Note:**

Google calendar has some options to control which events are displayed in the calendar and which are not. These options can be accessed from Google calendar's settings webpage. These options include (but are not limited to) "Show events you have declined", "Only show invitations to which I have responded", etc. While these options control some aspects of how events are displayed in your Google calendar, MiCollab Client's Google calendar integration status may not be controlled by them. More specifically, MiCollab Client reflects your Google calendar's Free/Busy status only, and does not necessarily correspond to what events are visibly "shown" to you in your Google calendar. Even though some events are hidden from your view in the Google calendar (in order to reduce clutter, etc.) if those events influence the calendar's free/busy status (by default, events will mark your calendar as busy for the duration of the event unless they are declined, or are marked explicitly as "Available"), then MiCollab Client will reflect that status.

Calendar whose availability information is needed must be shared at least within the Google Apps domain. The calendars can be public, or shared with all event details visible, or shared with only free/busy information visible.

This setting can be accessed on Google calendar under "My calendars" -> <Calendar Name> -> Click on the down arrow on the right -> Calendar settings -> Share this calendar -> Share this calendar with others. The image below shows a calendar that has shared its free/busy information.



### Calendar ID

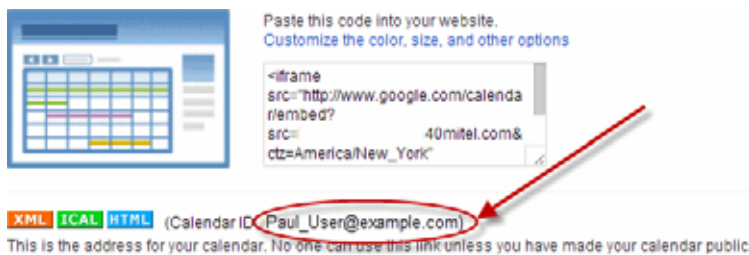
The clients should collect user's Google calendar ID and provide the information to the server. The server will then poll that calendar.

User can find the calendar's ID as follows:

Login to Google account at <https://www.google.com/calendar>. From the menu on the left-side, under My Calendars, hover on your calendar name. To the right of the calendar name, you will see a drop-down arrow. Click that and select "Calendar settings".



The "Calendar settings" page shows the Calendar ID. Provide this ID to the MiCollab Client.



#### Note:

Google calendar has a relatively new feature called appointment slots. They can be created from the same UI as creating calendar events, but by choosing Appointment slots instead of Event. For this release of MiCollab Client (v6.0), Appointment Slots created in Google calendar will not be reflected as MiCollab Client dynamic status. This is because Google APIs do not yet have the capability to retrieve appointment slots. This affects appointment slots created by a user and also slots accepted by someone. Neither type will be read by MiCollab Client. Normal events in the Google calendar will be processed and will be used to reflect MiCollab Client dynamic status.

## Google contacts integration

MiCollab Client provides users with the option to integrate with Google Contacts.

### *Licensing*

This feature is available by default and no specific MiCollab Client license is necessary.

### Authentication and access to Google contacts

To provide the contacts integration feature, MiCollab Client uses OAuth 2.0 to access Google Contacts.

The process for granting Google Contacts access to applications is described in <https://developers.google.com/accounts/docs/OAuth2ForDevices>. Below are the sequence of steps that need to be performed by the MiCollab Client administrator. For the latest information, please see the Google URL for OAuth2ForDevices (stated above). Login to Google console.

#### **Note:**

Google Contacts only requires the Client ID and Client Secret on the MiCollab Client Service Manager (using OAuth 2.0 form). Unlike Google Calendar, the authorization code to acquire the access token of the user's contacts is done at the client level (not at the server level) as per [step 7](#).

1. From a browser, navigate to <https://code.google.com/apis/console#access> and login using your Google Apps credentials.
2. Click **APIs** from the **APIs & auth** menu and turn Contacts API to the **ON** position. This enables Google Calendar API access.
3. Click **Credentials**. Click **Create new Client ID** under the OAuth section.
4. Select **Installed application** as the Application Type. Select **Other** as the Installed Application Type. Click **Create Client ID**.

Google generates a Client ID and Client Secret. These pieces of information are required by Google to track the number of calendar access requests made on behalf of your Google Apps domain, and to throttle/limit the requests and protect the Google Apps infrastructure from overload.

Copy the Client ID and Client secret.

5. Login to MiCollab server-manager and go to the **Installation Application** tab under Configuration > Google Apps. Paste the Client ID and Client Secret provided in the previous step. The product name can be left blank.
6. Click **Save and Generate Authorization Code**. MiCollab now communicates with Google to obtain consent URI: If the information you entered was incorrect (for example, due to some error in copy-pasting), the MiCollab page will display a brief error message. If this happens, make sure to copy the information from Google console correctly and try again.
7. **MiCollab Clients will need to Configure Google**

MiCollab Desktop Client clients are now ready to use Google Contacts as part of MiCollab Client. MiCollab Desktop Clients will need to access PIM Integration window (from Configuration under Main Menu) and click on “Configure...” drop down button will have a new “Google” item.

**Note:**

The “Google” item is available whether or not Google calendar integration is enabled on the server. If there are no other PIMs, the button will not be a drop down, it will just appear as “Configure Google”.

See MiCollab Desktop Client Help for details on how to **Configure Google** and **Import Contacts**.

Once the user selects Google, a Google configuration window will appear and the Google website will automatically be launched. Select **Allow access** when prompted by Google.

A Google Configuration Window will appear displaying an Access Code, click OK.

If you have multiple Google Accounts, you will be prompted to select one account.

If Google Contacts was successfully configured, you are now ready to **Import Contacts** to the client. See MiCollab Desktop Client help to Import Contacts.

## MiTeam Integration


MiTeam is Mitel's Cloud-based collaboration tool that provides mobile users with the ability to access features, such as

- **Collaborate:** Manage collaboration streams
- **Chat:** Hold chat sessions and receive chat notifications
- **Pages:** add white-board pages
- **To-Do:** Create to-do lists
- **File Sharing:** Store and share files, and
- **MiTeam Meet:** Perform audio and web sharing within a team

## Requirements

- MiTeam is supported for UCC Premium users on MiCollab Release 7.2 and later systems.
- The MiCollab server requires bi-directional access to the MiTeam solution on the Internet at the following top-level MiTeam FQDNs: miteam.micloudoffice.com and api.micloudoffice.com. Because Internet access is required, MiTeam is not available to Dark Data Centers. Note that in a private cloud these FQDNs will be different.
- Port 443 must be open for incoming and outgoing traffic. The MiCollab server communicates with the MiTeam solution via Port 443.
- Users must be supported under the same OrganizationID in order to join chat, share files and so forth. The OrganizationID is an identifier for your company in the MiTeam service provider.
- Peered servers must share the same OrganizationID if MiTeam is enabled. The OrganizationID is used group the UCC Premium users from the servers into a cloud user group.
- MiTeam users cannot log into the cloud service directly at <https://miteam.micloudoffice.com/> (Moxtra's public Web Client).
- MiVoice Border Gateway Release 9.3 or later is required.
- In order for users to use MiTeam Meet, the Audio, Web and Video application must be configured and active. The maximum duration of a MiTeam Meet is 2 hours. This maximum duration is not configurable.
- To use MiTeam from the web client, users must allow third-party cookies in their browsers. If cookies are disabled, users are unable to open streams.

### Chrome:

1. Click  .
2. Click **Settings > Show advanced settings > Content Settings**.
3. Enable "Allow local data to be set (recommended)".
4. Disable "Block third-party cookies and site data"
5. Click **Finished**.

### FireFox:

1. Under **Options > Privacy > History**.

2. Check "Accept cookies from sites".
3. Set "Accept third-party cookies" to "Always".
4. Set "Keep until they expire".

### **Safari:**

1. Click **Settings**.
2. Click **Privacy**.
3. Set **Cookies and Website-Data:** to "just from websites I visit" or "Always allow".

### **Microsoft Edge:**

1. Click . . .
2. Click **Settings**.
3. Click **Show Advanced Settings**.
4. Click **Cookies**.
5. Enable **Do not block any cookies**.

## Supported Clients

MiTeam is supported with the following MiCollab clients:

- MiCollab Web client for PCs (Windows/MAC only)
- MiCollab for Mobile clients (iOS/Android only).

The following minimum operating systems are required:

- Phone (4s+)/IOS 9+ (not supported on iPad or iPod)
- Android Phone 4.4 +

MiTeam is not supported on the following clients:

- MiCollab Desktop clients
- Legacy web clients
- Blackberry clients
- Windows Phone clients.

## Supported Communication Platforms

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

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

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

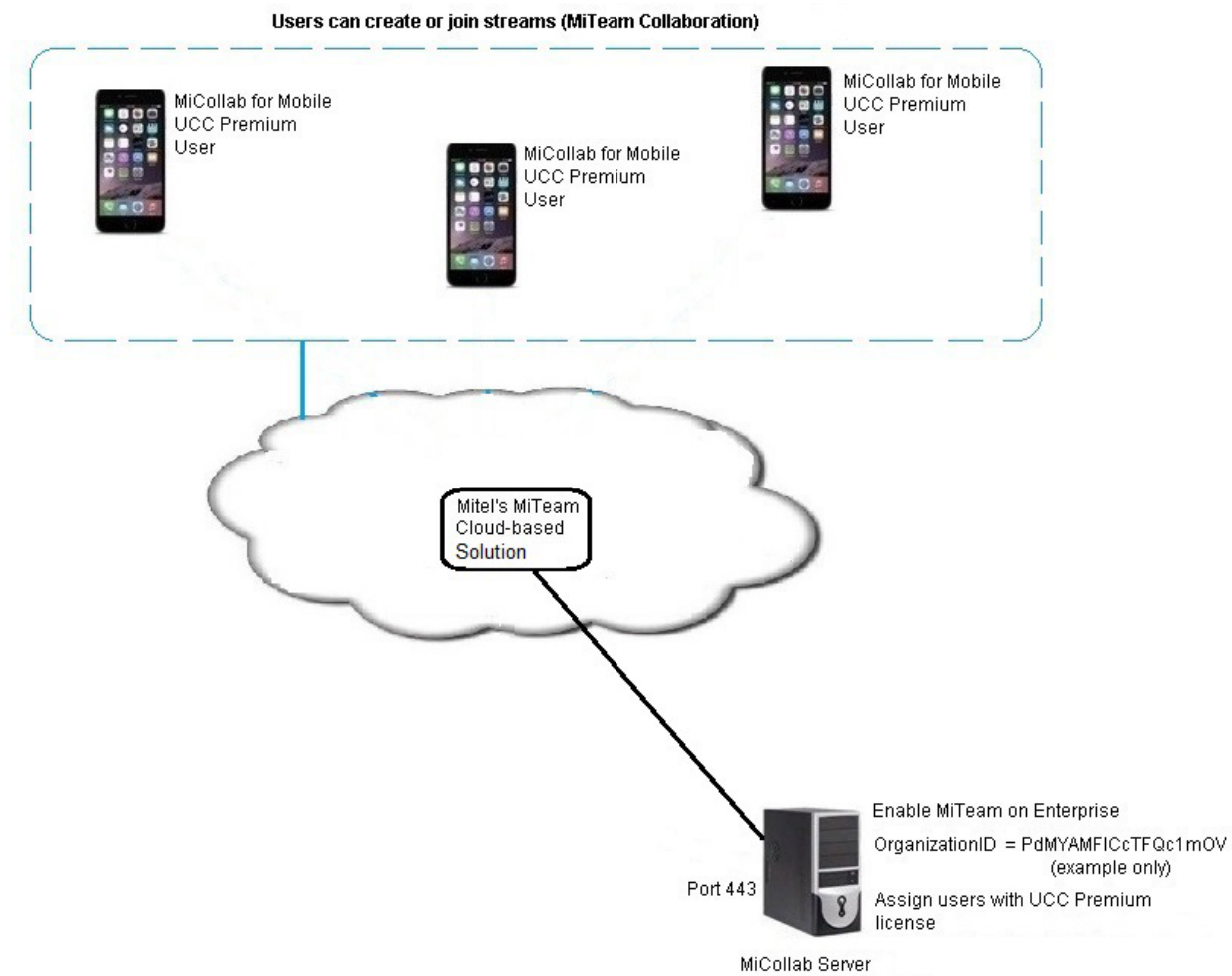
## Licensing

MiTeam is only available to users who are assigned with a UCC Premium bundle. Access to MiTeam functionality is applied to Premium users on a system-wide basis (that is, the functionality cannot be assigned to just some Premium users on the system). In addition, MiTeam cannot be added separately to users assigned with Basic, Entry, or Standard licenses.

## Enterprise Configuration (Non-Peered)

This section describes MiTeam configuration for non-peered Enterprise deployments. If your Enterprise has peered servers, refer to “Enterprise Configuration (Peered)” on page 150.

Figure 24 shows an example of an Enterprise configured with MiTeam services.



**Figure 9: MiTeam – Enterprise Configuration (Non-Peered)**

By default, MiTeam is disabled. To enable MiTeam on an Enterprise:

1. Log into the MiCollab server manager.
2. Under **Applications**, click **MiCollab Client Service**.
3. Click **Configure MiCollab Client Service**.
4. Click the **Enterprise** tab.
5. Under **MiTeam Configuration Settings**, check the MiTeam Configuration box. Access to MiTeam is granted to all new and preexisting premium users after you enable this check box in the **Enterprise** tab.
6. Click **Apply**.
7. Click **Show** to display the OrganizationID. The OrganizationID is an identifier for the company in the MiTeam service provider. The Organization ID is used to facilitate services. Do not change the OrganizationID.

**CAUTION:** If you have already enabled MiTeam on an Enterprise, and then you delete the Enterprise, recreating the Enterprise will not restore MiTeam on that Enterprise.

**Note:** If a failure occurs, collect the log files and diagnostics (sosreport<file>.tar.gz) from the server manager **View Log File** page for Product Support. To have an OrganizationID reset, you must contact Product Support.

**CAUTION:** Perform a database backup after you enable MiTeam. If you restore a backup that was taken before MiTeam was enabled, you will be unable to re-enable MiTeam. You will require Mitel Product Support to help you re-enable MiTeam.

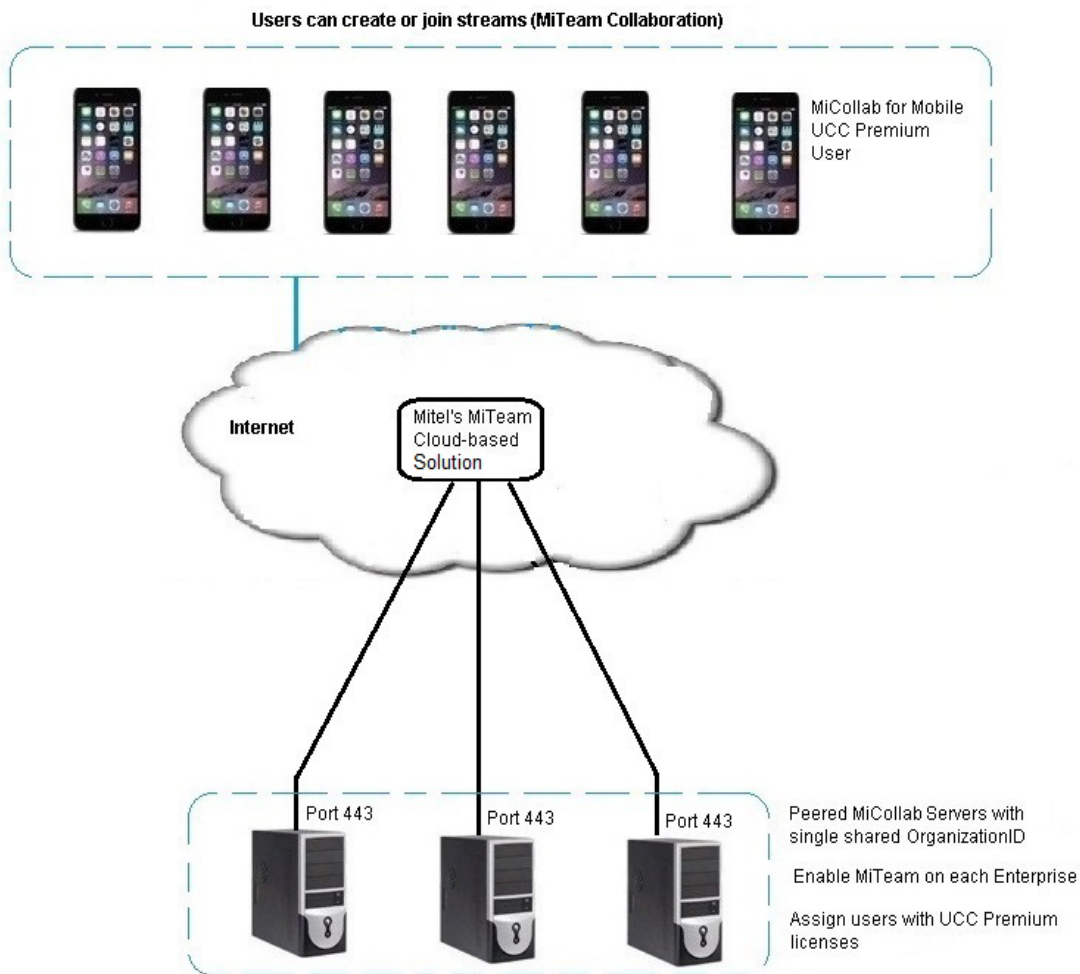
8. To give users MiTeam functionality:
  - assign MiVoice Business users with license bundles that provide UCC Premium licenses
  - assign MiVoice 5000, MiVoice MX-ONE, or MiVoice 400 users with Roles that provide UCC Premium licenses.

## Enterprise Configuration (Peered)

In a peered Enterprise solution, all peered Enterprises must have the same MiTeam OrganizationID in order for all UCC Premium users in the Enterprise to join streams. [Figure 10](#) shows an example of a peered configuration with MiTeam services:

**CAUTION:** Perform a database backup after you enable MiTeam. Once MiTeam is enabled, you cannot restore an earlier backup (that is a backup that was taken before MiTeam was enabled).





**Figure 10: MiTeam – Peered Enterprise Configuration**

### Adding MiTeam Services to a Peered Enterprise

1. After peering is set up, check the **MiTeam Configuration** box on one of the peered Enterprises. Then, the MiCollab server copies the MiTeam Organization ID to the other peered Enterprises. Do not enable MiTeam on the Enterprise servers until after they have been peered.
2. Enable the **MiTeam Configuration** box on each of the other peered Enterprises. If MiTeam configuration fails, a warning banner will be displayed in the MiCollab server manager. See [Resolving Conflicting OrganizationIDs](#).
3. Perform a database backup.

### Adding Peering between Existing Enterprises

Peering is unidirectional from server to server. To allow all Premium UCC users on a site to participate in all streams, a fully meshed network of peered servers is recommended.

1. Check the **MiTeam Configuration** box on one of the peered Enterprises only. The OrganizationID is then propagated to the other peered Enterprises.
2. Next, check the **MiTeam Configuration** box on each of the other peered Enterprises.

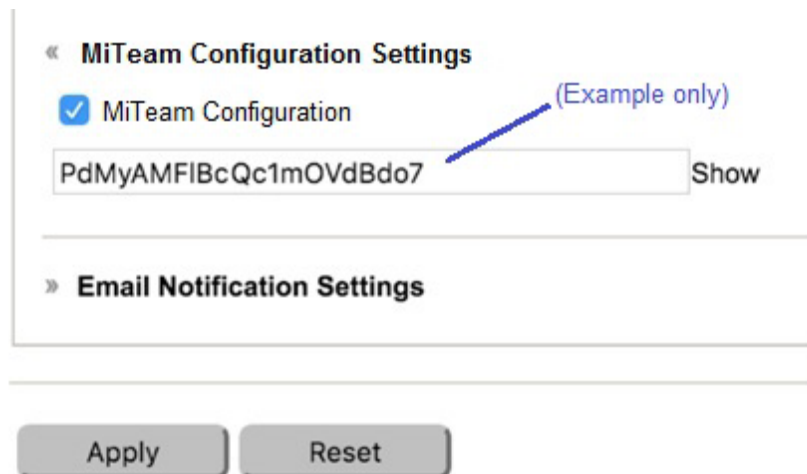
3. When peering is being added, the Enterprises will compare their OrganizationIDs and if they are different then peering will fail to be configured. If the MiTeam configuration fails, a warning banner will be displayed in the MiCollab server manager. See [Resolving Conflicting OrganizationIDs](#).
4. Perform a database backup.

### Resolving Conflicting OrganizationIDs

If Enterprises have different OrganizationIDs, you must choose one of the Organization IDs, copy it, and paste it into the field under the MiTeam Configuration heading on each of the other Enterprises.

**CAUTION:** If you change an OrganizationID, existing users will lose their chats, streams, and files that are associated with that OrganizationID.

1. Log into the server manager of the server that has the OrganizationID that you want to use for the site.
2. Under **Applications**, click **MiCollab Client Service**.
3. Click **Configure MiCollab Client Service**.
4. Click the **Enterprise** tab.
5. Under MiTeam Configuration.
6. Click **Show** to display the OrganizationID.
7. Copy the OrganizationID value. [Figure 11](#) shows an example:



The screenshot displays the 'MiTeam Configuration Settings' section. It features a checkbox labeled 'MiTeam Configuration' which is checked. Below this is a text input field containing the OrganizationID 'PdMyAMFIBcQc1mOVdBdo7'. A blue arrow points from the text '(Example only)' to this field. To the right of the field is a 'Show' button. Below the MiTeam section is the 'Email Notification Settings' section, which is currently collapsed. At the bottom of the settings area are two buttons: 'Apply' and 'Reset'.

**Figure 11: Organization ID (Example)**

8. Log into the server manager of the server where the OrganizationID needs to be replaced.
9. Click **Show** to display the OrganizationID.
10. Replace it with the one copied from the above step and click **Apply**.
11. Replace the OrganizationID on any other Peered Enterprises.

## Provisioning

To provision MiTeam functionality, assign the user with a UCC Premium license through the

- MiCollab Users and Services application
- Integrated Directory Services
- MiVoice 5000 Provisioning Manager, or
- MiVoice MX-ONE Provisioning Manager

Users must be assigned with a bundle or role that provides a UCC Premium license.

After you add users with UCC Premium licenses or upgrade users to UCC Premium licenses, MiTeam functionality is supported on their clients. Users will need to restart their client to activate MiTeam.

Refer users to the *MiTeam Reference Guide* available on the Mitel Customer Documentation web site.

To remove the MiTeam functionality from a user, remove the user's UCC Premium license (that is, assign the user with a lower license bundle, such as Standard or Entry).

# WebRTC Client Configuration

## About the Web Real Time Communications Client (WebRTC)

The MiCollab WebRTC Client provides users with a web-based phone that they can access from a web browser. The softphone supports audio calls using the PC microphone and speakers.

The following basic features are supported:

- Make an outgoing call
- Answer an incoming call
- End a call
- Mute and un-mute a call
- Enter Dual Tone - Multi Frequency (DTMF) signals
- Perform an unsupervised (blind) transfer
- Receive ring back on outgoing calls
- SIP softphone keep-alive handling is supported
- Activate and deactivate the softphone.

## Conditions and Limitations

The following conditions and limitations apply:

- Video is not supported
- MiTeam and AWW web sharing are not supported for MiCollab Release 7.2. They will be supported in MiCollab Release 7.2.1.
- The softphone is only supported on Mozilla Firefox 46 and higher or Google Chrome 50 and higher.
- You must provision this functionality from the Users and Services application and the MiCollab Client (UCA) administration interface. You cannot deploy this feature from the MiCollab Client Deployment service (DeployU).
- Only one WebRTC session is supported per user (multiple registrations are not supported)
- Features that are initiated during a call (for example Supervised Transfer or Hold) are not supported
- Welcome email is not sent to users.
- The WebRTC is included in all licensing bundles that provide the PC client with softphone.
- Users must close their browser window to log off. If a user closes the browser while a call is in progress, the call is ended.
- There is no advanced logging such as "Send Problem Report" in the WebRTC Web Client.
- Supported with Plantronics and Jabra headsets.

**Note:** When MiCollab WebRTC Client is integrated with MiVoice Business, you cannot reuse a SIP softphone that is used by another device, for example, MiCollab Mobile client.

## Web Sharing Limitations on WebRTC Client

When you use web sharing from the WebRTC client the following additional limitations apply:

- When you share PowerPoint 2016, the content is not updated unless you share it from your desktop and make the PowerPoint 2016 application active (by clicking in it).
- On Windows platforms, sharing is not supported for applications that appear blacked out in the Sharing selection dialog box.
- Sharing is not supported for the Windows Sticky Notes application.

## Requirements

- MiCollab Release 7.2 or later is required.
- A MiVoice Border Gateway account is required. For integration with a MiVoice Business, a separate softphone on the MiVoice Business Gateway is also required. Registration Claim is not supported.

You must configure MBG SIP phone credentials in the MiCollab Client administration portal for the SIP phone.

## Configuration

To configure a user with a MiCollab Client WebRTC Client:

1. Configure a MiVoice Border Gateway or a standalone gateway to support WebRTC in **Subscriber** mode. Refer to the *MiVoice Border Gateway online help* for instructions.
2. If the WebRTC Client is supported on a standalone gateway, configure the hostname or IP address of the standalone gateway in the MiCollab Client administration portal:
  - a. Log into the MiCollab server manager.
  - b. Under **Applications**, click **MiCollab Client Service**.
  - c. Click **Configure MiCollab Client Service**.
  - d. Click **Accounts**.
  - e. Click the user's name.
  - f. Click **Account Settings**.
  - g. Under **WebRTC Gateway**, enter the hostname or IP address of the standalone gateway.
  - h. Click **Save**.
3. Configure a user with a UCC Standard or Premium license. These licenses support softphones.

### For MiVoice Business integrations

- a. In the MiCollab User and Services application, add the user.
- b. Add a phone to the user with a device type that supports a softphone (UC Endpoint).

- c. If Flow Through Provisioning is enabled, the phone service is also configured on the MiVoice Business. If not, configure a softphone on the MiVoice Business platform for the user.

### For MiVoice 5000 or MiVoice MX-ONE integrations

- a. Add the user from the communications platform manager with a role that supports a UCC Standard or Premium bundle.
- b. Add a phone to the user with a SIP device type.

### For MiVoice 400 integrations


- a. Add the user to the platform manager with a SIP phone.
  - b. Add a phone to the user with a SIP device type.
4. In the MiCollab Users and Services application, assign the extension to the softphone in the MiCollab Client tab.
5. On the MiVoice Border Gateway, create a SIP user for the softphone:
- a. Under **Service configuration**, click **SIP users**.
  - b. Click **+** to add a SIP user.
  - c. Check the **Enabled** box.
  - d. Enter **Set-side username** and **ICP-side username**.
  - e. Select the configured ICP.
  - f. Enter and confirm **Set-side** and **ICP-side passwords**.
  - g. Set **Availability** to either Everywhere or WebRTC.
  - h. Click **Save**.
6. Provision the user's MBG SIP credentials for the SIP phone in MiCollab Client:
- a. Log into the MiCollab server manager:
  - b. Under **Applications**, click **MiCollab Client Service**.
  - c. Click Configure **MiCollab Client Service**.
  - d. Click **Accounts**.
  - e. Edit the users account.
  - f. Click **Phone Numbers**.
  - g. Edit the phone number.
  - h. Enter the user's MBG SIP Username and MBG SIP Password.
  - i. Click **Save**.

## Notify User

Send an email to the user that provides the URL to the MiCollab Client WebRTC server:

`https://<FQDN of the MiCollab Client Server>/ucs/micollab`

To launch the WebRTC Client,

1. Open a Mozilla Firefox 46 + or Google Chrome 50 + browser.
2. Enter the URL to the WebRTC client in the browser address bar (see above).
3. Enter your MiCollab Client username and password.
4. Click  in the lower right.

If there are multiple DN's with the client, select the phone from the drop-down list to use with WebRTC.

5. Turn on the softphone. When you place a call, it is made using the user's PC microphone and speakers (or headset/microphone).

Refer to the *MiCollab Client Quick Reference Guide* for information on the WebRTC Client.

If an UC Endpoint is used exclusively for WebRTC, the end user does not need a deployment email.

In MiCollab Integrated Mode, to avoid sending email to end user, uncheck the **Send deployment email** check box in the template or in the phone tab.

In Co-located Mode and Stand-alone Mode MiCollab Client Service, override the email or change the wording to "Ignore this email for WebRTC".

## Troubleshooting WebRTC

### General

To troubleshoot WebRTC register, calling, or audio issues:

1. Test the MBG built-in generic WebRTC client to determine if the same issue occurs on the MBG WebRTC client.

**Note:** The built-in generic WebRTC client is only available on MBG with WebRTC Hosting Mode "Host WebRTC Client locally".

- Access the MGB generic WebRTC client at <https://<MBGServer hostname>/webrtc>
  - Log into the client using your Setside SIP credentials.
2. Send the following information to Mitel Product Support:
    - Console traces from the browser
    - WebRTC logs (from MBG webrtc/current)

MBG traces (**Administration > Packet Traces**)

### Audio Delays or Extended Ringing

#### *Problem*

There is a delay in the audio after you answer calls from the WebRTC client,

and/or

Programmable Ring Group (PRG) phones do not stop ringing immediately after you answer a call from the WebRTC client.

### *Possible Cause*

In some circumstances, there can be an approximately 10 second delay in receiving audio after you answer an inbound call on the WebRTC client. Other devices that ring in the same PRG may not stop ringing for the same duration of time. These issues may be caused by network adapters with IP addresses that do not have access to the WAN. Some examples include:

- Network Interface Card (NIC) is plugged in to Network A but was manually configured with an IP address on Network B
- NIC is installed with an auto-configured (169.x.x.x) address or is in the active state with an auto-configured address.
- NIC is connected to a test network that cannot reach the MiVoice Business Gateway.
- NIC is a virtual network adapter used for phones or other devices

### *Corrective Actions*

Check to see if this issue occurs in both Chrome and Firefox browsers. If the issue only occurs with Chrome, you can use Firefox as an alternative.

To identify the NIC that is causing the issue, disable all network adapters except the primary LAN connection. After you disable all the network adapters, check that the issue is no longer present. Then, enable each adapter one at a time. When the problem re-occurs, disable the NIC that is causing the issue.



# Chapter 5

## Maintenance

## About software upgrades

The MiCollab Client Service software includes both the server and client software for MiCollab Client. MiCollab Client software upgrades may require additional upgrades to the MSL operating system and/or integrated application software.

Before beginning a software upgrade, review the release notes and the Engineering Guidelines for a comprehensive list of upgrade requirements.

**Note:**

“Client Only Delivery” functionality is applicable to the following clients: MiCollab Desktop Client, Android, BlackBerry and Web clients. See [“Client only delivery” on page 164](#).

## MiCollab Client software upgrades

The upgrade to MiCollab Client 7.0 requires an upgrade to the following components:

- **MiCollab Client Server v7.0:** Includes v7.0 server and client software. The client software must be deployed to each user to complete the upgrade.
- **MSL v10.x:** Includes the Mitel Standard Linux operating system and Server Manager interface.

**Notes:**

- You must be running MiCollab Client Service version 4.0 or higher before attempting to upgrade to MiCollab Client Service version 7.0. If you are running MiCollab Client Service version 3.2 or earlier, first upgrade to MiCollab Client Service version 4.0.
- MiCollab Client Service version 7.0 requires MSL version 10.0 or later. It will not run on MSL 9.4 or earlier. The upgrade from MSL 9.4 or earlier to MSL 10.0 or later on physical servers requires a backup, reinstall, and restore of the operating system and application data

See the following sections for software upgrades:

- [“Upgrade UC server version 4.0, 4.1, 5.0 or 5.1 to MiCollab Client Service version 7.0” on page 160](#)
- [“Upgrade UC Server version 6.0 to MiCollab Client Service version 7.0” on page 161](#)
- [“Upgrade Virtual MiCollab Client Service \(vMiCollab Client\)” on page 162](#)
- [“Upgrade the MiCollab Desktop Client” on page 163](#)
- [“Upgrade MiVoice for Skype for Business Client” on page 163](#)

**Note:**

Upgrades specific to the MiCollab for Mobile for Android, Windows and iPhone clients:

You will be automatically notified of a new version of software available for your clients. Simply follow the on-screen instructions to perform the upgrade.

Upgrade UC server version 4.0, 4.1, 5.0 or 5.1 to MiCollab Client Service version 7.0

Follow one of the 2 scenarios:

*Scenario 1: Upgrade UC Server version 4.0, 4.1, 5.0 or 5.1 (physical server) to version 7.0 (physical server) using software downloaded from the AMC*

1. Perform an MSL backup of the MiCollab Client Service.
2. Download the MSL 10.x CD image from Mitel OnLine and burn it to a recordable CD.
3. Install MSL 10.x (see ["Install the MSL operating system" on page 105](#)).
4. When prompted if a restore operation should be performed, select "Yes".
5. Restore from either removable media, or from a network location (see MSL Installation & Administration Guide).
6. Use the "Blades" panel to install the MiCollab Client Service version 7.0 software.

*Scenario 2: Upgrade UC Server version 4.0, 4.1, 5.0 or 5.1 (physical server) to MiCollab Client Service version 7.0 (physical server) using downloaded CD images*

1. Perform an MSL backup of the MiCollab Client Service.
2. Download the MSL 10.x CD image from Mitel OnLine and burn it to a recordable CD.
3. Download the MiCollab Client Service version 7.0 software from Mitel OnLine and burn it to a recordable CD.
4. Install MSL 10.x (see ["Install the MSL operating system" on page 105](#)).
5. When prompted if a restore operation should be performed, select "Yes".
6. Restore from either removable media, or from a network location (see *MSL Installation & Administration Guide*).
7. Insert the recordable CD produced in step 3 above into the CD-ROM tray.
8. Use the "Blades" panel to install the MiCollab Client Service version 7.0 software.

## Upgrade UC Server version 6.0 to MiCollab Client Service version 7.0

Follow one of the 2 scenarios:

*Scenario 1: Upgrade UC Server version 6.0 (physical server) to version 7.0 (physical server) using software downloaded from the AMC*

1. Perform an MSL backup of the MiCollab Client Service.
2. Use the "Blades" panel to install the MiCollab Client Service version 7.0 software.

*Scenario 2: Upgrade UC Server version 6.0 (physical server) to version 7.0 (physical server) using downloaded CD images*

1. Perform an MSL backup of the MiCollab Client Service.
2. Download the MiCollab Client Service version 7.0 software from Mitel OnLine and burn it to a recordable CD.
3. Insert the recordable CD produced in step 2 above into the CD-ROM tray.
4. Use the "Blades" panel to install the MiCollab Client Service version 7.0 software.

### Upgrade Virtual MiCollab Client Service (vMiCollab Client)

See the Virtual Appliance Deployment Solutions Guide for detailed information about upgrade paths.

**Note:**

After the upgrade is complete and verified, you must remove any snapshots. Removing the snapshots ensures performance for voice-intensive Mitel virtual applications.

1. Backup your existing MiCollab Client virtual appliance. Select **Backup**. Select a location to place the backup file. Click **Perform**.
2. Copy your vMiCollab Client database backup file to a USB device or a shared directory on the network file server. Note that back up to a USB device is available only with vSphere 4.1 and later.
3. Shut down the existing MiCollab Client Service, using the MSL **Shutdown or reconfigure** option.
4. Download the new virtual appliance file (.ova) from Mitel OnLine and save it on your local machine.
5. Start the vSphere Client, and then select File – **Deploy OVF Template....**
6. Select **Deploy from file** and then browse to the location on your machine where you saved the new .ova file.
7. Click **Next**. The OVF Template Details page appears.
8. Click **Next**. The End User License Agreement page appears.
9. Click **Accept**, and then click **Next**. The Name and Location page appears.
10. Type a name for virtual server, and then click **Next**. Deployment settings for the virtual appliance are shown.
11. Confirm the settings, and then click **Finish** to deploy the file. A dialog box shows the progress of the files being deployed.
12. When the deployment completes successfully click **Close** to continue.
13. In the vSphere client window, expand the VMware host view to show the newly created virtual machine.
14. Click the Console tab. Click the green arrow to power on the virtual machine.
15. After the virtual machine has booted, the Console Tab shows the MSL installation window.
16. Choose your preferred keyboard from the list (the default is us) and click **Next**.
17. MSL prompts you by asking if you want to restore from backup. Enter **Yes**.
18. Select **Restore from USB** and insert your USB key when prompted OR **Select Restore from Network Server** (depending on where you placed your backup at the beginning of this procedure). Follow the prompts to specify the location of the backup file and start the restore process.

## Upgrade the MiCollab Desktop Client

When you upgrade the MiCollab Client Service software blade, a MiCollab Desktop Client installer is included in the software blade and the MiCollab Client Service property file is updated with the latest software version information.

**Note:**

The MiCollab Desktop Client requires the installation of the Microsoft.NET Framework v4.0 or v4.5 (see [“Microsoft.NET framework” on page 119](#)) prior to installing the MiCollab Desktop Client.

### Upgrades from v6.x

After you upgrade the MiCollab Client Service to v7.x, the 6.x MiCollab Desktop Client polls the MiCollab Client Service property file and determines that a client installer is available.

The MiCollab Desktop Client notifies the user that the 7.x software is available as follows:

- If the user is logged off the MiCollab Desktop Client when the upgrade becomes available, the Upgrade Product notification dialog box appears when he or she attempts to log in.

The user can click **Upgrade** to start the upgrade process. If the user clicks **Cancel**, the MiCollab Client version popup window appears after the user logs in.

- If the user is logged in to the MiCollab Desktop Client when the upgrade becomes available, the MiCollab Client version popup window appears

The user can click **Upgrade** to start the upgrade process. If the user clicks **Remind me later**, this popup window reappears each following day until the user upgrades to the latest version.

Users should-close all Windows applications before initiating the upgrade.

After the client upgrade process is initiated, the software is downloaded to the user's computer. When the download is complete, the installation wizard appears prompting the user to install. The user can then run the installation wizard (see [“Installation procedure” on page 119](#)) to install the upgraded client. When completing upgrades, the Installation wizard auto-populates the **MiCollab Client Service FQDN** and **Default Language** fields based on the previous software version's settings.

Following an upgrade, the MiCollab Desktop Client restarts automatically and the following client components are migrated to the upgrade version:

- User-specific configuration settings
- Detailed call history
- Personal contacts

## Upgrade MiVoice for Skype for Business Client

The administrator informs the user(s) of a new MiVoice for Skype for Business software version being available with a link (URL) to download the new .msi file.

Before executing manually, the user has to explicitly close Skype for Business and then upgrade the MiVoice for Skype for Business. To perform the upgrade, the user must have installation

permissions on the computer or provide the administrator credentials when prompted. It is not required to uninstall the previous software version prior to performing an upgrade.

Once the upgrade is complete, the MiVoice for Skype for Business and Skype for Business client will be restarted. The existing settings will be preserved throughout an upgrade.

## Client only delivery

**Client Only Delivery** functionality delivers Windows MiCollab Desktop Client without having to upgrade the MiCollab Client Service version.

The Client Versions section in MiCollab Client Service Administration section allows for the administration of these upgrades.

Using the Administration web interface you will be able to install, upgrade, or downgrade selected components of the MiCollab Client Service blade by specifying a local client package and clicking the "Upload MiCollab Client" link.

An "Operation status report" displays either a successful client software package installation or an error message indicating a validation step has failed. Several validation steps are performed to prevent user from:

- uploading files that are not valid client packages
- replacing a system or MiCollab Client Service level component
- uploading a corrupted client file

### Note:

There is no ability or mechanism to remove any individual MiCollab Client software clients.

## User upgrades (stand-alone to integrated)

MiCollab Client provides two options for users: Integrated and Stand-alone:

- **Integrated MiCollab Client users:** Users who are licensed for the Desk Phone or Softphone features and **not** the Stand-alone Web Client feature have access to the integrated suite of MiCollab Client interfaces including the MiCollab Desktop Client, Web Client, and Mobile Portal.
- **Stand-alone MiCollab Client users:** Users who are licensed for the Stand-alone Web Client and **not** the Desk Phone or Softphone features can access MiCollab Client features from the corresponding portal only. They do not have access to the MiCollab Desktop Client application.

*MiCollab Client provides an upgrade process to upgrade stand-alone users to integrated.*

### To upgrade Stand-alone Web Client users to Integrated:

1. Purchase the desired number of Desk Phone and/or Softphone licenses from the AMC. A Desk Phone or Softphone license is required for integrated users (see [Table 2 on page 24](#)).
2. From the MSL Server Manager interface, synchronize the MiCollab Client Service with the AMC to verify that the server has the appropriate licenses for each user (see ["Verify MiCollab Client Service licensing" on page 108](#)).
3. From the MiCollab Client Service Administrator interface, complete the following tasks:

- Do one of the following to apply the Desk Phone or Softphone license to the users you want to upgrade (Accounts Tab – <user> – Account Details page – **Licensed Features**):
  - For each user, select a feature profile that includes the Desk Phone or Softphone licensed features.

**Note:**

*If required*, configure a feature profile that includes the Desk Phone and/or Softphone licensed features (Features Tab – **Add Profile**).

- For each user, select the **Desk Phone** or **Softphone** Add-On feature.
- *If other account -specific changes are required*, reconfigure those fields and options on the Account Details page for each user.
- Resend the Welcome e-mail message to each upgraded user.

**Note:**

See the Online Help for information about the following topics:

- Stand-alone vs. integrated user settings
- Feature profiles
- Welcome E-mail message

**4.** Do one of the following:

- Instruct the user to install the MiCollab Desktop Client using the client software URL provided in the Welcome E-mail message.
- Install the MiCollab Desktop Client on the user's PC (see [“Install the MiCollab Desktop Client” on page 117](#)).

## MSL Server Administration


The MSL Server Manager provides menus for performing MSL-related administrative tasks. These tasks are not related to MiCollab Client administrator tasks (see “[MiCollab Client Service Administration](#)” on page 166). However, they may be helpful for MiCollab Client Service diagnostic purposes such as gathering log files (see “[Server log files](#)” on page 187).

For information about MSL administrator tasks, see the MSL Server Manager online help or the *MSL Installation and Administration Guide* available on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>) for details and instructions.

## MiCollab Client Service Administration

The main MiCollab Client Service Administration page provides access to several options.

### Configuration

The Configuration section of the page provides access to the MiCollab Client Service Configuration tabs where you can provision the system (see “[Provision MiCollab Client](#)” on page 115). Click **Configure Mitel MiCollab Client Service**. The configuration pages open to the Enterprise tab. See the online Help  for tab-specific information and instructions.

### Status

The Status section of the Mitel MiCollab Client Service Administration page provides the name and current status for the MiCollab Client Service. Statuses include:

- **Active:** The server is online and operational.
- **Becoming Active:** The server is in the process of coming online.
- **Idle:** The server is offline and not operational.

*To start, stop, or refresh the server:*

1. Select an action from the list box. Options include:
  - Start Mitel MiCollab Client Service
  - Stop Mitel MiCollab Client Service
  - Refresh Status
2. Click **Perform Requested Action**.

**Note:**

If the MiCollab Client Service is stopped using the “Stop Mitel MiCollab Client Service” selection, then the MiCollab Client Service will remain stopped until it is explicitly started using the “Start Mitel MiCollab Client Service” selection, even across system reboot operations.



## Diagnostics

The Diagnostics section of the page provides access to diagnostics tools. Click **Perform Server Diagnostics** to access diagnostics tools.

**Note:**

Do not use the Mitel MiCollab Client Service Diagnostic tools unless you are instructed to do so by Mitel technical support personnel.

The tabs on the Mitel MiCollab Client Service Diagnostics page include:

- **Modules:** Displays the following information for all of the modules running on the system:
  - *Name:* Displays the name of the module running.
  - *Uptime:* Displays how long the module has been running for.
  - *Restarts:* Displays how many times the module has been stopped and restarted. This helps you determine if a module stopped unexpectedly. If a module was not restarted manually and the module indicates it has been restarted, this indicates an error condition.
  - *Status:* Displays the state of a module. IN\_SERVICE indicates a module is operating correctly. Many modules have custom strings like READY\_FOR\_CALL, etc. A module shows SHUTDOWN if it is turned off by clicking **Stop**. Unwatched modules show UNKNOWN (not watched), because they are not monitored by a watchdog component. A monitored module should not display UNKNOWN.
  - *Status Operations:* Modules that are monitored by a watchdog component can be started, stopped, or restarted from here. You may need to refresh the view by clicking the Modules tab.
  - *Debug Level:* Indicates the debug level at which the module is currently running. The debug level for a module can be anywhere between 1 and 5. The higher the debug level, the more information that is generated by the module and printed in the associated logs.
  - *Set Debug Level:* Configure the debug level for a module here by selecting the level from the list and then clicking **Set**. After the page is refreshed, the Debug Level reflects the level you configured.
- **Clients:** Provides information about currently connected clients in the system. The first line of the page indicates the number of connected clients on the system. You can search for a specific Login ID, or for a specific client type by modifying the appropriate form fields provided and then clicking the Search button. If no values are supplied on the search form, pressing the Search button will display a listing of all connected clients. The following information is displayed for each client:
  - Bridge ID
  - Login ID
  - Client Info (the type of client that the user is using)
  - Connection (the IP address of the connecting client)
  - Connected Since (the time that the client connected).
- **Registrations:** Provides information about currently registered phones in the system. The first line of the page indicates the number of registered phones on the system. By default, no phone is selected. You can search for a specific phone by selecting a **Tenant** from the list, typing the

**Login ID** for the user, and then clicking **Search**. You can also search for all registered phones by typing the % character in the **Login ID** field. The following information is displayed for each user:

- Tenant ID
- *Alias ID* (an alternate name for the user on the server)
- *Address ID* (usually the user's public number)
- *Expiration Date* (the time when the user's registration expires)
- *Device ID* (the type of device/and MiCollab Desktop Client version that the user is using)
- *User Agent* (additional information about the user's MiCollab Desktop Client)
- *Resource ID* (the registered SIP address where the server sends SIP requests)
- **TDC**: Indicates information about the following modules on the system:
  - *ACCTPRES*, *IM EVENTS*, *PRES*, *SIP PROXY*, *SIP REG*: These modules show SIP statistics and include the following information:
    - The tabs show **Incoming** and **Outgoing** SIP requests and responses.
    - The request columns are further divided into **Register**, **Subscribe** and **Notify** which are types of SIP messages.
    - The Responses are broken down into 1xx, 2xx, 3xx, 4xx, 5xx, 6xx and unknown columns. 2xx responses are success messages, while unknown, 1xx, 3xx, 4xx, 5xx, and 6xx responses are error responses.
    - The Errors column reports any anomalies for the module.
  - *CALL SERVICES*: This area indicates the feature usage for the server. Hourly values for each day for Place call, Answer, Hangup, Hold, Retrieve, Deflect, Transfer and Conference are reported.
  - *VISUAL VOICEMAIL*: This page shows the session success and error codes for the Visual Voice Mail feature provided by the Web services. Hourly statistics for VM Session Success, VM Session Fail, Make Call, Forward Message, Delete Message, Set VM Pin and Send Fax are shown.

You can view logs for each day by selecting a day from the list.

- **Subscriptions**: Indicates the subscription events in use by the system. The information is shown in the tabular format with the first column indicating the Event ID and the next column showing the number of each subscription events in use. You can view detailed information for each subscription by selecting a **Tenant** from the list, typing the **Login ID** for the user, and then clicking **Search**. You can also search all subscriptions by typing the % character in the **Login ID** field. The following information is displayed for each user:
  - Subscription ID
  - *EVENT\_ID* (which event the user is subscribing to)
  - *WATCHER\_ID* (the user subscribing to the event)
  - *WATCHED\_USER*
  - *EXPIRES* (the time when the user's subscription expires)
  - *ROUTE\_SET* (the route that future SIP NOTIFYs from the server should take to reach the client)

- **Calstatus:** Provides a set of diagnostic functions that can be used for troubleshooting. Although some of the diagnostic information is valid for all types of Calendar Integration, the Calstatus diagnostics are geared towards Microsoft Exchange, Office 365 and Google Calendar Integration.

**Note:**

Some operations with Calstatus diagnostics can cause issues with Calendar and Google, Office 365, or Exchange Integration. Use caution when reviewing Calstatus values and work in conjunction with your Google, Office 365, or Exchange server administrator and Mitel Technical Support if necessary when handling problems.

The following is a description of the information that can be accessed through these diagnostics:

- **Enterprises and Advanced Configuration:** This page under the Calstatus diagnostics tab lists all the enterprises available on the MiCollab Client Service.
  - **Enterprise Details:** If any of the enterprises have either a Google, Office 365, or Exchange Server configured and enabled for Calendar Integration, those are listed under the Calendar Integration column. If Google, Office 365 and Exchange Integration is disabled for an enterprise, then the Details link is not displayed. Clicking on the Details link displays the Calendar Integration details for that enterprise.
  - **Advanced Configuration:** Below the list of enterprises, the page shows Advanced Configuration for the Calendar Integration. For more information about these fields, changing them, and the effects of such changes, see the MiCollab Client Administrator Online Help system.
  - List of recent OAuth 2.0 Data Updates is also displayed on this page.
- **Enterprise Details:** This page shows the detailed Google, Office 365, or Exchange Integration configuration information for a specific enterprise.
  - **Enterprise Name:** MiCollab Client enterprise name
  - **Calendar Integration Type:** Google, Office 365 or MS Exchange
  - **Enterprise's calendar integration active?:** Indicates whether or not the Google, Office 365, or Exchange Integration is active and enabled for this enterprise. If there are any permanent errors associated with this calendar integration, this flag shows "No". If error details are available, those details are shown at the bottom of the page.
  - **Is Temporarily Disabled?:** Indicates whether communication with Google, Office 365, or Exchange server has been temporarily disabled. If details are available, they are shown below this flag, along with a time stamp of when the communication will be retried. For this retry to happen, no action needs to be taken by the Administrator. MiCollab Client will continue to retry until the error is resolved.
  - **Exchange Access URL:** The Exchange Web Services (EWS) URL on the Exchange server. MiCollab Client retrieves user calendar information from this URL.
  - **Exchange Impersonation Enabled?:** Indicates whether or not MiCollab Client Exchange integration is configured to use impersonation.
  - **Exchange Server Access Username:** Displays the Exchange username that is used to retrieve calendar information.
  - **Exchange Access Credentials Valid?:** Indicates whether or not the Exchange access username and password are valid.
  - **Exchange Version:** Displays the Exchange server version.
  - **Subscription URL:** Displays the Subscription URL (applicable to Exchange Integration)

only).

- **Users List:** The lists displayed are categorized according to users' status and are based on error conditions, if any exist:
- **Number of Valid Users:** Lists users who have Google or Exchange Integration configured. If a user has another type of Calendar Integration configured (such as Outlook or Lotus Notes), then that user does not show up in this list.
- **Active Users:** Lists a subset of valid users and contains only those users whose Google, Office 365, or Exchange Integration is active. Users who have configured either Google, Office 365, or Exchange Integration but have disabled it or those who have been deactivated because of errors do not show up in this list.
- **Deactivated: various errors:** see list below.
- **Deactivated: temporarily disabled.**
- **Deactivated due to impersonation error:** If impersonation is not configured correctly on the Exchange server, Exchange Integration can be deactivated for the affected users. Once impersonation is configured correctly, you can click on "Reactivate Users" to reactivate Exchange Integration for the affected users.

The other lists pertain to various error conditions.

- **User Lists:** Select a user from the list or enter the user's MiCollab Client login ID and click Show User Details. This takes you to either the user's Google, Office 365, or Exchange Integration details page.
- **User Details:** This page displays details about the user's Google, Office 365, or Exchange Integration configuration and status. Most of the settings shown here are configured by the user from a MiCollab Client.
  - **Calendar Type:** Indicates the type of Calendar Integration chosen by the user. This can be Google, Office 365, MS Exchange, Outlook, or Lotus Notes based on the configuration. Most of the information on the User Details page is grayed out unless the Integration is with Google, Office 365, or Exchange, because the remaining types (such as Outlook/Notes) are managed by MiCollab Clients, and not by MiCollab Client Service.
  - **MiCollab Client User ID:** Displays the user's MiCollab Client Enterprise ID and user ID.
  - **User's Calserver Credentials Valid:** Indicates whether or not the user's credentials are valid.
  - **User's Calendar integration Valid:** Indicates whether or not the user has configured Calendar Integration.
  - **CalServer Primary e-mail Address:** Displays the user's Exchange primary e-mail address.
  - **CalServer Username** (specific to Exchange Integration): Shows the user's Exchange username. The "Dissociate Credentials" option clears out the user's Exchange credentials that are cached on the MiCollab Client Service and immediately disables the user's Exchange Integration. **Use with caution.**
  - **Google Calendar ID:** Shows the user's Google Calendar ID. The "Dissociate Credentials" option clears out the user's Google credentials that are cached on the MiCollab Client Service and immediately disables the user's Google Integration. **Use with caution.**
  - **User's Calendar integration Active:** Indicates whether or not the user's Calendar

Integration is active. A user's Calendar Integration could be inactive if the user has disabled Calendar Integration or as a result of other errors, usually with user configuration. Therefore these errors are specific to that user and do not affect Calendar Integration for the entire enterprise. If errors details are available, they are displayed in this field, as shown in the examples below. In the first example, a user has disabled Calendar Integration from the client. In the second example, the Exchange server has returned an error that the Exchange e-mail address entered by the user has no mailbox associated with it (this is most likely a result of entering the e-mail address incorrectly). Even if user's calendar integration settings are all correct, there could be other problems (such as network connectivity issues, or incorrect calendar integration settings at the Enterprise level. In such cases, calendar integration will be disabled for that entire enterprise. Such problems are not specific to a user. However, to indicate the presence of a problem, those problems are also shown in the user details page.

- In the example shown below, the communication with Exchange server has been temporarily disabled. The error details indicate that the MiCollab Client Administrator can act on it. Since this is not a user-specific error, the user cannot do much apart from notifying the Administrator of the error. Not correcting the error but trying to reactivate this user alone will not help, because the user will encounter the same error once again and will get disabled.

User's calendar integration Active?	No
<b>Reason Inactive</b>	<p><b>Server is temporarily disabled: java.net.UnknownHostException wrong.hostname.mitel.com - The server's hostname is not resolvable. Please check the URL or the Name Server settings.: Calstatus: node99(c0ffca7e-1dd1-11b2-aa14-e63830356130) - Communication with this calendar server will be disabled temporarily. This error may be actionable by UCA Administrator. If no action is taken, an error recovery attempt will be made at 2012-08-01 11:04:26</b></p> <p><input type="button" value="Reactivate User"/></p>

User's calendar integration Active?	No
<b>Reason Inactive</b>	<p><b>USER_DISABLED: User's calendar integration has been disabled</b></p> <p><input type="button" value="Reactivate User"/></p>

User's calendar integration Active?	No
Reason Inactive	<p><b>UNCATEGORIZED_ERROR: Server returned 500 Internal Server Error: The following error message was received from Exchange server. For details on error codes, see <a href="http://msdn.microsoft.com/en-us/library/bb402172%28v=exchg.140%29.aspx">http://msdn.microsoft.com/en-us/library/bb402172%28v=exchg.140%29.aspx</a> ErrorCode=ErrorNonExistentMailbox ErrorMessage=The SMTP address has no mailbox associated with it.</b></p> <p>Reactivate User</p>

- After correcting the error conditions, you can click on “Reactivate User” to have MiCollab Client reinitiate the user’s Calendar Integration. If the error condition persists or another error is displayed, the user is deactivated again.

### Note:

In most cases, user reactivation should be done by the user correcting the incorrect configuration parameters, NOT by administrative action. The “Reactivate User” button is provided as an additional mechanism for you to troubleshoot problems.

- **Calendar Integration Enabled?:** Indicates whether the user has enabled/disabled Calendar Integration from the client.
- **Advisory Message Enabled?:** Indicates whether the user has enabled/disabled Calendar Advisory. If advisory is disabled, Calendar Integration continues to work, but MiCollab Clients do not display advisory messages such as “In a meeting until 11:30 AM”.
- **Status Transition Settings:** Lists the MiCollab Client status transitions configured by the user. These MiCollab Client status transitions are triggered based on the user’s calendar status.
- **Calendar Event Subscription:** The MiCollab Client Service subscribes to event notifications with the Exchange or Office 365 server. If a user’s calendar is updated, then the Exchange or Office 365 server notifies the MiCollab Client Service of this update through the subscription mechanism. The times at which the last few subscriptions occurred, the times at which the Exchange or Office 365 server sent the notifications, and so on can be helpful in troubleshooting problems. The MiCollab Client Service initiates subscriptions based on the configured interval (see Advanced Settings in the MiCollab Client Administrator Online Help). Clicking on “Force Resubscription” causes the MiCollab Client Service to immediately try to initiate a subscription for this user.
- **Calendar Event Polling:** The MiCollab Client Service periodically polls the Google, Exchange or Office 365 server to fetch users’ calendar information. The times at which the polling occurred and the next scheduled poll time can be useful in troubleshooting problems. The “Force Event Poll Now” button causes the MiCollab Client Service to immediately initiate an event poll for this user.
- **Last few MiCollab Client status changes triggered by calendar availability:** This is a list of the last few MiCollab Client dynamic status changes caused by either Google, Exchange or Office 365 Integration. If the MiCollab Client dynamic status changes for any reason other than Google, Exchange or Office 365 Integration, that change is not shown here. For each status change, the time of change, the previous status, the next status, calendar advisory (if any), and status names and IDs are displayed.
- **Integrated Directory Services (IDS) Auth Cache:** When MiCollab Client is operating in MiCollab integrated mode, the administrator can setup Integrated Directory Services (MiCollab IDS)

to authenticate MiCollab Client users. In that configuration, IDS will authenticate MiCollab Client users' login passwords with a configured LDAP server (in most deployments, an Active Directory server). The password can change on the ActiveDir server (for example, due to a password expiry policy). When this happens, MiCollab Client users should not be allowed to login with their old passwords, for the sake of security. To accomplish this, MiCollab Client Service periodically validates passwords with IDS (which in turn validates it with the ActiveDir).

In most cases there is no special configuration needed to use this feature. However, there are some parameters which can be tweaked if necessary. They are described in the following sections.

When MiCollab Client detects that the password has changed on ActiveDir and the password previously entered by the MiCollab Client user is no longer valid, the user will be logged out of the MiCollab Clients (if they are logged in at that time). The user will have to re-login with the new password.

- **How to enable MiCollab Client IDS Password monitoring:** The administrator does not need to do anything explicit to enable this. When MiCollab Client is operating in MiCollab-integrated mode, the monitoring will turn itself on.
- **Server Status:**
  - **Server Mode:** This field indicates whether MiCollab Client is operating in MiCollab-Co-located or MiCollab-Integrated mode. The password monitoring is disabled in Co-located mode, and only works in integrated mode.
  - **Number of Subscribers being monitored:** Indicates how many MiCollab Client users' passwords are being monitored. All the users on the MiCollab Client system may not be monitored. Specifically, if a MiCollab Client user has never logged in through a MiCollab Client, that user will not be monitored. Once the user logs in for the first time, monitoring will start for that user.
  - **State of server:** Indicates whether the password monitoring is initializing or is fully up and running.
  - **Last password validation occurred at:** Shows the timestamp of the last validation. This does not necessarily mean that the password was valid, but it is only the time when the validation attempt was made.
- **Configuration Parameter:** In most cases these parameters do not need to be changed and the default values work fine.
  - **Subscriber Load Retry Delay:** During the initialization phase of the password monitoring, if there are any errors in loading the subscribers, server will wait for some time and retry. This parameter controls the duration of that wait.
  - **MiCollab Mode Retry Delay:** MiCollab Client Service checks periodically whether it is in integrated mode or not. This parameter controls how often MiCollab Client checks for the mode. The monitoring only starts when MiCollab Client is in integrated mode.
  - **Poll Loop Delay:** When in integrated mode, MiCollab Client Service periodically checks whether any subscriber is eligible for password monitoring right now. This parameter controls how often that check is made.
  - **Password Validation Interval:** When in integrated mode, MiCollab Client Service periodically validates each user's password. This parameter controls how often each user's password is validated. By default the parameter is set to 6 hours. That means once a user's password is changed in ActiveDir, within 6 hours (3 hours on average because the users are uniformly distributed in that time interval) the MiCollab Client will detect it

and notify the user. The minimum parameter value is 4 hours (this is to prevent overloading the IDS and ActiveDir server with frequent requests) and maximum is 24 hours.

- **Last few Errors:** This section shows some errors that occurred in the past. Invalid user password is not an error condition. Errors are listed if there are any problems contacting the ActiveDir server and other such issues.

When errors like this occur, the MiCollab Client user's password is not immediately invalidated. MiCollab Client Service will periodically keep retrying until it can successfully contact the ActiveDir server determine whether the password is correct or not.

- **User Details:** This section shows the password monitoring details for a particular user. For troubleshooting, you can force the MiCollab Client Service to immediately re-validate a user's password. To do this, enter the loginID and click "Validate User's password now". It can take about 10-30 seconds for ActiveDir to respond. After that time, click on "Show User Details" again to check whether user's password was valid or not. Once the user's password is determined to be incorrect, all the logged in MiCollab Clients for that user will be logged out. User will need to enter the new password and log back in.

## MiCollab Client Service Chat maintenance

This section describes how to disable chat storage on the MiCollab Client Service and how to remove existing chat history from the server.

### Disable chat storage on server

Use the following commands to disable the MiCollab Client Service from storing chat history.

**Note:**

It may be helpful to copy the command to the clipboard and then paste the command into PuTTY.

1. Edit the following file:  
`/etc/e-smith/templates/opt/intertel/conf/sip_ims.ini/50Configuration.`
2. Change the entry of 'EnableFile=Yes' to 'EnableFile=no'.
3. Save and exit.
4. Enter the following line and then press enter:  
`expand-template /opt/intertel/conf/sip_ims.ini`

### Delete existing chat history from server

Use the following procedure to delete existing chat history from MiCollab Client Service.

1. Stop the SIPIMS service from the MiCollab Client Service diagnostic page.
  - Go to the MiCollab Client Service configuration page and click the **Perform Server Diagnostics** under Diagnostics.
  - Locate **SIPIMS** and click **Stop**.
2. Move all files from the /opt/intertel/data/imarchive directory.



- You may want to move the files to /root by performing 'mv hab\_ims\_archive\* /root' from the /opt/intertel/data/imarchive directory. You can do this with PuTTY, but if there are many files, you may want to use an application such as WinSCP.
  - You can also delete the files from the PuTTY command line if you do not want to keep the history.
3. Restart MiCollab Client Service.

## MiCollab Desktop Client maintenance

This section describes how to install custom options, repair an installation, and uninstall the MiCollab Desktop Client.

### Install custom options

During a typical installation of MiCollab Client, the installer detects the PIMs that are installed on the user's computer and installs the associated extensions by default. However, in the case where a custom installation was performed and an extension was not installed, or in the case where a PIM was installed after MiCollab Client was installed, MiCollab Client prompts the user to install the PIM extension on startup. Users can install PIM extensions and other custom options using the Custom Install option available in the installation wizard.

Custom options include:

- **ACT! Integration:** Includes the ACT! PIM extension, which provides contact integration between ACT! and MiCollab Client.
- **Dial from IE:** Allows users to dial an external number from Internet Explorer using MiCollab Client.
- **Lotus Notes Integration:** Includes the Lotus Notes PIM extension, which provides contact integration between Lotus Notes and MiCollab Client and provides dialing from Lotus Notes.
- **Outlook Extensions:** Includes the Outlook PIM extension, which provides contact integration between Outlook and MiCollab Client and provides dialing from Outlook.
- **MiCollab Client Office Smart Tag:** Adds Smart Tags/Actions to Microsoft Office Applications, allowing users to dial external numbers from the applications using MiCollab Client. Users must complete additional configuration in the application to enable Smart Tags/Actions.
- **MiCollab Client SDK:** The Software Development Kit (SDK) includes additional software and tools to integrate third-party applications with MiCollab Client. This component is used strictly by Software Developers and typical MiCollab Client users should not install it.

#### Note:

The MiCollab Client SDK is supported by the [Mitel Solutions Alliance \(MSA\) Developers and Integrators Program](http://www.mitel.com/DocController?documentId=9971) (http://www.mitel.com/DocController?documentId=9971).

For MiCollab Client SDK technical support (requires Technical Support ID), contact the MSA program at MSASupport@mitel.com or one of the following numbers:

- North America: 1-800-267-6244 (8 a.m. to 5 p.m. Monday to Friday, EST)
- EMEA / AP: +44 (0) 1291 436888 (8 a.m. to 6 p.m. Monday to Friday GMT)

*To install custom options for the MiCollab Desktop Client:*

1. Exit the MiCollab Desktop Client.
2. Close the user's PIM application, Internet Explorer, and all Microsoft Office applications.
3. For Vista/Windows 7: Select Start – Control Panel – **Programs and Features**.
4. Highlight Mitel MiCollab Client in the list of programs.
5. Click **Change**. The MiCollab Client Installation Wizard Welcome screen appears.
6. Click **Next**. The Change, Repair, and Remove options are displayed.
7. Click **Change**. The Custom Setup screen appears. A red **X** indicates that a component is currently not installed.
8. Do the following for each component you want to install:
  - Click the down arrow next to the uninstalled component.
  - Select **Will be installed on local hard drive**.
9. Click **Next**. The MiCollab Client Configuration dialog box appears.
10. Verify that the Fully Qualified Domain Name field is accurate. The FQDN is provided in the Welcome E-mail message (see page 118).
11. Select a Default Language, and then click **Next**. The Ready to change dialog box appears.
12. Click **Change** to begin the installation. The components you selected are installed.
13. Click **Finish** to complete the installation process.
14. Do one of the following at the restart prompt:
  - Click **Yes** to automatically restart your computer now.
  - Click **No** if you want to restart your computer later.

## Repair the MiCollab Desktop Client

If the client installation becomes corrupt, a repair is required. Although this event is unlikely, it can occur if the user inadvertently deletes one or more application files.

In addition, if you have contacted Mitel Technical Support regarding a problem, the support associate may request that you run a repair to ensure that the installation is valid before proceeding to diagnose an issue.

*To repair the MiCollab Desktop Client installation:*

1. Exit the MiCollab Desktop Client.
2. Close the user's PIM application, Internet Explorer, and all Microsoft Office applications.
3. For Vista/Windows 7: Select Start – Control Panel – **Programs and Features**.
4. Highlight Mitel MiCollab Client in the list of programs.
5. Click **Change**. The MiCollab Client Installation Wizard Welcome screen appears.

6. Click **Next**. The Change, Repair, and Remove options are displayed.
7. Click **Repair**. The Repair screen appears.
8. Click **Repair**. MiCollab Client repairs the installation.
9. Click **Finish** to complete the installation process.

## Uninstall the MiCollab Desktop Client

Although users can safely upgrade by installing the latest MiCollab Client version, they may prefer to uninstall the previous version before installing the latest version.

To uninstall the MiCollab Desktop Client, remove the application using the Windows **Add or Remove Programs** function.

User-specific files including configuration files, log files, license files, and databases, are not removed. To remove the older data, settings, and logs, rename or delete the following folders:

- Windows Vista/Windows 7/Windows 8
  - C:\Users\username\AppData\Roaming\Mitel\MiCollab Client
  - C:\Users\username\AppData\Local\Mitel\MiCollab Client

**Note:**

The “Application Data” or “AppData” folders may be hidden by default in the system. To view these folders, click on ‘Show hidden files and folders’ from the Folder View Options menu in Windows.

## PBX configuration changes

This information applies to sites that have configured a PBX Node Synchronizer in the MiCollab Client Administrator Interface to create MiCollab Client accounts.

After you complete phone extension configuration changes (add, delete, move, change) on the PBX, perform a manual synchronization (click the **Sync Now** button on the Synchronization tab in the MiCollab Client Service Administrator interface) to *immediately* update the affected MiCollab Client accounts. If you do not perform a manual synchronization, the affected MiCollab Client accounts will be updated at the next scheduled synchronization.

In addition, for those MiCollab Client users whose extensions are affected by the configuration changes you make on the PBX, instruct the users to exit and then restart their MiCollab Desktop Clients to refresh extension information.

# Chapter 6

## Troubleshooting

## Server troubleshooting

This section provides troubleshooting information for the MiCollab Client Service.

### Installation problems

Table 22 [MiCollab Client installation problems](#) provides troubleshooting information for server installation problems.

**Table 22: MiCollab Client installation problems**

Problem or Error	Probable Cause	Corrective Action
The MSL server is showing the <b>Service Temporarily Unavailable</b> or <b>Bad Gateway</b> message when you are trying to install the MiCollab Client Service.	This can occur if the status page is refreshed (reloaded) automatically at the same time that the Web server is restarted.	To clear the message, click the <b>Blades</b> link under ServiceLink.
The MSL server is showing the <b>Service Temporarily Unavailable</b> message when you are trying to provision the MiCollab Client Service.	This may occur if the JBoss application server is starting at the same time that the configuration page is loaded (for example, if you click <b>Configure Mitel MiCollab Client Service</b> immediately after the MiCollab Client Service is configured or started).	Wait a couple of minutes and then try the request again.

### Server synchronization error messages

This section provides error messages for the following situations:

- [MiCollab Client Service synchronization messages](#) below
- [“AD/LDAP synchronization error messages”](#) on page 181
- [“PBX node synchronization error messages”](#) on page 182
- [“Collaboration server synchronization message”](#) on page 183

## MiCollab Client Service synchronization messages

[Table 23 MiCollab Client Service synchronization error messages](#) lists the MiCollab Client Service error messages that may appear in the MiCollab Client Service Administration interface during the synchronization process.

**Table 23: MiCollab Client Service synchronization error messages**

Error Message	Probable Cause	Corrective Action
System Busy.	System is in maintenance mode, or system in start up mode.	Wait until system is in service mode or wait until system is fully started.
License exceeded.	Exceeded customer purchased license feature.	Purchase additional license.
Too many primary aliases exists.	Too many aliases exists.	Remove user/account alias.
Invalid alias ID.	Alias ID is invalid.	Validate user/account alias.
Invalid voice mail system.	The provisioned VM is invalid.	Provision a valid VM system.
Authentication failed.	Invalid user name or password.	Try user's valid user name and password.
Password too short.	User's password is too short.	Change to a longer password.

## AD/LDAP synchronization error messages

[Table 24 AD/LDAP synchronization error messages](#) lists the AD/LDAP synchronization errors that may appear in the MiCollab Client Service Administration interface when you complete this type of synchronization. The actual error message may vary depending on the LDAP server. Use the error messages below as guidelines.

**Table 24: AD/LDAP synchronization error messages**

Error Message	Probable Cause	Corrective Action
Error establishing LDAP Context for url ldap://<ldap server IP>:<ldap port>.	Invalid LDAP URL (Wrong IP/Port, etc.).	From the MiCollab Client Service administrator interface, set the correct LDAP url and try the synchronization again.
[LDAP: error code 32 - 0000208D: NameErr: DSID-031001CD, problem 2001 (NO_OBJECT), data 0, best match of: 'OU=EPMTest,DC=pvuc,DC=inter-tel,DC=com'].	Invalid LDAP search context.	From the MiCollab Client Service administrator interface, either remove the search context or set the correct search context and try again.
Invalid User query - The error message varies based on the actual error in the user query.	LDAP user query is wrong.	From the MiCollab Client Service administrator interface, either remove the user query or correct the user query and try the synchronization again.

**Table 24: AD/LDAP synchronization error messages (continued)**

Error Message	Probable Cause	Corrective Action
Error establishing LDAP Context for url ldap://<ldap server IP>:<ldap port>: [LDAP: error code 49 - 80090308: LdapErr: DSID-0C090334, comment: AcceptSecurityContext error, data 525, vece].	Invalid username/password.	From the MiCollab Client Service administrator interface, set the correct username/password and try the synchronization again.
[LDAP: error code 12 - Unavailable Critical Extension]	The LDAP server does not support paged results and the Server <b>supports paging results</b> option is selected on the Synchronizer Details page in the MiCollab Client Service Administrator interface.	Deselect the <b>Server supports paging results</b> flag on the Synchronizer Details page, save the change, and try the synchronization again.

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**Note:**

See [“AD/LDAP synchronization log file” on page 189](#) for more information about the AD/LDAP Synchronization log file.

## PBX node synchronization error messages

[Table 25 PBX Node synchronization error messages](#) lists the PBX node synchronization errors that may appear in the MiCollab Client Service Administration interface when you complete this type of synchronization.

**Table 25: PBX Node synchronization error messages**

Error Message	Probable Cause	Corrective Action
AuthData Sign failed.	MiCollab Client Service security certificate is invalid.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
Authenticate request failed.	Verify that the MiCollab Client Service is compatible with MiVoice Business.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
Authentication error.	Verify that the MiCollab Client Service is compatible with MiVoice Business.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
Invalid number of fields. NTuples failed.	MiVoice Business and the MiCollab Client Service versions are incompatible.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
Search first failed with invalid number of fields.	Verify that the MiCollab Client Service is compatible with MiVoice Business.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
Search next failed with invalid number of fields.	MiVoice Business became non-operational during sync.	Retry sync after 5 minutes.

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**Table 25: PBX Node synchronization error messages (continued)**

Error Message	Probable Cause	Corrective Action
Search NextTuples failed.	MiVoice Business became non-operational during sync.	Retry sync after 5 minutes.
Search NTuples failed.	MiVoice Business became non-operational during sync.	Retry sync after 5 minutes.
Server returned Error. NextNTuples failed.	MiVoice Business became non-operational during sync.	Retry sync after 5 minutes.
Server returned Error. NTuples failed.	MiVoice Business became non-operational during sync.	Retry sync after 5 minutes.
Server returned failure.	View the EPM logs to determine error code.	Corrective action based on the error code.
Soap client context setup error.	Internal MiCollab Client Service error.	Restart the MiCollab Client Service.
Soap login failed.	Node IP/Password is incorrect.	Set the correct IP/Password for the node and sync again.
Soap login rejected.	Node IP/Password is incorrect.	Set the correct IP/Password for the node and sync again.
Version request failed.	The MiCollab Client Service is not compatible with MiVoice Business version.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
Version fetch failed.	The MiCollab Client Service is not compatible with MiVoice Business version.	Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.
DSM internal error.	MiCollab Client Service internal error.	Capture the MiCollab Client Service dsm.log and contact support.
Node not found.	The MiCollab Client Service is not connected to 5k PBX.	Check the IP, Port and password set for the node. Correct the information and try the sync again.
INVALID Password.	The MiCollab Client Service is not connected to 5k PBX.	Check the IP, Port and password set for the node. Correct the information and try the sync again.
Node connection terminated.	The MiCollab Client Service connection to 5k got lost during sync.	Retry sync after 5k PBX becomes operational.
Connection not established.	The MiCollab Client Service connection to 5k is not valid.	Retry sync after 5k PBX becomes operational.

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## Collaboration server synchronization message

[Table 26 Collaboration Server synchronization error message](#) lists the collaboration server error message that may appear in the MiCollab Client Service Administration interface during a collaboration server synchronization.

**Table 26: Collaboration Server synchronization error message**

Error Message	Probable Cause	Corrective Action
Unknown host exception.	This error message may appear in the MiCollab Client Service Administrator interface on the Collaboration Server Details page when you click <b>Sync Now</b> . This error message indicates that the MiCollab Client Service cannot resolve the hostname for the collaboration server.	Restart MiCollab Client Service, and then attempt the synchronization with the collaboration server again.

## Alarms/Events

This section describes the Alarms/Events available from the **Event Viewer** option in the MSL Server Manager Administration menu (see page 166).

Alarms/Event include:

- [SIP connection event messages](#) below
- [“Presence event messages” on page 185](#)
- [“SIP Registrar event messages” on page 185](#)
- [“Watchdog messages” on page 186](#)

### SIP connection event messages

[Table 27 SIP connection event messages](#) provides information about SIP Connection Event Messages.

**Table 27: SIP connection event messages**

Alarm/Event Description	Probable Cause	Corrective Action
Failed to create listen socket for IP/Host.	Unable to open a socket for the IP and port specified in the event.	Check if port specified is already in use.
Active SIP Connection of type [1] established with [IP port].	The Severity Cleared means the connection established with the specified IP/Port has been removed.	Either MiCollab Client has closed the connection or could happen due to network issues.
Passive SIP Connection of type [1] established with [IP port].	The Severity Cleared means the connection established by the specified IP/Port has been removed.	Either MiCollab Client has closed the connection or could happen due to network issues.
<number> connections received from <ip> in last second. Total connections <number>. Max Allowed Connections <number>.	The specified IP is trying to open more connections per second than allowed.	Check if the IP is trying to DNS attack. If it is a trusted node like MiVoice Border Gateway then add it in the trusted list on admin portal.
<number> connections were received from <ip>. Max Allowed Connections are <number>.	The specified IP is trying to establish more connections than allowed.	Check if IP is trying DNS attack. If it is a trusted node like MiVoice Border Gateway then add it in a trusted list on admin portal.

## Presence event messages

Table 28 Presence event messages provides information about Presence Event Messages.

**Table 28: Presence event messages**

Alarm/Event Description	Probable Cause	Corrective Action
Max. Session Limit Reached.	Total number of presence sessions allowed has reached the limit allowed in the MiCollab Client Service.	Check the number of presence sessions using the Administrator interface. Shut down some MiCollab Clients or restart ACCTPRES module/softswitch if you believe that the number of MiCollab Clients should be much smaller than reported.
Queue size has reached size <i>&lt;number&gt;</i> for Presence Notification Queue.	Total number of pending Notifications is exceeding the threshold.	The presence server gaps the notifications at some preconfigured rate in order to prevent server/client overload. Check CPU/IO usage and re-configure the gapping rate if needed. This event is not an error but just an indication of presence server load.
Rejecting SIP message.	Invalid SIP message was received.	Check the client that sent the message about validity of the SIP message.
Queue size has reached size <i>&lt;number&gt;</i> for <i>&lt;subscription&gt;</i> .	Total notification pending for a subscriptions are more than the subscriber can consume.	This can indicate a slow client or a large number of notifications for a specific subscription. This is just an indication and not an error condition.
Account Presence Subscription <i>&lt;subscription id&gt;</i> from <i>&lt;subscriber&gt;</i> to <i>&lt;presentity&gt;</i> terminated. Reason - <i>&lt;reason description&gt;</i>	MiCollab Client Service's presence subscription was terminated for the reason specified.	This is a diagnostic alarm raised whenever the presence subscription is terminated on MiCollab Client Service. It is used for troubleshooting presence issues on the server.

## SIP Registrar event messages

Table 29 Registrar event messages provides information about Registrar Event Messages.

**Table 29: Registrar event messages**

Alarm/Event Description	Probable Cause	Corrective Action
Registration for [ <i>&lt;account information&gt;</i> ] with resource [ <i>&lt;registration&gt;</i> ] from device [ <i>&lt;device&gt;</i> ] userAgent [ <i>&lt;user agent&gt;</i> ] callId [ <i>&lt;SIP call id&gt;</i> ] expired.	MiCollab Client has shut down or network issues are occurring.	Restart the MiCollab Client or check if network connectivity between the client and server is working.

**Table 29: Registrar event messages (continued)**

Alarm/Event Description	Probable Cause	Corrective Action
Total [ <i>&lt;number&gt;</i> ] Registrations expired.	A specified number of registrations expired at the same time.	Check if there are any network issues occurring that may prevent clients from registering with the server.

## Watchdog messages

Table 30 Watchdog messages provides information about Watchdog Messages.

**Table 30: Watchdog messages**

Alarm/Event Description	Probable Cause	Corrective Action
Congestion update from module DB_CHECK, congestion type cpu, congestion level 1, description cpu_yellow, details cpu_average.	MiCollab Client Service has CPU congestion which is indicated by level of RED (85% cpu), ORANGE (70%), YELLOW (50%), GREEN (0%) in order of severity. The levels can be configured on the MiCollab Client Service manually if needed.	These notifications do not indicate a problem but rather load on the server, and are helpful when troubleshooting server issues.
Resource usage capacity exceeded for resource cpu, resource type cpu, resource description cpu_yellow, capacity <i>&lt;capacity %&gt;</i> .	The resource CPU has exceeded capacity (specified in alarm) utilization.	These notifications include pre-configured thresholds (50, 70, 85) raised by the server whenever the CPU exceeds the threshold. These notifications do not indicate a problem but rather load on the server, and are helpful when troubleshooting server issues.
Current server congestion level 2, description CONG_ORANGE, DebugLevel: 0, BlockProvisioning: 0, BlockSIPRegistration: 0, PercentInboundDrops: 0, PercentOutboundDrops: 0, reason cpu	MiCollab Client Service has taken the specified actions on server congestion level specified in the alarm (for example, Debug level has been set to 0 (WARNING).	This alarm indicates that actions have been taken by MiCollab Client Service based on the congestion level.

## MiTAI error codes

Table 31 MiTAI error codes provides troubleshooting information about MiTAI error codes. These error codes appear in the PBX\_Proxy log file (see page 167).

**Table 31: MiTAI error codes**

MiTAI Error Code	Description	Probable Cause
SXERR_DEVICE_ALREADY_MONITORED	An attempt was made to monitor the same device more than once.	MiCollab Client has attempted to monitor the same device more than once. This error should be treated more as a warning.

**Table 31: MiTAI error codes (continued)**

MiTAI Error Code	Description	Probable Cause
SXERR_FEATURE_NOT_ALLOWED	A MiTAI call processing service invocation failed because the device was in a state in which the service could not be completed.	A switch configuration is preventing the completion of an operation on a call.
SXERR_INVALID_CALL_ID	The specified call-ID is not valid. The call-ID can change at the device before the application invokes a call manipulation routine or the call-ID was never valid.	A race condition.
SXERR_INVALID_PBX_HANDLE	An hPbxObject supplied to a MiTAI routine was not valid. The ICP was previously closed or never opened.	Internal MiCollab Client error resulting from a race condition.
SXERR_INVALID_DN	A specified SX_DN is not valid.	MiCollab Client is attempting to monitor an invalid extension. The extension no longer exists on the switch.
SXERR_NO_CALL_TO_CLEAR	A MiTAI call manipulation routine attempted to clear a call when none was present at the specified device.	A race condition occurred when both parties hung up at the same time.
SXERR_NO_CALL_TO_ANSWER	A MiTAI call manipulation routine attempted to answer a call. No active call existed, possibly because the call had cleared before the routine took effect.	A race condition occurred when the caller hung up at the same time the call was answered.
SXERR_PRIVILEGE_VIOLATION	The invoker of the MiTAI service does not have sufficient privileges.	MiCollab Client is attempting to perform an operation that is not allowed by the device's class of service.
SXERR_UNSPECIFIED	An error of unknown origin.	A GPF occurred within the MiTAI library as a result of passing bad data to it. This is a MiCollab Client internal error.

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## Server log files

The following server log files are located in the `/opt/intertel/log` directory on the MiCollab Client Service and provide valuable information when diagnosing MiCollab Client problems:

- **pbxProxy.log**: Provides MiTAI command and event related information for the MiVoice Business PBX.
- **Proxy5k.log** and **5kCmdEvts.log**: Provides OAI command and event related information for the MiVoice Office 250 PBX.
- **jboss.log**: Provides information for:
  - The MiCollab Client Service Administrator interface
  - Web services for client presence status updates

- MiCollab Audio, Web and Video Conferencing collaboration interaction
- Web Client features
- Call control commands received by the MiCollab Client Service from the MiCollab Desktop Client and MiCollab Web Client
- **sipregistrar.log**: Provides information about SIP registration for the MiCollab Desktop Client.
- **sipbaccountpresence.log**: Provides information for telephony and account presence features.
- **imevents.log**: Provides information for chat-related features.
- **proxy.log**: Contains the SIP messages sent from and received by MiCollab Client Service.
- **rps.log**: Includes server side information related to peering such as which MiCollab Client Service connected and what information was requested.
- **rtc.log**: Includes peering related information on accounts synchronized from MiCollab Client Service that this MiCollab Client Service connects to.
- **federationgw.log**: Includes log entries related to XMPP-based IM/Presence federation with third-party systems such as Microsoft OCS.
- **/var/log/prosody/prosody.log**: Includes the XMPP messages and other XMPP server details for IM/Presence federation with third party systems.

Log files can be viewed or downloaded from the server using the MSL Server Manager **View log files** function.

Logs in the `/opt/intertel/log` directory appear as `uc_server/<file name>` (for example, `uc_server/pbxProxy.log.1`).

*To use the Server Manager View Log Files function:*

1. Open a Web browser and navigate to the MSL server manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiCollab Client Service is installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. In the left navigation pane under Administration, click **View Log Files**.
4. Select a log file from the list provided by the **Choose a log file to view** field.

For information about MSL administrator tasks, see the MSL Server Manager online help or the MSL Installation and Administration Guide available on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>) for details and instructions.

For specific problems gather the log files noted below:

- For MiCollab Client Service Administrator interface problems, review the `jboss.log*` file.
- For account synchronization problems, log files include:
  - `epm3300.log.*`
  - `adepm.log.*`
  - `dsm.log.*`

- jboss.log.\*
- For chat problems, log files include:
  - sipims.log.\*
  - imevents.log.\*
- For IM problems, log files include:
  - imevents.log.\*
  - proxy.log.\*
- For call, presence, and offline client problems, log files include:
  - pbxProxy.log.\* (MiVoice Business PBXs)
  - Proxy5k.log.\* (MiVoice Office 250 PBX)
  - 5kCmdEvts.log.\* (MiVoice Office 250 PBX)
  - sipbaccountpresence.log.\*
  - jboss.log.\*
  - acctpres.evts.\*
  - proxy.log.\*
  - sipregistrar.log.\*

\* Includes all log files with this file name.

## AD/LDAP synchronization log file

The AD/LDAP synchronization module is known as ADEpm. This module creates a log file named `adepm.log`, which can be used to debug AD/LDAP synchronization errors (see [Table 24 on page 181](#)).

*To access the `adepm.log` file:*

1. Open a Web browser and navigate to the MSL server manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiCollab Client Service is installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. In the left navigation pane under Administration, click **View Log Files**.
4. Select `uc_server/adepm.log` from the **Choose a log file to view** list.
5. Click **Next**. Server Manager displays the `adepm.log` file.

The synchronization summary appears at the bottom of the `adepm.log` file between the SUMMARY BEGIN and SUMMARY END tags in the file and includes:

- “Domain synchronization summary” on [page 190](#)
- “Account totals” on [page 191](#)

Figure 10 provides an example of a synchronization summary. This MiCollab Client Service has two AD/LDAP Synchronizers, logged as two domains: `california_branch` and `newyork_branch`.

Figure 0-6

```
*****  
#####  
##      ##      ##      ##      ##      #####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
#####  
Domain: california_branch :  
2 accounts were sent for account creation  
2 accounts were rejected because: PBX Node IP is not set.  
14 accounts were rejected because: Neither Deskphone nor Softphone attributes are set.  
0 accounts were rejected because: LDAP Guid is not set.  
Account which were Successfully processed: CN=Fname Lname27,OU=3_2test|CN=Fname Lname28,OU=3_2test|  
Accounts for which PBX Node IP is not set: CN=John D. Smith|CN=John Doe|  
Accounts for which Neither Deskphone nor Softphone attributes are set: CN=Valid PhotoUser97|CN=Valid PhotoUser98|CN=Valid  
Accounts for which LDAP Guid is not set:  
Domain: newyork_branch :  
0 accounts were sent for account creation  
0 accounts were rejected because: PBX Node IP is not set.  
0 accounts were rejected because: Neither Deskphone nor Softphone attributes are set.  
5 accounts were rejected because: LDAP Guid is not set.  
Account which were Successfully processed:  
Accounts for which PBX Node IP is not set:  
Accounts for which Neither Deskphone nor Softphone attributes are set:  
Accounts for which LDAP Guid is not set: CN=Nyc User1|CN=Nyc User2|CN=Nyc User3|CN=Nyc User4|CN=Nyc User5|  
ACCOUNT TOTALS ACROSS ALL DOMAINS:  
-----  
23 Accounts were pulled from LDAP server  
2 Accounts were sent for account creation  
21 Accounts were rejected  
#####  
##      ##      ##      ##      ##      ##      #####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
#####  
##      ##      ##      ##      ##      ##      ##  
#####
```

**Figure 10: Synchronization summary example**

## Domain synchronization summary

Domain summaries are displayed after the SUMMARY BEGIN tab.

Each domain corresponds to one AD/LDAP Synchronizer that has been defined on the Synchronization tab in the MiCollab Client Service Administrator interface. Domain summaries are output for each AD/LDAP Synchronizer.

Domain summaries include the following information:

- **Actions:** Describes the various actions taken on the accounts for that domain. For example, for the california\_branch domain example:
  - **2 accounts were sent for account creation.** This indicates that 2 accounts passed through all the synchronization pre-processing and were sent out to other MiCollab Client Service modules for further processing.



- **2 accounts were rejected because: PBX Node IP is not set.** This indicates that these 2 accounts did not have a valid PBX Node IP attribute populated and were therefore rejected (PBX Node IP is a mandatory parameter for AD/LDAP sync). This can happen because the field mapping is incorrect (pointing to an invalid LDAP attribute name) or the accounts did not have any value for that attribute.
- **Other Errors:** Describes other problems, which can be due to incorrect configuration or incorrectly populated account details on the LDAP server. For example, **14 accounts were rejected because: Neither Deskphone nor Softphone attributes are set.**
- **Account Names:** Lists the account names of the accounts in each category. This list allows you to focus on one account and examine why it was or was not rejected. For example, **Accounts for which PBX Node IP is not set: CN=John D. Smith|CN=John Doe|.**

## Account totals

Account totals are displayed just before the SUMMARY END tag.

Account totals provide account counts for the various processing categories. Account totals should add up to the category counts from all the domains.

Account totals include the following information:

- **Accounts pulled from LDAP server:** This is the total number of accounts retrieved from the LDAP server. Currently, MiCollab Client can retrieve a maximum of 9000 eligible accounts from the LDAP server. If the LDAP server contains more than 9000 eligible accounts, those accounts in excess of the 9000 account maximum will not be retrieved.

If no accounts were pulled from the LDAP server, one of the following may have occurred:

- The synchronizer configuration did not contain any eligible accounts. Note that an overly restrictive LDAP query can cause this.
- A synchronization error occurred. Synchronization errors are displayed at the top of the domain summary. For example:

```
Error: Error establishing LDAP Context for url
ldap://127.0.0.1:389/DC=test,DC=mitel,DC=com: [LDAP: error code 49 -
80090308: LdapErr: DSID-0C090334, comment: AcceptSecurityContext error, data
52e, vece
```

- **Accounts sent for account creation:** This is the total number of accounts that should be created on MiCollab Client Service if the synchronization is successful.

If you do not see this many accounts on your MiCollab Client Service, the following issues may be the cause:

- *Synchronization incomplete:* The synchronization process may not be complete yet. Refresh the Synchronization tab on the MiCollab Client Service Administrator interface to show the status of the synchronization.
- *Insufficient licenses:* MiCollab Client Service may not have a sufficient number of licenses available to create all of the accounts. View the dsm.log.\* and jboss.log.\* files for further details.

- *Incorrect PBX Node IP address:* Accounts may not have their PBX Node IP address set to one of the configured PBX Nodes in the MiCollab Client Service Administrator interface.

**Note:**

MiCollab Client Service does not convert IP addresses to hostnames and vice versa. For example, if the PBX Node has been configured as an IP address on MiCollab Client Service, then the accounts being synchronized should also include an IP address in the PBX Node IP field. View the `dsm.log.*` file for further details.

- **Accounts rejected:** This is the total number of accounts that were rejected when the synchronization occurred due to invalid, missing, or incorrectly mapped LDAP attributes.

## License and PBX changes

Follow these guidelines about which action to perform on the MiCollab Client Service administrator interface for license and PBX changes. See the online help for instructions.

- **Licensing changes:** Adding a licensed feature to your installation requires you to perform a synchronization with the AMC from the MSL Server Manager interface. After the license synch with AMC, you may have to wait up to 15 minutes for the AMC\_AGENT module in MiCollab Client Service to update the MiCollab Client Service database with the license information. If after 15 minutes, it does not appear that the license is enabled, restart the MiCollab Client Service.
- **Changing a Directory Number (DN) on the PBX:** Changing line configuration requires you to complete a line monitor refresh (MiVoice Business only) for the node using the Administrator interface. No restart is required.
- **Adding a DN on the PBX:** Adding a DN requires you to complete a manual synchronization for the PBX node if the DN needs to be pulled into the MiCollab Client Service database. No restart is required.
- **Deleting an Existing DN:** Deleting a DN from the MiCollab Client Service database requires you to complete a manual synchronization for the PBX node. No restart is required.
- **Changing Voice Mail:** Changing voice mail numbers does not require a MiCollab Client Service restart.

## Account reactivation following license changes

After making licensing changes to MiCollab Client such as restoring a license or installing a license, you may need to reactivate accounts in the MiCollab Client Administrator interface.

When a license is revoked, the user will be unable to use the feature or device in the MiCollab Desktop Client.

To properly provision licensed features to MiCollab Client users, you must do all of the following

- Verify MiCollab Client licenses from the AMC (see [“Verify MiCollab Client Service licensing” on page 108](#)).
- Sync the MiCollab Client Service with the AMC to update licenses (see [page 108](#)).
- Provision the features to users in the MiCollab Client Administrator interface:

- Create a Feature Profile by selecting the licensed features for the profile.
- Assign the Feature Profile to accounts.

See the MiCollab Client Service Administrator interface online help for details.

The following procedure describes how to reactivate accounts after making licensing changes.

*To reactivate licensed features:*

1. Open a Web browser and navigate to the MSL server manager URL (for example, `https://<MSL_server_FQDN>/server-manager`) where the MiCollab Client Service is installed. The server manager log in page appears.
2. Log in to the MSL server manager interface. The **Welcome to the Server Manager** page appears.
3. Under ServiceLink, click **Status**. The ServiceLink Status Information page appears.
4. Verify that the status and expiration for the Mitel MiCollab Client Service subscription is valid and active.
5. Under Applications, click **MiCollab Client Service**.
6. Click **Configure Mitel MiCollab Client Service**.
7. Click the **Accounts** tab. The Accounts tab displays an Active column when at least one account is inactive.
8. Select the accounts to activate and click **Activate**.
9. When prompted to confirm the activation, click **OK**.

## Calendar integration troubleshooting

This section provides troubleshooting information for Calendar Integration on MiCollab Client.

### Failure to successfully connect to the Exchange or Office 365 server

When configuring the Exchange or Office 365 server from the Enterprise Tab of the MiCollab Client Administration Tool, the following error can be encountered when testing the connection:

#### Invalid calendar server credentials

If this error is encountered, perform the following steps:

1. Re-enter the credentials and click the Test Connection button again to rule out spelling errors.
2. Ensure that no one in your organization has changed the password for the account being used for MiCollab Client-Exchange integration.
3. Verify that the IIS Webserver on the Exchange server has enabled at least one of Basic or Digest authentication mechanism. MiCollab Client Service does not support NTLM authentication mechanism (also known as Windows Authentication) and will fail authentication if that is the only type of authentication enabled on Exchange server. To verify this, do the following:

- a. PuTTY onto the MiCollab Client Service and run the following command. **Replace the Exchange URL and user/password with one reflecting your configuration.** If you have enabled only digest authentication on the Exchange server, then change the `--basic` to `--digest` in the curl command options:

```
curl -v --insecure --basic -u 'administrator:password' -d ''  
https://exchange.mitel.com/ews/exchange.asmx
```

- b. This command should NOT return 401/403 response codes. If it does, then you may need to enable Basic/Digest authentication on the Exchange server. More specifically, look at the HTTP headers shown in the curl response. The WWW-Authenticate headers should contain Basic and/or Digest (for example, `WWW-Authenticate: Digest qop="auth",... OR WWW-Authenticate: Basic realm="10.101..."`). If the response has only NTLM header (such as `WWW-Authenticate: NTLM`), then your Exchange server is configured for only NTLM.
4. To enable Basic/Digest authentication (this applies for Windows Server 2003 R2 – your exact steps may vary):
  - a. Start IIS Manager: **Start -> All programs -> Administrative Tools -> Internet Information Services (IIS) Manager.**
  - b. Navigate to EWS: (**Local computer -> Web Sites -> Default Web Site -> EWS**).
  - c. Right click -> **Properties -> Directory Security -> Authentication and access control -> Edit.**
  - d. Check **Digest, Basic**, or both. **Apply** and **Save**.
  - e. From the DOS prompt, enter: `iisreset.exe /RESTART`
  - f. Attempt the **curl** command again. The curl command may show a 500 response, which is acceptable. It should not show a 401/403 response.
    - For Exchange 2013 server, see <http://www.itnotes.eu/?p=2455>.

### Google calendar integration error after database backup and restore or MSL upgrade

When MSL is upgraded (or after database backup and restore), the Google OAuth2 tokens are lost (this is due to security reasons, so that the refresh token may not be read from a DB backup). Therefore, the Google OAuth2 configuration has to be redone. Until that configuration is complete, the MiCollab Client will disable Google calendar integration and will retry every 15 minutes (with default configuration) to re-read the OAuth2 tokens. When MiCollab Client tries to read the tokens and fails it raises an alarm and sends error notifications to MiCollab Clients (to the effect that the access token is empty).

The MiCollab Clients will receive these error popups (see below) every 15 minutes until the OAuth2 configuration is complete. To minimize this impact, you should re-configure OAuth2 as soon as the DB restore or MSL upgrade is done.

## MiCollab Desktop Client troubleshooting

This section provides troubleshooting information for the MiCollab Desktop Client.

### Problem reporting tool

The Problem Reporting tool, available from the MiCollab Desktop Client, allows users to create a problem report and send it to you. Users can access the tool from the MiCollab Desktop Client main menu.

In addition, if an exception occurs that forces a client shut down, the error message generated includes the option to report the problem. This option is selected by default.

The Problem Reporting Tool dialog box prompts the user to provide both a brief and detailed description of the problem.

By default, the MiCollab Desktop Client attaches the following compressed log files to the report:

- ucc.log.<sup>1</sup>
- SipSubscriber<sup>1</sup>
- uca.dmp (if available)
- SoftphoneManager.log

After the user sends the report, the log files sent by the MiCollab Desktop Client are combined with server log files into a single ZIP file. You receive an e-mail message notifying you that a problem report has been generated, the name of the ZIP file, and the log files that are included. The e-mail message provides the descriptions that the user entered in the Problem Reporting Tool dialog box. An example of an e-mail message generated from a problem report is shown in [Figure on page 196](#).

#### Note:

The report is sent to the e-mail address configured in the MSL Server Manager interface under Configuration – E-mail settings – **Forwarding address for administrative e-mail** (see [page 106](#)). It is assumed that the MiCollab Client administrator and the MSL administrator are the same person.

The compressed log file included with the report is stored on the MiCollab Client Service in the `/var/log/feedback` directory. The file includes a timestamp that indicates when it was generated. The timestamp includes year, month, calendar date, hour, minute, and second.

Client log files sent to the server can be retrieved using the MSL Server Manager **View log files** function (see [“Server troubleshooting” on page 180](#)). After 30 days client log files are automatically deleted from the server.

For information about MSL administrator tasks, see the MSL Server Manager online help or the *MSL Installation and Administration Guide* available on the [Mitel eDocs](http://edocs.mitel.com) Web site (<http://edocs.mitel.com>) for details and instructions.

1. Includes all logs with this file name (see [page 196](#)).

## Additional Client log files and troubleshooting tools

Table 32 MiCollab Client log files and troubleshooting tools provides information about the MiCollab Client log files and troubleshooting tools.

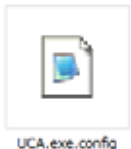

The default installation directory for MiCollab Client varies for 32-bit vs. 64-bit operating systems:

- **32-bit:** C:\Program Files\Mitel\MiCollab Client 6.0
- **64-bit:** C:\Program Files (x86)\Mitel\MiCollab Client 6.0

Specific to MiVoice for Skype for Business client:

- **32-bit:** C:\Program Files\Mitel\LyncPlugIn
- **64-bit:** C:\Program Files (x86)\Mitel\LyncPlugIn

**Table 32: MiCollab Client log files and troubleshooting tools**

Location	Log File/Tool	Description
<client installation directory>	 UCA.exe.config	Includes IP settings/ports for the MiCollab Client Service, Collaboration server and telephony server of client. NHtraceswitch settings for logging.
<client installation directory>		Executable used to launch MiCollab Client application.
For Windows Vista/Windows 7 C:\users\<username>\AppData\Roaming\Mitel\MiCollab	uca.log <sup>1</sup>	Main log file for the MiCollab Desktop Client.
	uc.mdb	Client database which contains call log, contacts, groups, and messenger IDs.
	user.config	user.config contains all persistent settings of the application, including configuration settings and UI layout settings. Deleting this file resets the MiCollab Desktop Client to default settings.
	SipSubscriber.txt	Includes low level logging for the SIP component of MiCollab Client.
	uca.dmp	A Microsoft mini-dump file, created if the client shuts down unexpectedly.
	SoftphoneManager.log	Provides logs for the Softphone process, which handles the softphone component of MiCollab Client.

1. Includes all logs with this file name.

## MiCollab Desktop Client troubleshooting table

Table 33 Client troubleshooting issues provides troubleshooting information for the MiCollab Desktop Client.

**Table 33: Client troubleshooting issues**

Problem or Error	Probable Cause	Corrective Action
Users are unable to connect to the server using MiCollab Desktop Client, but can connect using MiCollab Web Client or MiCollab for Mobile.	Server certificate has expired.	Update the certificate and restart MiCollab Client Service.
Users are experiencing difficulty with dialing rules.	To control how MiCollab Client dials numbers, users should configure Windows dialing rules and use the International Dialing Format.	Instruct the user to see the <b>Phone Number Formats</b> topic in the MiCollab Desktop Client help for additional information.
No phone devices are available.	MiCollab Client cannot set a MiTAI monitor, or there is a firewall blocking or other network issue.	<p>Check the following:</p> <ul style="list-style-type: none"> <li>On MiVoice Business PBXs check system options to ensure "MiTAI computer" is set to <b>Yes</b>.</li> <li>Ensure MiVoice Business COS for the MiCollab Client sets has "HCI" enabled.</li> <li>Ping the MiVoice Business PBX.</li> <li>Ping the desk phone.</li> <li>Does the desk phone have the same issue? (independent of MiCollab Client)</li> <li>Is the problem local or remote? <ul style="list-style-type: none"> <li>Are VLAN's configured properly?</li> <li>Check VPN.</li> </ul> </li> <li>Is telephony service started? <ul style="list-style-type: none"> <li>Check telephony server logs for errors.</li> <li>Stop and restart telephony server service.</li> </ul> </li> <li>Use MiTAI test tool to verify if it is a MiTAI issue.</li> </ul> <p>If it fails check MiVoice Business programming.</p>

**Table 33: Client troubleshooting issues (continued)**

Problem or Error	Probable Cause	Corrective Action
User joins a collaboration session as a participant rather than the leader when launched from MiCollab Client. If they join the Web conference from the MiCollab Audio, Web and Video Conferencing interface, they are correctly joined as the leader.	MiCollab Audio, Web and Video Conferencing has LDAP enabled and LDAP sync is set. Users login name and username of the work e-mail address are set different then account on MiCollab Client.	Add the user work e-mail as the first e-mail address under contact information for that account.
Calls to busy internal number do not display in Call History.	Show Call to Busy Number in Call History is False.	Change "ShowCallToBusyNumberInCallHistory" in user.config to "True".
No presence, or client keeps changing from online to offline.	MiCollab Client or MiCollab Client Service is not communicating with the presence server.	<p>Check the following:</p> <ul style="list-style-type: none"> <li>• Has the presence server service started?</li> <li>• Does the MiCollab Client Service have a DNS entry?</li> <li>• Is the MiCollab Client Service communicating with the Presence server on the correct port?</li> <li>• Is the telephony server working properly?</li> <li>• Is the MiCollab Client communicating with the Presence server?</li> <li>• Check uca.log and verify the ports.</li> <li>• MiCollab Client firewall blocking necessary ports.</li> <li>• Check Presence server log and see if it is updating.</li> <li>• Check telephony server logs to see if it keeps losing connectivity.</li> </ul>
The External Dial feature was removed from the user's account, but the click to call functionality is still enabled on the user's computer.	The External Dial feature was not completely removed from the account.	<p><b>To remove the External Dial feature (and disable click to call on the user's computer):</b></p> <ol style="list-style-type: none"> <li>1. Disable the External Dial feature in the user's account.</li> <li>2. Reinstall the client on the user's computer.</li> </ol>
"Failed to initialize VBox" message appears, interface locks up.	MiCollab Client is conflicting with VBox. VBox is an anti-piracy / copy protection application that is included in a number of applications, including ACT!.	If you are using ACT!, ensure that it is fully licensed rather than using a trial version. If this error is occurring regardless of the status of your ACT! license, contact your software provider.
MiCollab Desktop Client Interface fails to display completely or stops responding.	MiCollab Client is running on a computer that has an out-of-date video driver.	Update the computer's video driver with a current version.



**Table 33: Client troubleshooting issues (continued)**

Problem or Error	Probable Cause	Corrective Action
Calls are not routing to the device specified for the Dynamic Status.	The user has enabled forwarding using the Phone Settings - <b>Forward my calls to</b> option, which overrides the normal routing specified in the Dynamic Status.	The options the user selects on the Phone Settings tab for the Dynamic Status (Add/Edit dialog box - More Options) override the routing specified in the <b>Send my calls to</b> field. Instruct users to specify call routing using the <b>Send my calls to</b> field and leave the fields in the Phone Settings tab blank.
	The proper COS options are not enabled for the device in the user's Personal Ring Group.	Verify that the proper COS options are enabled for devices in the user's Personal Ring Group.
The user cannot access voice mail messages from the MiCollab Desktop Client's Visual Voice Mail view.	The user was accessing his or her voice mailbox using the Telephony User Interface (TUI) when he or she logged in to the MiCollab Desktop Client and the Visual Voice Mail view failed to load.	Instruct the user to disconnect from his or her voice mailbox, exit the MiCollab Desktop Client, and log back in to the MiCollab Desktop Client.
The user's list of default Dynamic Statuses is deleted.	This problem occurs when an account created earlier (manually or via PBX or LDAP synchronization) is deleted and then recreated using any of the possible approaches.	Instruct the user to <a href="#">"Repair the MiCollab Desktop Client"</a> on page 176 to re-establish the default list of Dynamic Statuses.
A remote MiCollab Client user on the MiVoice Office 250 PBX sent or received an instant message, which caused the MiCollab Desktop Client to go offline.	SIP Fixup is enabled in the firewall.	Disable SIP Fixup completely, or disable it for SIP messages sent to MiCollab Client Service.
The user has selected an EHDU device for call routing from his or her Ring Group, but calls are not routing to the external number.	The external number is not logged into the EHDU.	Manually log the external number in or select "Permanent Login" from the Class of Service options.
The user is unable to upgrade the MiCollab Desktop Client to a newer software version and also cannot uninstall the current version.	<ul style="list-style-type: none"> <li>There is a possible Microsoft Windows Installer issue on the user's PC.</li> <li>Windows Installer Service caches the location of the installer and uses that location when it upgrades to invoke the uninstall portion of the previous install. In this instance the previous installer is no longer available</li> </ul>	<p>Use Add/Remove Programs from the control panel to uninstall the MiCollab Desktop Client, and then install the client version. For additional information, see:</p> <ul style="list-style-type: none"> <li>Mitel KB article <a href="#">4759</a></li> <li>Microsoft KB article <a href="#">2438651</a></li> </ul>

**Table 33: Client troubleshooting issues (continued)**

Problem or Error	Probable Cause	Corrective Action
When the user tries the "Call me and play messages" function from the Visual Voice Mail view, nothing happens.	There is a possible configuration issue with the MiCollab UM application.	For all voice mail function to operate properly, MiCollab Client requires certain parameters be configured for MiCollab UM. See <a href="#">"MiCollab UM configuration" on page 98</a> for details.
You cannot establish a call using your SIP softphone on your MiCollab Desktop Client in Teleworker mode even though your SIP softphone is registered.	Utilizing an unsupported router: D-Link DIR-615.	You should try a different router.
MiCollab Desktop Client unable to connect after uploading the new client software. Gets prompted to upgrade but will not connect.	Microsoft Video Network connection gets created when a USB camera is installed and a new driver is applied which impacts our product to connect to the MiCollab Client Service (MiCollab Client picks an invalid IP connection).	Reboot the PC and Windows will remove this invalid video connection.
Some of the Google contacts are not imported on the MiCollab Desktop Client. Occurs after contacts are moved from the main corporate directory to a personal group.	Google send these contacts with no name when MiCollab Client imports it. Also see defect report against Google. <a href="http://code.google.com/a/google.com/p/apps-api-issues/issues/detail?id=3171">http://code.google.com/a/google.com/p/apps-api-issues/issues/detail?id=3171</a>	The workaround is to go to that group and re-enter or edit the name then it will import properly.
When the MiCollab server is in offline mode, and there is a call between a Minet soft phone and a desk phone and the deskphone puts the softphone on hold and then retrieves the call, the Minet softphone intermittently fails to recognize that call is retrieved by the desk phone.  The Minet Soft phone call window is not updated to represent established state.  Audio between phones is established and Minet soft phone users is able to clear call.	Audio channels are established because it directly corresponds to MiVoice Business.	There is no workaround at this time.

## MiCollab Desktop Client error and warning messages

This section provides common error and warning messages for the following situations:

- [Initialization messages](#) below
- ["Configuration change messages" on page 202](#)

- “Teleworker setup message” on page 203
- “File sending message” on page 203
- “ACD messages” on page 203
- “PIM integration messages” on page 203

## Initialization messages

Table 34 Initialization messages lists client initialization messages and their possible causes.

**Table 34: Initialization messages**

Message	Possible Cause	Options
MiCollab Client failed to connect to server <FQDN>. MiCollab Client will start up in Offline mode. Do you wish to continue?	<ul style="list-style-type: none"> <li>• The MiCollab Client Service is not running.</li> <li>• There is no route to the MiCollab Client Service.</li> <li>• MiCollab Client cannot set a MiTAI monitor on the extension number.</li> <li>• There may be a firewall/network/DNS issue or a PBX configuration problem.</li> <li>• A remote user is trying to connect without configuring teleworker settings. Remote MiVoice Business users must configure teleworker settings after acknowledging this error.</li> </ul>	<ul style="list-style-type: none"> <li>• Show Details</li> <li>• OK</li> <li>• Cancel</li> </ul>
There are no devices available (desk phone:<ext> or softphone <ext> on switch xxx.xxx.xxx.xxx). Would you like to work offline?	<ul style="list-style-type: none"> <li>• The MiCollab Client Service has not finished configuring the system.</li> <li>• The telephony server is a MiTAI proxy from the MiCollab Client Service to the MiVoice Business PBX. If the telephony server loses connectivity to the PBX then MiCollab Client loses it's MiTAI monitor of the MiCollab Client extension.</li> <li>• A user does not have either a deskphone or softphone extension programmed in the MiCollab Client Service.</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Cancel</li> </ul>
MiCollab Client failed to connect to the MiCollab Client Service through the Teleworker Gateway. MiCollab Client will startup in Offline mode. Do you wish to continue?	<ul style="list-style-type: none"> <li>• The user ID was not found on the MiCollab Client Service.</li> <li>• There was a port issue between MiCollab Client or the MiCollab Client Service and the teleworker gateway.</li> </ul>	<ul style="list-style-type: none"> <li>• Show Details</li> <li>• OK</li> <li>• Cancel</li> </ul>
Irreconcilable discrepancy between the MiCollab Client's set of lines and the PBX's set of lines. Restart MiCollab Client.	<ul style="list-style-type: none"> <li>• Line changes have been made on the switch.</li> <li>• MiCollab Client and the PBX switch are out of synch. Restart the MiCollab Client Service.</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> </ul>

**Table 34: Initialization messages (continued)**

Message	Possible Cause	Options
Your device appears to be out of service. Please contact your system administrator for assistance. Would you like to go to offline mode now? Click OK to continue to use MiCollab Client in offline mode. Click Cancel to quit MiCollab Client.	The desk phone is not plugged in.	<ul style="list-style-type: none"> <li>OK</li> <li>Cancel</li> </ul>
This is a Demo version of MiCollab Client and will startup in Offline mode. For a fully licensed copy of MiCollab Client, please contact your System Administrator. Do you wish to continue?	<ul style="list-style-type: none"> <li>If the MiCollab Client Service is licensed (a license key has been applied) but the user trying to log in does not appear in the MiCollab Client Service then they will receive this message and be able to login offline.</li> <li>The user logging in may be listed as an account on the MiCollab Client Service, but doesn't have a MiCollab Client base license assigned to it, will get this error and be able to log in using offline mode.</li> </ul>	<ul style="list-style-type: none"> <li>OK</li> <li>Cancel</li> </ul>
Your account is not licensed for desk phone or softphone. Please contact your system administrator. Would you like to work offline?	The user's account does not have both deskphone and softphone licensing.	<ul style="list-style-type: none"> <li>OK</li> <li>Cancel</li> </ul>

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## Configuration change messages

[Table 35 Configuration change messages](#) provides configuration change warning messages and their possible causes.

**Table 35: Configuration change messages**

Message	Possible Cause	Options
Changes to the user interface language will not take effect until you restart MiCollab Client.	This message is displayed when the language settings have been changed.	OK
There are changes made to the configuration of MiCollab Client that have not been applied yet. Please choose what you would like to do with them.	This message is displayed when configuration changes have been made then the user cancels out of the configuration screen without saving or applying the changes.	<ul style="list-style-type: none"> <li>Apply</li> <li>Review</li> <li>Discard</li> </ul>

## Teleworker setup message

Table 36 Teleworker setup message provides a teleworker setup message.

**Table 36: Teleworker setup message**

Message	Possible Cause	Options
Directory number is not valid. Please type in the correct value and try again.	An invalid directory number was entered (non numeric) Resolution: Re-enter the directory number.	OK
Configuration file for SSL component is invalid.	The user was attempting to retrieve a certificate from the MiCollab Desktop Client Configuration\Teleworker Settings dialog box when he or she received this message. This certificate error occasionally occurs after an upgrade from MiCollab Client 2.0 or YA 5.0.  Instruct the user to restart the MiCollab Desktop Client and try retrieving the certificate again.	OK

## File sending message

Table 37 File sending message provides a file sending message.

**Table 37: File sending message**

Message	Possible Cause	Options
The file or files you attempted to send exceed the maximum file transfer size of 20 megabytes.	While in the People view or chat window attempting to send a file over 20 megabytes to another MiCollab Client user.	OK

## ACD messages

Table 38 ACD messages provides ACD errors and their possible causes.

**Table 38: ACD messages**

Message	Possible Cause	Options
Either the agent does not exist, is already logged in elsewhere, or the phone you are monitoring is not configured for ACD. Press OK to return to MiCollab Client.	<ul style="list-style-type: none"> <li>An incorrect Agent ID has been entered.</li> <li>Agent selected is already logged in elsewhere.</li> <li>Phone not configured for ACD.</li> </ul>	OK
The Agent ID is invalid. The Agent ID cannot be blank.	The agent Id has not been entered.	OK

## PIM integration messages

Table 39 PIM integration messages provides PIM integration messages and their possible causes.

**Table 39: PIM integration messages**

Message	Possible Cause	Options
Microsoft Outlook is running under another profile. Please restart this application under the default profile.	User selected some profile other than the default mail profile (set in the Windows Control Panel "Mail") when the PIM was started.	OK

**Table 39: PIM integration messages (continued)(continued)**

Message	Possible Cause	Options
MiCollab Client is experiencing issues using Microsoft Outlook. Please make sure this application is working properly and try again.	The PIM is malfunctioning in an unspecified way.	OK
<p>Please install and set up any of these supported applications before using this feature:</p> <ul style="list-style-type: none"> <li>• Windows Address Book</li> <li>• Act</li> <li>• Microsoft Outlook</li> <li>• Lotus Notes</li> </ul>	User attempted to select PIM folders for importing or indexing contacts when no PIM was installed and configured.	OK
Microsoft Outlook is not responding. Please make sure this application is working properly and try again.	The PIM is not responding. Restart the PIM and then restart the MiCollab Desktop Client.	OK
Microsoft Outlook appears to be unavailable. Please make sure this application is working properly and restart MiCollab Client when convenient.	The PIM is not available. MiCollab Client must be restarted when the PIM is working again.	OK

## Audio problems

Table 40 MiCollab Client audio problems provides Client troubleshooting information audio problems.

**Table 40: MiCollab Client audio problems**

Problem or Error	Probable Cause	Corrective Action
<p>When using a headset:</p> <ul style="list-style-type: none"> <li>• MUTE button on the volume control of the headset turns on by itself, and will not turn off.</li> <li>• Disconnecting and reconnecting the headset to the PC causes the system to freeze and require a power down and restart.</li> <li>• Windows loses the connection to the USB headset. Windows no longer detects the headset.</li> <li>• Loss of audio during a phone call, while the call window stays up.</li> <li>• Answering or making a softphone call using, and experiencing no audio.</li> <li>• Loud hissing, static or popping heard through the headset speakers.</li> <li>• Windows loses the USB connection to the headset.</li> <li>• MiCollab Client no longer detects the USB headset. (Tools - Configuration - Handle Calls Using).</li> <li>• MiCollab Client automatically changes the audio devices for softphone calls to the PC sound card or another audio device.</li> </ul>	<p>The headset is defective or misconfigured on the PC.</p>	<p>Make sure that the USB headset connected to the MiCollab Client PC is functioning correctly.</p> <ul style="list-style-type: none"> <li>• Ensure that Microsoft Windows is detecting the USB connected headset. (Windows - Hardware Devices).</li> <li>• Verify with the headset manufacturer that the correct drivers and firmware have been installed for the Microsoft Operating System installed on the MiCollab Client PC.</li> <li>• Check the headset manufacturer's Web site for white papers and support articles for related symptoms with the headsets. (i.e. Intermittent loss of audio, disconnects and reconnects causing system failure, etc.).</li> <li>• Check the PC manufacturer's Web site for articles relating to USB device connectivity problems. (Root USB Controller vs. front USB ports, USB power distribution, etc.).</li> </ul> <p>Contact the USB headset vendor to ensure that the headsets are configured and operating as intended.</p>

**Table 40: MiCollab Client audio problems (continued)**

Problem or Error	Probable Cause	Corrective Action
When using the softphone the call “breaks up” while using other programs.	<p>Some Windows tasks run at elevated priorities, briefly preventing other applications from performing their own tasks.</p> <p>Windows desktop tasks can run at the highest of priorities. A common problem is the animation used when minimizing and maximizing windows.</p> <p>This animation takes about 200 ms (1/5th of a second) and produces a noticeable break in a conversation.</p>	<p><b>To disable the animation in XP:</b></p> <ol style="list-style-type: none"> <li>1. In the Windows Control Panel, select <b>Performance and Maintenance</b>.</li> <li>2. Select <b>System Properties</b>.</li> <li>3. On the Advanced tab, click the Performance “Settings” button.</li> <li>4. Clear the “Animate windows when minimizing and maximizing” option in the Visual Effects tab.</li> </ol>
One-way audio or no audio.	Firewall blocking or call path cannot route.	<p>Check the gateway IP address. Is default gateway aware of all networks?</p> <ul style="list-style-type: none"> <li>• In DMZ - NIC of external firewall.</li> <li>• Ensure firewall isn’t blocking any necessary ports.</li> <li>• Is it a fully routable path?</li> </ul>
Active SIP softphone call on data network (cellular data network) is disconnected when switching to a WiFi connection.	3G/4G data and WiFi connections cannot operate simultaneously.	This is normal and unavoidable behavior.



## Video problems

Table 41 MiCollab Client video problems provides client troubleshooting information video problems.

**Table 41: MiCollab Client video problems**

Problem or Error	Probable Cause	Corrective Action
When a MiCollab Client Service A connected to 3300 MiVoice Business is peered with MiCollab Client Service B connected to MiVoice Office 250 PBX, then users on MiCollab Client Service A cannot escalate the SIP softphone audio call with another user on MiCollab Client Service B, to video even though the call window shows the video button.	MiVoice Office 250 PBX does not support SIP Video	

## Device error

Table 42 Device errors provides troubleshooting information for a device error.

**Table 42: Device errors**

Error	Probable Cause	Corrective Action
The "P-Asserted-Identity <MiVoice Business IP Address>" error message appears on the 5610 SIP phone display when a call from the PBX rings in.	The "P-Asserted-Identity <MiVoice Business IP Address>" header is included in the SIP INVITE message to the 5610 phone.	None. Although this error message appears on the display, the user can still answer and complete the call attempt.

## MiVoice for Skype for Business troubleshooting

[Table 43 MiVoice for Skype for Business troubleshooting issues](#) provides troubleshooting items for MiVoice for Skype for Business.

**Table 43: MiVoice for Skype for Business troubleshooting issues**

Problem or Error	Probable Cause	Corrective Action
User can log in but is unable to use any of the MiVoice features, such as setting DND, Call Forward, calling operations, etc...	User account is not licensed properly.	<p>From MiCollab Client Service, Accounts Tab go to Licensed Features and add Desk Phone and Softphone licenses to user's profile.</p> <p>For deskphone only users, only SDK licenses are required from AMC but admin needs to assign SDK + Deskphone features to the user (via MiCollab Client feature profiles on server). For a user who has both softphone and Deskphone, Admin will take SDK + softphone licenses from AMC and will assign SDK + Deskphone + Softphone features to the user.</p> <p>Also see <a href="#">Table 2</a>.</p> <p>Also need to restart the Skype for Business client after making a change to licenses (MiVoice will automatically connect once the Skype for Business client restarts).</p>
Added custom attributes are not visible on MiVoice for Skype for Business.	Only the default telephone fields (like Home, Mobile, IP Phone and Work phone) which are visible to Skype for Business Contact card by default will be visible to MiVoice for Skype for Business.	This is normal behavior. Any field which is added via custom attribute in Active Directory or MiCollab Client Service will not be visible to MiVoice for Skype for Business.

## Web Client troubleshooting

Table 44 Web Client troubleshooting issue provides troubleshooting items for the Web Client.

**Table 44: Web Client troubleshooting issue**

Problem or Error	Probable Cause	Corrective Action
Attempts to log in to the desktop using the Safari Web browser fails in a crashed browser on iOS4 with an iPhone 3G.  When browsing with Safari to an untrusted site, you get the Cancel, Details, Continue options. Click <b>Continue</b> .	Safari is set to AutoFill and capture logins.	Turn off the Autofill setting in the Safari browser, and then try logging in again.  See "MiCollab Web Client requirements" on page 83 for a list of supported browsers.
Connection fails when using Firefox  A red exclamation appears at the base of the MiCollab Web Client.	Certificate issue.	Follow the steps below for WSP connection:  <ol style="list-style-type: none"><li>1. Type &lt;server ip or name&gt;:36008. For example, mas-uca-a.mi-cloud.com:36008</li><li>2. When prompted, add the exception.</li><li>3. Log into the web client URL.</li></ol>

## Android Device troubleshooting

Table 45 Android troubleshooting issues provides troubleshooting items for Android devices.

**Table 45: Android troubleshooting issues**

Problem or Error	Probable Cause	Corrective Action
Incoming call to Android device may take up to 30 seconds before it starts ringing. Occurs after device is idle and has gone to sleep.	Advanced settings “Best Wi-Fi Performance” is unchecked (disabled).	Set or enable the advanced settings “Best Wi-Fi Performance”.
Android Galaxy Nexus MiCollab for Mobile crashes when making video calls to MiVoice Conference/Video Phone even when video is set to lowest settings (web).	Unknown cause: Galaxy Nexus falls within the minimum hardware specs. Video calls to other devices are not experiencing this issue.	No corrective actions.

## BlackBerry device troubleshooting

Table 46 BlackBerry device troubleshooting issue provides troubleshooting items for BlackBerry devices.

**Table 46: BlackBerry device troubleshooting issue**

Problem or Error	Probable Cause	Corrective Action
The user's BlackBerry device is displaying an HTTP 302 error when attempting to connect to the MiCollab Client Service.	The Remote Proxy Services server (v2.0.4.0) is not properly formatting URLs passed from the BlackBerry device to the MiCollab Client Service.	<p>Execute the following commands on the Remote Proxy Services server (not the MiCollab Client Service) to resolve this issue:</p> <ol style="list-style-type: none"> <li>1. Open a secure shell session (for example, using PuTTY) to the Remote Proxy Services server, logging in as root.</li> <li>2. Type the following command on a single line and then press <b>Enter</b> at the end of the command: <pre>db proxyapps setprop uca ForceTrailingSlash no</pre> <p>This command modifies the Remote Proxy Server configuration.</p> </li> <li>3. Type the following command on a single line and then press <b>Enter</b> at the end of the command: <pre>signal-event proxyrules-update</pre> <p>This command applies the configuration changes.</p> </li> </ol>

## MiCollab for Mobile for BlackBerry secure connections

The Use Secure Connection option is presented in the Setup Wizard after users download and install the MiCollab for Mobile for BlackBerry. It is also available from the Account Options screen.

To configure a secure connection to the MiCollab Client Service from a BlackBerry mobile device, users are required to know the key store password on their device to accept the MiCollab Client Service SSL certificate.

*To configure a secure connection to the MiCollab Client Service:*

1. From the BlackBerry mobile device, enable the Use Secure Connection option from one of the following in the MiCollab for Mobile for BlackBerry:
  - Setup wizard
  - Account Options screen

A dialog box appears prompting you to confirm that you want to configure a secure connection.

2. Select **Yes**.
3. Select **Test Connection**. The client application attempts to connect to the server using a secure connection. A dialog box informs you that the server's certificate is not trusted.
4. Select **Trust Certificate**. If you have never created a password for the key store on your device, you are prompted to enter one. If you have created a password for the key store, skip to [step 6](#).
5. Enter a key store password in the two boxes, and then select **OK**.
6. When prompted, enter your key store password to allow the client application access to your Handheld Key Store.

**Note:**

Use a password that you will not forget. Entering an incorrect password 10 times will delete all personal data from the device and restore it to a default state.

7. When prompted, select **OK** to allow the client application access to your Trusted Key Store.

**Note:**

A dialog box may appear indicating that the certificate could not be added to the Trusted Key Store. Select **OK** to dismiss the dialog box.

The Connection Successful message appears.

8. Press the BlackBerry End/Power key to return to the device's home page screen.

At this point, the MiCollab Client Service's SSL certificate is in the device's key store. However, you must complete the following procedure to configure the certificate as trusted.

*To configure the MiCollab Client Service's SSL certificate as trusted:*

1. Navigate to the BlackBerry device Options screen and select **Security Options**.
2. Select **Certificates** from the Security Options menu.
3. From the Certificates screen, scroll down the page to locate the MiCollab Client Service certificate, as indicated by the MiCollab Client Service Fully Qualified Domain Name (FQDN). The

MiCollab Client Service certificate will have a red X next to the FQDN indicating that the certificate is not trusted.

4. Highlight the MiCollab Client Service certificate and press the BlackBerry Menu key.
5. Select **Trust**.
6. If you are prompted for your key store password again, enter it and select **OK**.
7. Return to the MiCollab for Mobile for BlackBerry application.
8. Exit the application and save the changes.
9. Open the application and go to the MiCollab for Mobile home screen.
10. Press the BlackBerry menu button, and then select **Update Status**.

**Note:**

Entering an incorrect password 10 times will delete all personal data from the device and restore it to a default state.

### Access point name settings

In order for the chat functionality to work properly on the MiCollab for Mobile for BlackBerry application, you must ensure that the Access Point Name (APN) is set appropriately for your BlackBerry operating system.

For more information and instructions for setting these properly, see

<http://btsc.webapps.blackberry.com/btsc/search.do?cmd=displayKC&docType=kc&externalId=KB05327>.

### Transport layer security settings

In order for the chat functionality to work properly on the MiCollab for Mobile for BlackBerry application, you must ensure that the Transport Layer Security (TLS) settings are correct for your BlackBerry operating system. Perform ONE of the following procedures:

1. Set the **Allow Untrusted HTTPS Connections** and **Allow Untrusted TLS Connections** to **True**.
  - For BlackBerry® Enterprise Server 4.1 or later, in BlackBerry Manager, select the BlackBerry® Mobile Data System Connection Service that is being used by the BlackBerry Client, and click **Edit Properties**.
  - For BlackBerry Enterprise Server 4.0 or earlier, in BlackBerry Manager, select the BlackBerry MDS that is being used by the BlackBerry Client, and click **Edit Properties**.
2. In the **Properties** column, click **TLS/HTTPS** and change the **Allow untrusted HTTPS** and **Allow untrusted TLS** connections settings to **True**.
3. Click **Apply**, and then click **OK**.

4. Restart the BlackBerry MDS or BlackBerry MDS Connection Service.

**Note:**

Restarting certain BlackBerry Enterprise Server services delays e-mail message delivery to BlackBerry devices.

**OR**

1. On the BlackBerry device, set the TLS Default option from **Proxy** to **Handheld**.

**For BlackBerry® Device Software 4.0 to 4.7.x**

- a. On the Home screen of the device, click **Options > Security > TLS**.
- b. Click **TLS default** and select **Handheld**.
- c. Click **Prompt For Server Trust** and select **No**.
- d. Click **Prompt If Client Cert Not Found** and select **No**.
- e. Display the menu and select **Save**.

**For BlackBerry Device Software 5.0**

- a. From the Home screen of the device, click **Options > Security Options > Advanced Security Options**.
- b. Choose **TLS** and then set the TLS Default to **Handheld**.
- c. Set **Prompt For Server Trust** to **No**.
- d. Set **Prompt If Client Cert Not Found** to **No**.
- e. Display the menu and select **Save**.

**For BlackBerry Device Software 6.0**

- a. From the Home screen of the device, click **Options > Security > Advanced Security Settings**.
- b. Choose **TLS**.
- c. In the Proxy TLS section, set **Enabled** turned off (this means that handheld settings are used).
- d. Display the menu and select **Save**.



## MiCollab Client for VMware Horizon View troubleshooting

Table 47 MiCollab Client for VMware Horizon View problems describes troubleshooting procedures for issues that can arise when installing, configuring, and running MiCollab Client for VMware Horizon View.

**Table 47: MiCollab Client for VMware Horizon View problems**

Issue	Probable Cause	Corrective Action
No audio or poor audio after connecting a USB headset.	The headset is selected for USB redirection.	Ensure that the headset is not enabled for USB redirection.
No audio or poor audio after connecting any type of headset.	RDP protocol is enabled for the virtual desktop.	Ensure PCoIP protocol is enabled.
Poor audio after connecting any type of headset.	Thin Client operating in Wireless mode.	Ensure Thin Client is operating in LAN Mode.
Unable to select Headset in the MiCollab Desktop Client Configuration/Softphone settings	The Thin / Thick Client physical endpoint does not have Headset set as the default Sound device.	Select Headset as the default Sound device on the physical endpoint device.

## MiCollab Audio, Web and Video Conferencing collaboration troubleshooting

[Table 48 MiCollab Audio, Web and Video Conferencing Collaboration problems](#) provides MiCollab Audio, Web and Video Conferencing errors and their possible causes. After the user accesses the MiCollab Audio, Web and Video Conferencing Web pages, he or she can access troubleshooting information from the MiCollab Audio, Web and Video Conferencing online help.

**Table 48: MiCollab Audio, Web and Video Conferencing Collaboration problems**

Problem or Error	Possible Cause	Corrective Action
Users cannot create or view conferences.	The MiCollab Audio, Web and Video Conferencing URL is not configured correctly on the MiCollab Client Service Administrator interface.	<p>Determine the correct hostname of the MiCollab Audio, Web and Video Conferencing server and configure the URL on the Collaboration Server Details page in the MiCollab Client Service Administration interface.</p> <p>To test the URL:</p> <ol style="list-style-type: none"> <li>1. From the MiCollab Client Service Administrator interface, click the <b>Collaboration</b> tab.</li> <li>2. Copy the URL configured for the collaboration server.</li> <li>3. Paste the URL in a Web browser. The browser should show a page with links to the MiCollab Audio, Web and Video Conferencing User Portal and Server Manager.</li> </ol> <p>In most cases, the MiCollab Audio, Web and Video Conferencing URL should be of the form <code>http://&lt;awc-server-hostname&gt;</code>. The URL may also be https.</p>
	The MiCollab Audio, Web and Video Conferencing hostname is not resolvable from the MiCollab Client Service or the address is unreachable.	<p>Verify that the nameserver specified in Server Manager for the MiCollab Client Service contains an entry for the specified MiCollab Audio, Web and Video Conferencing server. You may need to specify that DNS resolution should be performed using "Corporate DNS servers" in the <b>Manage domains</b> page in Server Manager. See the MSL documentation for more information.</p>
	You have configured the wrong type of collaboration server for the enterprise in the MiCollab Client Service Administrator interface.	<p>To configure MiCollab Audio, Web and Video Conferencing as the collaboration server:</p> <ol style="list-style-type: none"> <li>1. From the MiCollab Client Service Administrator interface, click the <b>Enterprise</b> tab.</li> <li>2. Review the setting for the <b>Collaboration server type</b> field. If it is not configured as Mitel Audio and Web Conferencing, delete the enterprise and then re-create it using MiCollab Audio, Web and Video Conferencing as the collaboration server.</li> </ol>

**Table 48: MiCollab Audio, Web and Video Conferencing Collaboration problems (continued)**

Problem or Error	Possible Cause	Corrective Action
The user says that the Collaboration menu is not available from the MiCollab Desktop Client.	The user is not licensed for the Collaboration feature.	<p>To enable the Collaboration feature for the user:</p> <ol style="list-style-type: none"> <li>1. From the MiCollab Client Service Administrator interface, click the <b>Accounts</b> tab.</li> <li>2. Locate the user and click the link to open the Account Details page for the user.</li> <li>3. Under <b>Licensed Features</b>, enable the Collaboration feature for the user.</li> <li>4. Instruct the user to restart the MiCollab Desktop Client. The Collaboration menu is available.</li> </ol>
	When the account was created, the <b>Default Account Settings</b> on the Enterprise tab did not specify a collaboration server.	<p>To determine the Default Account Settings collaboration server setting:</p> <ol style="list-style-type: none"> <li>1. From the MiCollab Client Service Administrator interface, click the <b>Enterprise</b> tab.</li> <li>2. Under <b>Default Account Settings</b>, if the collaboration server is set to <b>[None]</b>, then none of the accounts created in the enterprise will have collaboration server specified.</li> </ol> <p>To specify a collaboration server for an account:</p> <ol style="list-style-type: none"> <li>3. From the MiCollab Client Service Administrator interface, click the <b>Accounts</b> tab.</li> <li>4. Locate the user and click the link to open the Account Details page for the user.</li> <li>5. Under <b>Account Settings</b>, select the appropriate server for the Collaboration server field.</li> <li>6. Instruct the user to restart the MiCollab Desktop Client. The Collaboration menu is available.</li> </ol>

**Table 48: MiCollab Audio, Web and Video Conferencing Collaboration problems (continued)**

Problem or Error	Possible Cause	Corrective Action
The user cannot join a Web conference or Audio and Web conference as the host or leader when initiating a conference from the MiCollab Desktop Client.	The user did not enter his or her e-mail address when joining the conference.	<p>When the user starts a Web or Audio and Web conference from the MiCollab Desktop Client, a Web browser opens to the MiCollab Audio, Web and Video Conferencing Join page.</p> <p>To join the conference as a participant, the user can type his or her name in the box (for example, Sally) and clicks <b>Join</b>.</p> <p>To join the conference as the host, the user must type his or her e-mail address in the box (for example, Sally_User@mitel.com) and clicks <b>Join</b>.</p>
Users running MiCollab Desktop Client Release 7.0 or earlier client are unable to upgrade the MiCollab AWW client to Release 7.1	User is attempting to upgrade the MiCollab AWW client to Release 7.1 from a MiCollab Desktop Client Release 7.0 or earlier client. This upgrade path is not supported.	<p>User should upgrade to MiCollab Client Release 7.1 first, then perform the AWW client upgrade.</p> <p>OR</p> <p>User should upgrade the AWW client from the AWW portal or through the AWW Desktop Client Launcher.</p>

