CloudLink Integration with MiVoice Office 400

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About this Document   1

This chapter contains the following sections:

- Intended Audience
- Related Documentation

This document contains information about how to deploy and integrate CloudLink solution with MiVoice Office 400 PBX, which allows users to use the Mitel One applications (Mitel One mobile application and Mitel One web application). This document also provides the minimum system requirements required for deploying and integrating CloudLink solution with MiVoice Office 400.

1.1   Intended Audience

This document will serve as an introductory guide to readers seeking a high-level perspective of how to deploy and integrate CloudLink solution with MiVoice Office 400. The document is intended for planners, and engineers. Basic knowledge of phones (especially ISDN and IP technology) and cloud technology is required to understand the content presented in this document.

1.2   Related Documentation

Click here for MiVoice Office 400 product documentation and click here for CloudLink product documentation.

For information about the security of the Mitel CloudLink solution, see CloudLink Security.

CloudLink Architecture

CloudLink is Mitel's cloud solution that provides a platform that enables communications between an on-premise MiVoice Office 400 PBX and cloud-based applications such as Mitel One.
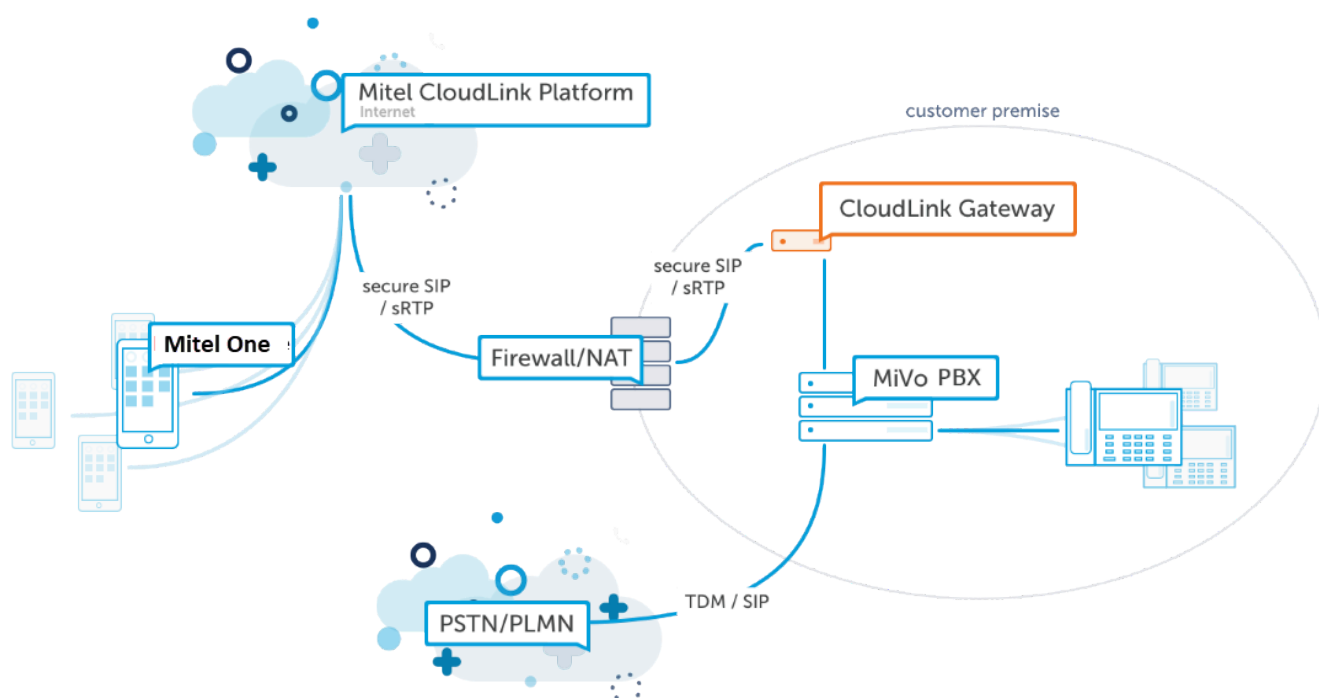
The Mitel CloudLink Solution has three elements:

- CloudLink Platform
- CloudLink Gateway
- CloudLink Apps

CloudLink Platform

The CloudLink Platform is a development platform open to Application Developers, Partners, and Customers. There are tools to build tailored applications with no development knowledge. This is hosted by Mitel on Amazon Web Services (AWS).

CloudLink Gateway

The CloudLink Gateway connects PBXs to the CloudLink Platform and the CloudLink Apps. The CloudLink Gateway facilitates the connection between the PBX and the Endpoints by normalizing the signaling protocols from different PBXs. This provides only one Signaling and Messaging Protocol between the CloudLink Gateway and the CloudLink Platform infrastructure running on Amazon Web Services (AWS).

CloudLink Apps

CloudLink Apps leverage Mitel Application Programming Interfaces (APIs) and microservices so that next generation apps can be continuously and rapidly deployed, management is simplified, and real-time communication delivered to meet customer needs.

The following are the CloudLink applications supported with MiVoice Office 400:

• Mitel One Mobile Application
• Mitel One Web Application

Integrating CloudLink with MiVoice Office 400

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This chapter contains the following sections:

- Pre-requisites
- System Requirements
- CloudLink Licensing
- Configuration
- Procedure
- Limitations

The following sections describe the pre-requisites, minimum system requirements, licensing, and the configuration required to integrate a CloudLink application with MiVoice Office 400 and the procedure to integrate a CloudLink application with MiVoice Office 400.

3.1   Pre-requisites

Following are the prerequisites that must be ensured before integrating CloudLink with MiVoice Office 400:

- The MiVoice Office 400 system must be up and running on a supported platform (Mitel 470, Mitel SMBC, or Mitel Virtual Appliance).
- You must have all the necessary licenses and SWA available. For more information, see CloudLink Licensing on page 5.
- The ports mentioned in the CloudLink Gateway topic must be opened in your firewall. For more information about configuration prerequisites see, Configuration Prerequisites.
- The recommended bandwidth must be available to deploy the CloudLink application. For more information, see the *Bandwidth Requirements* section in System Requirements.
- The best practices recommended for CloudLink site deployments must be observed. Click here to view the list of recommended best practices.

3.2   System Requirements

Mitel One Mobile Application

For information about the minimum system requirements for using the Mitel One Mobile Application, see Supported Devices, Regions and languages, and System Requirements .

For more information about the ports that need to be open and the URLs that the mobile app uses see Mitel One Mobile.

Mitel One Web Application

For information about the minimum system requirements for using the Mitel One Web Application, see Supported Browsers, and System Requirements.

For more information about the ports that need to be open and the URLs that the web app uses, see Mitel One Web.

DSP Requirements

For information about the DSP requirements for a CloudLink application call, see the DSP Requirements section in System Requirements.

WiFi Network and QoS

The following is the expected behavior when you switch between access points or networks during an ongoing call:

- The Mitel One app will not disconnect an ongoing call if you switch between access points of the same type and configuration within the same Wi-Fi network having the same access password.
- The Mitel One app will disconnect an ongoing call if you switch between access points of different types within the same Wi-Fi network, or between different Wi-Fi networks with different access passwords.
- The Mitel One app will disconnect an ongoing call if you switch between different types of networks; for example, if you switch from a Wi-Fi network to a carrier network or vice-versa.

3.3   CloudLink Licensing

All licensing is done on the MiVoice Office 400 PBX. Each registered Mitel One application on the MiVoice Office 400 requires a license, which is either included in a UCC Bundle licenses or is a dedicated application license. Without this license, the

application's SIP registration is rejected by the MiVoice Office 400. No other types of licenses are needed.

For the Mitel One application license:

- Active Software Assurance (SWA) is required.
- For a user license, the terminal requires a Mitel One application license.
- For a Basic user license, the terminal requires a Mitel One application license.
- For Entry, Standard, and Premium UCC license bundles, the Mitel One application license is included.
- Trial licenses are available for the Mitel One application license.

3.4   Configuration

SIP user configuration for Mitel One

The MiVoice Office 400 PBX needs to be programmed to add all users who will be able to access CloudLink applications such as the Mitel One mobile application. For more information, see ***Add CloudLink App Users*** section in Configure MiVO400 on Standalone Platform.

Direct/Indirect media switching VoIP calls

Direct Switching

When direct switching is enabled, the use of DSP resources is not required for connections between IP devices.

Indirect Switching

When indirect switching is enabled, connections between IP and non-IP endpoints are made via an IP media gateway. This is carried out by the integrated standard media switch that switches VoIP channels for call connections in the IP network. The Standard Media Switch uses DSP resources for the real-time processing of the call data. VoIP channels are always required between IP and non-IP endpoints; for example, for internal connections between a SIP/IP phone and a digital system phone or an external user routed to the internal Voice Mail System via an SIP network interface. If indirect switching is enabled for SIP Devices/SIP Trunk, media will always be routed over PBX, using 2 DSP Channels, even when direct switching is possible.

For more information, see MiVoice Office 400 documentation.

Testing Environment	Minimum Releases	MiVoice Office 400	CloudLink Gateway	Maximum Mitel One Users	Maximum Simultaneous Call (Direct Switching)	Maximum Simultaneous Call (Indirect Switching)
SMBC - Internal CloudLink Gateway	6.3 or later	SMBC	Embedded in SMBC	50	• 25 Mitel One to Mitel One • 50 Mitel One to Internal • 50 Mitel One to PSTN • 16 Mitel One to Mitel One(GSM) • 12 Mitel One (GSM) to Mitel One (GSM)	• 15 Mitel One to Mitel One • 15 Mitel One to Internal • 15 Mitel One to PSTN • 16 Mitel One to Mitel One (GSM) • 12 Mitel One (GSM) to Mitel One (GSM)
Mitel 470 - External CloudLink Gateway	6.3 or later	Physical Mitel 470	CloudLink Gateway	300	• 25 Mitel One to Mitel One • 50 Mitel One to Internal • 50 Mitel One to PSTN • 16 Mitel One to Mitel One (GSM) • 12 Mitel One (GSM) to Mitel One (GSM)	• 25 Mitel One to Mitel One • 50 Mitel One to Internal • 50 Mitel One to PSTN • 16 Mitel One to Mitel One (GSM) • 12 Mitel One (GSM) to Mitel One (GSM)
Virtual Appliance - Virtualized CloudLink Gateway	6.3 or later	Virtual Appliance	OVA	300	**Default appliance with 1 core CPU and 2GB RAM** • 25 Mitel One to Mitel One • 50 Mitel One to Internal • 50 Mitel One to PSTN • 16 Mitel One to Mitel One (GSM) • 12 Mitel One (GSM) to Mitel One(GSM)	**Default appliance with 1 core CPU and 2GB RAM** • 25 Mitel One to Mitel One • 50 Mitel One to Internal • 50 Mitel One to PSTN • 16 Mitel One to Mitel One (GSM) • 12 Mitel One (GSM) to Mitel One (GSM)
					Large appliance with 8 core CPU and 4GB RAM • 125 Mitel One to Mitel One • 125 Mitel One to Internal • 125 Mitel One to PSTN • 16 Mitel One to Mitel One(GSM)	**Large appliance with 8 core CPU and 4GB RAM** • 125 Mitel One to Mitel One • 125 Mitel One to Internal • 125 Mitel One to PSTN • 16 Mitel One to Mitel One (GSM) • 12 Mitel One (GSM) to Mitel One (GSM)

Test ing Envi ronment	Mini mum Rele ases	MiVoice Office 400	CloudLin k Ga teway	Maximum Mitel One Users	Maximum Simultaneous Call (Direct Sw itching)	Maximum Simultaneous Call (Indirect Switching)
					• 12 Mitel One (GSM) to Mitel One(GSM) ℹ **Note**: 125 simultaneous calls are supported only if the appliance is upgraded to OVA version 1.1.3 or later.	ℹ **Note**: 125 simultaneous calls are supported only if the appliance is upgraded to OVA version 1.1.3 or later.

3.5   Procedure

To integrate and deploy a CloudLink application with MiVoice Office 400:

1. Install the CloudLink Gateway, depending upon the MiVoice Office 400 platform.

- For information about installing a physical appliance, see the ***Connecting the Appliance*** section in Install the CloudLink Gateway Appliance.
- For information about installing a virtual appliance, see Install the CloudLink Gateway in a VMware Virtual Environment.
- To install an embedded gateway on the Mitel SMBC:

  a. In the SMB Controller Manager, navigate to **Software** > **Applications**. Read and accept the EULA. Select **Firmware Server**.
  b. Select **Load** for your application, and then select **Install**.
  c. After the installation, it will take a few moments for the application to start. Select **CloudLink Gateway Application Configuration link**.

2. After you install a gateway appliance, the gateway appliance must be configured with the latest software. For more information, see Gateway Appliance Software Update.

3. Access the CloudLink Gateway portal. For more information, see Access the CloudLink Gateway.

4. Configure the MiVoice Office 400 platform.

   - For Mitel 470 and Mitel Virtual Appliance platforms, see Configure MiVO400 on Standalone Platform.
   - For the Mitel SMBC platform, see Configure MiVO400 on SMBC Platform.

5. Onboard the users to the CloudLink database, and deploy the Mitel One application to the users. For more information, see Onboard Customers.

6. Install the Mitel One application on your device.

   - To download and install the Mitel One mobile application, iPhone users can click here for the App Store and Android phone users can click here for the Google Play Store. You can also open the App Store or Play Store app on your phone and search for "Mitel One."
   - To access the Mitel One web application, users must enter the URL https://one.mitel.io in their browser and log in to the application. Alternately, you can install the Mitel One Progressive web Application in your device. For more information, see MiVoice Office Progressive Web Application.

3.6   Limitations

The following are the limitations pertaining to CloudLink integration with MiVoice Office 400:

- The maximum number of users that can be on boarded in an account for MiVoice Office 400 is 800.
- The maximum number of Busy Hour Call Attempts (BHCA) supported is 4200.

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