NOTICE

The information contained in this document is believed to be accurate in all respects but is not warranted by Mitel Networks™ Corporation (MITEL®). The information is subject to change without notice and should not be construed in any way as a commitment by Mitel or any of its affiliates or subsidiaries. Mitel and its affiliates and subsidiaries assume no responsibility for any errors or omissions in this document. Revisions of this document or new editions of it may be issued to incorporate such changes.

No part of this document can be reproduced or transmitted in any form or by any means - electronic or mechanical - for any purpose without written permission from Mitel Networks Corporation.

Trademarks

The trademarks, service marks, logos and graphics (collectively “Trademarks”) appearing on Mitel's Internet sites or in its publications are registered and unregistered trademarks of Mitel Networks Corporation (MNC) or its subsidiaries (collectively "Mitel") or others. Use of the Trademarks is prohibited without the express consent from Mitel. Please contact our legal department at legal@mitel.com for additional information. For a list of the worldwide Mitel Networks Corporation registered trademarks, please refer to the website: http://www.mitel.com/trademarks.
# Table of Contents

## CHAPTER 1: PREFACE

- About This Guide .................................................................................................................. 2
- Audience ................................................................................................................................. 2
- Terminology ............................................................................................................................. 2

### Obtaining Documentation .................................................................................................. 4
- MiCollab Client Documentation Suite .................................................................................... 4
  - MiCollab Client Administrator ............................................................................................. 4
  - MiCollab Client End-user ...................................................................................................... 4
- MiCollab Documentation Suite ............................................................................................... 4
  - Administrator ....................................................................................................................... 5
  - End User ................................................................................................................................. 5
- MiCollab NuPoint Unified Messaging ...................................................................................... 5
- Mitel Standard Linux (MSL) ..................................................................................................... 5
- MiVoice Border Gateway (Teleworker) ..................................................................................... 6

### What's New in this Release .................................................................................................. 7
- MiCollab Client Administrator Guide improvements .............................................................. 7

## CHAPTER 2: OVERVIEW

- Introduction to MiCollab Client Service ................................................................................... 10
  - MiCollab Client Service Components .................................................................................. 10
- Introduction to MiCollab Client and Interfaces ......................................................................... 12
  - MiCollab for PC Client ......................................................................................................... 12
  - MiCollab MAC Desktop Client ............................................................................................ 12
  - MiCollab for Mobile Client .................................................................................................. 13
  - MiCollab Web Client ............................................................................................................ 13
  - MiCollab for Microsoft Client ............................................................................................. 13
- Supported Communication Platforms (PBXs) ......................................................................... 14
- MiCollab Client Virtual Environment Support ......................................................................... 15
  - VMware support ................................................................................................................. 15
  - Hyper-V support .................................................................................................................. 15
  - Citrix XenApp and XenDesktop Support .............................................................................. 15
  - Microsoft Remote Desktop Services Support ..................................................................... 15
- Mitel Applications Supported with MiCollab .......................................................................... 16
# Table of Contents

Third-Party Integrated Applications ................................................................. 17

Supported Headsets and Audio Devices ............................................................ 18
  Configuring headsets and Bluetooth Speakerphone device ............................... 18
    Mitel S720 Bluetooth Speakerphone ................................................................. 18
    Plantronics ........................................................................................................ 18
    Jabra ................................................................................................................... 19
    Sennheiser .......................................................................................................... 19
  Conditions and limitations .................................................................................. 19
  MiCollab for PC, MAC, and Web Client .............................................................. 19
  MiCollab for Mobile Client .................................................................................. 20

Supported Mitel Phones ....................................................................................... 21

UCC License Bundles ......................................................................................... 23
  Basic Bundle ........................................................................................................ 23
  Entry Bundle ........................................................................................................ 24
  Standard Bundle .................................................................................................. 25
  Teamwork Mode .................................................................................................. 27

CHAPTER 3: FEATURES AND CAPABILITIES

Introduction .......................................................................................................... 30

MiCollab Client-Level Features .......................................................................... 31
  MiCollab Client (PC, MAC, and Web) UI features ............................................. 32
  MiCollab for Mobile Client features .................................................................. 37
  MiCollab for Microsoft Client features ............................................................. 38

Supported Features ............................................................................................ 40

Supported Features on Communication Platforms (PBXs) ................................. 40
  MiVoice Business Communication Platform ...................................................... 40
  MiVoice 5000, MiVoice MX-ONE and MiVoice Office 400 Communication Platform ........ 40

Account Synchronization, Presence and Dynamic Status .................................. 42
  Account Synchronization .................................................................................... 42
  MiCollab Presence ............................................................................................... 42
  Dynamic Status .................................................................................................. 44

MiCollab Client Call History .............................................................................. 47

MiCollab Audio, Web and Video Conferencing ................................................. 47

OfficeLink Support ............................................................................................. 48

PBX Requirements for OfficeLink Feature ......................................................... 48
Table of Contents

Upgrade from Legacy MiCollab Desktop Client to MiCollab for PC Client ........................................... 92
Setting the Deployment Profile in Server Manager .................................................................................. 92
Provisioning new MiCollab for PC Client ............................................................................................... 92
Citrix Deployments ................................................................................................................................. 92
Install MiCollab for Microsoft Client ..................................................................................................... 93
Information E-mail ................................................................................................................................. 94
MiCollab Client Deployment E-mail message ......................................................................................... 94
Installation procedure ............................................................................................................................. 94
Logging on to the MiCollab for PC Client .............................................................................................. 94
Deploy MiCollab for Mobile Client ......................................................................................................... 95
Conditions and Limitations .................................................................................................................... 95
Provisioning MiCollab Client .................................................................................................................. 95
Post Installation Configuration ............................................................................................................... 97
Remote User Configuration .................................................................................................................... 97
MiVoice Business PBX Configuration for remote users ................................................................. 100
Softphone (SIP-based) specific considerations .................................................................................... 102
Softphone Configuration - MiCollab Windows Desktop Client ......................................................... 105
Teamwork mode .................................................................................................................................... 107
Server Admin portal impacts and considerations ................................................................................ 108
Calendar Integration ............................................................................................................................... 109
Google Calendar Integration ............................................................................................................... 110
MiCollab Client and Mitel CMG integration with MiVoice MX-ONE .................................................. 113
MiCollab Meeting Center ......................................................................................................................... 114
Google Contacts Integration .................................................................................................................. 114
Authentication and access to Google contacts .................................................................................... 114
MiTeam Integration ............................................................................................................................... 115
Requirements ......................................................................................................................................... 116
Supported Clients .................................................................................................................................... 117
Supported Communication Platforms ..................................................................................................... 117
Licensing ................................................................................................................................................ 117
Data Sovereignty .................................................................................................................................... 118
Enterprise Configuration (Non-Peered) ................................................................................................. 118
Enterprise Configuration (Peered) ........................................................................................................ 119
Provisioning ........................................................................................................................................... 122
Audio Dial-in numbers for MiTeam Meet in MiCloud ........................................................................... 122
WebRTC Client Configuration ............................................................................................................... 123
About the Web Real Time Communications Client (WebRTC) .......................................................... 123
Conditions and Limitations .................................................................................................................... 123
Web Sharing Limitations on MiTeam Web Client .................................................................................. 124
CHAPTER 6: MAINTENANCE

MSL Server Administration ................................................................. 134

MiCollab Client Service Administration .................................................. 135

Configuration .................................................................................. 135

Status ............................................................................................. 135

To start, stop, or refresh the server ..................................................... 135

Client Versions ............................................................................... 135

Diagnostics ................................................................................... 136

MiCollab Client Service Chat Maintenance ........................................ 144

Disable chat storage on server .......................................................... 144

Delete existing chat history from server .......................................... 144

PBX Configuration Changes ............................................................... 145

CHAPTER 7: TROUBLESHOOTING

MiCollab Server Troubleshooting ........................................................ 148

Installation problems ........................................................................ 148

Server synchronization error messages .............................................. 148

MiCollab Client Service synchronization messages .............................. 149

AD/LDAP synchronization error messages .......................................... 149

PBX node synchronization error messages .......................................... 150
| Collaboration server synchronization message | 151 |
| Alarms/Events | 152 |
| SIP connection event messages | 152 |
| Presence event messages | 153 |
| SIP Registrar event messages | 153 |
| Watchdog messages | 154 |
| MiTAI error codes | 154 |
| Server log files | 155 |
| AD/LDAP synchronization log file | 157 |
| Domain synchronization summary | 158 |
| Account totals | 159 |
| License and PBX changes | 160 |
| Account reactivation following license changes | 160 |
| Calendar integration troubleshooting | 161 |
| MiCollab for PC Client troubleshooting | 163 |
| Problem reporting tool | 163 |
| Additional Client log files and troubleshooting tools | 164 |
| MiCollab for PC Client Troubleshooting | 165 |
| MiCollab for Microsoft Client Troubleshooting | 168 |
| MiCollab Web Client Troubleshooting | 169 |
| MiCollab for Mobile Client troubleshooting | 170 |
| Android Device troubleshooting | 170 |
| FMC Call Through troubleshooting | 170 |
| MiCollab Client for VMware Horizon View Troubleshooting | 173 |
| MiCollab Audio, Web and Video Conferencing Collaboration Troubleshooting | 174 |
| Ad-hoc Meeting Troubleshooting | 175 |
| MiCollab Client Deployment Troubleshooting | 179 |
| Check connection between MiCollab Server and Redirect Server | 179 |
| MiCollab Client Deployment test from public Internet | 182 |
| Check MiCollab Client Deployment service connection from public Internet | 182 |
| MiCollab Client level diagnostics | 182 |

**APPENDIX A:**

**LEGACY MICOLLAB CLIENTS**
Introduction to Legacy MiCollab Clients ....................................................................................... 186
Legacy MiCollab Desktop Client ..................................................................................................... 186
Legacy MiVoice for Skype for Business Plugin ............................................................................. 186
Third Party Integrated Applications with Legacy MiCollab Desktop Client ..................................... 187
Legacy MiCollab Desktop Client Features and Capabilities ........................................................ 188
Legacy MiCollab Desktop Client features ..................................................................................... 188
Legacy MiVoice for Skype for Business Plugin features .............................................................. 193
Legacy MiCollab Desktop Client presence .................................................................................... 195
VMware Horizon View Support ...................................................................................................... 196
MiCollab Client Direct Media ......................................................................................................... 197
MiCollab Server-Level Features .................................................................................................. 200
Federation ..................................................................................................................................... 200
Guidelines for Federation ............................................................................................................. 201
Peering ......................................................................................................................................... 202
Legacy MiCollab Desktop Client presence .................................................................................... 203
Guidelines for peered MiCollab Client Services .......................................................................... 203
Supported Features (Legacy MiCollab Desktop Client) ............................................................... 205
Supported Features on Communication Platforms (PBXs) ......................................................... 205
MiVoice Business Communication Platform ................................................................................ 205
Legacy MiCollab Desktop Client Requirements ........................................................................... 212
Legacy MiVoice for Skype for Business Plugin Requirements ..................................................... 214
Standalone MiCollab Client Service Requirements ....................................................................... 215
Configure the PBX .......................................................................................................................... 216
Configuring MiVoice Business ....................................................................................................... 216
Configure MiVoice Office 250 ....................................................................................................... 216
Software license ............................................................................................................................. 217
System – devices and feature codes – Assistants ....................................................................... 218
System – devices and feature codes – Phones ............................................................................. 218
System – IP-related information – Call Configuration (Softphones Only) ................................... 219
System – Sockets .......................................................................................................................... 219
Users .......................................................................................................................................... 219
MiVoice Office 250 Communication Platform feature matrix ................................................... 220
Supported Mitel Phones for MiVoice Office 250 communication platform .................................. 224
Installing, Upgrading, and Provisioning Legacy MiCollab Desktop Client ....................................... 226
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install Legacy MiCollab Desktop Client</td>
<td>226</td>
</tr>
<tr>
<td>Software distribution point</td>
<td>226</td>
</tr>
<tr>
<td>User installation permissions</td>
<td>226</td>
</tr>
<tr>
<td>Client firewalls</td>
<td>227</td>
</tr>
<tr>
<td>Welcome E-mail message</td>
<td>227</td>
</tr>
<tr>
<td>MiCollab Client Deployment E-mail message</td>
<td>227</td>
</tr>
<tr>
<td>Microsoft.NET framework</td>
<td>227</td>
</tr>
<tr>
<td>Installation procedure</td>
<td>228</td>
</tr>
<tr>
<td>Custom installation options</td>
<td>229</td>
</tr>
<tr>
<td>IntelliMirror</td>
<td>229</td>
</tr>
<tr>
<td>Logon Script</td>
<td>230</td>
</tr>
<tr>
<td>SMS</td>
<td>230</td>
</tr>
<tr>
<td>Group policy</td>
<td>230</td>
</tr>
<tr>
<td>Citrix deployments</td>
<td>230</td>
</tr>
<tr>
<td>Installer transforms</td>
<td>231</td>
</tr>
<tr>
<td>Creating a transform</td>
<td>232</td>
</tr>
<tr>
<td>Installer properties</td>
<td>233</td>
</tr>
<tr>
<td>Install Legacy MiVoice for Skype for Business Plugin</td>
<td>234</td>
</tr>
<tr>
<td>Information E-mail</td>
<td>234</td>
</tr>
<tr>
<td>Installation wizard</td>
<td>235</td>
</tr>
<tr>
<td>Upgrade Legacy MiCollab Desktop Client</td>
<td>235</td>
</tr>
<tr>
<td>Upgrades from v6.x</td>
<td>235</td>
</tr>
<tr>
<td>Client Only Delivery</td>
<td>236</td>
</tr>
<tr>
<td>Uninstall Legacy MiCollab Desktop Client</td>
<td>238</td>
</tr>
<tr>
<td>Upgrade Legacy MiVoice for Skype for Business Plugin</td>
<td>238</td>
</tr>
<tr>
<td>Post Installation Configuration</td>
<td>239</td>
</tr>
<tr>
<td>Remote User Configuration</td>
<td>239</td>
</tr>
<tr>
<td>MiVoice Business PBX Configuration for remote users</td>
<td>240</td>
</tr>
<tr>
<td>Legacy MiCollab Desktop Client softphone and teleworker settings</td>
<td>240</td>
</tr>
<tr>
<td>MiVoice Office 250 PBX configuration for remote users</td>
<td>243</td>
</tr>
<tr>
<td>Softphone (SIP-based) specific considerations</td>
<td>243</td>
</tr>
<tr>
<td>Softphone Configuration - Legacy MiCollab Desktop Client</td>
<td>246</td>
</tr>
<tr>
<td>Teamwork mode</td>
<td>249</td>
</tr>
<tr>
<td>Server Admin portal impacts and considerations</td>
<td>249</td>
</tr>
<tr>
<td>Legacy MiCollab Desktop Client Maintenance</td>
<td>252</td>
</tr>
<tr>
<td>Install custom options</td>
<td>252</td>
</tr>
<tr>
<td>Custom options include:</td>
<td>252</td>
</tr>
<tr>
<td>To install custom options for the Legacy MiCollab Desktop Client 7.3:</td>
<td>252</td>
</tr>
<tr>
<td>Repair the Legacy MiCollab Desktop Client</td>
<td>253</td>
</tr>
</tbody>
</table>
Legacy MiCollab Desktop Client Troubleshooting ................................................................. 254
Problem reporting tool ........................................................................................................... 254
Additional Client log files and troubleshooting tools ........................................................... 255
Legacy MiCollab Desktop Client troubleshooting .................................................................... 256
Legacy MiCollab Desktop Client error and warning messages .............................................. 259
  Initialization messages ....................................................................................................... 260
  Configuration change messages ......................................................................................... 261
  Teleworker setup message ............................................................................................... 262
  File sending message ......................................................................................................... 262
  ACD messages .................................................................................................................. 262
  PIM integration messages ................................................................................................. 263
Audio problems ...................................................................................................................... 263
Video problems ..................................................................................................................... 265
Device error .......................................................................................................................... 265
Legacy MiVoice for Skype for Business Plugin Troubleshooting ............................................ 266

APPENDIX B:
MICOLLAB MEETING CENTER CONFIGURATION

Overview ................................................................................................................................... 270
Requirements ......................................................................................................................... 270

Conditions and Limitations .................................................................................................... 272
Configuration ........................................................................................................................ 273
  Soft button (Join button) URL ......................................................................................... 273
  Poll URL ............................................................................................................................ 273
  DIAL command ............................................................................................................... 273
Microsoft Exchange or Office 365 ..................................................................................... 274
  Commands for Exchange Management Shell when calendar type is Microsoft Exchange 274
  Office 365 Exchange Online account ............................................................................. 274
Configuration on MiVoice Business Communication Platform ........................................... 275

Capturing Log Files ............................................................................................................... 276
Chapter 1

Preface
About This Guide

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

- Overview
- Features and Capabilities
- Specifications
- Installing, Upgrading and Provisioning MiCollab Client
- Maintenance
- Troubleshooting
- Appendix A Legacy MiCollab Clients
- Appendix B MiCollab Meeting Center Configuration

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.

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

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 14 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 “Third-Party Integrated Applications” on page 17 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.
Obtaining Documentation

To obtain MiCollab documentation suite:

1. Log on to Mitel MiAccess (formerly known as Mitel Connect).
2. From the left menu, select eDocs.
3. From the top ribbon, hover over Applications and select MiCollab.
4. Navigate to the required release and click on the document link to view the selected documentation.

Note:
To obtain documentation for other Mitel Integrated applications, see respective documentation in Mitel eDocs.

MiCollab Client Documentation Suite

MiCollab Client Administrator

- **MiCollab Client Engineering Guidelines** provides system requirements, configuration information, network diagrams, virtualization information, performance recommendations, system capacities, and so on for sites installing the MiCollab Client product.

- **MiCollab Client Administrator Guide** provides 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) 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 Client End-user

- **MiCollab Client Quick Reference Guide** provides installation, basic feature and usage information for the MiCollab for PC, Web, MAC, and Mobile Clients. 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, MAC, and Mobile clients.

MiCollab Documentation Suite

- **MiCollab General Information Guide** provides a high-level overview of the MiCollab product.

- **MiCollab Engineering Guidelines** provides information about the characteristics, requirements, and performance of MiCollab and the supported applications.
- **MiCollab Ordering Guide** provides licensing information and product part number lists.
- **Virtual Appliance Deployment Guide** provides engineering guidelines for deploying Mitel products in a virtual infrastructure.
- **MiCollab Installation and Maintenance Guide** provide instructions on how to install the MiCollab server and application software.
- **Platform Integration Guide** provides instructions on how to configure the communication platforms to support the MiCollab applications.
- **Mitel Integrated Configuration Wizard Online Help** provides instructions on how to use the wizard to perform initial configuration of the MiCollab and MiVoice Business.
- **MiCollab Client Resiliency Guide** provides information for configuring MiCollab Client resiliency.
- **MiCollab Client Desktop MiNET Softphone - Server Independence Guide** describes the behavior of the MiCollab Client Desktop MiNET Softphone when a user is logged into MiCollab Client and the MiCollab server is taken out of service. If the MiCollab server is taken out of service, for example due to an upgrade or hardware failure, the Desktop MiNET softphone continues to provide basic functionality.

**Administrator**

- **Server Manager Online Help** provides configuration, administration, and maintenance procedures for the MiCollab server. The MiCollab Integrated Directory Services functionality is described in this on-line help.
- **Users and Services Online Help** provides instructions on how to manage user data and assign or remove user services, such as MiVoice Border Gateway or Teleworker.
- **NuPoint Unified Messaging Online Help** is intended to help system administrators configure and maintain NuPoint Unified Messaging functionality through the web console interface.
- **MiCollab Audio, Web and Video Conferencing Online Help** provides instructions on how to provision the conferencing application.

**End User**

- **MiCollab End-User Portal Online Help** (embedded in the user interface) focus on interface elements, supported features, and task-related instructions.
- **MiCollab Audio, Web and Video Conferencing Quick Reference Guide** provides procedures on how to set up and use the conferencing features.

**MiCollab NuPoint Unified Messaging**

- **MiCollab NuPoint User Guide** describes how to use the voice mail system.
- **Mitel TUI Quick Reference Guide** provides a summary of basic user options and procedures for the Mitel TUI.

**Mitel Standard Linux (MSL)**

**Mitel Standard Linux Installation and Administration Guide** provides installation and administration information for the MSL operating system.
MiVoice Border Gateway (Teleworker)

*Installation and Maintenance Guide with Web Proxy* describes the installation requirements and provides installation instructions for the MiVoice Border Gateway server.
What's New in this Release

For a list of new functionality, see What's New in This Release on the Mitel Customer Documentation site.

MiCollab Client Administrator Guide improvements

MiCollab Client Administrator Guide is revamped and restructured as below:

• Primary focus is on MiCollab as an integrated system.
• Legacy MiCollab Clients (Desktop Client and Legacy MiVoice for Skype for Business Plugin) and MiVoice Office 250 communication platform information is moved to Appendix A.
• Updated virtualization support for MiCollab for PC Client.
Chapter 2

Overview
Introduction to MiCollab Client Service

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.

The MiCollab Client Service communicates with the phone system (see “Supported Communication Platforms (PBXs)” on page 14) and other integrated applications (see “Mitel Applications Supported with MiCollab” on page 16) to provide MiCollab Client features and functionality to the user interfaces.

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 for PC Client” on page 12
- “Legacy MiCollab Desktop Client” on page 186
- “MiCollab Web Client” on page 13
- “Legacy MiVoice for Skype for Business Plugin” on page 186
- “MiCollab for Microsoft Client” on page 13

**Note:**

Some MiCollab Client features require specific PBX software versions as detailed in the Notes column for the end-user feature tables starting on “MiCollab Client-Level Features” on page 31.

The MiCollab Client Service software can reside as a stand-alone application on an MSL 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. For more information on MiCollab Client virtual environment support, see [Virtual Appliance Deployment Solutions Guide](#).

MiCollab Client Service Components

The MiCollab Client product includes the following MiCollab Client Service components:

- **ADEPM:** Manages Active Directory communication for account synchronization.
- **CSTAProx:** For MiVoice 5000, MiVoice MX-One, and MiVoice Office 400 deployments only. Manages logging for MiVoice 5000, MiVoice MX-ONE, and MiVoice Office 400 deployments only.
- **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 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 and so on.

• **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 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.
Introduction to MiCollab Client and Interfaces

MiCollab end-users can access MiCollab Client features from the following interfaces:

- "MiCollab for PC Client"
- "MiCollab MAC Desktop Client"
- "MiCollab for Mobile Client"
  - Android™
  - iPhone™
- "MiCollab Web Client"
- "MiCollab for Microsoft Client"
- "Legacy MiCollab Desktop Client"
- "Legacy MiVoice for Skype for Business Plugin"

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.
- In this document, the term enterprise refers to 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.

MiCollab for PC Client

From MiCollab Release 8.0 onwards, an advanced version of the Legacy MiCollab Desktop Client called MiCollab for PC Client is introduced. MiCollab for PC Client is an application that is installed on the user’s computer.

MiCollab for PC Client allows users to control their desk phone and associated devices from their computer. MiCollab for PC Client includes an embedded softphone. The softphone requires a separate license (see Table 2 on page 32). See “MiCollab for PC Client Requirements” on page 57 for computer hardware and software requirements to install MiCollab for PC Client.

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. MiCollab MAC Desktop Client includes an embedded softphone. The softphone requires a separate license (see Table 2 on page 32).

See “MiCollab Client-Level Features” on page 31 for a list of MiCollab MAC Desktop Client features.
MiCollab for Mobile Client

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 Client Requirements” on page 58 for device requirements. You must be licensed to use MiCollab for Mobile Client.

See “MiCollab for Mobile Client features” on page 37 for a list of MiCollab for Mobile features.

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 Client-Level Features” on page 31 for a list of Web Client features.

MiCollab for Microsoft Client

The MiCollab for Microsoft Client application provides a suite of advanced communication features and integrates with your enterprise's call manager to provide you full control of your communication experience.

MiCollab for Microsoft Client is an application that is installed on the user’s computer and integrates seamlessly with Skype for Business application. Using the MiCollab for Microsoft Client, you can control your phone from your desktop—make calls, answer calls, and invoke mid-call features. It allows Skype for Business users to use Mitel telephony features through its feature rich MiCollab Client infrastructure. For more information on how to install and use the client, see MiCollab for Microsoft end-user online help.

See "MiCollab for Microsoft Client features" on page 38 for a list of MiCollab for Microsoft Client features.
Supported Communication Platforms (PBXs)

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

- **MiVoice Business**: Formerly known as Mitel 3300 IP Communications Platform (ICP), the MiVoice Business call processing software is configured through the MiVoice Business System Administration Tool. For more information, see System Administration Tool Help.

- **MiVoice 5000**: The MiVoice 5000 communications platform is configured through the MiVoice 5000 Web Admin interface. For more information, see MiVoice 5000 Manager Installation and Configuration Guide.

- **MiVoice MX-One**: This communications platform is configured through the MiVoice MX-ONE administrator interface. For more information, see MiVoice MX-ONE Installation and Maintenance Guide.

- **MiVoice Office 400**: This communications platform is configured through the MiVoice Office 400 Database Programming interface. For more information, see MiVoice Office 400 WebAdmin (Expert Mode) Online Help.

Users can access and use the communication system features provided by the communications platform from the MiCollab Client interfaces.
MiCollab Client Virtual Environment Support

VMware support

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.

MiCollab for PC Client virtual appliance can be deployed in a VMware environment version 7.4 or later. It supports both Desktop mode and Web mode.

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).

Hyper-V support

The virtual appliance includes the MSL operating system and the MiCollab Client Service software blade. Running the MiCollab Client Service within a Hyper-V environment requires a license that allows usage in a virtualized environment. For more information, see the Virtual Appliance Deployment Solutions Guide.

Citrix XenApp and XenDesktop Support

MiCollab for PC Client is compatible with Citrix XenApp and Citrix XenDesktop services. It supports both Desktop mode and Web mode. MiCollab PC Client supports Citrix XenApp and XenDesktop version 7.14 or later. For more information on Citrix deployment, see “Citrix Deployments” on page 93.

Microsoft Remote Desktop Services Support

MiCollab for PC Client is compatible with Remote Desktop Services (RDS) servers 2012 and 2016. It supports both Desktop mode and Web mode.
The following Mitel application components and versions are integrated with MiCollab Client:

- **MiCollab Audio, Web and Video Conferencing (AWV)** - 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 MiCollab Audio, Web and Video Conferencing features (see “MiCollab Audio, Web and Video Conferencing” on page 47).

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

- **MiVoice Border Gateway (MBG)**: MiVoice Border Gateway provides a secure communications path for remote MiCollab Client users to the MiCollab Client Service. MiVoice Border Gateway provides services such as Teleworking, Secure Call Recording, SIP Trunking, Remote Proxy Services, and WebRTC.

- **Mitel Remote Proxy Services**: Remote Proxy Services provide a secure communications path for remote MiCollab Web Client users.

- **MiCollab Advanced Messaging (MAM)**: The integration of MiCollab Advanced Messaging provides the user access to the responsive web-interface for managing voice mail messages.
Third-Party Integrated Applications

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

- **Exchange Server**: Exchange server integration enables users to integrate their dynamic status with their calendars. This feature can be used with Microsoft Exchange 2013 and Exchange 2016.

- **Office 365 Server**: Office 365 server integration enables users to integrate their dynamic status with their Office 365 calendars.
Supported Headsets and Audio Devices

This section provides information on supported headsets and external audio devices for audio in the MiCollab Client. The features supported depend on the individual device used. For example, only a headset with volume controls allows changing the audio volume. The supported features include:

- Accept/end call
- Mute/unmute call
- Volume control
- Hold/retrieve call (not supported on MiCollab Web Client)

Configuring headsets and Bluetooth Speakerphone device

Note:
The headsets are supported by the Mobile Clients to the extent the Operating System supports the headsets. Softphone calls cannot be accepted using the headset buttons on Android devices.

Follow the below configuration steps to use the headsets and speaker phone based on the audio device.

Mitel S720 Bluetooth Speakerphone

Use a USB cable or the special USB-Bluetooth dongle provided as a purchasable item, to connect Mitel S720 Bluetooth Speakerphone to support audio features.

Note:
Connecting a Bluetooth speaker phone using computer’s inbuilt Bluetooth feature might not provide the required audio quality.

For a list of recommended devices that support MiCollab Client, see micollab.devices.mitel.com.


Plantronics

To use a Plantronics audio device (headset or speaker phone) with MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client, install Plantronics Hub software on your computer. See www.plantronics.com to download this software.

Note:
On MiCollab Web Client, call control features on Plantronics headsets or audio devices are not currently supported on other browsers like Microsoft Edge, Internet Explorer, or Apple Safari.
To use a Jabra audio device (headset or speaker phone) with MiCollab Web Client, install JabraChromeHost software on your computer and then install Jabra Browser Integration Extension in Google Chrome web browser.

No additional software is required to use Jabra headsets with MiCollab for PC Client and MiCollab MAC Client.

Sennheiser

To use a Sennheiser audio device (headset or speaker phone) with MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client, install Sennheiser HeadSetup software on your computer. See www.sennheiser.com to download this software.

Conditions and limitations

- Headset support is not available on MiTeam Meet (MiCloud Business Multi-Instance Meet).
- Muting the audio on Mitel S720 Bluetooth Speakerphone, Plantronics headset, and Sennheiser headset will not be reflected in the MiCollab for Mobile Client for iOS UI and CallKit UI (native dialer UI).
- On MiCollab for Mobile Client for iOS, the audio will always be routed to a path which is active when initiating or accepting the call. For example, when a call is handed-off from a deskphone to the iOS device, the audio will not be routed to the Mitel S720 Bluetooth Speakerphone or any other headset. During a call, this setting can be changed by the user in the iOS device settings.
- MiCollab Web Client does not support the hold and retrieve call feature.
- Mitel S720 Bluetooth Speakerphone does not support the hold and retrieve call feature.

MiCollab for PC, MAC, and Web Client

MiCollab for PC Client, MAC, and Web Client support Mitel S720 Bluetooth Speakerphone and compatible Sennheiser, Plantronics, and Jabra headsets. These MiCollab Clients may require supplementary software of the compatible headsets.
MiCollab for Mobile Client

MiCollab for iOS Client supports call accept, end, mute, and volume control with Mitel S720 Bluetooth Speakerphone.

If your iOS device is paired and connected with a Mitel MiVoice 6930/6940 IP phone using native Bluetooth technology through MobileLink functionality, during an ongoing MiCollab call you can transfer the audio between 6930/6940 IP phone and your mobile device.

**Note:**
The MiCollab audio call transfer between MiCollab for Android Client and Mitel MiVoice 6930/6940 IP phone does not work since the native Android OS does not recognize a SIP softphone call.
## Supported Mitel Phones

Table 1 **Supported Mitel Phones** provides the list of MiCollab Client supported desk phones for MiVoice Business communication platform. In the following table, supported phones are indicated by ✓ and phones not supported are indicated by X.

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

For MiVoice MX-ONE, see the *MiVoice MX-ONE Terminal Overview* guide for a list of supported phones.

For MiVoice Office 400, see the *System Manual Mitel 470* guide for a list of supported phones.

<table>
<thead>
<tr>
<th>Mitel Phone Model</th>
<th>MiVoice Business PBX</th>
</tr>
</thead>
<tbody>
<tr>
<td>4015 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>4025 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>4150 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>5005 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5010 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5020 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5140 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>5212 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5215 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5220 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5224 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5304 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5312 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5320 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5324 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5330 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5340 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5360 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5602 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5603 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5604 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5606 SIP Phone</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Table 1: Supported Mitel Phones (continued)

<table>
<thead>
<tr>
<th>Mitel Phone Model</th>
<th>MiVoice Business PBX</th>
</tr>
</thead>
<tbody>
<tr>
<td>5607 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5610 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>6920 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>6930 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>6940 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>8520 Digital Telephone</td>
<td>✗</td>
</tr>
<tr>
<td>8528 Digital Telephone</td>
<td>✗</td>
</tr>
<tr>
<td>8560 Digital Telephone</td>
<td>✗</td>
</tr>
<tr>
<td>8568 Digital Telephone</td>
<td>✗</td>
</tr>
<tr>
<td>8620-2 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>8622 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>8660 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>8662 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>IP Plus</td>
<td>✗</td>
</tr>
<tr>
<td>IPSLA</td>
<td>✗</td>
</tr>
<tr>
<td>Navigator IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>Turret</td>
<td>✓</td>
</tr>
<tr>
<td>Analog-FXS</td>
<td>✓</td>
</tr>
</tbody>
</table>

---

**Note:**
SIP phones support a limited feature set on MiVoice Business PBX.

**Note:**
MiCollab does not allow to edit DN or device type for Analog-FXS devices. Also, HotDesking and Teleworker features are not supported for Analog-FXS devices.
UCC License Bundles

Unified Communications and Collaboration (UCC) licensing simplifies the selling and ordering process because it bundles the platform and application user licenses together.

The following UCC user bundles are available:

- "Basic Bundle" on page 23
- "Entry Bundle" on page 24
- "Standard Bundle" on page 25

The following Default Roles and Templates for Active Directory Entries are available:

<table>
<thead>
<tr>
<th>Default Role</th>
<th>Default Template</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>MiCollab Client Contact</td>
</tr>
<tr>
<td>Teamwork Mode User</td>
<td>MiCollab Client Teamwork Mode User</td>
</tr>
<tr>
<td>(see page 27)</td>
<td></td>
</tr>
</tbody>
</table>

**Basic Bundle**

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

**Administration**

Administer the Basic MiCollab Web 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 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 Web Client on login:

<table>
<thead>
<tr>
<th>Allowed Features</th>
<th>MiCollab Web Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Answer</td>
<td></td>
</tr>
<tr>
<td>Blind Transfer</td>
<td>X</td>
</tr>
<tr>
<td>Call Forwarding</td>
<td>X</td>
</tr>
</tbody>
</table>
Entry Bundle

Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC 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.

Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC 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 Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client on login:

<table>
<thead>
<tr>
<th>Allowed Features</th>
<th>MiCollab MAC Desktop Client</th>
<th>MiCollab for PC Client</th>
<th>Legacy MiCollab Desktop Client</th>
<th>MiCollab Web Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Answer</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Blind Transfer</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Call Forwarding</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Call History</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chat</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Click to Call from MiCollab Client contacts</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Compact Mode</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Contact Groups</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Corporate Contact</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Desk Phone Button Programming</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Do Not Disturb</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>External Dial</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hotdesking</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Import Contacts (Google and Outlook)</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Knowledge management</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Make and Receive Call</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Presence (IM, voice and video)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dynamic Status</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RSS Window</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Visual Voice Mail</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Note:**

UCC Entry users who have Legacy MiCollab Desktop Client can view their Dynamic Status, but cannot manage their Dynamic Status. UCC Entry users who have MiCollab for PC Client and later can view as well as manage their Dynamic Status.

### Standard Bundle

Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client can be configured as a standard level client using the default MiCollab Client profile.
**Administration**

Administer the Standard 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 Standard MiCollab Client account. In other words, users will only have access to the allowed features list below.

*Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC Desktop Client and MiCollab Web Client Impact*

Only default profile features listed below are supported.

**Licensing**

Standard bundle licensing.

**Allowed features**

MiCollab Client Service will pass the following list of allowed features to the Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client on login:

<table>
<thead>
<tr>
<th>Allowed Features</th>
<th>MiCollab MAC Desktop Client</th>
<th>MiCollab for PC Client</th>
<th>Legacy MiCollab Desktop Client</th>
<th>MiCollab Web Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Answer</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Blind Transfer</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Call Forwarding</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Call History</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chat</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Click to Call from MiCollab Client contacts</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Compact Mode</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Contact Groups</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Corporate Contact</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Desk Phone Button Programming</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Do Not Disturb</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>External Dial</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hotdesking</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Import Contacts (Google and Outlook)</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Knowledge management</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Make and Receive Call</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MiTeam</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Presence (IM, voice and video)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
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.

**Note:**
Teamwork Mode is supported only on Legacy MiCollab Desktop Client or earlier.

**Licensing**

There are no new or additional licenses required specific to the Teamwork Mode feature. Licenses for individual features such as Chat, Visual voice mail, and the like 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 Legacy MiCollab Desktop Client or earlier.

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.

**Call History**

The Call History feature will be hidden for Teamwork Mode users.
Chapter 3

Features and Capabilities
Introduction

This chapter provides information about features and capabilities supported on the MiCollab Client application.
MiCollab Client-Level Features

This section describes the main features for MiCollab Client end-user interfaces. MiCollab Client includes the following interfaces, which provide access to user-level features:

- MiCollab for PC Client
- MiCollab MAC Desktop Client
- MiCollab for Mobile Client
- MiCollab Web Client
- MiCollab for Microsoft Client
MiCollab Client (PC, MAC, and Web) UI features

Table 2 provides descriptions for the main features accessed from MiCollab Client (PC, MAC, and Web Client).

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
</table>
| Ad-hoc Meeting    | Ad-hoc Meeting is an instant MiCollab AWV Conference created on all MiCollab Desktop Clients (MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client). The meeting initiator must have MiCollab Audio, Web and Video Conferencing service. This feature does not apply to MiCloud Business Multi-Instance (SB-Cloud) deployment. If MiCollab Audio, Web and Video Conferencing is available (collabUsername is set in the user account info) on the MiCollab for PC Client, a Conference entry will be displayed in the left menu above Settings. The conference initiator can create an instant conference using below options:  
  • Create a new ad-hoc meeting.  
  • Escalating an audio call or a chat to an ad-hoc meeting.  
MiCollab users are added to the ad-hoc meeting using the directory search and non-MiCollab users are added by entering their e-mail addresses in the MiCollab Client Search box. When the initiator clicks the Start Meeting button, an AWV conference will be created. The initiator will be automatically logged into the conference, with the leader capabilities in the Web Client.  
  • Ad-hoc meeting feature is available in MiCollab Co-located and Integrated mode.  
  • Invited participants will receive an e-mail, that contains the Conference URL and audio dial-in number details. In case the Dial-in number details do not show up in the e-mail, it can be found in the Meeting Details section of the AWV Web Client conference main window.  
  • Do not enable the Audio, Web, and Video Enable Port Reservations option if Ad-hoc Meeting is required. These two features are mutually exclusive. When the Enable Port Reservations option is enabled, MiCollab users will not be able to initiate or join Ad-hoc Meeting. | • Ad-hoc meeting feature is available in MiCollab Co-located and Integrated mode.  
• Invited participants will receive an e-mail, that contains the Conference URL and audio dial-in number details. In case the Dial-in number details do not show up in the e-mail, it can be found in the Meeting Details section of the AWV Web Client conference main window.  
• Do not enable the Audio, Web, and Video Enable Port Reservations option if Ad-hoc Meeting is required. These two features are mutually exclusive. When the Enable Port Reservations option is enabled, MiCollab users will not be able to initiate or join Ad-hoc Meeting. |
<p>| ACD SIP Softphone | The ACD SIP Softphone feature extends Hot Desk ing capabilities to a SIP softphone. This feature allows the user to inherit Hot Desk ing features, such as ACD on the SIP softphone that can be deployed.                                                                                                                                                              | This feature is supported on MiVoice Business 9.0 SP1 or later and MiContact Center Business 9.1. |
| Calendar Integration | Calendar integration provides Dynamic Status updates based on the user's Busy and Out of Office settings in their Google Calendar, Outlook, Office 365, or Exchange calendar.                                                                                                                                                    |                                                                                               |</p>
<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Control</td>
<td>Call Control features are displayed in the Call Window and provide one-click access to the following call control features:</td>
<td>Video is not applicable for MiCollab Web Client.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Ad-hoc Meeting</strong>: Allows the user to start a new ad-hoc meet.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>DialPad</strong>: Allows the user to dial a number.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Hold/Retrieve</strong>: Places/retrieves a call on hold. During a consult call or a split call, this control places the active party on hold, and makes the other party active.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>End Call</strong>: Ends the call.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Transfer, Conference</strong>: Allows the user to complete a transfer or conference. Includes the complete, cancel, or consult associated actions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Handoff</strong>: Allows the user to initiate Call Handoff.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Video</strong>: Allows the user to initiate a video call.</td>
<td></td>
</tr>
<tr>
<td>Call Handoff</td>
<td>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 or Multi-device User Group.</td>
<td></td>
</tr>
<tr>
<td>Call History</td>
<td>Provides a list of missed, received, and dialed calls that includes caller ID and presence information for known contacts.</td>
<td></td>
</tr>
<tr>
<td>Call Take</td>
<td>The Call Take feature allows users to take a call active on one device to another device and continue the call without interruption. To use this feature, the user must dial the Feature Access Code from the device on which to continue the call.</td>
<td>This feature is limited to users on MiVoice 5000, MiVoice MX-ONE, and MiVoice Office 400 platforms only.</td>
</tr>
<tr>
<td>Chat</td>
<td>Provides multi-party chat functionality for corporate contacts. Chat features include timestamp, and chat history.</td>
<td></td>
</tr>
<tr>
<td>Contact Management</td>
<td>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 and then organize them into groups.</td>
<td></td>
</tr>
<tr>
<td>Dynamic Status</td>
<td>Dynamic Status provides customized call routing for MiCollab Client users. It includes selecting device for outgoing calls and routing incoming calls to preferred device.</td>
<td></td>
</tr>
<tr>
<td>External Dialing</td>
<td>MiCollab Client provides external dialing functionality for the following applications:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Microsoft Outlook</strong>: Users must configure Smart Tags/Actions for external dialing from Outlook.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Microsoft Internet Explorer</strong>: The MiCollab Client configured hotkeys provides external dialing in IE.</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: MiCollab Client (PC, MAC, and Web) UI features (continued)

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorites</td>
<td>Favorites include the list of corporate and personal contacts that the user has assigned as a Favorite.</td>
<td></td>
</tr>
<tr>
<td>FMC Call Through (MiCollab for Mobile Client only)</td>
<td>When the MiCollab for Mobile Client user initiates a MiCollab call, a native mobile call is placed using the mobile number configured as EHDU or Remote Extension. A new field PBX Access Numbers is introduced under MiCollab Client Service &gt; PBX Nodes tab for FMC Call Through feature. Configure the access numbers (same as DID number for MiVoice Business and R3 number for MiVoice MX-ONE) from MiCollab Client Service.</td>
<td>This feature is limited to users on MiVoice Business and MX-ONE communication platforms only. When the called party hangs up the call, the calling party (external hot desk user) will receive a dial tone. This can be turned off in MiVoice Business COS Options &gt; Hot Desk External User - Dial Tone on Call Complete attributes form. Set the value as No to turn off dial tone.</td>
</tr>
<tr>
<td>Home</td>
<td>Provides easy access to frequently-performed tasks. Displays your frequently used contacts, contact groups, website addresses, personal speed dials, and MiTeam Streams.</td>
<td></td>
</tr>
<tr>
<td>Hot Desking</td>
<td>Provides the ability to Hot Desk in and Hot Desk out of supported systems by a simple right-click operation.</td>
<td>This feature is limited to users on MiVoice Business communications platform only.</td>
</tr>
<tr>
<td>Hotkey Dialing</td>
<td>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.</td>
<td>Hotkey Dialing is not supported on MiCollab MAC Desktop Client.</td>
</tr>
<tr>
<td>Message Wait Indicator</td>
<td>Message Wait Indicator is supported for integrated voice mail when NuPoint is not used (for example, MiVoice MX-One).</td>
<td></td>
</tr>
<tr>
<td>MiTeam</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Notifications</td>
<td>Popup windows (incoming call, chat invitation, and login notification) and auditory alerts (new chat, chat received, window, and login notification) provide users with notification when events occur.</td>
<td></td>
</tr>
<tr>
<td>OfficeLink</td>
<td>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.</td>
<td>See “OfficeLink End-User Functionality” on page 49 for OfficeLink information.</td>
</tr>
</tbody>
</table>
### Features and Capabilities

#### Table 2: MiCollab Client (PC, MAC, and Web) UI features (continued)

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIM Integration</td>
<td>Creates a connection between MiCollab Client and the contacts in the user’s PIM. Supported PIMs include Microsoft Outlook, and Skype for Business.</td>
<td></td>
</tr>
<tr>
<td>Presence</td>
<td>Telephony, Instant Messaging, and dynamic status presence.</td>
<td></td>
</tr>
<tr>
<td>Presence on Mitel Sets</td>
<td>Users can configure presence information for multiple contacts on their 5320, 5330, 5340, or 5360 IP phone from the MiCollab for PC Client.</td>
<td>This feature is limited to users on MiVoice Business communication platforms only.</td>
</tr>
<tr>
<td>Settings</td>
<td>Allows the user to customize the following settings for the MiCollab for PC Client:</td>
<td></td>
</tr>
<tr>
<td>- General:</td>
<td>Allows you to change password, set the time format, manage Hotkeys, send or delete diagnostic logs, and use Factory Reset, and Teleworker.</td>
<td></td>
</tr>
<tr>
<td>- Voice mail Settings:</td>
<td>Allows you to change the mailbox PIN.</td>
<td></td>
</tr>
<tr>
<td>- Call Settings:</td>
<td>Allows you to specify the device used and calling mode for outgoing calls and also to select the playback ringtone for an incoming call.</td>
<td></td>
</tr>
<tr>
<td>- Manage Status:</td>
<td>Allows you to change, add, edit, and delete Dynamic Status.</td>
<td></td>
</tr>
<tr>
<td>- Calendar Integration:</td>
<td>Provides automatic updates to your Dynamic Status based on your Google Calendar, Exchange, Outlook, or Lotus Notes calendar entries.</td>
<td></td>
</tr>
<tr>
<td>- Schedules:</td>
<td>Allows you to manage your schedules and your Dynamic Status is updated accordingly.</td>
<td></td>
</tr>
<tr>
<td>Schedules</td>
<td>Allows you to manage your schedules and your Dynamic Status is updated accordingly.</td>
<td></td>
</tr>
<tr>
<td>SIP-Based Softphone</td>
<td>MiCollab Client provides SIP-Based 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.</td>
<td>This feature is supported on MiVoice Business systems running 5.0 SP2 or MiVoice Office 250 running 5.1 or later release, MiVoice MX-ONE, MiVoice 5000, and MiVoice Office 400 systems.</td>
</tr>
<tr>
<td>Teleworker</td>
<td>Teleworker mode allows MiVoice Business users to connect to and access their MiVoice Business voice network through the 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. <strong>Note:</strong> Users can enable/disable the teleworker setting under <strong>Settings &gt; General &gt; Use Teleworker.</strong></td>
<td>Teleworker service is not supported on MiCollab Web Client.</td>
</tr>
<tr>
<td>Voice Mail</td>
<td>Provides access to the following voice mail features:</td>
<td>Voice Mail is only available on systems with MiCollab UM voice mail.</td>
</tr>
<tr>
<td>- Receive message waiting indications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Play, forward, and delete voice mail messages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- View, forward, and delete fax messages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Change the voice mail PIN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 2: MiCollab Client (PC, MAC, and Web) UI features (continued)

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WebRTC Softphone</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
# Features and Capabilities

## MiCollab for Mobile Client features

Table 3 provides descriptions for the main features accessed from the MiCollab for Mobile Client client.

**Table 3: MiCollab for Mobile Client features**

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad-hoc Meeting</td>
<td>Ad-hoc Meeting is an instant MiCollab AWV Conference created on all MiCollab Desktop Clients (MiCollab for PC Client, MiCollab MAC Desktop Client, and MiCollab Web Client).</td>
<td>MiCollab for Mobile Client users (Android and iOS) cannot create an ad-hoc meeting. If invited, users will be able to join the meeting on MiCollab for Mobile Client as participants only.</td>
</tr>
<tr>
<td>Call History</td>
<td>The user can access call history for missed, received, and dialed calls.</td>
<td></td>
</tr>
<tr>
<td>Call Take</td>
<td>The Call Take feature allows users to take a call active on one device to another device and continue the call without interruption. To use this feature, the user must dial the Feature Access Code from the device on which to continue the call.</td>
<td>MiVoice 5000, MiVoice MX-ONE, and MiVoice Office 400 platforms only.</td>
</tr>
<tr>
<td>Chat</td>
<td>Provides multi-party chat functionality for corporate contacts. Chat features include timestamp, file transfer, and chat history.</td>
<td></td>
</tr>
<tr>
<td>Calendar Integration</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Contacts</td>
<td>Allows the user to access all corporate contact and personal contact information.</td>
<td></td>
</tr>
<tr>
<td>Dynamic Status</td>
<td>Dynamic Status provides customized call routing for MiCollab Client MiCollab Client users. It includes selecting device for outgoing calls and routing incoming calls to preferred device.</td>
<td></td>
</tr>
<tr>
<td>Messages</td>
<td>The user can call voice mail, view, and play received messages.</td>
<td></td>
</tr>
<tr>
<td>MiTeam</td>
<td>MiTeam is Mitel’s Cloud-based collaboration tool that provides mobile users with the ability to access features, such as:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Collaborate:</strong> Manage collaboration streams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Chat:</strong> Hold chat sessions and receive chat notifications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Pages:</strong> add white-board pages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>To-Do:</strong> Create to-do lists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>File Sharing:</strong> Store and share files, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>MiTeam Meet:</strong> Perform audio and web sharing within a team.</td>
<td></td>
</tr>
<tr>
<td>Presence</td>
<td>Telephony, Instant Messaging and dynamic status presence.</td>
<td></td>
</tr>
</tbody>
</table>
MiCollab for Microsoft Client features

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

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locations</td>
<td>Allows you to manage your Dynamic Status automatically by configuring your location.</td>
<td>Android location services API level 26 limits how frequently the client can retrieve the user’s location. If the MiCollab for Mobile Client (Android) is in the foreground, the status will change within 5 seconds. If the client is in the background, it will typically change within 5-15 minutes.</td>
</tr>
<tr>
<td>Schedules</td>
<td>Allows you to manage your schedules and your Dynamic Status is updated accordingly.</td>
<td></td>
</tr>
<tr>
<td>iOS Push Notification</td>
<td>MiCollab for iOS Client displays a system notification whenever new data is available. Notifications are pushed to the device even when the Client is in the background or the iOS device is locked. Users receive notifications for the following: • Chat messages • Voice mail messages • Incoming calls • Incoming EHDU calls • Missed calls • MiTeam Stream and MiTeam Meet invites For more information, see the MiCollab Client Quick Reference Guide.</td>
<td></td>
</tr>
</tbody>
</table>

MiCollab for Microsoft Client features

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

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call History</td>
<td>Provides a list of missed, received, and dialed calls that includes caller ID (if available). Allows user to make calls from the Call history menu from the MiCollab for Microsoft Client application in the system tray.</td>
<td></td>
</tr>
<tr>
<td>Call from IM Conversation or IM conversation history</td>
<td>Allows user to initiate a MiCollab Audio Call directly from a Skype for Business IM session window. Also allows users to make calls from the IM conversation history window.</td>
<td></td>
</tr>
<tr>
<td>Inbound Call notification</td>
<td>A call notification is provided for incoming calls through a pop-up window. The user has the ability to perform inbound call operations such as answer or reject an incoming call.</td>
<td></td>
</tr>
</tbody>
</table>
### Features and Capabilities

#### In-Call features
While in a call, enables the user to invoke a number of call control capabilities including Hold/retrieve, Transfer (supervised and unsupervised), Mute/unmute, Hang-up, and dialpad.

#### Multiple devices
Allows user to have more than one associated device (desktop phone, soft phone). MiCollab for Microsoft Client enables user to select the preferred device for making calls. The user will be able to answer calls coming onto any of the associated devices.

#### Preferred device (Call Using)
The user has the ability to select the preferred device for making calls.
- Desk Phone
- Soft Phone
- Mobile

#### Preference settings
Allows user to set-up and modify below settings:
- Teleworker
- Notifications for incoming and missed calls
- Send/delete Diagnostics
- Softphone settings – enabling/disabling softphone
- Call Using
- Playback ringtone

#### Single sign-on
On the first installation, the user will be prompted for MiCollab for Microsoft Client credentials. The MiCollab for Microsoft Client automatically starts when Skype for Business application is launched.

#### Transfer
Allows the user to transfer the call (supervised and unsupervised transfers are supported).

#### MiCollab Audio Calling menus
Allows the user to make a MiCollab Audio Call from the native Skype for Business application.

#### MiCollab ACD SIP Softphone Agents Integration
The ACD SIP Softphone feature extends Hot Desking capabilities to a SIP softphone. This feature allows the user to inherit Hot Desking features, such as ACD on the SIP softphone that can be deployed.
- The ACD SIP Softphone feature is available only in MiCollab Co-located mode.
- The ACD SIP Softphone can be used together with MiContact Center 9.1 or later and MiVoice Business 9.0 SP1 or later.

#### RDS Support
MiCollab for Microsoft Client is compatible with Remote Desktop Services (RDS) servers 2012 and 2016.
Supported Features

Supported Features on Communication Platforms (PBXs)

MiVoice Business Communication Platform

Feature Access Code for initiating a 3-party audio conference

In order for users to initiate a 3-party audio conference using a SIP softphone, the conference Feature Access Code on the MiCollab server must match the code that is set on the MiVoice Business platform.

Ensure that the Feature Access Code for conferencing is set to the same value on:

MiCollab Server

- Users and Services > Network Element > SIP Conference FAC
- MiCollab Client Service > PBX Nodes > SIP Conference FAC
- MiCollab Client Deployment > Deployment Profiles > Conference access code

For instructions on how to set a conferencing Feature Access Code on the MiVoice Business, see the respective documentation.

MiVoice 5000, MiVoice MX-ONE and MiVoice Office 400 Communication Platform

For MiVoice 5000, MiVoice MX-ONE, and MiVoice Office 400 feature matrices, see Appendix A in MiCollab General Information Guide.

Feature Access Code for initiating a 3-party audio conference

In order for users to initiate a 3-party audio conference using a SIP softphone, the conference Feature Access Code on the MiCollab server must match the code that is set on the MiVoice MX-ONE, MiVoice Office 400, or MiVoice 5000.

Note: SIP softphone 3-party conference on MiVoice Office 400 is not supported on MiVoice Lync Plugin.

Ensure that the Feature Access Code for conferencing is set to the same value on:

MiCollab Server

- Users and Services > Network Element > SIP Conference FAC
- MiCollab Client Service > PBX Nodes > SIP Conference FAC
- MiCollab Client Deployment > Deployment Profiles > Conference access code

MiVoice 5000

- Telephony service > Dialing plan > User dialing plan > Access to features > 3-way conference for softphone (use)
Note: For instructions on how to set a conferencing Feature Access Code on the MiVoice MX-ONE, and MiVoice Office 400, see their respective documentation.

Feature Access Code for enabling Call Take

To enable Call Take feature, the Feature Access Code on the MiCollab server must match the code that is set on the MiVoice 5000, MiVoice MX-ONE, or MiVoice Office 400. The Call Take feature allows users to take a call active on one device to another device and continue the call without interruption.

Ensure that the Call Take Feature Access Code is set to the same value on:

MiCollab Server

• Users and Services > Network Element > Call Take FAC

For instructions on how to set a Call Take Feature Access Code on the MiVoice 5000, MiVoice MX-ONE, and MiVoice Office 400, see their respective documentation.

Call Through feature support (MiVoice MXONE and MiVoice Business only)

When the MiCollab for Mobile Client user initiates a MiCollab call, a native mobile call is placed using the mobile number configured as Hot Desking Access Number or the Remote Extension Number.

Note:
Call Through feature is supported on MiVoice Business 8.0 SP3 and later and MiVoice MX-ONE 7.0 and later.

A new field PBX Access Numbers is introduced under the MiCollab Client Service > PBX Nodes tab for the Call Through feature. PBX Access Number must match the DID number (DID number terminating on the Hot Desking Access Number) configured on MiVoice Business and the R3 number configured on MiVoice MX-ONE. Multiple access numbers can be configured depending on the PBX configuration.

To configure the PBX Access Number in MiCollab:
1. Go to MiCollab Client Service > PBX Nodes and select the node to be used.
2. Under PBX Access Numbers, click Add Entry.
3. Enter the Access Number in the Add value text box.

Note:
It is recommended that you configure the PBX access numbers in E.164 format so that these numbers can be dialed from any country. For example, the Country Code for India is +91, and the PBX Access Number will be +91xxxxxxxx.

4. Click Save.

Note:
To delete an access number, select the number and click Delete Entry.

To enable Call Through functionality on MiCollab for Mobile Client:
1. In MiCollab for Mobile Client, go to Settings > General.
2. Select **My Numbers** and tap **Mobile or Remote Extension** if configured.
   - For **Mobile**, tap **Call Through** to enable the setting.
   - For **Remote Extension**, tap **Call Through** and select the configured mobile number from the prompt to enable the setting.

3. Tap **Save**.

**Note:**

For more information on Call Through feature for end-users, refer to MiCollab for **Mobile Client Quick Reference Guide > Call Through** section.

For Call Through feature to work, configure the PBX as mentioned in the *MiCollab Administrator Online Help > MiCollab Client Service > PBX Nodes* section.

**Account Synchronization, Presence and Dynamic Status**

**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 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 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.

**MiCollab 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 Windows 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 Windows 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 Windows 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.
**MiCollab Client Administrator Guide**

*MiCollab for PC Client and Outlook contacts IM presence*

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Available</strong></td>
<td>for chats and calls.</td>
</tr>
<tr>
<td><strong>Away</strong></td>
<td>or currently not in front of PC. Available for chats and calls but might not answer.</td>
</tr>
<tr>
<td><strong>In a Meeting</strong></td>
<td>or on the phone. This icon flashes when there is an incoming call.</td>
</tr>
<tr>
<td></td>
<td>Available for chats but answers might be delayed.</td>
</tr>
<tr>
<td><strong>Do Not Disturb</strong></td>
<td>the user is not available. Chats can be sent. calls are forwarded to voice mail.</td>
</tr>
<tr>
<td><strong>Not available for chats (Client is offline). Available for calls.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Not available for chats (Client is offline). Phone is busy for calls or the user is in a meeting.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>The User has set the calendar event type to Out of Office and the Client is active. Available for chat and the phone is free for calls (forwarded).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>The User has set the calendar event type to Out of Office and the Client is active. Available for chat and the phone is busy for calls.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>The User has set the calendar event type to Out of Office and the Client is inactive. Not available for chat and the phone is free for calls (forwarded).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>The User has set the calendar event type to Out of Office and the Client is inactive. Not available for chat and the phone is busy for calls.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Offline</strong></td>
<td>Not available for chats or calls.</td>
</tr>
</tbody>
</table>

**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 5 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 Windows 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 a user’s MiCollab account has none of the Dynamic statuses as per *Table 5 Dynamic Status defaults*. The account will be in this default state of 'no statuses' until the user connects to MiCollab Client Service from any of the MiCollab Client, the very first time.
- If account has one or more valid account status, changes in account's phone numbers or adding voice mail number later will not create additional statuses.
- On Legacy MiCollab Desktop Client, 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.
Features and Capabilities

Table 5: Dynamic Status defaults

<table>
<thead>
<tr>
<th>Phone Configuration</th>
<th>In the office</th>
<th>In a meeting</th>
<th>Working from home</th>
<th>Mobile*</th>
<th>Do not Disturb</th>
<th>Gone for the day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deskphone and no voice mail number</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deskphone and has voice mail number</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Deskphone, softphone and no voice mail</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EHDU Deskphone and no voice mail number</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deskphone, Softphone and voice mail number</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Deskphone, Softphone, EHDU number and voice mail (need PRG)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Deskphone1, Deskphone2, EHDU and voice mail (need PRG)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Deskphone1, Deskphone2 and voice mail</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

* Default dynamic status Mobile is not supported when MiCollab is integrated with MiVoice MX-ONE.

Configuring Dynamic Status

For Dynamic Status, set your mobile phone for incoming calls.

**Note:**

If the softphone is being used on the mobile, do not select both the softphone and the mobile phone at the same time. Select either softphone or the mobile phone, but not both.

To configure Dynamic Status when your Personal Ring Group (PRG) contains an External Hot Desk Extension and a mobile softphone, the user must perform the following:

1. Open MiCollab for Mobile Client.
2. Go to Settings > Manage Status.
3. Select the preferred status.
4. From the Call Using drop-down list, select the device you prefer to make calls from.
5. From the Send my calls to drop-down list, select My Ring Group and then select the device you prefer to answer calls from.
6. Click Done.

This configuration is performed to prevent an incoming call conflict on your mobile device between your GSM cellular phone and MiCollab softphone.
MiVoice MX-ONE message diversion profiles

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 6 Default message diversion profiles and the associated feature codes.

Table 6: Default message diversion profiles and the associated feature codes

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

Note:

MiCollab Client user cannot edit or delete default message diversion profiles. The MiVoice MX-ONE status integration enabled in MiCollab Client Service Configuration will make MX-ONE default message diversion profiles available in MiCollab Client for all users and this cannot be changed by the user.

Note:

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

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 ";"
.import script.txt ini' | sqlite3 csta_config.sqlite
```

MiCollab Client Call History

The following table provides the maximum call history records stored on MiCollab Client and the Server.

Table 7: MiCollab Client Call History

<table>
<thead>
<tr>
<th>Call history</th>
<th>MiCollab Server 1</th>
<th>MiCollab Next Generation Clients ² (MiCollab for PC, MAC, Mobile, and Web Client)</th>
<th>Legacy MiCollab Desktop Client ³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missed</td>
<td>50</td>
<td>50</td>
<td>1000</td>
</tr>
<tr>
<td>Received</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Dialed</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

1. There is no limit for call history records at system level. The server can support a total of number of users multiplied by 150 call history records.
2. MiCollab Next Generation Clients synchronizes call records with server and displays the last 150 entries.
3. Legacy MiCollab Desktop Client synchronizes call records with server and saves call history in the local database. Legacy MiCollab Desktop Client can store up to 1000 entries which includes the missed, received, and dialed calls.

MiCollab Audio, Web and Video Conferencing

Mitel supports 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 Legacy 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 Web site.
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 32).

• 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 112).

• 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.

OfficeLink Support

MiCollab Client includes the OfficeLink feature. Using this feature, users can place calls from the devices configured for them on the PBX from MiCollab Web Client. The MiCollab Client OfficeLink feature is supported on MiVoice Business communication platform.

**Note:**
OfficeLink is currently not supported on the MiVoice 5000, MiVoice MX-ONE, and MiVoice Office 400 communication platforms.

PBX Requirements for OfficeLink Feature

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.

Device Configuration in PBX

Configure the devices 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:

1. Configure PRGs using the Personal Ring Group Assignment form. See page 66 for details.
2. If required, define a DN to be used as the prime member of the PRG using the Multiline IP Set Configuration form. See page 66 for details.

3. Complete these same fields from the MiVoice Business system Administration Tool for the OfficeLink feature for either PRG or MDUG. See page 66 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 on page 22) for MiVoice Business PBX.

- **Softphones**: Includes the MiCollab Client softphone for MiVoice Business PBX.

- **External Devices**: Includes external devices (for example, mobile devices) that meet the following requirements:
  - **MiVoice Business**: OfficeLink calls are allowed from external devices that are logged in to the user’s External Hot Desk User (EHDU) extension.

OfficeLink End-User Functionality

When end-users access the OfficeLink feature, the **Place OfficeLink Call** dialog box appears.

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 8 PBX Response to OfficeLink feature** provides the PBX responses which include:

<table>
<thead>
<tr>
<th>PBX</th>
<th>Software Version</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiVoice Business</td>
<td>4.0</td>
<td>Click to Call</td>
</tr>
<tr>
<td></td>
<td>4.1 and later</td>
<td>Click to Call</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Device</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIP Device</td>
</tr>
</tbody>
</table>

- **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.

### SIP Support

MiCollab Client supports SIP - Session Initiation Protocol. MiCollab Desktop Client and MiCollab for Mobile Clients (Android and iPhone) 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 > Support > Mitel Knowledge Base](http://on-line.mitel.com).

### MiCollab Client Virtualization Support

**Citrix XenApp and XenDesktop Support**

MiCollab for PC Client is compatible with Citrix XenApp and Citrix XenDesktop services. It supports both Desktop mode and Web mode. MiCollab PC Client supports Citrix XenApp and XenDesktop version 7.14 or later. For more information on Citrix deployment, see “Citrix Deployments” on page 93.

**VMware View Support**

MiCollab for PC Client virtual appliance can be deployed in a VMware environment version 7.4 or later. It supports both Desktop mode and Web mode. For more information on MiCollab Client virtual environment support, see *Virtual Appliance Deployment Solutions Guide*.

**Microsoft Remote Desktop Services Support**

MiCollab for PC Client is compatible with Remote Desktop Services (RDS) servers 2012 and 2016. It supports both Desktop mode and Web mode.

### PBX Configurations supported for MiCollab Client

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:

• Multiple MiVoice Business/PBX Node
• Multiple mixed MiVoice Business/PBX Node
• Single MiCollab and single MiVoice Office 400
• Single or multiple MiCollabs (up to four) and MiVoice 5000
• Single or multiple MiCollabs (up to eight) and MiVoice Business
• Single or multiple MiCollabs (up to eight) and MiVoice MX-ONE

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 400, MiVoice 5000, and MiVoice MX-ONE. 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

Specifications
Introduction

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

For information on MiCollab Client Service components, see MiCollab Installation and Maintenance Guide:
Communication Platform (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** v8.0 SP2 or later
- **MiVoice 5000** v6.4 SP1 or later
- **MiVoice MX-ONE** v6.3 SP2 or later
- **MiVoice Office 400** v6.0 SP1 or later

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.
MiCollab Client Requirements

MiCollab for PC Client Requirements

The MiCollab for PC Client is installed on users’ computers at the site. Table 9 MiCollab for PC Client Requirements provides the computer hardware and software requirements for the MiCollab for PC Client.

Table 9: MiCollab for PC Client Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Processing Unit (CPU)</td>
<td>2.0 GHz or faster</td>
<td>Quad core</td>
</tr>
<tr>
<td>Available Hard Disk Space</td>
<td>600 MB free hard disk space</td>
<td></td>
</tr>
<tr>
<td>Random Access Memory (RAM)</td>
<td>8 GB or more recommended</td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Microsoft Windows 7 SP1</td>
<td>Professional/Enterprise/Ultimate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32 or 64-bit</td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows 10 Anniversary Update or later</td>
<td>32 or 64-bit</td>
</tr>
<tr>
<td>Thin Clients</td>
<td>Citrix XenApp and Citrix XenDesktop</td>
<td>7.14</td>
</tr>
<tr>
<td></td>
<td>Remote Desktop Services (RDS) (desktop and application mode)</td>
<td>2012 and 2016 Server</td>
</tr>
<tr>
<td></td>
<td>VMware View (desktop and application mode)</td>
<td>7.4</td>
</tr>
</tbody>
</table>

MiCollab MAC Desktop Client Requirements

The MiCollab MAC Desktop Client is installed on the computers at the site. Table 10 MiCollab MAC Client Requirements provides the computer hardware and software requirements for the MiCollab MAC Desktop Client.

Table 10: MiCollab MAC Client Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Processing Unit (CPU)</td>
<td>1.6 GHz or faster</td>
<td>Dual core</td>
</tr>
<tr>
<td>Available Hard Disk Space</td>
<td>100 MB free hard disk space</td>
<td></td>
</tr>
<tr>
<td>Random Access Memory (RAM)</td>
<td>8 GB or more recommended</td>
<td></td>
</tr>
<tr>
<td>Operating System (OS)</td>
<td></td>
<td>MAC OS X 10.12 or later</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows 7 SP1, Windows 8.0, 8.1 (Desktop mode), Windows 10, and MAC OS X Yosemite 10.10 or later.</td>
</tr>
<tr>
<td>Web Browser</td>
<td>Microsoft Edge 20, Internet Explorer (IE) 9, 10, and 11, Mozilla Firefox 40 or later, Google Chrome 45 or later, Apple Safari 9.0 or later.</td>
</tr>
</tbody>
</table>
| Thin Clients | • Citrix XenApp and Citrix XenDesktop 7.14  
• RDS 2016 Server  
• VMware View version 7.4 |

Note: MiCollab Client does not work properly if “Never remember history” is enabled in Mozilla Firefox.

MiCollab for Mobile Client Requirements

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

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android</td>
<td>Operating System</td>
<td>OS version 6.0 or later version</td>
</tr>
<tr>
<td></td>
<td>Central Processing Unit (CPU)</td>
<td>Quad Core, 1.2 GHz or faster</td>
</tr>
</tbody>
</table>
|             | Random Access Memory (RAM) | 1.5 GB RAM minimum  
(2 GB or more recommended) |
|             | Internal storage | 8 GB minimum  
(16 GB or more recommended) |
| iOS (iPhone 5 or newer) | Operating System | OS version 10.3.3 or later version |
MiCollab for Microsoft Client Requirements

MiCollab for Microsoft Client is installed on users’ computers. Table 13 **MiCollab for Microsoft Client Requirements** provides the computer hardware and software requirements.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Processing Unit (CPU)</td>
<td>2.0 GHz or faster Quad core</td>
<td></td>
</tr>
<tr>
<td>Microsoft Office 365 Enterprise license</td>
<td>E3 or E5</td>
<td></td>
</tr>
<tr>
<td>Available Hard Disk Space</td>
<td>600 MB free hard disk space</td>
<td></td>
</tr>
<tr>
<td>Random Access Memory (RAM)</td>
<td>8 GB or more recommended</td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Microsoft Windows 7 SP1 Professional/Enterprise/Ultimate 32 or 64-bit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows 10 Anniversary Update or later</td>
<td>32 or 64-bit</td>
</tr>
<tr>
<td>Thin Clients</td>
<td>Citrix XenApp and Citrix XenDesktop</td>
<td>7.14</td>
</tr>
<tr>
<td></td>
<td>Remote Desktop Services</td>
<td>2012 and 2016 Server</td>
</tr>
<tr>
<td></td>
<td>VMware View</td>
<td>7.4</td>
</tr>
</tbody>
</table>
Chapter 5

Installing, Upgrading and Provisioning
MiCollab Client
Installation Overview

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

**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. Review the planning considerations (see "Planning Considerations" on page 63).
2. Configure the PBX for MiCollab Client using System Administration Tool for the MiVoice Business PBX (see "MiVoice Business PBX" on page 64) programming interface.
3. 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 70).
4. Install and configure MSL and MiCollab Client Service (see "Install and Configure MSL and MiCollab Client Service" on page 77).
5. Access the MiCollab Client Service Administration page (see "Access the MiCollab Client Service Administration Page" on page 86).
6. Provision MiCollab Client as documented in the MiCollab Client Service Administrator online help (see "Provisioning MiCollab Client" on page 97).
7. Install MiCollab for PC Client (see "Install MiCollab for PC Client" on page 90).
8. Install MiCollab for Microsoft Client (see "Install MiCollab for Microsoft Client" on page 94).
9. Install and deploy the MiCollab for Mobile Client (see "Deploy MiCollab for Mobile Client" on page 95).
10. Configure softphone (SIP-based) (see "Softphone (SIP-based) specific considerations" on page 102).
11. Individual client configuration and testing instructions can be found (see "Softphone Configuration - MiCollab Windows Desktop Client" on page 105).
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 14) are you connecting to (MiVoice Business, MiVoice 5000, MiVoice MX-One, or MiVoice Office 400)?

• Which type of synchronization (see “Account Synchronization” on page 42) 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 70).
  • Virtual Private Network (VPN) connection.

• Which Mitel applications will be integrated with MiCollab Client (for example, MiCollab UM, MiCollab Audio, Web and Video Conferencing, MiVoice Border Gateway, and so on.)? Several features (Video Calls, Collaboration, Visual Voice Mail, MiCollab Client Service Peering, Federation, and so on.) 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.
Configure the PBX

This section describes how to configure the MiVoice Business for MiCollab Client.

To configure other PBXs, see the respective PBX documentation on the Mitel eDocs Web site (http://edocs.mitel.com).

- **MiVoice 5000**: The MiVoice 5000 communications platform is configured through the MiVoice 5000 Web Admin interface. For more information, see MiVoice 5000 Manager Installation and Configuration Guide.

- **MiVoice MX-One**: This communications platform is configured through the MiVoice MX-ONE administrator interface. For more information, see MiVoice MX-ONE Installation and Maintenance Guide.

- **MiVoice Office 400**: This communications platform is configured through the MiVoice Office 400 Database Programming interface. For more information, see *MiVoice Office 400 WebAdmin (Expert Mode) Online Help*.

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

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.

To configure the platforms and system application resources, use the Mitel Integrated Configuration Wizard (MiCW) or manually perform users and services provisioning from the USP application.

Flow Through Provisioning synchronizes the updates made to the following data between the MiCollab and MiVoice Business system databases using System Data Synchronization (SDS). For instructions on how to configure Flow Through Provisioning, see *MiCollab Installation and Maintenance Guide*.

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

- "User Configuration form" on page 65 (for Legacy MiCollab Desktop Client)
- "License and Option Selection form" on page 65
- "Class of Service Options form" on page 65
- "Personal Ring Group Assignment form" on page 65

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 8 on page 49**).
- 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 160).

  **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 **MiTAl 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

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.

Note: Publishing MDUG non-prime numbers is not supported in MiCollab. Use PRG to publish the non-prime numbers.

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:

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.

MiVoice Office 400 Softphone settings

A user's MiCollab mobile client can register with a MiVoice Office 400 communications platform if the user is configured with a terminal type “MiCollab Softphone”. However, in order for a user's PC client to register with a MiVoice Office 400 communications platform, the user must be configured with a terminal type “MiCollab Softphone” and a MiVoice Office 400 SIP terminal type.

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

- NuPoint Unified Messaging
- MiCollab Audio, Web and Video Conferencing (MiCollab AWV)
- MiVoice Border Gateway

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 Windows 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" on page 68, below
- "FCOS options" on page 68
- "Port utilization" on page 68

**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 Windows 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 Windows 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 Windows 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 Windows 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 Windows 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 Windows 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
Installing, Upgrading and Provisioning MiCollab Client

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 Windows 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 Windows Desktop Client.

Other Voice Mail systems

The MiVoice Business PBX 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 Windows 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 “Provisioning MiCollab Client” on page 97).
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 Windows Desktop Clients are installed.

MiVoice Border Gateway provides a secure communications path from remote MiCollab Windows 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 Windows 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) 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.
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
     voice mail 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.


4. Click Add new proxied domain, and create a new proxied domain for the MiCollab Client
   Service.

MiCollab ACD SIP Softphone Agents Integration

   Note:
   The ACD SIP Softphone can be used together with MiContact Center 9.1 or later and MiVoice
   Business 9.0 SP1 or later.

   The ACD SIP Softphone feature extends Hot Desking capabilities to a SIP softphone. This feature
   allows the user to inherit Hot Desking features, such as ACD on the SIP softphone that can be
   deployed. Once the user logs in to SIP softphone, the MiVoice Business system associates the
   user's personal phone settings, such as directory number and other settings to the softphone.

   Note:
   A welcome e-mail is sent to user with the link to download the PC Client and a deployment e-mail
   is sent to the user with the steps to deploy the Client and register it.

   Note:
   The ACD SIP Softphone feature is not supported on MiCollab Web Client and MiCollab for Mobile
   Client.

   The ACD SIP Softphone feature is supported only in the Integrated mode of MiCollab deployment.
Adding new ACD SIP Softphone agents

To add a new ACD SIP Softphone agent, you need to perform the following procedure:

- Create template
- Create user
- Configure user on MiVoice Business and MiContact Center

**Note:**
To define Agents and Groups, see MiVoice Business System Administration Tool Help and MiContact Center for Business Installation and Administration Guide.

**Create Template**

The template contains the user information and applies SIP softphone capability for Hot Desking users along with Teleworker service for the user.

The default template includes a Hot Desk SIP Softphone user with a single phone, you can also create a custom template to assign other devices to the user. The template allows you to create many users with the similar configurations. You can use the existing default template or a custom template. See MiCollab Server Manager help > Users and Services > Manage Roles and Templates for information on creating templates.

**Create User**

You can create a user using any of the following methods:

- Quick Add: Select the appropriate role and click the Phones tab.

**Note:**
Enable Hot Desking User, ACD Agent, and Enable SIP Softphone for users.

- Bulk User Provisioning and Integrated Directory Services: Select the appropriate role to create or import users using Bulk User Provisioning tool or IDS (Active Directory) sync.

**Configure user on MiVoice Business and MiContact Center**

After creating template and users, configure the users on MiVoice Business and MiContact Center.

- Configure new added user to Agent Group in Flow Through environment. For details on this configuration, see System Applications > Automatic Call Distribution > ACD > Programming section in the MiVoice Business System Administration Tool Help.


- Configure users on MiContact Center. For details on this configuration, see Adding ACD Hot Desking Agents section in the MiContact Center Business Installation and Administration Guide.
Adding ACD SIP Softphone to an existing agent

To add a new ACD SIP Softphone capabilities to an existing agent, you need to perform the following procedure:

• Edit user
• Configure user on MiVoice Business and MiContact Center

**Note:**
To define Agents and Groups, see *MiVoice Business System Administration Tool Help* and *MiContact Center for Business Installation and Administration Guide.*

*Edit User*

To add a Hot Desk ACD SIP softphone agent:

Go to **Users and Services > Phones** and enable Hot Desking User.

Select **ACD Agent** and **Enable SIP Softphone** option for the ACD agent.

Select the deployment profile from the drop-down menu and click **Save**.

**Note:**
If the Teleworker service is required for the phone, you must create it from the **Teleworker** tab.

*Configure user on MiVoice Business and MiContact Center*

After editing the user and adding ACD SIP Softphone, configure the users on MiVoice Business and MiContact Center.

• Configure users on MiVoice Business. For details on this configuration, **System Applications > Automatic Call Distribution > ACD > Programming** section in the *MiVoice Business System Administration Tool Help*.

• Configure users on MiContact Center. For details on this configuration, see **Adding ACD Hot Desking Agents** section in the *MiContact Center Business Installation and Administration Guide*.

*Migrating existing agents to ACD SIP Softphone*

To migrate an existing MiCollab user with the MiNET ACD Phone to the new ACD SIP Softphone perform the following steps:

• Create template
• Migrate user
• Executing migration script

**Note:**
To define Agents and Groups, see *MiVoice Business System Administration Tool Help* and *MiContact Center for Business Installation and Administration Guide.*
Create Template

The template contains the user information and applies SIP softphone capability for Hot Desking users along with Teleworker service for the user.

You can migrate a user using the default template (Hot Desk SIP Softphone User) or you can create a custom template if the default template does not have all the information you require.

The custom template should be similar to the user's existing template except that the phone that is being migrated to the ACD SIP softphone will have Enable SIP Softphone option enabled.

To use the SIP ACD Hot Desk Softphone in the template:
1. Copy the existing template and select the Enable SIP Softphone checkbox and select Include Teleworker Service, if required.
2. Select SIP Softphone ACD for the type in the Softphone extension drop-down.
   Note: If the Other Phone option is used, then ensure to select the Derive DN checkbox in the template.
3. Click Save. It automatically creates a new role with the same name.
   Note: You can confirm the changes under Users and Services > User Roles tab, this role name will be used for migrating the users.

Migrate user
1. Navigate to the user that need to be migrated from User and Services.
2. Under the MiCollab Client tab, set the Soft phone extension and Desk phone extension fields to None, click Save.
   Note: This will delete all the user's details from MiCollab Client database.
3. Execute the script as explained in the below procedure to complete the migration.

Executing migration script

Execute the migration script, this changes the user's role to the newly created template. MiNET Hot Desk will change to SIP Hot Desk phone. If there is any active call on this phone, the migration might fail.

Note: If the phone is busy, this action will fail.
1. Navigate to the user that need to be migrated from USP.
2. Run the attached script on the MiCollab as follows:
a. Create a .CSV file with the details of all users that must be migrated.

   **Note:**
   
   The mandatory fields in .CSV file are Role Name and Primary Phone. If the user has multiple phones, then provide the Secondary and Other Phone details.

Microsoft Excel can be used to create this file. An example copy of .csv file can be found at: /usr/mas/bin/. The file should be saved as **UserData.csv**

b. Copy **UserData.csv** file on MiCollab in /tmp folder.

c. Open a putty session to MiCollab and run the following command:

   /usr/mas/bin/migrateusers.py

After the migration is complete, a success message appears. If not, an error message indicating the reason for the migration failure appears.

**MiCollab Advanced Messaging (MAM) integration**

The integration of MiCollab Advanced Messaging provides the user access to the responsive Web-interface for managing voice mails.

The user needs to provide the credentials to the MiCollab Advanced Messaging Web Client on MiCollab Clients. The credentials to access MiCollab Advanced Messaging are not stored by the MiCollab Client but cached by the web interface (depending on user's browser settings on the device).

**Precondition**

- The user needs to have a valid Visual voice mail license.
- The server hosting for MiCollab Advanced Messaging must have a valid trusted certificate. Refer to the MiCollab Advanced Messaging documentation for details.
- The MiCollab Advanced Messaging Web Client should be enabled for HTTPS and have a valid trusted certificate.
- For PBX platforms that supports MiCollab Advanced Messaging, refer to Table 20: Voice Mail Server Types.
- The MiCollab Advanced Messaging must have the MiCollab Advanced Messaging Web Client installed.

**Enabling MiCollab Advanced Messaging for a new MiCollab installation**

The type of Voice mail for the installation needs to be selected in the Server Manager on the following page:

**MiCollab Client Service > Configure MiCollab Client Service > Enterprise > Settings > Voice mail server type.**

**Table 14: Voice Mail Server Types**

<table>
<thead>
<tr>
<th>Platform</th>
<th>Embedded</th>
<th>NuPoint</th>
<th>Advanced Messaging</th>
<th>Default setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiVoice 5000</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>NuPoint</td>
</tr>
</tbody>
</table>
• When **Embedded** is selected, the **Voice mail server** field is hidden.

• When **NuPoint** is selected, the **Voice mail server** field displays the FQDN of the NuPoint server. The field is "read-only" in this case.

• When **MiCollab Advanced Messaging** is selected, the **Voice mail server** field is enabled and administrator needs to provide the URL for the clients accessing MiCollab Advanced Messaging Web Client.

• The MAM Client URL should be resolvable and accessible form the internet when the MiCollab Client will be used outside the Local LAN.

**Enabling MiCollab Advanced Messaging for an existing MiCollab installation**

An existing MiCollab user will not get the new roles/templates automatically when upgraded to MiCollab 8.0 or later. The admin must manually create the role/template to remove NuPoint and to change the MiCollab Client feature profile. This is required to let the clients show the MiCollab Advanced Messaging in the Voice mail tab.
Installing Standalone MiCollab Client Server

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 15 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

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

- **MiCollab Client Service Software**: High-level installation and configuration steps include:
  - "Install MSL Operating System" on page 78.
  - "Configure MSL" on page 78.
  - "Install the MiCollab Client Service blade" on page 80.
  - "Verify MiCollab Client Service Licensing" on page 81.

- **MiCollab Client Virtual Appliance**: High-level installation and configuration steps include:
  - "Install MiCollab Client Virtual Appliance" on page 81.
  - "Configure MSL" on page 78.
  - "Verify MiCollab Client Service Licensing" on page 81.

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

MiCollab Client Service Software Installation

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 Service 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). 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 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 Web site.

_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 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.

<table>
<thead>
<tr>
<th>MSL Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator Password</td>
<td>For password strength, choose a password that contains a mix of uppercase and lowercase letters, numbers, and punctuation characters.</td>
</tr>
<tr>
<td>Domain Name</td>
<td>Names must start with a letter; can contain letters, numbers, and hyphens.</td>
</tr>
<tr>
<td>System Name</td>
<td>MSL automatically detects your system's Ethernet adapters and displays them (eth0, eth1) so you can configure a &quot;Local&quot; adapter (for LAN mode) or a &quot;Local&quot; AND a &quot;WAN&quot; adapter (for Network Edge mode). When configuring MiCollab Client Service, only the first local adapter should be configured (for LAN mode).</td>
</tr>
<tr>
<td>Local Network Adapters</td>
<td>Local Networking Parameters: The local IP address and subnet mask for the server.</td>
</tr>
<tr>
<td>WAN Adapters</td>
<td>This setting is not applicable for MiCollab Client Service configuration.</td>
</tr>
<tr>
<td>External Interface Connection</td>
<td>This setting is not applicable for MiCollab Client Service configuration.</td>
</tr>
<tr>
<td>Gateway IP Address</td>
<td>The IP address that MiCollab Client Service will use to access the network.</td>
</tr>
<tr>
<td>DNS Server IP Address</td>
<td>The IP address of your corporate DNS server.</td>
</tr>
<tr>
<td></td>
<td>Note the following:</td>
</tr>
<tr>
<td></td>
<td>• If you specify a Corporate DNS server, you must also configure the server's domains to Use Corporate DNS Servers under Configuration – Domains in Server Manager.</td>
</tr>
<tr>
<td></td>
<td>• If DNS is supplied by your ISP, leave this setting blank.</td>
</tr>
<tr>
<td>IPv6 Configuration</td>
<td>N/A. IPv6 is not currently supported by MiCollab Client Service.</td>
</tr>
</tbody>
</table>

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 Windows Desktop Client Problem Reporting Tool (see “Problem reporting tool” on page 163) 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.

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 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 77.

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 78.
   • “Verify MiCollab Client Service Licensing” on page 81.

Install and Configure MiCollab Client Virtual Appliance

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.
Installing, Upgrading and Provisioning MiCollab Client

- 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 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:
   - In VMware View administration, go to Inventory>Pools.
   - In Settings, go to the Pool Settings tab.

3. Install and configure the MiCollab Client 6.0 server.

4. Install MiCollab Client on each virtual desktop (in View backend).
   - 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.
   - Install the VMware View Client on each physical desktop (the physical Thin Client or Thick Client/repurposed PC).
     - Point your browser to the address of the View Connection Server.
     - Ensure that you select the correct version (32-bit or 64-bit) for your physical desktop.
     - NOTE: Local mode is not required.
     - 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.

5. Install the VMware View Client on each physical desktop (the physical Thin Client or Thick Client/repurposed PC).
   - For the PC/Thick Client - double-click 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.
   - 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 in 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 Windows 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 Windows 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 Windows 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 Windows Desktop Client operates in one of two modes, namely:

- Local softphone (meaning on the same machine at the MiCollab Windows 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 “Provisioning MiCollab Client” on page 97).
- view and refresh the server status, and start and stop the server (see “Status” on page 135).
- generate diagnostics information (see “Client Versions” on page 135).

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.


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

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 Windows Desktop Client, Android, and Web Clients. See “Installing MiCollab Client” on page 90.

MiCollab Client Software Upgrades

The upgrade to MiCollab Client 8.1.1 requires an upgrade to the following components:

- **MiCollab Client Server v8.1**: 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 8.1.1. 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 8.1.1 requires MSL version 10.x or later. It will not run on MSL 9.4 or earlier. The upgrade from MSL 9.4 or earlier to MSL 10.x 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 87
- “Upgrade UC Server version 6.0 to MiCollab Client Service version 7.0” on page 88
- “Upgrade Virtual MiCollab Client Service (vMiCollab Client)” on page 89

Note:
Upgrades specific to the MiCollab for Mobile Client:
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 MSL Operating System” on page 78).
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 MSL Operating System” on page 78).
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.

Note: After the upgrade is complete and verified, you must remove any snapshots. Removing the snapshots ensures performance for voice-intensive Mitel virtual applications.
Installing MiCollab Client

Install MiCollab for PC Client

From MiCollab Release 8.0 onwards, an advanced version of the Legacy MiCollab Desktop Client 7.3 called MiCollab for PC Client is introduced. The Legacy MiCollab Desktop Client can be upgraded to the MiCollab for PC Client using the windows installer package (download link provided in the Deployment E-mail message).

Note:
An active deployment profile is needed before installing the MiCollab for PC Client.

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:

- **MiCollab Client Login ID and Password**: Used to log in to the Legacy MiCollab Desktop Client, MiCollab for PC Client, MiCollab MAC Desktop Client, MiCollab Web Client, and MiCollab for Microsoft Client.

Note:
The legacy web client is no longer supported with the Legacy MiCollab Desktop Client or later. Use the new generation web client URL to access the Web Client.

- Softphone and Desk phone extensions.
- **A link to the MiCollab End-User Portal URL**: Provides access to the MiCollab End User Portal.
- **A link to the MiCollab for PC Client URL**: Provides access to the MiCollab for PC Client.
- **A secure link to MiCollab for Microsoft Client Software**: Provides access to MiCollab for Microsoft Client software.
- **A link to the MiCollab MAC Desktop Client URL**: Provides access to the MiCollab MAC Desktop Client.
- **A link to the MiCollab for Mobile Client URL**: Provides access to the MiCollab for Mobile Client.
- **A link to the MiCollab Web Client URL**: Provides access to the MiCollab 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 the Legacy MiVoice for Skype for Business Plugin Software**: Provides access to the Legacy MiVoice for Skype for Business Plugin .msi file.

MiCollab Client Deployment E-mail message

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

Installation procedure

Follow the below procedure to install MiCollab for PC Client for multiple users (without end-user interaction) using administrative console.

1. Download MiCollab for PC Client software.
2. From the administrative console, Start cmd CTRL-SHIFT-ENTER:
   - To install without end-user interaction:
     
     C:\Users\John\Downloads> msiexec /i <MSI> /passive
   
   - To install without opening any window:
     
     C:\Users\John\Downloads> msiexec /i <MSI> /quiet

where, MSI is the name of the MiCollab for PC Client installer packet. For example:

MiCollab_Win_x86_Release_v8_0_0_SP1_32.msi

**Note:**

The system will prompt the end-user to uninstall MiShareApp when the administrator uninstalls the Client from the administrative console.

Follow the below procedure to install MiCollab for PC Client from a computer that has administrator permissions and access to the software.

*To install MiCollab for PC Client:*

1. Download MiCollab for PC Client software from the download link provided in the deployment e-mail message.
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.
4. Select **I accept the terms of the License Agreement** and click **Install**.

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

Select the **Launch MiCollab Now** to launch the MiCollab for PC Client automatically.

**Logging on to the MiCollab for PC Client**

There are various ways to log on to the MiCollab for PC Client.

- Click the link provided in the deployment e-mail message to log on.
• Open the MiCollab for PC Client and type or paste (copied from deployment e-mail message) the authentication code provided in the deployment e-mail message.

• Open the Self Deployment feature from MiCollab Web Client and click on the QR Code to log on. See “Self Deployment” on page 5-131 for more information about the Self Deployment feature.

Upgrade from Legacy MiCollab Desktop Client to MiCollab for PC Client

This section describes the conditions for upgrading MiCollab Client from 7.3 to 8.0 or later.

Note:
Make sure Self Deployment feature for the user is enabled in the server manager.

Setting the Deployment Profile in Server Manager

2. Select the user from the User tab.
3. Click MiCollab Client.
4. Select a deployment profile from the Deployment Profile dropdown list.
5. Click Save.

Note:
An active deployment profile is needed for users to get the SIP Softphone information.

Provisioning new MiCollab for PC Client

1. Under Applications, select MiCollab Client Service.
2. Under Enterprise, select Default Account Settings.
3. Enable Provision new MiCollab Client for PC setting.
4. Click Apply.

Legacy MiCollab Desktop Client users will be automatically prompted to upgrade to MiCollab for PC Client. Legacy MiCollab Desktop Client is un-installed automatically when installing the MiCollab for PC Client.

MiCollab for PC Client imports the user account information from the Legacy MiCollab Desktop Client and deploys automatically.

Personal contacts that are saved in the Legacy MiCollab Desktop Client will NOT be imported to MiCollab for PC Client. MiCollab for PC Client provides the functionality to integrate personal contacts from Outlook (2013 and 2016) and Built-in Windows People (Windows 8.1 and Windows 10 only) applications. The user must configure the personal contacts in Outlook and People applications to be able to use them in MiCollab for PC Client.
Citrix Deployments

The MiCollab Client can be deployed using the Citrix delivery system. MiCollab Client supports both Desktop mode and Web mode. See “MiCollab for PC Client Requirements” on page 57 for supported versions.

MiCollab for PC Client limitations on virtual environment

The following features are not supported when MiCollab for PC Client is running on a virtual environment (Citrix server, VMware view, and Microsoft Windows Remote Desktop Services (RDS)).

Table 15: MiCollab for PC Client limitations on a virtual environment

<table>
<thead>
<tr>
<th>Citrix XenApp / VMware View App / RD server App</th>
<th>Citrix XenDesktop / VMware View Desktop / RD server Desktop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompt for MiCollab for PC Client upgrade is disabled</td>
<td>Prompt for MiCollab for PC Client upgrade is disabled</td>
</tr>
<tr>
<td>Video</td>
<td>Video</td>
</tr>
<tr>
<td>MiTeam</td>
<td>MiTeam</td>
</tr>
<tr>
<td>Background notifications for calls and chats on MAC OS</td>
<td>-</td>
</tr>
</tbody>
</table>

Note:
RD server desktop is accessible from IE browser only, because Connect to remote PC option is visible on Internet Explorer only.

MiCollab Web Client limitations on virtual environment

The following features are not supported when MiCollab Web Client is running on a virtual environment (Citrix server, VMware view, and Microsoft Windows RDS).

Table 16: MiCollab Web Client limitations on a virtual environment

<table>
<thead>
<tr>
<th>Citrix XenApp / VMware View App / RD server App</th>
<th>Citrix XenDesktop / VMware View Desktop / RD server Desktop</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiTeam</td>
<td>MiTeam</td>
</tr>
</tbody>
</table>

Note:
Hotkeys (background mode) and Video functionality are not available on both physical and virtual environment.
Install MiCollab for Microsoft Client

Notes:

- Uninstall MiCollab for PC Client before installing MiCollab for Microsoft Client.
- Ideally MiCollab for Microsoft Client installation must be done after the installation of Skype for Business application only. Installing the Skype for Business application after the client installation may override settings/configuration files of plugin and is not recommended. User should re-install the MiCollab for Microsoft Client if problem are encountered in this scenario.
- The user must have installation permissions on the computer or provide the administrator credentials when prompted.

MiCollab for Microsoft Client is an application which integrates seamlessly with Skype for Business application. For information on requirements, see “MiCollab for Microsoft Client Requirements” on page 59.

Information E-mail

Note:

Skype for Business application should be installed before installing MiCollab for Microsoft Client.

MiCollab Client Deployment E-mail message

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

Installation procedure

Follow the below procedure to install MiCollab for PC Client for multiple users (without end-user interaction) using administrative console.

1. Download MiCollab for Microsoft Client software.

2. From the administrative console, Start cmd CTRL-SHIFT-ENTER:
   - To install without end-user interaction:
     
     C:\Users\John\Downloads> msiexec /i <MSI> /passive
     
   - To install without opening any window:
     
     C:\Users\John\Downloads> msiexec /i <MSI> /quiet

   where, MSI is the name of the MiCollab for Microsoft Client installer packet.

Note:

The system will prompt the end-user to uninstall MiShareApp when the administrator uninstalls the Client from the administrative console.
Follow the below procedure to install MiCollab for Microsoft Client from a computer that has administrator permissions and access to the software.

To install MiCollab for Microsoft Client:

1. Download MiCollab for Microsoft Client software from the download link provided in the deployment e-mail message.
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.
4. Select **I accept the terms of the License Agreement** and click **Install**.
5. Click **Finish** to complete the installation process.

Logging on to the MiCollab for PC Client

There are various ways to log on to the MiCollab for Microsoft Client.

- Click the link provided in the deployment e-mail message to log on.
- Open the MiCollab for Microsoft Client and type or paste (copied from deployment e-mail message) the authentication code provided in the deployment e-mail message.
- Open the Self Deployment feature from MiCollab Web Client and click on the QR Code to log on. See “Self Deployment” on page 5-131 for more information about the Self Deployment feature.

**Note:**

For more information on installing and using MiCollab for Microsoft Client, see *MiCollab for Microsoft Client End-User Online Help*.

Deploy MiCollab for Mobile Client

MiCollab Client 7.0 and higher versions support 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 customizable deployment e-mail with links for downloading the MiCollab applications from the app stores is sent to the end user.

The end user must perform the following steps to configure the client:
1. Click on the download link provided in the deployment email (pointing to the respective app store) and install the application.

2. After installing the application, configure it by clicking on the configuration link or scanning the QR-code provided in the deployment email.

The administrator can translate or change the deployment email to meet the requirements of the specific installation.

In any case (with or without MBG installed), ensure that the MiCollab Server can send outgoing traffic to the Internet; otherwise, deployments cannot be made. For more information, see the MiCollab Client Deployment help file.

On MiCollab for Mobile Client for iOS devices, MiVoice Border Gateway (MBG) must be implemented in the installation, because softphone requires MBG support. The Teleworker feature must be enabled in the deployment profile and will be locked in the Client settings (the user cannot disable it). All softphone traffic to the Client will pass through the MBG.

Conditions and Limitations

The following conditions and limitations apply:

- iOS Client: If the client is working in background, the short name (j. Doe) or the public number is shown in the Push Notification. The full resolved name with the number gets visible by clicking on the notification.

  **Note:**
  The iOS Push Notification feature is supported on MiCollab 8.0 and later systems.

- iOS Client: An active internet connection and a MiVoice Border Gateway (MBG) is required to receive calls on MiCollab for Mobile iOS Client 10.3.3 or higher.

- iOS Client: If the user taps on a notification for chat, the MiCollab for Mobile iOS Client displays the view, which lists all chat conversations but not the individual chat for which the notification was received.

- Pressing Callback on a NuPoint Visual voice mail message will always callback the first number without presenting a list of numbers (Mobile/Desk, and so forth). This is not related to the lookup function but the current implementation.
Provisioning 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.

Note:
Upgrading and provisioning new MiCollab Client for PC is available for new installations and existing users.

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 200).

j. You must integrate the respective communication platform with MiCollab before deploying MiCollab Client. For deploying MiCollab Client, see MiCollab Client Deployment Help.

**Note:**
Perform a sync in MiCollab Server Manager, (MiCollab Client Service > Collaboration > URL (Sync Now)) before deploying the clients. If the sync is not successful, the Dial-In information is not updated and the message: “cannot dial to the conference” appears when the user attempts to join a conference. Also, the MiCollab AWV Client version is not updated, and users are not prompted to upgrade their AWV Clients to the later version.

k. Send the Welcome E-mail Message to MiCollab Client users (see page 90).

l. Send the Deployment E-mail Message to MiCollab Client users (see page 90).
Post Installation Configuration

Remote User Configuration

After the MiCollab for PC Client is installed on a computer that resides outside of the local network, you must configure remote user access to MiCollab Client. For MiVoice Business PBX configuration procedure, see "MiVoice Business PBX Configuration for remote users" on page 100.

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 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 70). 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 defaults to TCP when connecting to MiVoice Business directly. Defaults to UDP in teleworker mode. Defaults to UDP when connecting to 5k PBX.

b. MiCollab for Mobile Client (iOS and Android) defaults to UDP in all modes.

**Note:**

Mitel recommends that users always set the iOS Clients in teleworker mode and set the protocol to TCP or TLS when using latest MiVoice Border Gateway 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 for PC Client softphone and teleworker settings”
- MiVoice Border Gateway device configuration

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

MiCollab for PC Client softphone and teleworker settings

Before users can use MiCollab Client softphone features from MiCollab for PC Client, they must enable the softphone from the MiCollab for PC Client’s footer menu.

To enable the teleworker service, navigate to Settings > General > Use Teleworker. 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.

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:” on page 100
- “To add or enable SIP devices in the MiVoice Border Gateway for remote MiVoice Business users:” on page 101

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:
users:

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.


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) 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.


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 Windows 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**.

**Softphone (SIP-based) specific considerations**

To configure softphone (SIP-based):

1. **Licensing requirements (for MiCollab Desktop, MiCollab for Mobile clients):**
   For the MiCollab Windows 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 for PC Client but do appear on the Android and iOS clients under Softphone Advanced Settings at their default values.

<table>
<thead>
<tr>
<th>Service Class</th>
<th>L3 Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephony (Voice)</td>
<td>46 (EF)</td>
</tr>
<tr>
<td>Signaling</td>
<td>24 (CS3)</td>
</tr>
<tr>
<td>Multimedia Streaming (Video)</td>
<td>34 (CS4)</td>
</tr>
</tbody>
</table>

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 “Installation Overview” on page 62

4. **PBX Considerations:**
   Note:
   - MiVoice Business 5.0 SP2 or newer release is required.
   - The account code dialing is not supported for SIP softphone on MiVoice Business.
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**:

**Note:**

If **Require Reliable Provisional Responses on Outgoing Calls (PRACK)** parameter is enabled for the device under SIP Peer Profile form in MiVoice Business, then **PRACK support** must be enabled for those same devices in MBG.

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 104, “**MiVoice Border Gateway and Remote Proxy Services Configuration**” on page 70 “**Post Installation Configuration**” on page 99.

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](http://edocs.mitel.com/default.htm)
MiCollab Windows Desktop Client - see “Softphone Configuration - MiCollab Windows Desktop Client” on page 105

Notes:

- On the Legacy 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 66.

Migration from MiNet Softphone on MiCollab Windows Desktop Client

A few scenarios to consider:

- **Minet Softphone**: The Legacy 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 Legacy 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 Legacy MiCollab Desktop Client (i.e., on first startup, the Legacy 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 Legacy MiCollab Desktop Client depends on whether or not the user has configured the Legacy MiCollab Desktop Client to use the SIP softphone. On first startup, the Legacy MiCollab Desktop Client will use the Minet softphone. If the user wants to use the SIP softphone, the user must configured 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 Legacy 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 Windows Desktop Client

The following step-by-step procedure will guide you through installing the MiCollab Client software application onto your MiCollab Windows 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 107).

**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 Legacy 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 107 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 Windows Desktop Client software is installed on your computer. Click Finish to complete the installation process. By default the MiCollab Windows 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 Windows 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 soft phone 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 Windows 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 107.
- 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 107 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 107.

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 Legacy 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 Legacy 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 Legacy 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 27.
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 teammode.
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 <enterpriseId>.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 Voice mail, and so on 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:

1. **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.

2. **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.

**Calendar Integration**

MiCollab Client provides users with the following option to integrate:

- “Google Calendar Integration” on page 110
- “MiCollab Client and Mitel CMG integration with MiVoice MX-ONE” on page 113
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, and so on.) 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 Clients.

**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", and so on. 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, and so on.) 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.

MiCollab Client and Mitel CMG integration with MiVoice MX-ONE

When both the MiCollab Client and Mitel CMG are integrated with the MiVoice MX-ONE platform, both the MiCollab Client and Mitel CMG try to activate PBX diversions based on configured calendar integrations.

Mitel recommends that Mitel CMG Calendar Connection is configured to handle the PBX diversions.

To deactivate the MiCollab Desktop Client handling based on a calendar integration, configure the Desktop Client to **No status Change** for the calendar status **Busy** and **Out of Office**.
MiCollab Meeting Center

The MiCollab Meeting Center is an integration of **single tap to call** in MiCollab Audio, Web and Video conferences from the 6800 and 6900 series desk phones.

When the MiCollab Audio, Web and Video Conference is scheduled to start, the user taps the **Join** button to join the Conference. Only the meetings within the next 12 hours will be displayed. The notifications for starting the meetings can be activated and deactivated by the user using the **settings** softkey.

**Note:**

**Join** will directly dial-in the user from the desk phone to the audio portion of the MiCollab Audio, Web and Video conference (without dial-in number and access code).

**Note:**

The supported communication platforms are MiVoice Business, MiVoice MX-ONE, MiVoice 5000, and MiVoice Office 400.

To setup and configure MiCollab, Call Managers, and Microsoft Exchange for MiCollab Meeting Center, see “MiCollab Meeting Center Configuration” on page 269.

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 Windows Desktop Client clients are now ready to use Google Contacts as part of MiCollab Client. MiCollab Windows 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 Windows 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 Windows 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/.

• 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.

• Do not enable the Audio, Web, and Video **Enable Port Reservations** option if MiTeam is required. These two features are mutually exclusive. When the **Enable Port Reservations** option is enabled, MiTeam users are unable to join a stream.

• 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 ![menu](image)
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 MAC Desktop Client
• MiCollab for Mobile Clients (iOS/Android only).
• MiCollab for PC Client

The following minimum operating systems are required:
• Phone (4s +)/IOS 9+ (not supported on iPad or iPod)
• Android Phone 5.0

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

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.
Data Sovereignty

MiCollab Client Release 7.3 supports data sovereignty that allows you to choose the geographic location to host users’ stream content.

In a non-peered enterprise, the MiTeam users’ stream content is hosted on the same location. In a peered enterprise, the MiTeam users’ stream content can be hosted on the same or different location.

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 119.

Figure 24 shows an example of an Enterprise configured with MiTeam services.

Figure 4: 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. In the **Data Center Locations** drop-down list, select the data center location. By default, **us** is selected.

**Note:** After the data center location is selected, changing the data center to a new location will not move users’ stream content to the new location.

9. 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 5 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).
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 6* shows an example:

![MiTeam Configuration Settings](image)

*Figure 6: 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, or
• MiVoice Office 400

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 Quick 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).

Audio Dial-in numbers for MiTeam Meet in MiCloud

Audio Dial-in configuration is supported only if the server is in Cloud mode.

1. Log in to the MiCollab server manager.
2. Under Applications, click MiCollab Client Service.
3. Click Configure MiCollab Client Service.
4. Click the Enterprise tab.
5. For MiCloud Deployments that use MiCollab Audio, Web and Video Conferencing feature:
   a. Under MiTeam Configuration Settings, enable the MiTeam Configuration to see the Telephony Domain Configuration options.

   ![Figure 2: Telephony domain configuration](image)

   b. Select Custom in Telephony Domain Configuration.

   Note: The default option selected is None.
c. Add the Label name and the Dial-in number.

6. Click **Apply**.

**Note:** The Dial-in numbers information is sent to the users in MiTeam Cloud meeting invitation email.

**Note:** For peered enterprise, telephony domain configuration is synchronized automatically when the peering is established. Any changes in telephony domain are also synchronized to peered enterprises.

## 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 supported web browser. The softphone supports audio calls using the PC microphone, headsets 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
- Activate and deactivate the softphone.
- AWV Web sharing is available from within the MiTeam Web Client in MiCollab Release 7.2.1.
- Advanced logging such as "Send Problem Report" in the MiCollab Web Client is supported.
- Plantronics and Jabra headsets and PC integrated Audio are supported

### Conditions and Limitations

The following conditions and limitations apply:

- The softphone is only supported on Mozilla Firefox 46 and higher or Google Chrome 50 and higher.
- Video is not supported.
- You must provision this functionality from the Users and Services application and the MiCollab Client (UCA) administration interface. With MiCollab Client Deployment service (DeployU), this functionality is automatically provisioned.
- Only one WebRTC session is supported per user (multiple registrations are not supported).
- 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.

• MiCollab contacts display incoming ringing screen does not always get updated and resolved, when receiving a call in WebClient-WebRTC.

Example:
• Calling 8492104, will display **DE-04-Konf** on all other clients. On WebRTC, it is displayed as **8492104**. So for this call, the contact name is not updated.

• Calling another extension such as 6207 (Alois), the call is transferred to 6208 Georgios. After the transfer, a short name **G.Palioudis** is displayed instead of full name Georgios Palioudis1.

• When doing the Handoff from Deskphone to WebRTC, the user receives a call as **Unknown@Browser** and then it is resolved to **G.Palioudis**. But the full name is not displayed and the contact name does not get resolved.

Web Sharing Limitations on MiTeam Web Client

When you use web sharing from the MiTeam Web Client, the following additional limitations apply:
• On Windows platforms, sharing is not supported for applications that appear blacked out in the Sharing selection dialog box. PowerPoint slide show mode cannot be shared. When the sharing selection box comes up, the slide show mode is blacked out.

• Sharing is not supported for the Windows Sticky Notes application.

Requirements
• MiCollab Release 7.2.1 or later is required.

• The WebRTC Web Client is supported in all configurations of the MiCollab Client Service.

• MiVoice Border Gateway 9.3.1 is required. A valid user account with SIP credentials is required in the MiVoice Business Gateway. The SIP account can be the same as an existing Softphone SIP account. The Web Client Softphone participates in the Registration Claim scheme supported by the MiCollab Client SIP Softphone. As such, the DN is shared across all softphones.

Configuration

To configure a user with a MiCollab Client WebRTC Client:

1. Configure a MiVoice Border Gateway to support WebRTC in **Subscriber** mode. The WebRTC Gateway must be located on the MiVoice Border Gateway. Refer to the **MiVoice Border Gateway online help** or **MiVoice Border Gateway Installation and Maintenance Guide** for instructions.
2. Required configuration parameters and values are provisioned from Client Deployment to MiCollab Client Server and to MiCollab Web Client by default. This provisioning is done for all synced Client Deployment users or MBG accounts. Use the MBG FQDN as MBG SIP Host and MBG WebRTC SIP Host in the Client Deployment profiles. Depending on the MBG configuration, the FQDN resolves to the IP address of MBG. It includes:
   a. Server on WAN or MBG in MiCollab.
   b. Public (AMC visible) IP address of the server (MBG only).
   c. Single interface in a server (MBG only).

Workaround

If you do not have a FQDN, register for it and list it in the Web Certificate. If the Web Certificate is subdomain or you are already using a Wildcard Certificate, then you can use that for the new FQDN.

If you are using split DNS, the FQDN may resolve to the LAN-side of MBG when inside the LAN. It does not work correctly with WebRTC under all circumstances, so it is not recommended.

In certain split DNS scenarios, you can configure the parameter MBG SIP HOST with the IP address of WAN side of MBG for the Mobile Clients and configure MBG WebRTC SIP Host always with MBG’s FQDN.

3. Configure a user with a UCC Standard or Premium license. These licenses support PC client with softphones.

For MiVoice Business integrations in MiCollab Integrated Mode

   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 Business Integrations only

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.
For MiVoice Business integrations in Co-located or Stand-alone Mode
a. In the MiCollab Client application, add the user.
b. Add a phone to the user with a device type that supports a softphone (UC Endpoint).

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.
   Registration Claim for MiVoice Business and MiVoice Office 400 is supported. Forking for MiVoice MX-ONE, MiVoice-5000 and MiVoice Office 400 is supported.

For MiCollab Integrated Mode only
a. In the MiCollab Users and Services application, assign the extension to the softphone in the MiCollab Client tab.

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 DNs 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

Options 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".

   a. Access the MGB generic WebRTC client at
      https://<MBGServer hostname>/webrtc
   b. Log in to the client using your Setside SIP credentials.

2. Contact your Mitel Authorized Dealer.

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 is 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 Border 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.

For Chrome users, solve this issue by downloading the plug in from https://chrome.google.com/webstore/detail/webrtc-network-limiter/npeicpdbakmehahjeeohfdhnlpdklia?hl=en and installing it.

Audio Level

Problem

During WebRTC call, voice is crackling or the audio level is low or high.

Corrective Actions

a. Ensure that you have selected the correct microphone in the browser settings.

b. Set up and configure the device (Headset Microphone or the Bluetooth Headset) that you are using on your computer. Refer your operating system’s help for setting up the devices.

Multiple MiCollab SIP Softphone Configuration

MiCollab Client users can have multiple SIP softphones configured for MiCollab calls. For example, if the user has two softphones, both the softphones are active and set to ring at the same time.

Configure and deploy two softphones

1. Add the additional phone of type UCEndpoint under MiCollab Server Manager > Users and Services page.

2. Select the desired deployment profile.
   | Note: Device will be automatically deployed via DeployU.

3. Add teleworker service for this DN, if required.

4. In MiVoice Business communication platform, add the DN to the users PRG / MDUG.

5. Initiate PBX synchronization on MiCollab Client Service to import the user information from the PBX to MiCollab. See the MiCollab Client Administrator online help.
   | Note: It is recommended to set specific labels for the Softphones in MiCollab Client Service for the user to avoid confusion.

The user will now have two softphone DNs available which can be deployed using self deployment option and can be used on different devices.
MiVoice 69xx IP Phone Avatar Configuration

MiCollab Client Avatars (photos) can be uploaded to the MiCollab Client Service by the user, administrator, or from an Active Directory Server using Integrated Directory Services. The user’s avatar is displayed in the user’s MiCollab client.

These avatars (photos) can also be displayed on MiVoice 69xx series IP Phones.

Conditions

- Avatars are supported for MiVoice 69xx series IP Phones on MiVoice Business communications platforms only.
- Avatars are only supported for users with unique directory numbers across all the peered enterprises. Avatars are not supported if the directory number is not unique. For example, on a site which is configured with several voice clusters and is re-using DNs within each voice cluster, or on a site that is configured with local-only DNs that are not unique. For users, which do not have unique DNs, no avatar will be shown.
- No avatar is displayed, if:
  - the user’s number is not in local or peered enterprise directories,
  - a user exist’s in the local enterprise, but does not have a photo or
  - there is more than one user with the same directory number across all the enterprises (both the local and the peered enterprises).
- The avatar URL that is displayed in the MiCollab Client Enterprise tab must be configured in the MiVoice Business system administration tool in the Online Services URL form.
- When using external servers, it is the administrator’s responsibility to ensure that the URLs and the resources that they point to are kept in sync with the MiVoice Business system.
- Avatars cannot be uploaded to the MiVoice Business system.
- For security reasons, never use public servers to distribute resources. Use only private servers on the same network as the MiVoice Business System.
- In order for the phone to access avatars, the IP phone must be on a network that is trusted by the MiCollab server.
- The Calling Line Identification (CLID) must be removed from directory numbers of phones in order to access avatars on the MiCollab Server. In the MiCollab Client Enterprise tab, enter the CLID that should be removed from directory numbers when a phone accesses an avatar on the MiCollab Server. For example, if the CLID is configured as 9 and the directory number in the URL is 99000, then the MiCollab Client Service will look for directory number 9000 in its database.
- If you update a user’s avatar, it takes up to 12 hours before image is refreshed on the IP phones.

Set Permissions

Access to the avatar URL is restricted by the MiCollab Server to your local network (or subnet) by default. If the phones are on a different subnet than the MiCollab Server, it is necessary to allow them access. First, you must configure the phones in a trusted local network and then you can grant them express permission.
If the phones are used in Teleworker mode, the MiVoice Border Gateway must also be in the trusted network.

To configure the phones and MiVoice Border Gateway in a trusted network:

1. Log in to the MiCollab Server Manager.
2. Under Configuration, click Networks.
3. Configure the subnet or network of the phones and MiVoice Border Gateway as “trusted”. See online help for instructions.

Configure Avatar Support

1. Log in to the MiCollab Server Manager.
2. Under Applications, click MiCollab Client Service.
3. Click Configure MiCollab Client Service.
4. Click the Enterprise tab.
5. Under CLID Translation, enter the list of prefixes to be removed from the IP Phones that will access avatars from this MiCollab Client Service.
6. Under Settings, copy the URL from the Avatar URL field. This URL points to the location on the MiCollab Server where the avatars are stored. You must copy this URL to the MiVoice Business Online Service URLs form.

Note: Where there are multiple peered MiCollab or MiCollab Clients servers with multiple MiVoice Business platforms, you must program a different MiCollab URL into each of the MiVoice Business platforms to distribute the avatar request load.

7. Log in to the MiVoice Business System Administration tool.

Note: Disable the privacy setting for DN on MiVoice Business System Administration to see avatar for that DN.

8. Access the Online Service URLs form.
9. Paste the URL of the MiCollab Server where the avatar files are located into the Avatar field.
Note: The MiVoice Business Online Service URLs form is not shared through System Data Synchronization (SDS).

Check the MiVoice 69xx Phones

Note: It can take up to 12 hours before avatars appear on all the phones.

Check that MiVoice Business 69xx Phones exhibit the following behavior:

• In the idle display, the MiVoice 69xx shows the user’s MiCollab Client avatar.
• Place a call from a MiVoice 69xx IP Phone to another user’s MiVoice 69xx IP Phone.
• The called party’s avatar appears in your display; your avatar appears on the called party’s display.

Self Deployment

The users can deploy and configure the MiCollab for Mobile Client using Self Deployment feature. The user can deploy MiCollab Client on another mobile device or desktop device without administrator assistance. The Mobile Client can be deployed either from a MiCollab for PC Client, MiCollab for Microsoft Client, Web Client, MAC Client, or Mobile Client.

The users can also deploy the MiCollab for PC Client and MiCollab for Microsoft Client by clicking the QR Code provided by the MiCollab Web Client used for self deployment.

The admin can enable or disable the Self Deployment feature from the server manager:

MiCollab Client Service > Configure MiCollab Client Service > Enterprise > Settings > Default Account Settings.

This setting is enabled by default.
Self Deployment on MiCollab for Mobile devices (Dark Data Centers)

To enable Self Deployment on MiCollab for Mobile devices running in Dark Data Centers:

1. Go to the MiCollab Web Client and select **Settings**.
2. Click **Self Deployment**.
3. Scan the QR code using the MiCollab Client installed on the mobile device.

The mobile phone is directly connected to the DeployU in the LAN, without the need of the redirect service.

**Note:**

- Self Deployment feature must be enabled by the admin on **MiCollab Client Service**. The registered user must be running the MiCollab Client on a mobile device.
- The registered user must be running the MiCollab Client on a mobile device.
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 135). However, they may be helpful for MiCollab Client Service diagnostic purposes such as gathering log files (see “Server log files” on page 155).

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 website 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 "Provisioning MiCollab Client" on page 97). 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.

Client Versions

The Client Versions section of the page provides details of the MiCollab Client software versions currently available on the server.

To add a newer version of MiCollab Client software, choose a new client package to upload and then select the "Upload MiCollab Client" button.

   **Note:**
   The MiCollab Client Service Administration page accepts only rpm format when uploading a MiCollab Client software.
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, and so on. A module shows SHUTDOWN if it is turned off by clicking **Stop**. Unwatched modules show UN-KNOW (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 Windows Desktop Client version that the user is using)
- **User Agent** (additional information about the user’s MiCollab Windows 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, SIPREG**: 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 VOICE MAIL**: 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

**Reason Inactive**

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

Reactivate User

**User’s calendar integration**

**Active?** No

**Reason Inactive**

USER_DISABLED: User’s calendar integration has been disabled

Reactivate User
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 peri-
dically 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 sec-
tions.
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-in-
tegrated 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 moni-
    toring, 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 pe-
    riodically 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 over-loading 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.

**Note:**
The chat history is disabled only after making changes in the template. Changes done in templates do not persist on upgrade and needs to be done again.

### 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:
   ```bash
   /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:
   ```bash
   expand-template /opt/intertel/conf/sip_ims.ini
   ```
5. Restart MiCollab Client Service.

### 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.
   - 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.
2. Move all files from the /opt/intertel/data/imarchive directory.
   - Go to the MiCollab Client Service configuration page and click the **Perform Server Diagnostics** under Diagnostics.
   - Locate SIPIMS and click **Stop**.
3. Restart MiCollab Client Service.
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 Windows Desktop Clients to refresh extension information.
Chapter 7

Troubleshooting
MiCollab Server Troubleshooting

This section provides troubleshooting information for the MiCollab Client Service.

Installation problems

Table 17 MiCollab Client installation problems provides troubleshooting information for server installation problems.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The MSL server is showing the Service Temporarily Unavailable or Bad Gateway message when you are trying to install the MiCollab Client Service.</td>
<td>This can occur if the status page is refreshed (reloaded) automatically at the same time that the Web server is restarted.</td>
<td>To clear the message, click the Blades link under ServiceLink.</td>
</tr>
<tr>
<td>The MSL server is showing the Service Temporarily Unavailable message when you are trying to provision the MiCollab Client Service.</td>
<td>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 Configure Mitel MiCollab Client Service immediately after the MiCollab Client Service is configured or started).</td>
<td>Wait a couple of minutes and then try the request again.</td>
</tr>
</tbody>
</table>

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 149
- “PBX node synchronization error messages” on page 150
- “Collaboration server synchronization message” on page 151
MiCollab Client Service synchronization messages

Table 18 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 18: MiCollab Client Service synchronization error messages

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Busy.</td>
<td>System is in maintenance mode, or system in start up mode.</td>
<td>Wait until system is in service mode or wait until system is fully started.</td>
</tr>
<tr>
<td>License exceeded.</td>
<td>Exceeded customer purchased license feature.</td>
<td>Purchase additional license.</td>
</tr>
<tr>
<td>Too many primary aliases exists.</td>
<td>Too many aliases exists.</td>
<td>Remove user/account alias.</td>
</tr>
<tr>
<td>Invalid alias ID.</td>
<td>Alias ID is invalid.</td>
<td>Validate user/account alias.</td>
</tr>
<tr>
<td>Invalid voice mail system.</td>
<td>The provisioned VM is invalid.</td>
<td>Provision a valid VM system.</td>
</tr>
<tr>
<td>Authentication failed.</td>
<td>Invalid user name or password.</td>
<td>Try user’s valid user name and password.</td>
</tr>
<tr>
<td>Password too short.</td>
<td>User’s password is too short.</td>
<td>Change to a longer password.</td>
</tr>
</tbody>
</table>

AD/LDAP synchronization error messages

Table 19 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 19: AD/LDAP synchronization error messages

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error establishing LDAP Context for url ldap://&lt;ldap server IP&gt;:&lt;ldap port&gt;.</td>
<td>Invalid LDAP URL (Wrong IP/Port, and so on).</td>
<td>From the MiCollab Client Service administrator interface, set the correct LDAP url and try the synchronization again.</td>
</tr>
<tr>
<td>[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'].</td>
<td>Invalid LDAP search context.</td>
<td>From the MiCollab Client Service administrator interface, either remove the search context or set the correct search context and try again.</td>
</tr>
<tr>
<td>Invalid User query - The error message varies based on the actual error in the user query.</td>
<td>LDAP user query is wrong.</td>
<td>From the MiCollab Client Service administrator interface, either remove the user query or correct the user query and try the synchronization again.</td>
</tr>
</tbody>
</table>
### Table 20: PBX Node synchronization error messages

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuthData Sign failed.</td>
<td>MiCollab Client Service security certificate is invalid.</td>
<td>Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.</td>
</tr>
<tr>
<td>Authenticate request failed.</td>
<td>Verify that the MiCollab Client Service is compatible with MiVoice Business.</td>
<td>Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.</td>
</tr>
<tr>
<td>Authentication error.</td>
<td>Verify that the MiCollab Client Service is compatible with MiVoice Business.</td>
<td>Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.</td>
</tr>
<tr>
<td>Invalid number of fields. NTuples failed.</td>
<td>MiVoice Business and the MiCollab Client Service versions are incompatible.</td>
<td>Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.</td>
</tr>
<tr>
<td>Search first failed with invalid number of fields.</td>
<td>Verify that the MiCollab Client Service is compatible with MiVoice Business.</td>
<td>Upgrade MiVoice Business and the MiCollab Client Service to compatible versions.</td>
</tr>
</tbody>
</table>
Collaboration server synchronization message

Table 21 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 21: Collaboration Server synchronization error message

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown host exception.</td>
<td>This error message may appear in the MiCollab Client Service Administrator interface on the Collaboration Server Details page when you click <strong>Sync Now</strong>. This error message indicates that the MiCollab Client Service cannot resolve the hostname for the collaboration server.</td>
<td>Restart MiCollab Client Service, and then attempt the synchronization with the collaboration server again.</td>
</tr>
</tbody>
</table>

Alarms/Events

This section describes the Alarms/Events available from the Event Viewer option in the MSL Server Manager Administration menu (see page 134).

Alarms/Event include:

- "SIP connection event messages" on page 152 below
- "Presence event messages" on page 153
- "SIP Registrar event messages" on page 153
- "Watchdog messages" on page 154

SIP connection event messages

Table 22 SIP connection event messages provides information about SIP Connection Event Messages.

Table 22: SIP connection event messages

<table>
<thead>
<tr>
<th>Alarm/Event Description</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed to create listen socket for IP/Host.</td>
<td>Unable to open a socket for the IP and port specified in the event.</td>
<td>Check if port specified is already in use.</td>
</tr>
<tr>
<td>Active SIP Connection of type [1] established with [IP port].</td>
<td>The Severity Cleared means the connection established with the specified IP/Port has been removed.</td>
<td>Either MiCollab Client has closed the connection or could happen due to network issues.</td>
</tr>
<tr>
<td>Passive SIP Connection of type [1] established with [IP port].</td>
<td>The Severity Cleared means the connection established by the specified IP/Port has been removed.</td>
<td>Either MiCollab Client has closed the connection or could happen due to network issues.</td>
</tr>
<tr>
<td>&lt;number&gt; connections received from &lt;ip&gt; in last second. Total connections &lt;number&gt;. Max Allowed Connections &lt;number&gt;.</td>
<td>The specified IP is trying to open more connections per second than allowed.</td>
<td>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.</td>
</tr>
<tr>
<td>&lt;number&gt; connections were received from &lt;ip&gt;. Max Allowed Connections are &lt;number&gt;.</td>
<td>The specified IP is trying to establish more connections than allowed.</td>
<td>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.</td>
</tr>
</tbody>
</table>
## Presence event messages

Table 23 Presence event messages provides information about Presence Event Messages.

<table>
<thead>
<tr>
<th>Alarm/Event Description</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Session Limit Reached.</td>
<td>Total number of presence sessions allowed has reached the limit allowed in the MiCollab Client Service.</td>
<td>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.</td>
</tr>
<tr>
<td>Queue size has reached size <code>&lt;number&gt;</code> for Presence Notification Queue.</td>
<td>Total number of pending Notifications is exceeding the threshold.</td>
<td>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.</td>
</tr>
<tr>
<td>Rejecting SIP message.</td>
<td>Invalid SIP message was received.</td>
<td>Check the client that sent the message about validity of the SIP message.</td>
</tr>
<tr>
<td>Queue size has reached size <code>&lt;number&gt;</code> for <code>&lt;subscription&gt;</code></td>
<td>Total notification pending for a subscriptions are more than the subscriber can consume.</td>
<td>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.</td>
</tr>
<tr>
<td>Account Presence Subscription <code>&lt;subscription id&gt;</code> from <code>&lt;subscriber&gt;</code> to <code>&lt;presentity&gt;</code> terminated. Reason - <code>&lt;reason description&gt;</code></td>
<td>MiCollab Client Service’s presence subscription was terminated for the reason specified.</td>
<td>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.</td>
</tr>
</tbody>
</table>

## SIP Registrar event messages

Table 24 Registrar event messages provides information about Registrar Event Messages.

<table>
<thead>
<tr>
<th>Alarm/Event Description</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration for <code>&lt;account information&gt;</code> with resource <code>&lt;registration&gt;</code> from device <code>&lt;device&gt;</code> userAgent <code>&lt;user agent&gt;</code> callId <code>&lt;SIP call id&gt;</code> expired.</td>
<td>MiCollab Client has shut down or network issues are occurring.</td>
<td>Restart the MiCollab Client or check if network connectivity between the client and server is working.</td>
</tr>
</tbody>
</table>
Watchdog messages

**Table 25 Watchdog messages** provides information about Watchdog Messages.

![Table 25](image)

MiTAI error codes

**Table 26 MiTAI error codes** provides troubleshooting information about MiTAI error codes. These error codes appear in the PBX_Proxy log file (see page 136).

![Table 26](image)
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 Windows Desktop Client and MiCollab Web Client

• **sipregistrar.log**: Provides information about SIP registration for the MiCollab Windows 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 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 19 on page 149).

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 158
- “Account totals” on page 159

Figure 2 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 2: 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 Windows 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 81).
- Sync the MiCollab Client Service with the AMC to update licenses (see page 81).
- 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.
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).


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.


**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 and 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 for PC Client troubleshooting

This section provides troubleshooting information for the MiCollab for PC Client.

Problem reporting tool

The Problem Reporting tool, available from the MiCollab Windows Desktop Client, allows users to create a problem report and send it to you. Users can access the tool from the MiCollab Windows 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 Windows Desktop Client attaches the following compressed log files to the report:

- ucc.log
- SipSubscriber
- uca.dmp (if available)
- SoftphoneManager.log

After the user sends the report, the log files sent by the MiCollab Windows 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 164.

**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 78). 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 “MiCollab Server Troubleshooting” on page 148). 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 Web site for details and instructions.

1. Includes all logs with this file name (see page 165)
Additional Client log files and troubleshooting tools

Table 27 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>
<thead>
<tr>
<th>Location</th>
<th>Log File/Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;client installation directory&gt;</code></td>
<td>uca.log¹</td>
<td>Includes IP settings/ports for the MiCollab Client Service, Collaboration server and telephony server of client. NHtraceswitch settings for logging.</td>
</tr>
<tr>
<td><code>&lt;client installation directory&gt;</code></td>
<td>Executable</td>
<td>Executable used to launch MiCollab Client application.</td>
</tr>
<tr>
<td>For Windows Vista/Windows 7 C:users&lt;username&gt;\AppData\Roaming\Mitel\MiCollab</td>
<td>uca.log¹</td>
<td>Main log file for the MiCollab Windows Desktop Client.</td>
</tr>
<tr>
<td></td>
<td>uc.mdb</td>
<td>Client database which contains call log, contacts, groups, and messenger IDs.</td>
</tr>
<tr>
<td></td>
<td>user.config</td>
<td>user.config contains all persistent settings of the application, including configuration settings and UI layout settings. Deleting this file resets the MiCollab Windows Desktop Client to default settings.</td>
</tr>
<tr>
<td></td>
<td>SipSubscriber.txt</td>
<td>Includes low level logging for the SIP component of MiCollab Client.</td>
</tr>
<tr>
<td></td>
<td>uca.dmp</td>
<td>A Microsoft mini-dump file, created if the client shuts down unexpectedly.</td>
</tr>
<tr>
<td></td>
<td>SoftphoneManager.log</td>
<td>Provides logs for the Softphone process, which handles the softphone component of MiCollab Client.</td>
</tr>
</tbody>
</table>

¹. Includes all logs with this file name.
# MiCollab for PC Client Troubleshooting

Table 28 provides troubleshooting information for the MiCollab Windows Desktop Client.

**Table 28: MiCollab for PC Client troubleshooting issues**

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users are unable to connect to the server using MiCollab for PC Client, but can connect using MiCollab Web Client or MiCollab for Mobile.</td>
<td>Server certificate has expired.</td>
<td>Update the certificate and restart MiCollab Client Service.</td>
</tr>
<tr>
<td>MiCollab Client logs out automatically and displays password change error message.</td>
<td>Active Directory supports both old and new password for some time.</td>
<td>Instruct the user to continue using the old password until the MiCollab Client prompts the user to enter the new password.</td>
</tr>
<tr>
<td>No phone devices are available.</td>
<td>MiCollab Client cannot set a MiTAI monitor, or there is a firewall blocking or other network issue.</td>
<td>Check the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• On MiVoice Business PBXs check system options to ensure “MiTAI computer” is set to <strong>Yes</strong>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ensure MiVoice Business COS for the MiCollab Client sets has “HCI” enabled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ping the MiVoice Business PBX.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ping the desk phone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Does the desk phone have the same issue? (independent of MiCollab Client)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is the problem local or remote?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Are VLAN’s configured properly?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check VPN.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is telephony service started?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check telephony server logs for errors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Stop and restart telephony server service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use MiTAI test tool to verify if it is a MiTAI issue.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If it fails check MiVoice Business programming.</td>
</tr>
<tr>
<td>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.</td>
<td>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.</td>
<td>Add the user work e-mail as the first e-mail address under contact information for that account.</td>
</tr>
<tr>
<td>Problem or Error</td>
<td>Probable Cause</td>
<td>Corrective Action</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Calls to busy internal number do not display in Call History.</td>
<td>Show Call to Busy Number in Call History is False.</td>
<td>Change &quot;ShowCallToBusyNumberInCallHistory&quot; in user.config to &quot;True&quot;.</td>
</tr>
</tbody>
</table>
| No presence, or client keeps changing from online to offline. | MiCollab Client or MiCollab Client Service is not communicating with the presence server. | Check the following:  
• Has the presence server service started?  
• Does the MiCollab Client Service have a DNS entry?  
• Is the MiCollab Client Service communicating with the Presence server on the correct port?  
• Is the telephony server working properly?  
• Is the MiCollab Client communicating with the Presence server?  
• Check uca.log and verify the ports.  
• MiCollab Client firewall blocking necessary ports.  
• Check Presence server log and see if it is updating.  
• Check telephony server logs to see if it keeps losing connectivity. |
| 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. | To remove the External Dial feature (and disable click to call on the user's computer):  
1. Disable the External Dial feature in the user's account.  
2. Reinstall the client on the user's computer. |
| MiCollab for PC 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. |
| Calls are not routing to the device specified for the Dynamic Status. | 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 for PC 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 for PC Client and the Visual Voice Mail view failed to load. | Instruct the user to disconnect from his or her voice mailbox, exit the MiCollab for PC Client, and log back in to the Client. |
### Table 28: MiCollab for PC Client troubleshooting issues (continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>The external number is not logged into the EHDU.</td>
<td>Manually log the external number in or select “Permanent Login” from the Class of Service options.</td>
</tr>
</tbody>
</table>
| The user is unable to upgrade the MiCollab for PC Client to a later software version and also cannot uninstall the current version. | • There is a possible Microsoft Windows Installer issue on the user’s PC.  
- 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 | Use Add/Remove Programs from the control panel to uninstall the MiCollab for PC Client, and then install the client version. |
| MiCollab for PC 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 for PC 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.  
http://code.google.com/a/google.com/p/apps-api-issues/issues/detail?id=3171 | 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 for Microsoft Client Troubleshooting

Table 29 MiCollab for Microsoft Client troubleshooting issues provides troubleshooting items for MiCollab for Microsoft Client.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number was not recognized or call failed</td>
<td>Dialed or transferred the call to and invalid number</td>
<td>Check if the number is valid</td>
</tr>
</tbody>
</table>
| Softphone not available | • Softphone is disabled  
• Not logged into Skype for Business application | • Check if the softphone or deskphone is configured for the user  
• Log into Skype for Business application |
| Call error | No devices available to make a call | • Check if the softphone or deskphone is configured for the user  
• Check if the softphone is registered on the Client. From Client's footer, click on device selection and enable the softphone |
| Outgoing call not initiated with a warning that no devices are available | Neither a PSP or a CTI device is free or enabled | Enable a softphone or connect a deskphone |
| Call history records are grayed out and unable to make a call from MiCollab for Microsoft Client | Not logged into Skype for Business application | Log into Skype for Business application |
## MiCollab Web Client Troubleshooting

Table 30 MiCollab Web Client troubleshooting issue provides troubleshooting items for the Web Client.

### Table 30: MiCollab Web Client troubleshooting issue

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>MiCollab Client logs out automatically and displays password change error message.</td>
<td>Active Directory supports both old and new password for some time.</td>
<td>Instruct the user to continue using the old password until the MiCollab Client prompts the user to enter the new password.</td>
</tr>
<tr>
<td>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 Continue.</td>
<td>Safari is set to AutoFill and capture logins.</td>
<td>Turn off the Autofill setting in the Safari browser, and then try logging in again. See “MiCollab Web Client Requirements” on page 58 for a list of supported browsers.</td>
</tr>
<tr>
<td>Connection fails when using Firefox</td>
<td>Certificate issue.</td>
<td>Follow the steps below for WSP connection:</td>
</tr>
<tr>
<td>A red exclamation appears at the base of the MiCollab Web Client.</td>
<td></td>
<td>1. Type <code>&lt;server ip or name&gt;:36008</code>. For example, mas-uca-a.mi-cloud.com:36008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. When prompted, add the exception.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Log into the Web Client URL.</td>
</tr>
<tr>
<td>External Directory Search tab missing</td>
<td>External LDAP search setting is disabled in MiCollab Client Service Configuration.</td>
<td>To enable External LDAP search:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Ensure the external directory is configuration is valid in the MiCollab Server Integrated Directory Services (IDS).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. From the MiCollab Client Service Administrator interface, click the Enterprise tab and then in External LDAP Search Settings, select the Enable external LDAP search.</td>
</tr>
</tbody>
</table>
MiCollab for Mobile Client troubleshooting

Table 31 Mobile Client troubleshooting provides troubleshooting items for the Mobile Client.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| External Directory Search tab missing | External LDAP search setting is disabled in MiCollab Client Service Configuration. | To enable External LDAP search:  
1. Ensure the external directory configuration is valid in the MiCollab Server Integrated Directory Services (IDS).  
2. From the MiCollab Client Service Administrator interface, click the Enterprise tab and then in External LDAP Search Settings, select the Enable external LDAP search. |
| MiCollab Client logs out automatically and displays password change error message. | Active Directory supports both old and new password for some time. | Instruct the user to continue using the old password until the MiCollab Client prompts the user to enter the new password. |

Android Device troubleshooting

Table 32 Android troubleshooting issues provides troubleshooting items for Android devices.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Advanced settings “Best Wi-Fi Performance” is unchecked (disabled).</td>
<td>Set or enable the advanced settings “Best Wi-Fi Performance”.</td>
</tr>
<tr>
<td>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).</td>
<td>Unknown cause: Galaxy Nexus falls within the minimum hardware specs. Video calls to other devices are not experiencing this issue.</td>
<td>No corrective actions.</td>
</tr>
</tbody>
</table>

FMC Call Through troubleshooting

Table 33 FMC Call Through troubleshooting issues provides troubleshooting items for FMC Call Through functionality on mobile devices. Contact your system or network administrator for assistance on troubleshooting.

Note:

Make sure the programmed External Hot Desk User (EHDU) number matches the number presented by your mobile. For example, EHDU number format must be NXX-NXX-XXXX.
## Table 33: FMC Call Through troubleshooting issues

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| Configuration Error, contact system administrator | • DID (MiVoice Business) number (DID number terminating on the Hot Desking Access Number) not configured for PBX in MiCollab Client Service  
• R3 (MiVoice MX-ONE) number not configured for PBX in MiCollab Client Service  
• No Extension configured for user on MiVoice MX-ONE | • Add DID (MiVoice Business)/R3 (MiVoice MX-ONE) number for PBX.  
• Provision extension for User. |
| Server Internal Error, contact system administrator | MiCollab is not able to get device information from MiVoice MX-ONE | • Ensure Remote Extension is properly configured on MiVoice MX-ONE.  
• Ensure CSTA Proxy is properly configured and there is no communication issue between MiCollab and MiVoice MX-ONE. |
| Network error, contact system administrator | MiCollab did not receive the call delivered event from MiVoice Business or MiVoice MX-ONE | • There is communication issue (Link broken/Delay in messaging) between MiCollab and MiVoice Business/MiVoice MX-ONE.  
• MiVoice Business/MiVoice MX-ONE taking time to dial the destination number due to bad network.  
• If dialed number is over trunk and there are communications issues. |
| Call did not complete, contact system administrator | Request for call failed | • Did the number translate properly.  
• If the internal number is configured on call platform. |
<p>| No Such Number                          | Invalid Destination                                                          | Check DN / routing on PBX.                                                        |
| Destination Busy                        | Destination Busy                                                             | Try again after some time.                                                         |
| Destination In DND                      | DND set for destination                                                      | No Action.                                                                        |
| Network Busy                            | PBX is unable to route call                                                  | Check routes configured on PBX.                                                    |
| Unknown Error                           | Call failed on PBX                                                           | Check if user can make calls through other means.                                 |
| No server connection                    | No network connection between MiCollab client and server                      | Check internet/network connectivity.                                              |
| No push notifications received          | Connection issues with Apple push server                                     | None.                                                                             |</p>
<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| Call through successful and access number is answering but no further routing | Conflict in the Call Recognition Services (CRS) | • Check entries in CRS using the CRS Query maintenance command on MiVoice Business.  
• Check routes configured on the PBX.  
For example, user’s access number is on PBX1 and EHDU is on PBX2, therefore 713*15 must be routable from PBX1 to PBX2 for call through to complete.  
For more information on the Call Recognition Service, see MiVoice Business System Administration Tool Help > Features Reference > Call Recognition Service. |
| FMC Call through not working after the user’s External Hot Desk User (EHDU) number is changed | User has changed call through number (mobile number) and has a new number. MiVoice Business class of service option Hot Desk External User - Permanent Login enabled on the user does not allow the new External Hot Desking Number to take affect. | Create a copy of the existing COS that has Hot Desk External User - Permanent Login enabled and in the new number disable this feature.  
Assign new COS to the Hotdesking user.  
Either get user to log out or use MiVoice Business command line busy reset <<EHDU number>>  
Change External Hot Desking Number if not already changed.  
Change COS back to original with Permanent login enabled.  
For example, an External hotdesk user 5891234 that has the External Hot Desking Number configured as 07703123456 will return the following if it recognized by the CRS service:  
**Command:**  
CRS QUERY EHDU 07703123456  
**Result:**  
[Exact Match] Service Type:EHDU  
Key: 07703123456  
Result: 5891234 |
MiCollab Client for VMware Horizon View Troubleshooting

Table 34 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>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No audio or poor audio after connecting a USB headset.</td>
<td>The headset is selected for USB redirection.</td>
<td>Ensure that the headset is not enabled for USB redirection.</td>
</tr>
<tr>
<td>No audio or poor audio after connecting any type of headset.</td>
<td>RDP protocol is enabled for the virtual desktop.</td>
<td>Ensure PCoIP protocol is enabled.</td>
</tr>
<tr>
<td>Poor audio after connecting any type of headset.</td>
<td>Thin Client operating in Wireless mode.</td>
<td>Ensure Thin Client is operating in LAN Mode.</td>
</tr>
<tr>
<td>Unable to select Headset in the MiCollab Windows Desktop Client Configuration/Softphone settings.</td>
<td>The Thin / Thick Client physical endpoint does not have Headset set as the default Sound device.</td>
<td>Select Headset as the default Sound device on the physical endpoint device.</td>
</tr>
</tbody>
</table>
MiCollab Audio, Web and Video Conferencing Collaboration Troubleshooting

Table 35 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.
Ad-hoc Meeting Troubleshooting
<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| 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.                                                                      | 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.  
To test the URL:  
1. From the MiCollab Client Service Administrator interface, click the Collaboration tab.  
2. Copy the URL configured for the collaboration server.  
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.  
In most cases, the MiCollab Audio, Web and Video Conferencing URL should be of the form http://<awc-server-hostname>. The URL may also be https. |
| The MiCollab Audio, Web and Video Conferencing hostname is not resolvable from the MiCollab Client Service or the address is unreachable. | 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 Manage domains page in Server Manager. See the MSL documentation for more information. |                                                                                                                                                                                                             |
| You have configured the wrong type of collaboration server for the enterprise in the MiCollab Client Service Administrator interface. |                                                                                                                                                                                                              | To configure MiCollab Audio, Web and Video Conferencing as the collaboration server:  
1. From the MiCollab Client Service Administrator interface, click the Enterprise tab.  
2. Review the setting for the Collaboration server type 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. |
The user says that the Collaboration menu is not available from the MiCollab Windows Desktop Client.

The user is not licensed for the Collaboration feature.

To enable the Collaboration feature for the user:
1. From the MiCollab Client Service Administrator interface, click the Accounts tab.
2. Locate the user and click the link to open the Account Details page for the user.
3. Under Licensed Features, enable the Collaboration feature for the user.
4. Instruct the user to restart the MiCollab Windows Desktop Client. The Collaboration menu is available.

When the account was created, the Default Account Settings on the Enterprise tab did not specify a collaboration server.

To determine the Default Account Settings collaboration server setting:
1. From the MiCollab Client Service Administrator interface, click the Enterprise tab.
2. Under Default Account Settings, if the collaboration server is set to [None], then none of the accounts created in the enterprise will have collaboration server specified.

To specify a collaboration server for an account:
3. From the MiCollab Client Service Administrator interface, click the Accounts tab.
4. Locate the user and click the link to open the Account Details page for the user.
5. Under Account Settings, select the appropriate server for the Collaboration server field.
6. Instruct the user to restart the MiCollab Windows Desktop Client. The Collaboration menu is available.
<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The user cannot join a Web conference or Audio and Web conference as the host or leader when initiating a conference from the MiCollab Windows Desktop Client.</td>
<td>The user did not enter his or her e-mail address when joining the conference.</td>
<td>When the user starts a Web or Audio and Web conference from the MiCollab Windows Desktop Client, a Web browser opens to the MiCollab Audio, Web and Video Conferencing Join page. To join the conference as a participant, the user can type his or her name in the box (for example, Sally) and clicks Join. To join the conference as the host, the user must type his or her e-mail address in the box (for example, <a href="mailto:Sally_User@mitel.com">Sally_User@mitel.com</a>) and clicks Join.</td>
</tr>
<tr>
<td>Users running MiCollab Windows Desktop Client Release 7.0 or earlier client are unable to upgrade the MiCollab AWV client to Release 7.1</td>
<td>User is attempting to upgrade the MiCollab AWV client to Release 7.1 from a MiCollab Windows Desktop Client Release 7.0 or earlier client. This upgrade path is not supported.</td>
<td>User should upgrade to MiCollab Client Release 7.1 first, then perform the AWV client upgrade. OR User should upgrade the AWV client from the AWV portal or through the AWV Desktop Client Launcher.</td>
</tr>
<tr>
<td>MiCollab Audio, Web and Video Conferencing does not display option to choose either Join conference or Share desktop while joining conference through Additional Options using Internet Explorer 10 on Windows 8.</td>
<td>ActiveX filtering is enabled in Internet Explorer 10.</td>
<td>To disable ActiveX filtering: 1. Go to Manage Add-ons. 2. Disable Active X Collaboration Client Launch Control.</td>
</tr>
</tbody>
</table>
MiCollab Client Deployment Troubleshooting

Table 36 MiCollab Client troubleshooting issues provides troubleshooting information for the MiCollab Client deployment.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| Deployment using the email message does not work or deployment e-mail not delivered. | • Deployment through e-mail does not work.  
• No deployment e-mail delivered.  
• The MiCollab Server cannot reach the Redirect Server. | • Check that the correct e-mail address is set for the user. Using the admin-override, test the e-mail address field with a different e-mail address of a different e-mail domain.  
• Check if the deployment e-mail was sent successfully. Navigate to MiCollab Client Deployment > Users and check if the deployment e-mail was sent. After deploying the client, reload the page and check for errors if any.  
• Check connection between the MiCollab Server and the Redirect Server. See “Check connection between MiCollab Server and Redirect Server” on page 179 to resolve the problem.  
• Navigate to MiCollab Client Deployment > Users > Diagnostics to check and troubleshoot the issue. For more information on diagnostics, refer to Run Diagnostics in MiCollab Client Deployment Online Help. |

Note: The MiCollab Client Deployment uses a secure TLS connection to send the deployment data to the Mitel deployment server. The e-mail servers mitel.easydeploy.net uses TLS preferred (STARTTLS) for sending the e-mail. If your e-mail server does not support TLS, the e-mail will be delivered using TCP. Deployment e-mails are signed using DKMS, which allows your remote e-mail server to trust the e-mail and to not categorized it as SPAM.

Check connection between MiCollab Server and Redirect Server

This test checks that the connection to mcdiagnostics.easydeploy.net:443 is established and the TLS connection is not compromised by any security device.

The following conditions and limitations apply:

• The MiCollab server has a route to the Internet and can reach the deployment servers 85.214.114.203:443 and 85.214.114.186:443.

Note: These are temporary IPs. Use the name as mcdepl01.easydeploy.net and mcdepl02.easydeploy.net.

Note: MiCollab Server needs to verify the identity of the Redirection Server. Therefore Proxy Server is not supported for MiCollab Client Deployment.

• The MiCollab Server needs to have DNS configured.
• Date and time must be set correct for the Certificate validation.
• No SSL gateway must intercept the traffic.
This test returns the following error:

SSL routines:SSL3_GET_SERVER_CERTIFICATE:certificate verify failed

Check for any device which intercepts the TLS traffic between the MiCollab server and the Redirect Server. Check for any other TLS related issue (for example, date or time details).

More detailed information can be found out using a command line diagnostics. Run the command line of the MiCollab Server.

```bash
openssl s_client -CAfile /etc/pki/tls/certs/ca-bundle.crt -showcerts -connect mcdiagnostics.easydeploy.net:443 < /dev/null

CONNECTED(00000003)

depth=1 C = US, OU = IT, CN = SSL_fwd_cert
verify error:num=19:self signed certificate in certificate chain
verify return:0

---

Certificate chain

0 s:/CN=*.easydeploy.net
   i:/C=US/OU=IT/CN=SSL_fwd_cert

Some device owning the name SSL_fwd_cert might intercept the traffic. This indicates that there is a firewall which actively intercepts the TLS traffic, which is not supported.

The correct output would be:

```bash
openssl s_client -CAfile /etc/pki/tls/certs/ca-bundle.crt -showcerts -connect mcdiagnostics.easydeploy.net:443 < /dev/null

---

Certificate chain

0 s:/CN=*.easydeploy.net
   i:/C=US/O=GeoTrust Inc./CN=RapidSSL SHA256 CA
1 s:/C=US/O=GeoTrust Inc./CN=RapidSSL SHA256 CA
   i:/C=US/O=GeoTrust Inc./CN=GeoTrust Global CA
2 s:/C=US/O=GeoTrust Inc./CN=GeoTrust Global CA
   i:/C=US/O=Equifax/OU=Equifax Secure Certificate Authority
MiCollab Client Deployment test from public Internet

This test involves the Remote Proxy services component on the MiVoice Border Gateway Server. This diagnostic test checks the MiCollab Client deployment connectivity and if a configuration can be downloaded from the internet.

The test uses the setting Config download host from the selected MiCollab Client Deployment profile. For more information on the test, see Run Diagnostics section in MiCollab Client Deployment help.

Note:
The hostname must be accessible externally (on public Internet).

MBG is involved for all deployment scenarios, which are not using the Server mode or Gateway mode. For more information, see MiCollab Engineering Guidelines.

The following limitations apply:

- Configuration issues with the local Wi-Fi, the local split-DNS or with local firewalls can cause the deployment process to fail on the Mobile Clients, even though this test validates the connection between the MiCollab Clients on the Internet and the MiCollab Client Deployment service.

- It is possible that the connection between MiCollab Clients on the Internet and the MiCollab Client Deployment service fails validation while deployment to the Mobile Clients is successful. This can occur if the MiCollab Server has no public IP address or if an MBG is not included in the deployment configuration. Typically, this type of deployment configuration would only be found in a lab environment during testing.

Check MiCollab Client Deployment service connection from public Internet

The test verifies that a client can connect to the MiCollab Client Service Server running on TCP port 36008 using public Internet. This connection is required for logging in any MiCollab Client.

The connection involves the MiVoice Border Gateway MiCollab Client connector, which is forwarding the application traffic from MiVoice Border Gateway to MiCollab Server.

MiCollab Client level diagnostics

Before the Client level diagnostics are performed, all the connections tests from the deployment unit must succeed.

For successful MiCollab Client deployment, perform the following:

- Client must be able to reach the Redirect Server (https://mcdiagnostics.easydeploy.net:443) on the Internet. Check error code 10-19.

- Client must be able to connect to the MiCollab Deployment on the MiCollab Server to download the configuration (TCP 443). Check error code 20-29.

- Client must be able to login to the MiCollab Client Server (TCP port 36008). Check error code 30-39.
MiCollab for Mobile Clients (Android and iOS) allow detailed diagnostics, if any of the steps above would fail. The Client will display an error code. For detailed error code explanation, see [http://help.devices.mitel.com/help/index.html](http://help.devices.mitel.com/help/index.html).

**Note:**

If there are issues during a deployment phase with the MiCollab for PC Client, we recommend to use a MiCollab for Mobile Client for troubleshooting, since Mobile Clients offer a more detailed error reporting.

If there is an error in the MiCollab Client, repeat the test using a different access medium. For example, use LTE network instead of Wi-Fi, and check if there is any difference in connecting from inside and outside the network.
Introduction to Legacy MiCollab Clients

MiCollab end-users can access MiCollab Client features from the following interfaces:

Legacy MiCollab Desktop Client

Note:
New features will not be offered with the Legacy MiCollab Desktop Client. It is recommended to upgrade to an advanced version of the Client called MiCollab for PC Client. See "MiCollab for PC Client" on page 12 for an overview of MiCollab for PC Client. Legacy MiCollab Desktop Client can be upgraded to the MiCollab for PC Client using the windows installer package (download link provided in the Welcome e-mail message).

Legacy MiCollab Desktop Client allows users to control their desk phone and associated devices from their computer. Legacy MiCollab Desktop Client includes an embedded softphone. The softphone requires a separate license (see Table 37 on page 188).

Legacy MiCollab Desktop Client requires the Microsoft.NET Framework (see "Legacy MiCollab Desktop Client Requirements" on page 212). This component must be installed on the user’s computer prior to the installation of the MiCollab Desktop Client. See "Legacy MiCollab Desktop Client Features and Capabilities" on page 188 for a list of Legacy MiCollab Desktop Client features.

Legacy MiVoice for Skype for Business Plugin

Legacy MiVoice for Skype for Business Plugin is an application that is installed on the user’s computer and integrates seamlessly with Skype for Business application. Legacy MiVoice for Skype for Business Plugin includes an embedded softphone. The softphone requires a separate license (see Table 38 on page 193).

Using the MiVoice for Skype for Business Client, you can control your phone from your desktop—make calls, answer calls, and invoke mid-call features. Legacy MiVoice for Skype for Business Plugin is integrated with the native Skype for Business application to provide telephony features.

See "Legacy MiVoice for Skype for Business Plugin UI features" on page 193 for a list of Legacy MiVoice for Skype for Business Plugin Client features.
Third Party Integrated Applications with Legacy MiCollab Desktop Client

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

- **Personal Information Manager (PIMs):** PIMs allow users to easily import personal contacts into MiCollab Client. Supported PIMs include:
  - Microsoft Outlook 2010 (32-bit and 64-bit) and 2013 (32-bit and 64-bit) for Legacy MiCollab Desktop Client
  - IBM Lotus Notes Server and Client 8.0, 8.5, 8.5.2, and 9.0
  - Google Calendar and Contact Integration

- **Legacy MiVoice for Skype for Business Plugin:** Using the Legacy MiVoice for Skype for Business Plugin, you can control your phone from your desktop—make calls, answer calls, and invoke mid-call features. Legacy MiVoice for Skype for Business Plugin is integrated with the native Skype for Business application to provide telephony features.

- **Federation Servers:** 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 (see page 200). 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.
Legacy MiCollab Desktop Client Features and Capabilities

Legacy MiCollab Desktop Client features

Table 37 provides descriptions for the main features accessed from the Legacy MiCollab Desktop Client UI.

### Table 37: Legacy MiCollab Desktop Client UI features

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Options</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
| ACD                | The Legacy 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:  
• ACD traditional agents (MiVoice Business communication system)  
• ACD Hunt Groups (MiVoice Office 250 and communication system)  
The ACD view is an optional component for MiCollab Client. |                                                                                               |
| 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 Legacy 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    | Call Annotation features are displayed in the Call Window when you are on an active call and include:  
• **Notes**: Provides an text box to add notes about the call.  
• **Recorder**: Records the current call.  
The recorder function is provided by the MiCollab Client embedded softphone, which is a licensed feature (see Table 37 on page 188). |                                                                                               |
Table 37: Legacy MiCollab Desktop Client UI features (continued)

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Control</td>
<td>Call Control features are displayed in the Call Window and provide one-click access to the following call control features:</td>
<td>Call Me Back and Split are supported on MiVoice Business systems only.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Call Me Back (MiVoice Business systems):</strong> Provides call me back notifications for internal calls only.</td>
<td>Leave Station Message is supported on MiVoice Office 250 systems only.</td>
</tr>
<tr>
<td></td>
<td>• <strong>Leave Station Message (MiVoice Office 250 systems):</strong> Delivers a station message (flashing LED indicator) on the internal destination device.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Hold/Retrieve Held:</strong> Places/retrieves a call on hold.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>End Call:</strong> Ends the call.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Transfer, Conference:</strong> Allows the user to complete a transfer or conference. Includes the complete, cancel, or consult associated actions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Split:</strong> Places the party that joined the call last on hold. This feature is not supported by the MiVoice Office 250 communication system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Trade:</strong> During a consult call or a split call, this control places the active party on hold, and makes the other party active.</td>
<td></td>
</tr>
<tr>
<td>Call Forwarding</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Call Handoff</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Call History</td>
<td>Provides a list of missed, received, and dialed calls that includes caller ID and presence information for known contacts.</td>
<td></td>
</tr>
<tr>
<td>Chat</td>
<td>Provides multi-party chat functionality for corporate contacts. Chat features include emoticons, timestamp, file transfer, chat history, and user configurable chat alert sounds.</td>
<td>The maximum chat file transfer size is 20 megabytes.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Compact Mode</td>
<td>Compact Mode provides access to frequently-used MiCollab Client features from a minimized interface that can be moved to any area of your desktop.</td>
<td></td>
</tr>
</tbody>
</table>
Configuration Options: Configuration options allow the user to customize the following features for the Legacy MiCollab Desktop Client:

- Appearance
- Calendar Integration
- Call Notification
- Chat Settings
- Knowledge Management (Supported on Legacy MiCollab Desktop Client 7.3 and below)
- Login Notification
- PIM Integration
- RSS Window (Supported on Legacy MiCollab Desktop Client and below)
- Telemarketing
- Softphone Settings
- Contacts View

Conference: Allows a user to go from a point-to-point call to a multi-party call. MiCollab Client Softphone supports conferencing with the MiVoice Business platform.

- Split: 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.

- Trade: During a consult call or a split call, this control places the active party on hold, and makes the other party active.

Note: The following conference feature conditions are specific to the SIP-based softphone:

1. Setting up a conference call on the MiVoice Business or MiVoice Office systems is not supported.

2. Setting up a conference call on the MiVoice MX-ONE and MiVoice 5000 systems is not supported.

3. Setting up a conference call using MiCollab Audio, Web and Video Conferencing is supported.
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 Legacy 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. The MiCollab Client Console is not supported on MiVoice MX-One and MiVoice 5000 systems.

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 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.

MiCollab Client provides external dialing functionality for the following applications:
- **Microsoft Word and Excel**: Users must configure Smart Tags/Actions for external dialing from Word and Excel.
- **Microsoft Outlook**: Users must configure Smart Tags/Actions for external dialing from Outlook.
- **Microsoft Internet Explorer**: The MiCollab Client Dialing Helper Add-On provides external dialing in IE.

Favorites include the list of corporate and personal contacts that the user has assigned as a Favorite.

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.

Users licensed for Office Communicator Integration can launch an IM session from the Legacy MiCollab Desktop Client with any contact who has a corresponding login for the application and is currently logged in to the application.

Provides indexing and search functions to correlate files and e-mail messages with users' contacts. Supported on Legacy MiCollab Desktop Client and earlier.

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.
### Legacy 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 Legacy 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 **Dynamic Presence** (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 Legacy 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. | Supported on Legacy MiCollab Desktop Client and earlier.                                                                                                 |
| SiP-Based Softphone   | Provides a SiP-Based Softphone to the Legacy 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 Legacy 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.                                                                 | Supported on Legacy MiCollab Desktop Client and earlier.                                                                                                 |
| 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.                                                                 |

Page 5 of 6
Legacy MiCollab Desktop Client UI features (continued)

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tray Icon and Menu</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Video Call/Presence</td>
<td>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.</td>
<td>Requires MiCollab Audio, Web and Video Conferencing 4.0 or later.</td>
</tr>
<tr>
<td>Visual Voice Mail</td>
<td>Provides access to the following voice mail features: • Receive message waiting indications • Play, forward, and delete voice mail messages • View, forward, and delete fax messages • Change the voice mail PIN</td>
<td>Visual Voice Mail is only available on systems with MiCollab UM voice mail.</td>
</tr>
</tbody>
</table>

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 Legacy 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 37 on page 188).

2. SIP softphone should not be used with MiCollab Client console. MiCollab MAC Desktop Client does not support the console feature.

Legacy MiVoice for Skype for Business Plugin features

Table 38 provides descriptions for the main features accessed from the Legacy MiVoice for Skype for Business Plugin UI.

Table 38: Legacy MiVoice for Skype for Business Plugin UI features

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Answer</td>
<td>When the Auto Answer feature is enabled, incoming calls are answered at the first ring by the selected device (Deskphone or Softphone).</td>
<td></td>
</tr>
<tr>
<td>Call Escalation</td>
<td>Allows user to escalate a voice call from the Skype for Business IM chat session through an extension to the IM chat window.</td>
<td></td>
</tr>
<tr>
<td>Call Forwarding</td>
<td>The Call Forwarding feature allows users to forward calls using Call Forward Always, Call Forward No answer or Call Forward Busy options.</td>
<td></td>
</tr>
<tr>
<td>Call History</td>
<td>Provides a list of missed, received, and dialed calls that includes caller ID (if available).</td>
<td></td>
</tr>
<tr>
<td>Call from Dialed Number Window</td>
<td>Allows user to make calls through the “Recently Dialed” or “Frequently Dialed” window which is available directly from the Mitel MiVoice extension window.”</td>
<td></td>
</tr>
<tr>
<td>Call from IM Conversation or IM conversation history</td>
<td>Allows user to escalate a Mitel Voice call directly from a Skype for Business IM session window. Also allows users to make calls from the IM conversation history window.</td>
<td></td>
</tr>
</tbody>
</table>
Table 38: Legacy MiVoice for Skype for Business Plugin UI features

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call from Web browsers</td>
<td>Allows user to make calls from Web Browsers – Internet Explorer (IE), Chrome and Firefox.</td>
<td></td>
</tr>
<tr>
<td>Click-to-call from Microsoft Office Applications</td>
<td>Allows user to invoke a MiVoice call from Microsoft applications such as Word and Excel. A contact card providing call numbers is displayed when a Name, Number or email address is selected.</td>
<td></td>
</tr>
<tr>
<td>Conference</td>
<td>Allows the user to add a third-party to the call.</td>
<td></td>
</tr>
<tr>
<td>Desk-phone Control</td>
<td>Allows user to make Calls from MiVoice for Skype for Business and receive call on the Mitel Desktop Set.</td>
<td></td>
</tr>
<tr>
<td>Disability Discrimination Act (DDA) compliant</td>
<td>MiVoice for Skype for Business features allow users who disabilities to navigate and use the application more easily.</td>
<td></td>
</tr>
<tr>
<td>Do Not Disturb</td>
<td>Users can enable and disable Do Not Disturb (DND). When DND is enabled, callers receive a busy tone or go to voice mail (if programmed).</td>
<td></td>
</tr>
<tr>
<td>Edit Dial Strings</td>
<td>Users have the option to edit dial strings for outbound calls.</td>
<td></td>
</tr>
<tr>
<td>Inbound Call notification</td>
<td>A call notification is provided for incoming calls through a pop-up window. The user has the ability to perform inbound call operations such as answer the call and call forward.</td>
<td></td>
</tr>
<tr>
<td>In-Call features</td>
<td>While in a call, enables the user to invoke a number of call control capabilities including Hold / retrieve, Transfer (supervised and unsupervised), Mute, Hang-up, and adjust audio volume.</td>
<td></td>
</tr>
<tr>
<td>Multiple devices</td>
<td>Allows user to have more than one associated device (desktop phone, soft phone). MiVoice for Skype for Business enables user to select the preferred device for making calls. The user will be able to answer calls coming onto any of the associated devices.</td>
<td></td>
</tr>
<tr>
<td>Preferred device</td>
<td>The user has the ability to select the preferred device for making calls. The preferred device is one of the following configured devices for the user at the MiVoice Office 400: Desk Phone, Soft Phone</td>
<td></td>
</tr>
<tr>
<td>Preference settings</td>
<td>Allows user to set-up and modify a number of voice related settings from the Mitel MiVoice for Skype for Business window including Call Forwarding, Softphone settings – enabling/disabling softphone, Softphone setting – Speaker/Mic selection and setting up the preferred camera device.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 38: Legacy MiVoice for Skype for Business Plugin UI features

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence Integration</td>
<td>The Mitel voice presence is integrated into Skype for Business presence indication which allows users to know when Skype for Business users are on the call. The Skype for Business presence status is automatically updated based on the user's voice activity and settings. When a user takes a call on the Deskphone and Softphone, the Lync setting is changed to &quot;In a call&quot;, DND presence indication is synced with the Mitel Voice DND setting.</td>
<td></td>
</tr>
<tr>
<td>Select preferred device</td>
<td>Allows user to select between Desktop or PC Phone modes. The Deskphone control mode allows user to control the deskphone from Skype for Business client while in PC mode and the user controls and answers call on the PC.</td>
<td></td>
</tr>
<tr>
<td>Single sign-on</td>
<td>On the first installation, the user will be prompted for MiVoice for Skype for Business credentials. The Mitel MiVoice for Skype for Business automatically starts when Skype for Business client is launched.</td>
<td></td>
</tr>
<tr>
<td>Soft phone control</td>
<td>Calls are presented and made on the PC.</td>
<td></td>
</tr>
<tr>
<td>Status bar</td>
<td>Status bar indicates the current connection status and relevant messages for the MiVoice for Skype for Business.</td>
<td></td>
</tr>
<tr>
<td>Smart Tags</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Transfer</td>
<td>Allows the user to transfer the call (supervised and unsupervised transfers are supported).</td>
<td></td>
</tr>
<tr>
<td>Voice Presence for SIP Devices</td>
<td>In addition to Mitel deskphone, Skype for Business presence integration is also supported for both Mitel and 3rd party SIP devices.</td>
<td></td>
</tr>
</tbody>
</table>

### Note:

MiNET softphone is not supported with Legacy MiVoice for Skype for Business Plugin.

### Note:

Legacy MiVoice for Skype for Business Plugin does not support making calls from Outlook using TAPI.

### Legacy MiCollab Desktop Client presence

- **Telephony presence**: The following icons indicate telephony presence for MiCollab Client corporate and peered contacts:
  - ![idle](image) Indicates that the contact's phone is idle.
  - ![ringing](image) 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 200).

• 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.

VMware Horizon View Support

Legacy MiCollab Desktop Client or earlier is supported on VMware Horizon View. MiCollab Client for VMware Horizon View enables a MiCollab Client softphone to function as a plug-in to VMware View virtual desktops.

Note:
VMware Horizon View is supported only on Legacy MiCollab Desktop Client. 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 (for example, 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 3 on page 198, 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 PColIP 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.
In a more complex architecture shown in Figure 4 on page 199 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 4: Remote Office / Hosted Office topology

More complex configurations are possible. For more information, see the MiCollab Client Engineering Guidelines.
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 5 provides a basic federation configuration diagram.

Note:
For v6.0, external IM server support is limited to Microsoft Lync 2010 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 43) 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 7 on page 203) 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 7 on page 203).

- 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 Client Login** option.

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

**Guidelines for Federation**

- The site must purchase the Federation license for MiCollab Client Service (see Table 37 on page 188).

- 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. 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 or IBM Sametime) 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 6).

![Figure 6: Peered MiCollab Client Services](image)

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 200 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 7 on page 203). 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 7: Peered Corporate Directories-MiCollab Client Service Administrator Interface

Legacy MiCollab Desktop Client

Peered contacts are located in the Legacy MiCollab Desktop Client Contacts view, and are organized within the expanding peered server corporate directory (see Figure 8). 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 8: Peered Corporate Contacts-Legacy MiCollab Desktop Client

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 37 on page 188). 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.
Supported Features (Legacy MiCollab Desktop Client)

Supported Features on Communication Platforms (PBXs)

In addition to the licensed features provided by MiCollab Client (see Table 37 on page 188), users can access and use the features provided by the following supported communication platforms:

- MiVoice Business Communication Platform
- MiVoice 5000, MiVoice MX-ONE and MiVoice Office 400 Communication Platform

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 the features that are not supported are indicated by ×.

MiVoice Business Communication Platform

Table 39 provides the MiVoice Business PBX feature matrix.

<table>
<thead>
<tr>
<th>Features</th>
<th>MiCollab Client</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to work offline</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Account Codes 1– Default</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Account Codes – System</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Account Codes – Verified and Non-verified</td>
<td>Non-verified²</td>
<td>Non-verified²</td>
<td></td>
</tr>
<tr>
<td>ACD Support</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Add Held</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Advisory Message</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Auditory Alerts (accessibility/disability)</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Auto Answer</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Auto-Answer</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Auto-Hold</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Broker’s Call</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Calculator</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Call Duration Display</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Forward</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Forward – Cancel All</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Call Forward – Delay</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Call Forward – Follow Me – End Chaining</td>
<td>✓</td>
<td>×</td>
<td></td>
</tr>
</tbody>
</table>
### Table 39: MiVoice Business PBX feature matrix (continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>MiCollab Client</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Forward – Follow Me – Reroute when Busy</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Forward – Forced</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Forward – Override</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Call Forward profiles</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Handoff</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call History</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call history / logs – local</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call history / logs – server-based</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Me Back</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Park</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Call Park Retrieve</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Call Pickup (Dialed, Directed, Clustered)</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Call Privacy</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Call timer and annotation tools</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Call Waiting – Swap Automatic</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Callback</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Caller ID-based call routing</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Camp-on</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Clear All Features</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Compression Support</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Conference</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Conference Application (controls Conference Unit)</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Conference Split</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Conference Unit Support (5305/5310)</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Contact sync from Outlook to MiCollab Client</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Corporate Directory</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Corporate Directory – LDAP sync (inc. Active Directory)</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Corporate Directory – sync to MiVoice Business directory</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Destination-based Call Display</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
</tbody>
</table>

Page 2 of 6
### Table 39: MiVoice Business PBX feature matrix (continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial from PIM – Outlook</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dial Tone – Outgoing Calls</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dialed Number Editing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Direct Outward Dialing (DOD)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Direct Page – Initiate</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Direct Page – Receive</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Do Not Disturb</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Drag-and-drop conference calls</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Favorites menu</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Feature Keys</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Flash – Calibrated</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Flash – Switchhook</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Flash – Trunk</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Flexible Answer Point</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gigabit Ethernet Stand Support</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Group Listen</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Group Page – Initiate</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Group Page – Receive</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Handset Receiver Volume Control</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Handsfree Answerback</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Handsfree Operation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Headset Mute Switch</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Headset Operation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hold</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hold Key Retrieves Last Held Call</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Hold on Hold</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hot Desking</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hot Line</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>In-call control window allowing transfer, conference, hold and hang up</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Table 39: MiVoice Business PBX feature matrix (continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>MiCollab Client</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Management</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Language Change</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Launch of MiCollab Client at computer start</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>LCS integration</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Licensing through the Mitel AMC</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Line Interface Module Support</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Line Types and Appearances</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Meet Me Answer</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Messaging – Advisory</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Messaging – Callback</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Messaging – Dialed</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Mobile Extension</td>
<td>✓</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td>Multiple Message Waiting Indicator</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>✓</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td>Mute Key</td>
<td>×</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Off-Hook Voice Announce</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Override</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Override Security</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>PC Programming Application Support (Desktop Tool)</td>
<td>✓²</td>
<td>✓²</td>
<td></td>
</tr>
<tr>
<td>Personal Directory</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Phonebook</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>PIM Integration – ACT!</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>PIM Integration – Lotus Notes</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>PIM Integration – Outlook</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>PKM Support</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Presence Indicator – Busy Lamp Field (BLF)</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Presence Indicator – Computer</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Privacy Release</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Record a Call</td>
<td>×</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Table 39: MiVoice Business PBX feature matrix (continued)

<table>
<thead>
<tr>
<th>Features</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redial</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Redial – Saved Number</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Release</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Reminder</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Resiliency Support</td>
<td>✓</td>
<td>✓³</td>
</tr>
<tr>
<td>Ringer Control (Pitch and Volume)</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>Ringing Line Select</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>RSS Window</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Screen-pops on calls with ability to forward, send to voice mail</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Secure instant messaging (chat) with file transfer</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Silent Monitor</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Simplified Account Code Entry</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>SIP Support</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Softkey Support</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Speaker Volume Control</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Speed Call – Pause</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Speed Call – Personal</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Speed Call – System</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Speed Call Keys</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Station-to-Station Dialing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SuperKey</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Swap</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>System tray status icon</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Tag Call (Malicious Call Trace)</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Teleworker Support</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Tone Demonstration</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Transfer</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Trunk Access</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Trunk Answer From Any Station (TAFAS)</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>
For MiVoice Business communication systems, any number dialed from the MiCollab Windows 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 40 provides the MiVoice Business Feature Access Codes (FACs).

### Table 40: MiVoice Business Supported Feature Access Codes

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Feature Name</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>ACD Silent Monitor</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>3</td>
<td>ACD Agent Login</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>4</td>
<td>ACD Agent Logout</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>5</td>
<td>Make Busy Setup</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>6</td>
<td>Make Busy Cancel</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>10</td>
<td>Call Forwarding – Busy – External Only</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>11</td>
<td>Call Forwarding – Busy – External and Internal</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>12</td>
<td>Call Forwarding – Follow Me</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>13</td>
<td>Cancel Call Forwarding – Busy – External and Internal</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>16</td>
<td>Call Forwarding – Follow Me</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>17</td>
<td>Cancel Call Forwarding – Follow Me</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Table 40: MiVoice Business Supported Feature Access Codes (continued)

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Feature Name</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Call Forwarding – I Am Here</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>22</td>
<td>Call Forwarding – No Answer – External Only</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>23</td>
<td>Call Forwarding – No Answer – External and Internal</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>24</td>
<td>Call Forwarding – No Answer – Internal Only</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>25</td>
<td>Cancel Call Forwarding – No Answer – External and Internal</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>27</td>
<td>Cancel All Forwarding</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>29</td>
<td>Call Hold – Remote Retrieve</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>32</td>
<td>Call Pickup – Dialed</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>33</td>
<td>Call Pickup – Directed</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>40</td>
<td>Do Not Disturb</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>41</td>
<td>Do Not Disturb – Cancel</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>42</td>
<td>Do Not Disturb – Cancel Remote</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>43</td>
<td>Do Not Disturb – Remote</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>47</td>
<td>Last Number Re-dial</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>48</td>
<td>Message Waiting – Activate</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>49</td>
<td>Message Waiting – Deactivate</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>50</td>
<td>Message Waiting – Inquire</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Legacy MiCollab Desktop Client Requirements

The Legacy MiCollab Desktop Client is installed on users’ computers at the site. Table 41 Legacy MiCollab Desktop Client Requirements provides the computer hardware and software requirements for the Legacy MiCollab Desktop Client.

Table 41: Legacy MiCollab Desktop Client Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Processing Unit (CPU)</td>
<td>1.6 GHz or faster</td>
<td>Dual core</td>
</tr>
<tr>
<td>Available Hard Disk Space</td>
<td>100 MB free hard disk space</td>
<td></td>
</tr>
<tr>
<td>Random Access Memory (RAM)</td>
<td>2 GB RAM minimum</td>
<td>(4 GB or more recommended)</td>
</tr>
<tr>
<td>Network Interface Card (NIC)</td>
<td>Full duplex 10/100/1000 Mbps</td>
<td>(100 Mbps full duplex recommended)</td>
</tr>
<tr>
<td>Sound Card</td>
<td>Full duplex</td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Microsoft Windows 7</td>
<td>Professional/Enterprise/Ultimate 32 or 64-bit</td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows 8.1</td>
<td>Desktop mode only 32 or 64-bit</td>
</tr>
<tr>
<td></td>
<td>Microsoft Windows 10</td>
<td>Desktop mode only 32 or 64-bit</td>
</tr>
<tr>
<td>Microsoft Office Application(s)</td>
<td>Office 2007, Office 2010, Office 2013, Office 365</td>
<td></td>
</tr>
<tr>
<td>Thin Clients¹</td>
<td>Citrix XenApp and Citrix XenDesktop</td>
<td>6.0, 6.5, 7.0, 7.5, 7.6, 7.8, 7.11, 7.13, or 7.14</td>
</tr>
<tr>
<td></td>
<td>Remote Desktop Services (formerly Windows Terminal Services WTS)</td>
<td>v6.1 (Installed as part of Windows Server 2008 R2) *Windows Terminal Services 2012 is supported as of MiCollab Client 6.0</td>
</tr>
<tr>
<td></td>
<td>VMware Horizon View</td>
<td>4.6, 5.0², 5.1, 5.5, 6.5, 7.0, or 7.4</td>
</tr>
<tr>
<td>Digital Media Player</td>
<td>Windows Media® Player</td>
<td>6 or later</td>
</tr>
<tr>
<td>Microsoft Add-on</td>
<td>Microsoft.NET™ Framework</td>
<td>4.5</td>
</tr>
</tbody>
</table>

1. Citrix and WTS are supported for desktop phone operation. Citrix XenApp and Citrix XenDesktop 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. MiNet softphones are not supported on Citrix environment.

2. VMware Horizon View 4.6 and later are supported for desktop phone operation. VMware Horizon View 5.0 and later supports softphone operation.

**Note:**

SIP softphone is only supported on Citrix but not supported on other virtual environments such as VMware, RDS or Hyper-V and so on.
The Legacy 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 41 on page 212)
- A programmed extension for the user on the PBX (see page 64)
- A supported headset or handset

**Note:**

Effective in MiCollab Client 6.0 SP2, when selecting Plantronics headsets under Legacy 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 Engineering Guidelines* document for a list of tested devices.
Legacy MiVoice for Skype for Business Plugin Requirements

Legacy MiVoice for Skype for Business Plugin is installed on users’ computers. Table 42 Legacy MiVoice for Skype for Business Plugin Requirements provides the computer hardware and software requirements.

Table 42: Legacy MiVoice for Skype for Business Plugin Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Processing Unit (CPU)</td>
<td>1.6 GHz or faster Dual Core</td>
<td></td>
</tr>
<tr>
<td>Available Hard Disk Space</td>
<td>100 MB free hard disk space</td>
<td></td>
</tr>
<tr>
<td>Random Access Memory (RAM)</td>
<td>2 GB RAM minimum (4 GB or more recommended)</td>
<td></td>
</tr>
<tr>
<td>Operating System (OS)</td>
<td>Microsoft Windows 7, Professional/Enterprise/Ultimate 32 or 64 bit</td>
<td>Microsoft Windows 8, Desktop Mode only 32 or 64 bit</td>
</tr>
<tr>
<td>Server</td>
<td>MiVoice for Skype for Business, Lync 2010 or 2013</td>
<td></td>
</tr>
<tr>
<td>Microsoft Office Application(s)</td>
<td>Office 2010, Office 2013, Office 2016, Office 365</td>
<td></td>
</tr>
<tr>
<td>Microsoft Add-on</td>
<td>Microsoft.NET Framework 4.5</td>
<td></td>
</tr>
</tbody>
</table>

Note:
MiVoice for Skype for Business in a MiVoice for Office deployment supports 85xx and 86xx sets.
Standalone MiCollab Client Service Requirements

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

- **MiCollab Client Service 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 pre-established VMware environment. Note that the MiCollab Client application is also included as part of the MiCollab virtual appliance from MiCollab version 3.0 and later.

For more information on requirements for the standalone MiCollab Client Service virtual appliance, see the *Virtual Appliance Deployment Solutions Guide*. 
Configure the PBX

Configuring MiVoice Business

To configure MiVoice Business communication platform, see “MiVoice Business PBX” on page 64

Configure MiVoice Office 250

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 217
- “System – devices and feature codes – Assistants” on page 218
- “System – devices and feature codes – Phones” on page 218
- “System – IP-related information – Call Configuration (Softphones Only)” on page 219
- “System – Sockets” on page 219
- “Users” on page 219

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 8 on page 49).
- 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 160).
- 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 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.

1. Prior to MiVoice Office 250 v4.0, this folder in DB Programming was named Endpoints.
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 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 Legacy MiCollab Desktop Client 7.3. 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 48 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 “Account Synchronization” on page 42.

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>:
   • 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 con-
figuring 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 End-User Functionality” on page 49). 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.

MiVoice Office 250 Communication Platform feature matrix

**Note:**
MiVoice Office 250 v3.2 or later is recommended.

Table 43 provides the MiVoice Office 250 feature matrix.

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Code</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Code¹ – All Calls Following</td>
<td>391</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Account Code – Optional</td>
<td>390</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ACD Agent Login</td>
<td>326</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>ACD Agent Logout</td>
<td>327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACD Agent Login/Logout Toggle</td>
<td>328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACD Agent Wrap-Up Terminate</td>
<td>329</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Activate Door Relay²</td>
<td>332</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Agent Help</td>
<td>375</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Agent Help Reject</td>
<td>376</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Answer (Ringing Call)</td>
<td>351</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Audio Diagnostics</td>
<td>320</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Automatic CO Access On/Off</td>
<td>360</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Automatic IC Access On/Off</td>
<td>361</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

**Table 43: MiVoice Office 250 PBX feature matrix**
<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Code</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Trunk Answer</td>
<td>350</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Background Music On/Off</td>
<td>313</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Barge-In</td>
<td>386</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Call Forward All Calls</td>
<td>355</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Call Forward If Busy</td>
<td>357</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Call Forward If No Answer</td>
<td>356</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Call Forward If No Answer/Busy</td>
<td>358</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Call Logging</td>
<td>333</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Change Language</td>
<td>301</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>CO Hookflash</td>
<td>330</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Conference&lt;sup&gt;3&lt;/sup&gt;</td>
<td>5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Data</td>
<td>340</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Default Phone</td>
<td>394</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Directories</td>
<td>307</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Display Outside Party Name On/Off</td>
<td>379</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Display Time/Date (ITP) Show IP Address (SIP)</td>
<td>300</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Do-Not-Disturb</td>
<td>370</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Do-Not-Disturb Cancel</td>
<td>371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do-Not-Disturb On/Off</td>
<td>372</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do-Not-Disturb Override</td>
<td>373</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Dynamic Extension Express On</td>
<td>363</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dynamic Extension Express Off</td>
<td>362</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Dynamic Extension Express On/Off</td>
<td>364</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Dynamic Extension Express – Handoff</td>
<td>388</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Enhanced Speakerphone Enable</td>
<td>310</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Feature Key Default</td>
<td>395</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Group Listen</td>
<td>312</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Handsfree On/Off</td>
<td>319</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Headset Enable</td>
<td>315</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Headset Disable</td>
<td>316</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headset On/Off</td>
<td>317</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 43: MiVoice Office 250 PBX feature matrix

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Code</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold – Individual</td>
<td>336</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hold – System</td>
<td>335</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Hot Desk On/Off</td>
<td>348</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Hunt Group Remove</td>
<td>322</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hunt Group Replace</td>
<td>323</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hunt Group Remove/Replace</td>
<td>324</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>LCD Contrast Adjustment</td>
<td>3035</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Message</td>
<td>365</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Message – Cancel</td>
<td>366</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Message – Cancel Current</td>
<td>368</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Message – Silent</td>
<td>367</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mute On/Off</td>
<td>314</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Page</td>
<td>7</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Page On/Off</td>
<td>325</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Program Buttons</td>
<td>3975</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Program Phone Password</td>
<td>392</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Queue Request</td>
<td>6</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Record-A-Call</td>
<td>385</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Redial</td>
<td>380</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Redirect Call</td>
<td>331</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>306</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Remote Configuration – Disable</td>
<td>343</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Enable</td>
<td>342</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Configuration – Reset</td>
<td>344</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Programming</td>
<td>359</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Reverse Transfer (Call Pick-Up)</td>
<td>4</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reminder Message Cancel</td>
<td>305</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Remote Configuration – Display License Key</td>
<td>347</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>
Note the following for MiVoice Office 250 systems:

- Any number dialed from the Legacy 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 Legacy 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

---

<table>
<thead>
<tr>
<th>Feature Name</th>
<th>Code</th>
<th>Desk Phone</th>
<th>Softphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routing Off</td>
<td>304</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Station Monitor</td>
<td>321</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Station Speed Dial</td>
<td>382</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Station Speed Dial Programming</td>
<td>383</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Steal</td>
<td>387</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Switch Keymap</td>
<td>399</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>System Forward Enable</td>
<td>352</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>System Forward Disable</td>
<td>353</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>System Forward On/Off</td>
<td>354</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>System Speed Dial</td>
<td>381</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Transfer to Hold</td>
<td>346</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Transfer to Ring</td>
<td>345</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
- System Hold
- Steal
- Transfer to hold

**Supported Mitel Phones for MiVoice Office 250 communication platform**

Table 44 **Supported Mitel Phones for MiVoice Office 250 PBX** provides the list of MiCollab Client supported desk phones for MiVoice Office 250 communication platform. In the following table, supported phones are indicated by ✓ and phones not supported are indicated by ❌.

<table>
<thead>
<tr>
<th>Mitel Phone Model</th>
<th>MiVoice Office 250 PBX</th>
</tr>
</thead>
<tbody>
<tr>
<td>4015 Digital Telephone</td>
<td>❌</td>
</tr>
<tr>
<td>4025 Digital Telephone</td>
<td>❌</td>
</tr>
<tr>
<td>4150 Digital Telephone</td>
<td>❌</td>
</tr>
<tr>
<td>5005 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5010 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5020 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5140 Digital Telephone</td>
<td>❌</td>
</tr>
<tr>
<td>5212 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5215 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5220 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5224 IP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5304 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5312 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5320 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5324 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5330 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5340 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5360 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5602 SIP Phone</td>
<td>❌</td>
</tr>
<tr>
<td>5603 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5604 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5606 SIP Phone</td>
<td>❌</td>
</tr>
</tbody>
</table>
### Table 44: Supported Mitel Phones for MiVoice Office 250 PBX

<table>
<thead>
<tr>
<th>Mitel Phone Model</th>
<th>MiVoice Office 250 PBX</th>
</tr>
</thead>
<tbody>
<tr>
<td>5607 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>5610 SIP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>6920 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>6930 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>6940 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>8520 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>8528 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>8560 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>8568 Digital Telephone</td>
<td>✓</td>
</tr>
<tr>
<td>8620-2 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>8622 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>8660 IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>8662 IP Phone</td>
<td>✓</td>
</tr>
<tr>
<td>IP Plus</td>
<td>✗</td>
</tr>
<tr>
<td>IPSLA</td>
<td>✗</td>
</tr>
<tr>
<td>Navigator IP Phone</td>
<td>✗</td>
</tr>
<tr>
<td>Turret</td>
<td>✗</td>
</tr>
<tr>
<td>Analog-FXS</td>
<td>✗</td>
</tr>
</tbody>
</table>
Installing, Upgrading, and Provisioning Legacy MiCollab Desktop Client

Install Legacy 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:

```bash
%>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 232), or the Explorer shortcut that includes the IP property in the command parameters, could be provided:

```bash
%>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, and so on.) when settings are updated (call forwarding profile, startup mode, and so on.) 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 Legacy MiCollab Desktop Client, MiCollab for Mobile Client, and MiVoice for Skype for Business software.
- **MiCollab Client Login ID and Password**: Used to log in to the Legacy MiCollab Desktop Client, Web Client and MiVoice for Skype for Business.

**Note**: The legacy web client is no longer supported with the Legacy MiCollab Desktop Client or higher. Use the new generation web client URL to access the Web Client.

- 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 Legacy MiCollab Desktop Client Software**: Provides access to the Legacy 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 Legacy MiCollab Desktop Client requires the installation of the Microsoft.NET Framework prior to installing the Legacy MiCollab Desktop Client. When the user attempts to install the Legacy 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 Legacy MiCollab Desktop Client installation. You can download the Microsoft.NET Framework v4.5 from the Microsoft Website (www.microsoft.com/downloads).

Installation procedure

This section describes the procedure used to complete a typical installation for the Legacy 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 252.

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 227) 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 244
- The “Run Setup Wizard” command previously in the Legacy MiCollab Desktop Client Main menu is no longer required and was removed in MiCollab Client 5.1.

To install Legacy MiCollab Desktop Client:

1. Close all Windows applications on the computer.

2. Install the Microsoft.NET Framework on the user’s computer (see page 227).

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 Legacy 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 Legacy MiCollab Desktop Client, Dial From IE, and the PIM extensions for the PIMs that are installed on the user’s computer (Outlook 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 Legacy MiCollab Desktop Client and allows the user to deselect or select optional components (see “Install custom options” on page 252).
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 227).

10. Select a Default Language, and then click Next.

11. Click Install.

The Legacy MiCollab Desktop Client software is installed on the computer.

12. Click Finish to complete the installation process.

By default the Legacy 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” on page 229 below
- “Logon Script” on page 230
- “SMS” on page 230
- “Group policy” on page 230
- “Citrix deployments” on page 230

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 232).

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:

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

See the Windows Management Instrumentation 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/smserver/) 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).

Citrix deployments

The MiCollab Client can be deployed using the Citrix delivery system. MiCollab Client supports both Desktop mode and Web mode. See “Legacy MiCollab Desktop Client Requirements” on page 212 for supported versions.

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

**SIP Softphone on Citrix environment**

- Citrix supports the Legacy 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.
Legacy MiCollab Clients

- "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.

• In a Citrix environment, the user can accept a call on a SIP softphone only if the audio and video driver/codec loads on the softphone. For this, the user must change the working directory field to the installation path of the published Legacy MiCollab Desktop Client. To change the working directory field in Citrix XenApp, navigate to MiCollab Client Properties > Location.

Note:
Changing the working directory is tested on Citrix XenApp 7.11 and above.

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 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.

```
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
```

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.
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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Valid Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC_SERVER_HOSTNAME</td>
<td>A valid IP address or computer name.</td>
<td>The PC running the MiCollab Client management software where the user’s account is configured.</td>
</tr>
</tbody>
</table>
Install Legacy MiVoice for Skype for Business Plugin

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

Notes:
- Legacy MiVoice for Skype for Business Plugin is supported on MiCollab deployed MiCollab Client only.
- Legacy MiVoice for Skype for Business Deskphone only users: those users only require the Legacy MiCollab Desktop Client SDK feature.
- Legacy 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 Legacy MiCollab Desktop Client SDK feature (see "Legacy MiVoice for Skype for Business Plugin Requirements" on page 214).

### Table 46: Skype for Business Deployment Options

<table>
<thead>
<tr>
<th>Skype for Business Server</th>
<th>MiVoice Business</th>
<th>MiCollab Client Service</th>
<th>Supported (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>Local</td>
<td>local</td>
<td>Yes</td>
</tr>
<tr>
<td>Local</td>
<td>Cloud</td>
<td>Cloud</td>
<td>Yes</td>
</tr>
<tr>
<td>Cloud (Office 365)</td>
<td>Local</td>
<td>Local</td>
<td>Yes</td>
</tr>
<tr>
<td>Cloud (Office 365)</td>
<td>Cloud</td>
<td>Cloud</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Information E-mail

Note:
Skype for Business should be installed prior to installing Legacy MiVoice for Skype for Business Plugin.

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 Legacy MiVoice for Skype for Business Plugin software installer
- The Server Fully Qualified Domain Name - FQDN (host name)
- User account information (desk phone, softphone, voice mail, and so on)
- Teleworker (MiVoice Border Gateway) IP Address.

Legacy MiVoice for Skype for Business Plugin 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:

- Legacy MiVoice for Skype for Business Plugin executable file
• Mitel MiCollab Client and Skype for Business client Software Development Kit - SDK components (as .dll files)
• Mitel MiCollab Client headless client
• Legacy MiVoice for Skype for Business Plugin service
• Configuration settings (like setting to indicate that MiCollab Client shall run without a UI)

Installation wizard

• All the components of Legacy MiVoice for Skype for Business Plugin will be installed and user will not be able to select/deselect Plugin components for installation.
• Installer will prompt user to enter configuration options like MiCollab Client Service FQDN and so on.
• Installer will prompt user to select default language.
• There will be no desktop/start menu icon specific for Legacy MiVoice for Skype for Business Plugin 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 Legacy MiVoice for Skype for Business Plugin) is already installed on the user's computer, the plugin installer will automatically uninstall the MiCollab Client and install the plugin.
• Ideally Legacy MiVoice for Skype for Business Plugin 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 Legacy MiVoice for Skype for Business Plugin if problem are encountered in this scenario.
• The user must have installation permissions on the computer or provide the administrator credentials when prompted.

Upgrade Legacy MiCollab Desktop Client

When you upgrade the MiCollab Client Service software blade, a Legacy 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 Legacy MiCollab Desktop Client requires the installation of the Microsoft.NET Framework v4.0 or v4.5 (see "Microsoft.NET framework" on page 227) prior to installing the Legacy MiCollab Desktop Client.

Upgrades from v6.x

After you upgrade the MiCollab Client Service to v7.x, the 6.x Legacy MiCollab Desktop Client polls the MiCollab Client Service property file and determines that a client installer is available.

The Legacy MiCollab Desktop Client notifies the user that the 7.x software is available as follows:
• If the user is logged off the Legacy 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 Legacy 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 228) 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 Legacy 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

Client Only Delivery

Client Only Delivery functionality delivers Legacy 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 (Standalone 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 Legacy 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 Legacy 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 on page 32).

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 81).

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.
   - 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:**

   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.

4. Do one of the following:
   - Instruct the user to install the Legacy MiCollab Desktop Client using the client software URL provided in the Welcome E-mail message.

   **Note:**

   See the Online Help for information about the following topics:
   - Stand-alone vs. integrated user settings
   - Feature profiles
   - Welcome E-mail message
• Install the Legacy MiCollab Desktop Client on the user's PC (see "Install Legacy MiCollab Desktop Client" on page 226).

Uninstall Legacy 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 Legacy 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.

Upgrade Legacy MiVoice for Skype for Business Plugin

The administrator informs the user(s) of a new Legacy MiVoice for Skype for Business Plugin 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 Legacy MiVoice for Skype for Business Plugin. 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 Legacy MiVoice for Skype for Business Plugin and Skype for Business client will be restarted. The existing settings will be preserved throughout an upgrade.
Post Installation Configuration

Remote User Configuration

After the Legacy 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 243

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 70). 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 Clients 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 Clients are shown below:

a. Legacy 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 version 6.0: 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 Clients. 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:

- “Legacy MiCollab Desktop Client softphone and teleworker settings” below
- “MiVoice Border Gateway device configuration” on page 241

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

Legacy MiCollab Desktop Client softphone and teleworker settings

Before users can use MiCollab Client softphone features from Legacy 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 47 Legacy MiCollab Desktop Client softphone settings to users so that they can configure the Teleworker fields. Refer users to the online help for instructions.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable SIP softphone</td>
<td>Enable this option if you wish to use the SIP softphone on this Legacy MiCollab Desktop Client</td>
</tr>
<tr>
<td>SIP softphone DN</td>
<td>Select SIP softphone extension (Directory Number) to use from pull-down menu.</td>
</tr>
<tr>
<td>SIP Connection</td>
<td>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 “TCP/TLS to UDP Connector” on page 239).</td>
</tr>
<tr>
<td>This number is used on multiple devices</td>
<td>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</td>
</tr>
</tbody>
</table>
To provide access to remote users accessing the MiVoice 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 242

### 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) 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.

---

### 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 242

### 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) 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.
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) 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 Legacy 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 Legacy 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 Legacy MiCollab Desktop Client but do appear on the Android and iOS clients under Softphone Advanced Settings at their default values.

<table>
<thead>
<tr>
<th>Service Class</th>
<th>L3 Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephony (Voice)</td>
<td>46 (EF)</td>
</tr>
<tr>
<td>Signaling</td>
<td>24 (CS3)</td>
</tr>
<tr>
<td>Multimedia Streaming (Video)</td>
<td>34 (CS4)</td>
</tr>
</tbody>
</table>

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 “Installation Overview” on page 62.
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 Legacy MiCollab Desktop Client and mobile devices.

**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:

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:

Note:
If **Require Reliable Provisional Responses on Outgoing Calls (PRACK)** parameter is enabled for the device under SIP Peer Profile form in MiVoice Business, then **PRACK support** must be enabled for those same devices in MBG.

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 245, "MiVoice Border Gateway and Remote Proxy Services Configuration" on page 70 "Post Installation Configuration" on page 239.

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

Legacy MiCollab Desktop Client - see “Softphone Configuration - Legacy MiCollab Desktop Client” on page 246

Notes:
• On the Legacy 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:
  • 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 66 and MiVoice Office 250 “Users” on page 219.

Migration from MiNet Softphone on Legacy MiCollab Desktop Client

A few scenarios to consider:

a. Minet Softphone: The Legacy MiCollab Desktop Client will automatically use the MiNet softphone when the user has the “Softphone” license, a MiNet softphone DN, and no SIP DN.

b. SIP Softphone: The Legacy 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 Legacy MiCollab Desktop Client (i.e., on first startup, the Legacy 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 Legacy MiCollab Desktop Client depends on whether or not the user has configured the Legacy MiCollab Desktop Client to use the SIP softphone. On first startup, the Legacy MiCollab Desktop Client will use the Minet softphone. If the user wants to use the SIP softphone, the user must configured 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 Legacy 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 - Legacy MiCollab Desktop Client**

The following step-by-step procedure will guide you through installing the MiCollab Client software application onto your Legacy 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 249).

**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 Legacy 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 249 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 Legacy MiCollab Desktop Client software is installed on your computer. Click **Finish** to complete the installation process. By default the Legacy 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 Legacy 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 Legacy 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 249.
- 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 249 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 249**.

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 Legacy 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 Legacy 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 Legacy 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 27.

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 `<enterpriseId>.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 Voice mail, and so on 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 `<enterpriseId>.local`, where `<enterpriseId>` 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.
Legacy MiCollab Desktop Client Maintenance

This section describes how to install custom options, repair an installation, and uninstall the Legacy 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.
- **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).

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 Legacy MiCollab Desktop Client 7.3:

1. Exit the Legacy MiCollab Desktop Client 7.3.
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 unloaded 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 90).

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 Legacy 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 Legacy MiCollab Desktop Client installation:*

1. Exit the Legacy 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.
Legacy MiCollab Desktop Client Troubleshooting

This section provides troubleshooting information for the Legacy MiCollab Desktop Client.

Problem reporting tool

The Problem Reporting tool, available from the Legacy MiCollab Desktop Client, allows users to create a problem report and send it to you. Users can access the tool from the Legacy 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 Legacy MiCollab Desktop Client attaches the following compressed log files to the report:

- ucc.log
- SipSubscriber
- uca.dmp (if available)
- SoftphoneManager.log

After the user sends the report, the log files sent by the Legacy 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 255.

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 78). 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 “MiCollab Server Troubleshooting” on page 148). 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 Web site for details and instructions.

1. Includes all logs with this file name (see page 256)
Additional Client log files and troubleshooting tools

Table 48 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 48: MiCollab Client log files and troubleshooting tools

<table>
<thead>
<tr>
<th>Location</th>
<th>Log File/Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;client installation directory&gt;</code></td>
<td>uca.exe.config</td>
<td>Includes IP settings/ports for the MiCollab Client Service, Collaboration server and telephony server of client. NHtraceswitch settings for logging.</td>
</tr>
<tr>
<td><code>&lt;client installation directory&gt;</code></td>
<td>Executable</td>
<td>Executable used to launch MiCollab Client application.</td>
</tr>
<tr>
<td>C:\users&lt;username&gt;\AppData\Roaming\Mitel\MiCollab</td>
<td>uca.log^1</td>
<td>Main log file for the Legacy MiCollab Desktop Client.</td>
</tr>
<tr>
<td></td>
<td>uc.mdb</td>
<td>Client database which contains call log, contacts, groups, and messenger IDs.</td>
</tr>
<tr>
<td></td>
<td>user.config</td>
<td>user.config contains all persistent settings of the application, including configuration settings and UI layout settings. Deleting this file resets the Legacy MiCollab Desktop Client to default settings.</td>
</tr>
<tr>
<td></td>
<td>SipSubscriber.txt</td>
<td>Includes low level logging for the SIP component of MiCollab Client.</td>
</tr>
<tr>
<td></td>
<td>uca.dmp</td>
<td>A Microsoft mini-dump file, created if the client shuts down unexpectedly.</td>
</tr>
<tr>
<td></td>
<td>SoftphoneManager.log</td>
<td>Provides logs for the Softphone process, which handles the softphone component of MiCollab Client.</td>
</tr>
</tbody>
</table>

1. Includes all logs with this file name.
### Legacy MiCollab Desktop Client troubleshooting

**Table 49 Legacy MiCollab Desktop Client troubleshooting issues** provides troubleshooting information for the Legacy MiCollab Desktop Client.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users are unable to connect to the server using Legacy MiCollab Desktop Client, but can connect using MiCollab Web Client or MiCollab for Mobile.</td>
<td>Server certificate has expired.</td>
<td>Update the certificate and restart MiCollab Client Service.</td>
</tr>
<tr>
<td>MiCollab Client logs out automatically and displays password change error message.</td>
<td>Active Directory supports both old and new password for some time.</td>
<td>Instruct the user to continue using the old password until the MiCollab Client prompts the user to enter the new password.</td>
</tr>
<tr>
<td>Users are experiencing difficulty with dialing rules.</td>
<td>To control how MiCollab Client dials numbers, users should configure Windows dialing rules and use the International Dialing Format.</td>
<td>Instruct the user to see the <strong>Phone Number Formats</strong> topic in the Legacy MiCollab Desktop Client help for additional information.</td>
</tr>
</tbody>
</table>
| No phone devices are available. | MiCollab Client cannot set a MiTAI monitor, or there is a firewall blocking or other network issue. | Check the following:  
- On MiVoice Business PBXs check system options to ensure “MiTAI computer” is set to **Yes**.  
- Ensure MiVoice Business COS for the MiCollab Client sets has “HCI” enabled.  
- Ping the MiVoice Business PBX.  
- Ping the desk phone.  
- Does the desk phone have the same issue? (independent of MiCollab Client)  
- Is the problem local or remote?  
- Are VLAN’s configured properly?  
- Check VPN.  
- Is telephony service started?  
- Check telephony server logs for errors.  
- Stop and restart telephony server service.  
- Use MiTAI test tool to verify if it is a MiTAI issue.  
If it fails check MiVoice Business programming. |
### Table 49: Legacy MiCollab Desktop Client troubleshooting issues (continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>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.</td>
<td>Add the user work e-mail as the first e-mail address under contact information for that account.</td>
</tr>
<tr>
<td>Calls to busy internal number do not display in Call History.</td>
<td>Show Call to Busy Number in Call History is False.</td>
<td>Change &quot;ShowCallToBusyNumberInCallHistory&quot; in user.config to &quot;True&quot;.</td>
</tr>
</tbody>
</table>
| No presence, or client keeps changing from online to offline.                   | MiCollab Client or MiCollab Client Service is not communicating with the presence server. | Check the following:  
|                                                                                |                                                                                 | • Has the presence server service started?  
|                                                                                |                                                                                 | • Does the MiCollab Client Service have a DNS entry?  
|                                                                                |                                                                                 | • Is the MiCollab Client Service communicating with the Presence server on the correct port?  
|                                                                                |                                                                                 | • Is the telephony server working properly?  
|                                                                                |                                                                                 | • Is the MiCollab Client communicating with the Presence server?  
|                                                                                |                                                                                 | • Check uca.log and verify the ports.  
|                                                                                |                                                                                 | • MiCollab Client firewall blocking necessary ports.  
|                                                                                |                                                                                 | • Check Presence server log and see if it is updating.  
|                                                                                |                                                                                 | • Check telephony server logs to see if it keeps losing connectivity. |
| 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.         | To remove the External Dial feature  
and disable click to call on the user’s computer:  
1. Disable the External Dial feature in the user’s account.  
2. Reinstall the client on the user’s computer. |
| “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. |
| Legacy 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 49: Legacy MiCollab Desktop Client troubleshooting issues (continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls are not routing to the device specified for the Dynamic Status.</td>
<td>The user has enabled forwarding using the Phone Settings - <strong>Forward my calls to</strong> option, which overrides the normal routing specified in the Dynamic Status.</td>
<td>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 <strong>Send my calls to</strong> field. Instruct users to specify call routing using the <strong>Send my calls to</strong> field and leave the fields in the Phone Settings tab blank.</td>
</tr>
<tr>
<td></td>
<td>The proper COS options are not enabled for the device in the user's Personal Ring Group.</td>
<td>Verify that the proper COS options are enabled for devices in the user's Personal Ring Group.</td>
</tr>
<tr>
<td>The user cannot access voice mail messages from the Legacy MiCollab Desktop Client's Visual Voice Mail view.</td>
<td>The user was accessing his or her voice mailbox using the Telephony User Interface (TUI) when he or she logged in to the Legacy MiCollab Desktop Client and the Visual Voice Mail view failed to load.</td>
<td>Instruct the user to disconnect from his or her voice mailbox, exit the Legacy MiCollab Desktop Client, and log back in to the Legacy MiCollab Desktop Client.</td>
</tr>
<tr>
<td>The user’s list of default Dynamic Statuses is deleted.</td>
<td>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.</td>
<td>Instruct the user to “Repair the Legacy MiCollab Desktop Client” on page 253 to re-establish the default list of Dynamic Statuses.</td>
</tr>
<tr>
<td>A remote MiCollab Client user on the MiVoice Office 250 PBX sent or received an instant message, which caused the Legacy MiCollab Desktop Client to go offline.</td>
<td>SIP Fixup is enabled in the firewall.</td>
<td>Disable SIP Fixup completely, or disable it for SIP messages sent to MiCollab Client Service.</td>
</tr>
<tr>
<td>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.</td>
<td>The external number is not logged into the EHDU.</td>
<td>Manually log the external number in or select “Permanent Login” from the Class of Service options.</td>
</tr>
</tbody>
</table>
| The user is unable to upgrade the Legacy MiCollab Desktop Client to a newer software version and also cannot uninstall the current version. | • There is a possible Microsoft Windows Installer issue on the user’s PC.  
  • 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. | Use Add/Remove Programs from the control panel to uninstall the Legacy MiCollab Desktop Client, and then install the client version. For additional information, see:  
• Mitel KB article 4759  
• Microsoft KB article 2438651 |
### Table 49: Legacy MiCollab Desktop Client troubleshooting issues (continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the user tries the “Call me and play messages” function from the Visual Voice Mail view, nothing happens.</td>
<td>There is a possible configuration issue with the MiCollab UM application.</td>
<td>For all voice mail function to operate properly, MiCollab Client requires certain parameters be configured for MiCollab UM. See “MiCollab UM Configuration” on page 67 for details.</td>
</tr>
<tr>
<td>You cannot establish a call using your SIP softphone on your Legacy MiCollab Desktop Client in Teleworker mode even though your SIP softphone is registered.</td>
<td>Utilizing an unsupported router: D-Link DIR-615.</td>
<td>You should try a different router.</td>
</tr>
<tr>
<td>Legacy MiCollab Desktop Client unable to connect after uploading the new client software. Gets prompted to upgrade but will not connect.</td>
<td>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).</td>
<td>Reboot the PC and Windows will remove this invalid video connection.</td>
</tr>
<tr>
<td>Some of the Google contacts are not imported on the Legacy MiCollab Desktop Client. Occurs after contacts are moved from the main corporate directory to a personal group.</td>
<td>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></td>
<td>The workaround is to go to that group and re-enter or edit the name then it will import properly.</td>
</tr>
<tr>
<td>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.</td>
<td>Audio channels are established because it directly corresponds to MiVoice Business.</td>
<td>There is no workaround at this time.</td>
</tr>
</tbody>
</table>

#### Legacy MiCollab Desktop Client error and warning messages

This section provides common error and warning messages for the following situations:

- “Initialization messages” on page 260 below
- “Configuration change messages” on page 261
Initialization messages

Table 50 Initialization messages lists client initialization messages and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
</table>
| MiCollab Client failed to connect to server `<FQDN>`. MiCollab Client will start up in Offline mode. Do you wish to continue? | • The MiCollab Client Service is not running.  
• There is no route to the MiCollab Client Service.  
• MiCollab Client cannot set a MiTAI monitor on the extension number.  
• There may be a firewall/network/DNS issue or a PBX configuration problem.  
• A remote user is trying to connect without configuring teleworker settings. Remote MiVoice Business users must configure teleworker settings after acknowledging this error. | • Show Details  
• OK  
• Cancel |
| There are no devices available (desk phone:<ext> or softphone <ext> on switch xxx.xxx.xxx.xxx). Would you like to work offline? | • The MiCollab Client Service has not finished configuring the system.  
• 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 its MiTAI monitor of the MiCollab Client extension.  
• A user does not have either a deskphone or softphone extension programmed in the MiCollab Client Service. | • OK  
• Cancel |
| 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? | • The user ID was not found on the MiCollab Client Service.  
• There was a port issue between MiCollab Client or the MiCollab Client Service and the teleworker gateway. | • Show Details  
• OK  
• Cancel |
| Irreconcilable discrepancy between the MiCollab Client’s set of lines and the PBX’s set of lines. Restart MiCollab Client. | • Line changes have been made on the switch.  
• MiCollab Client and the PBX switch are out of synch. Restart the MiCollab Client Service. | OK |
Table 50: Initialization messages (continued)

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your device appears to be out of service. Please contact your system</td>
<td>The desk phone is not plugged in.</td>
<td>• OK</td>
</tr>
<tr>
<td>administrator for assistance. Would you like to go to offline mode now?</td>
<td></td>
<td>• Cancel</td>
</tr>
<tr>
<td>Click OK to continue to use MiCollab Client in offline mode. Click</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancel to quit MiCollab Client.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is a Demo version of MiCollab Client and will startup in Offline</td>
<td>• If the MiCollab Client Service is licensed (a license key has been applied)</td>
<td>• OK</td>
</tr>
<tr>
<td>mode. For a fully licensed copy of MiCollab Client, please contact your</td>
<td>but the user trying to log in does not appear in the MiCollab Client Service</td>
<td>• Cancel</td>
</tr>
<tr>
<td>System Administrator. Do you wish to continue?</td>
<td>then they will receive this message and be able to login offline.</td>
<td></td>
</tr>
<tr>
<td>• The user logging in may be listed as an account on the MiCollab Client</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service, but doesn’t have a MiCollab Client base license assigned to it,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>will get this error and be able to log in using offline mode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your account is not licensed for desk phone or softphone. Please contact</td>
<td>The user’s account does not have both deskphone and softphone licensing.</td>
<td>• OK</td>
</tr>
<tr>
<td>your system administrator. Would you like to work offline?</td>
<td></td>
<td>• Cancel</td>
</tr>
</tbody>
</table>

Configuration change messages

Table 51 Configuration change messages provides configuration change warning messages and their possible causes.

Table 51: Configuration change messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes to the user interface language will not take effect until you</td>
<td>This message is displayed when the language settings have been changed.</td>
<td>OK</td>
</tr>
<tr>
<td>restart MiCollab Client.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are changes made to the configuration of MiCollab Client that have</td>
<td>This message is displayed when configuration changes have been made then the</td>
<td>• Apply</td>
</tr>
<tr>
<td>not been applied yet. Please choose what you would like to do with them.</td>
<td>user cancels out of the configuration screen without saving or applying the</td>
<td>• Review</td>
</tr>
<tr>
<td></td>
<td>changes.</td>
<td>• Discard</td>
</tr>
</tbody>
</table>
Teleworker setup message

**Table 52 Teleworker setup message** provides a teleworker setup message.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directory number is not valid. Please type in the correct value and try again.</td>
<td>An invalid directory number was entered (non numeric) Resolution: Re-enter the directory number.</td>
<td>OK</td>
</tr>
<tr>
<td>Configuration file for SSL component is invalid.</td>
<td>The user was attempting to retrieve a certificate from the Legacy 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 Legacy MiCollab Desktop Client and try retrieving the certificate again.</td>
<td>OK</td>
</tr>
</tbody>
</table>

File sending message

**Table 53 File sending message** provides a file sending message.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>The file or files you attempted to send exceed the maximum file transfer size of 20 megabytes.</td>
<td>While in the People view or chat window attempting to send a file over 20 megabytes to another MiCollab Client user.</td>
<td>OK</td>
</tr>
</tbody>
</table>

ACD messages

**Table 54 ACD messages** provides ACD errors and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>• An incorrect Agent ID has been entered. • Agent selected is already logged in elsewhere. • Phone not configured for ACD.</td>
<td>OK</td>
</tr>
<tr>
<td>The Agent ID is invalid. The Agent ID cannot be blank.</td>
<td>The agent Id has not been entered.</td>
<td>OK</td>
</tr>
</tbody>
</table>
PIM integration messages

Table 55 PIM integration messages provides PIM integration messages and their possible causes.

<table>
<thead>
<tr>
<th>Message</th>
<th>Possible Cause</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Outlook is running under another profile. Please restart this application under the default profile.</td>
<td>User selected some profile other than the default mail profile (set in the Windows Control Panel “Mail”) when the PIM was started.</td>
<td>OK</td>
</tr>
<tr>
<td>MiCollab Client is experiencing issues using Microsoft Outlook. Please make sure this application is working properly and try again.</td>
<td>The PIM is malfunctioning in an unspecified way.</td>
<td>OK</td>
</tr>
<tr>
<td>Please install and set up any of these supported applications before using this feature: • Windows Address Book • Act • Microsoft Outlook • Lotus Notes</td>
<td>User attempted to select PIM folders for importing or indexing contacts when no PIM was installed and configured.</td>
<td>OK</td>
</tr>
<tr>
<td>Microsoft Outlook is not responding. Please make sure this application is working properly and try again.</td>
<td>The PIM is not responding. Restart the PIM and then restart the Legacy MiCollab Desktop Client.</td>
<td>OK</td>
</tr>
<tr>
<td>Microsoft Outlook appears to be unavailable. Please make sure this application is working properly and restart MiCollab Client when convenient.</td>
<td>The PIM is not available. MiCollab Client must be restarted when the PIM is working again.</td>
<td>OK</td>
</tr>
</tbody>
</table>

Audio problems

Table 56 MiCollab Client audio problems provides Client troubleshooting information audio
When using a headset:

- MUTE button on the volume control of the headset turns on by itself, and will not turn off.
- Disconnecting and reconnecting the headset to the PC causes the system to freeze and require a power down and restart.
- Windows loses the connection to the USB headset. Windows no longer detects the headset.
- Loss of audio during a phone call, while the call window stays up.
- Answering or making a softphone call using, and experiencing no audio.
- Loud hissing, static or popping heard through the headset speakers.
- Windows loses the USB connection to the headset.
- MiCollab Client no longer detects the USB headset. (Tools - Configuration - Handle Calls Using).
- MiCollab Client automatically changes the audio devices for softphone calls to the PC sound card or another audio device.

**Probable Cause**: The headset is defective or misconfigured on the PC.

**Corrective Action**: Make sure that the USB headset connected to the MiCollab Client PC is functioning correctly.

- Ensure that Microsoft Windows is detecting the USB connected headset. (Windows - Hardware Devices).
- 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.
- 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, and so on).
- 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, and so on).
- Contact the USB headset vendor to ensure that the headsets are configured and operating as intended.

When using the softphone the call "breaks up" while using other programs.

Some Windows tasks run at elevated priorities, briefly preventing other applications from performing their own tasks.

Windows desktop tasks can run at the highest of priorities. A common problem is the animation used when minimizing and maximizing windows.

This animation takes about 200 ms (1/5th of a second) and produces a noticeable break in a conversation.

**To disable the animation in XP:**
1. In the Windows Control Panel, select **Performance and Maintenance**.
2. Select **System Properties**.
3. On the Advanced tab, click the Performance “Settings” button.
Table 56: MiCollab Client audio problems (continued)

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-way audio or no audio.</td>
<td>Firewall blocking or call path cannot route.</td>
<td>Check the gateway IP address. Is default gateway aware of all networks?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In DMZ - NIC of external firewall.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ensure firewall isn’t blocking any necessary ports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is it a fully routable path?</td>
</tr>
<tr>
<td>Active SIP softphone call on data network (cellular data network) is disconnected when switching to a WiFi connection.</td>
<td>3G/4G data and WiFi connections cannot operate simultaneously.</td>
<td>This is normal and unavoidable behavior.</td>
</tr>
</tbody>
</table>

Video problems

Table 57 MiCollab Client video problems provides client troubleshooting information video problems.

Table 57: MiCollab Client video problems

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>MiVoice Office 250 PBX does not support SIP Video</td>
<td></td>
</tr>
</tbody>
</table>

Device error

Table 58 Device errors provides troubleshooting information for a device error.

Table 58: Device errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The “P-Asserted-Identity &lt;MiVoice Business IP Address&gt;” error message appears on the 5610 SIP phone display when a call from the PBX rings in.</td>
<td>The “P-Asserted-Identity &lt;MiVoice Business IP Address&gt;” header is included in the SIP INVITE message to the 5610 phone.</td>
<td>None. Although this error message appears on the display, the user can still answer and complete the call attempt.</td>
</tr>
</tbody>
</table>
Legacy MiVoice for Skype for Business Plugin Troubleshooting

Table 59: Legacy MiVoice for Skype for Business Plugin troubleshooting issues provides troubleshooting items for Legacy MiVoice for Skype for Business Plugin.

<table>
<thead>
<tr>
<th>Problem or Error</th>
<th>Probable Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| User can log in but is unable to use any of the MiVoice features, such as setting DND, Call Forward, calling operations, and so on. | User account is not licensed properly. | From MiCollab Client Service, Accounts Tab go to Licensed Features and add Desk Phone and Softphone licenses to user’s profile.  
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.  
Also see Table 38.  
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). |
| Added custom attributes are not visible on Legacy MiVoice for Skype for Business Plugin. | 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 Legacy MiVoice for Skype for Business Plugin. |
| System.InvalidCastException: Unable to cast COM object of type 'System._ComObject' to interface type 'Microsoft.Office.Uc.UCOfficeIntegration'. This operation failed because the QueryInterface call on the COM component for the interface failed due to the following error; Interface not registered. | Legacy MiVoice for Skype for Business Plugin is not initializing. | In your desktop, click the Start menu, enter Control Panel in the search box and select Control Panel from the results. Select Programs > Programs and Features;  
• If you have a stand-alone Skype for Business client installed, then select Mitel MiVoice for Skype for Business, click Repair and follow the directions on the screen.  
• If you have Skype for Business installed as part of the Microsoft Office suite, then select Microsoft Office, click Change and follow the directions on the screen.  
After the repair procedure is complete, restart your computer, and launch Legacy MiVoice for Skype for Business Plugin again. |
Appendix B

MiCollab Meeting Center Configuration
Overview

The MiCollab Meeting Center is an integration of single tap to call in MiCollab Audio, Web and Video conferences from the 6800 and 6900 series desk phones. When a MiCollab Audio, Web and Video Conference is scheduled to start, the user taps the Join button to join the audio portion of the Conference.

This section describes the procedure to configure MiCollab components and Microsoft Exchange for MiCollab Meeting Center.

Requirements

- MiCollab users should have valid MiCollab Audio, Web and Video Conference.
- Meeting Center requires unique primary DNs on the MiCollab Server for users requesting the feature from the phone. Additional accounts on Peered Servers will not affect the functionality.
- Server based Calendar Integration is established for Microsoft Exchange 2013 and higher or Microsoft Office 365.
- Access to calendars using an impersonation account or delegation to a service account. See the Enterprise section in MiCollab Client Service Administrator interface Online help for details.
- MiCollab Audio, Web and Video Conferencing URL including access code must be a part of the <location> attribute in the Outlook appointment or meeting. The URL is same as the conference link on MiCollab Audio, Web and Video Conferencing. Format of the URL should be:
  
  https://<server fqdn>/call/<meeting id>

  Example URL: https://company.domain.com/call/xxxxxxx

  A room can be specified in the Location field along with MiCollab Audio, Web and Video Conferencing URL, separated by a semicolon.

- Meeting Center URL must be provisioned on the phones.
  http://<micollabsrv>/MiCollabMeeting/meetings/$$SIPUSERNAME$$/$$LOCALIP$$

- Supported phone series, firmware version, and communication platform:

<table>
<thead>
<tr>
<th>Phone series</th>
<th>69xx: 6920, 6930, and 6940</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>68xx: 6867, 6869, and 6873</td>
</tr>
<tr>
<td>Firmware version</td>
<td>69xx version 1.2</td>
</tr>
<tr>
<td>Communication platform</td>
<td>MiVoice Business 8.0 SP2</td>
</tr>
</tbody>
</table>

Note:

For information on configuration of call managers, see Administrator Guides for 6800 and 6900 series SIP Phones on MiVoice Business, MiVoice MX-ONE, MiVoice 5000, and MiVoice Office 400 communication platforms.
• Support for (public) dial-in numbers in canonical E.164 format on the PBX, are configured if needed.

• Microsoft Exchange and MiCollab Server clocks must be synchronized.

• Configure soft key to access the phone’s calendar.

• MiCollab should have Calendar Integration enabled with Microsoft Exchange or Office 365 with subscription type as Impersonation or Delegation. This can be verified from Calendar Integration details under **MiCollab Client Service > Configure MiCollab Client Service** section.

![Calendar Integration Configuration](image)

• MiCollab users have set Primary e-mail same as that of Microsoft Exchange. This can be verified from account details under **MiCollab Client Service > Configure MiCollab Client Service** section.

![Account Configuration](image)

• MiCollab users must have a valid MiCollab Audio, Web and Video Conferencing license.

• The MiCollab Audio, Web and Video Conference URL link must be configured in the location field of the Microsoft Outlook meeting. MiCollab Audio, Web and Video Conferences can be created using the end-user portal or the MiCollab Microsoft Outlook plugin.
Conditions and Limitations

The following conditions and limitations apply:

- Meeting Center can only support MiCollab users (with the DN of the 68xx or 69xx as primary DN).
- MiCollab Meeting Center is supported on MiCollab Server 8.0 or later in Integrated Servers and Co-located Standalone Servers with a single tenant (no overlap DNs and e-mail addresses).
- If the meeting is already started, meeting notifications may be missed for the users created on a Peered MiCollab Server.
- If the extension length (numbering system) is different on peered MiCollab servers, the user can join the meeting using the external dial-in number.
- Only the meetings within the next 12 hours will be displayed.
- There are no notifications for change or update or removal of Outlook appointments or meetings. To get new meetings list, refresh the meetings list using the softkey on the phone.
- Meetings will only be displayed within the Exchange or Office 365 duration and will be removed from the list, even if the call duration is extended. To extend the MiCollab Audio, Web and Video Conference, extend the calendar meeting. This will re-sync the server to new settings.
- If MiCollab Audio, Web and Video Conference is ended early, it will still show up in the meeting list until Exchange or Office 365 meeting is ended or removed.
- The language of the Meeting Center application is based on the phone’s language. If you are joining using the Join button in the ribbon, the Web Client will be launched using the display language configured in Outlook client for all supported languages in MiCollab Audio, Web and Video Conference. For non-supported languages the Web Client will be launched in English as a default language.
- Avoid possible transcoding in the full path between the caller and MiCollab Audio, Web and Video Conference to prevent complexity in voice routing and problems with the access code being pulsed correctly.
MiCollab Meeting Center Configuration

**Configuration**

**Soft button (Join button) URL**

**Note:**

Join button will automatically dial into the first dial-in number that is programmed.

The Soft button URL must be configured for each phone. The URL is:

http://<micollabsrv>/MiCollabMeeting/meetings/$$SIPUSERNAME$$/$$LOCALIP$$

**Poll URL**

The Poll URL must be configured in the CFG files of the phones. The URL is:

http://<micollabsrv>/MiCollabMeeting/activeMeeting/$$SIPUSERNAME$$/$$LOCALIP$$

where,

- micollabsrv is FQDN or IP address of MiCollab Server (configured by administrator).
- $$SIPUSERNAME$$ is the DN (automatically replaced by the phone).
- $$LOCALIP$$ is IP address of the phone (automatically replaced by the phone).

Sample CFG file <AppInfo-6940.cfg>:

- action uri poll: http://<micollabsrv>/MiCollabMeeting/activeMeeting/$$SIPUSERNAME$$/$$LOCALIP$$
- action uri poll interval: 60 seconds

**DIAL command**

Meeting Center is sending the following DIAL command to the 68xx/69xx phone for accessing the MiCollab Audio, Web and Video Conference:

12345%PAUSE%6666666#

where,

- **12345** is the dial-in number (can be internal or external).
- **%PAUSE%** is the pause value to be used before sending the access code with the following default values (PBX dependent):
  - ,, for MiVoice Business (For example, 12345,,6666666#)
  - #, for MiVoice Office 400 and MX-ONE (For example, 12345#,6666666#)
  - #,, for MiVoice 5000 (For example, 12345#,,,6666666#)
- **6666666#** is the MiCollab Audio, Web and Video Conference access code, including a trailing hash to enter the conference.

If different pause values are needed to access the conferences successfully, the default value for **%PAUSE%** are overwritten by the system administrator in the properties file of Meeting Center (this may depend on the PBX configuration and so on).
Example:

`<var/lib/tomcat7/webapps/MiCollabMeeting/WEB-INF/classes/resources/MiCollabMeeting.properties>`

XmlApi.dialPause=,,,,,,,,,,,

**Note:**
Tomcat restart on the MiCollab Server is needed to activate the configured pause value.

**Note:**
It is advised for the administrator to experiment with the number of pauses required to allow appropriate time for the call to be connected prior to the access code being out pulsed.

### Microsoft Exchange or Office 365

MiCollab Meeting Center feature requires an Active Directory account with the following privileges:

- **Impersonation:** For subscription type as **Impersonation**, the **Username** should have Management Role as **ApplicationImpersonation** along with **LimitedDetails AccessRights** (for every user using this feature).

- **Delegation:** For subscription type as **Delegation**, the **Username** should have **Reviewer AccessRights** (for every user using this feature).

Commands for Exchange Management Shell when calendar type is Microsoft Exchange

- To set management role (for Impersonation only),
  
  ```powershell
  New-ManagementRoleAssignment -Name:impersonationAssignmentName -Role:ApplicationImpersonation -User:serviceAccount
  ```

  Where, `serviceAccount` is Username.

- To set access rights,
  
  ```powershell
  Add-MailboxFolderPermission -Identity user1@mitel.com:Calendar -User user2@mitel.com -AccessRights LimitedDetails
  ```

  Where,

  - `user1`: user ID of the mailbox or calendar we want to get access to.
  - `user2`: user ID of the service account we configure on Admin portal.

### Office 365 Exchange Online account

To set up an Office 365 Exchange Online account with Outlook 2013 and 2016 for windows, follow the instructions in **MiCollab End-User Portal Help**.
Configuration on MiVoice Business Communication Platform

**Note:**
For additional information on configuring MiVoice Business Platform, see respective MiVoice Business documentation.

1. **Configure the soft key.**

   ![Soft Key Configuration](image)

   - Configure the soft key with the following settings:
     - **Label**: Meetings 129
     - **Line Type**: URL Line
     - **URL**: http://10.112.188.129/MiCollab/Meeting/meetings/$USERID/USERNAME/$$LOCALIP$$

   ![URL Configuration](image)

   - Update **Online URLs** with the location for the phone to pick the uploaded CFG file. Refer to the **Online Service URLs** section in the MiVoice Business System Administration Help for more information.

2. **Upload the CFG file containing Poll URL and Poll interval, using Phone Applications Update.**

   ![Upload CFG File](image)

3. **Update Online URLs with the location for the phone to pick the uploaded CFG file.** Refer to the **Online Service URLs** section in the MiVoice Business System Administration Help for more information.

   ![Online URLs](image)

**Note:**
Reboot the phone to activate the updated CFG file.
Capturing Log Files

SOS report or Feedback report log file is collected and shared with Mitel Product Support to troubleshoot issues.