



A MITEL
PRODUCT
GUIDE

CloudLink Integration with MiVoice Business

Deployment Guide

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What's New in this Document

1

This section describes changes in this document due to new and changed functionality in CloudLink Integration with MiVoice Business Release 10.2.

Table 1: Document Version 1.0

Feature	Update	Location	Publish Date
Voicemail in Assistant app pointing to EMEM voicemail instead of Nupoint	Added information about the he Voicemail feature.	CloudLink Solution Prerequisites	October 2024

About this Document

2

This chapter contains the following sections:

- [Purpose of this Document](#)
- [Related Documentation](#)
- [Terminology](#)

This document contains information about how to install, deploy, integrate, and govern call processing behaviors for CloudLink solution with the existing MiVoice Business Solution.

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 Business Solution. The document is intended for planners and engineers. Basic knowledge of IP Telephony, SIP and Cloud technology is required to understand the content presented in this document.

The main driver for this initiative is to enable the development of 3rd Party applications with the MiVoice Business through the CloudLink API Program.

This document will provide an understanding of the overall solution; including the CloudLink Platform, the CloudLink Gateway and CloudLink Applications.

2.1 Purpose of this Document

This document describes the deployment and integration of the CloudLink solution with MiVoice Business, enabling third party development of Cloud-based applications for our customers and partners.

This document also provides the minimum system requirements for deploying and integrating the CloudLink solution with MiVoice Business.

2.2 Related Documentation

These documents are available on the documentation site on mitel.com:

- [MiVoice Business product documentation](#)
- CloudLink Accounts
- CloudLink Gateway
- CloudLink Platform
- [CloudLink Security documentation](#)
- MiTeam Meetings
- MiTeam Meetings Mobile
- Mitel Web Extension (HTML)
- MiVoice Office Mobile Application
- MiVoice Office Web Application

2.3 Terminology

- **CSTA:** Computer Supported Telecommunications Applications
- **KVM:** Kernel-Based Virtual Machine
- **CTI:** Computer Telephony Integration (which is a means of combining computer functions to control operation of telephony equipment)
- **VM:** Virtual Machine
- **DHCP:** Dynamic Host Configuration Protocol
- **API:** Application Programming Interface
- **GDC:** Generic Data Client
- **MiTAI:** Mitel Telephony Application Interface. This is a Mitel implementation of TAPI and is used to connect the PBX with external applications. MiTAI is the MiVoice Business CTI interface.
- **TAPI:** Telephony Applications Programming Interface. This is a standard programming interface that lets you and your computer communicate over telephones or video phones with people or phone-connected resources.

Introduction

3

This chapter contains the following sections:

- [CloudLink Platform](#)
- [CloudLink Gateway](#)
- [CloudLink Applications](#)

Mitel CloudLink is a cloud computing platform that enables communication between a Mitel PBX and cloud-based applications (Mitel or third-party). The platform is built on the Amazon Web Services (AWS) platform, which provides enterprise-level uptime and stability, multi-layered security, and data protection. [CloudLink Solution](#) shows the components and connections for the CloudLink platform.

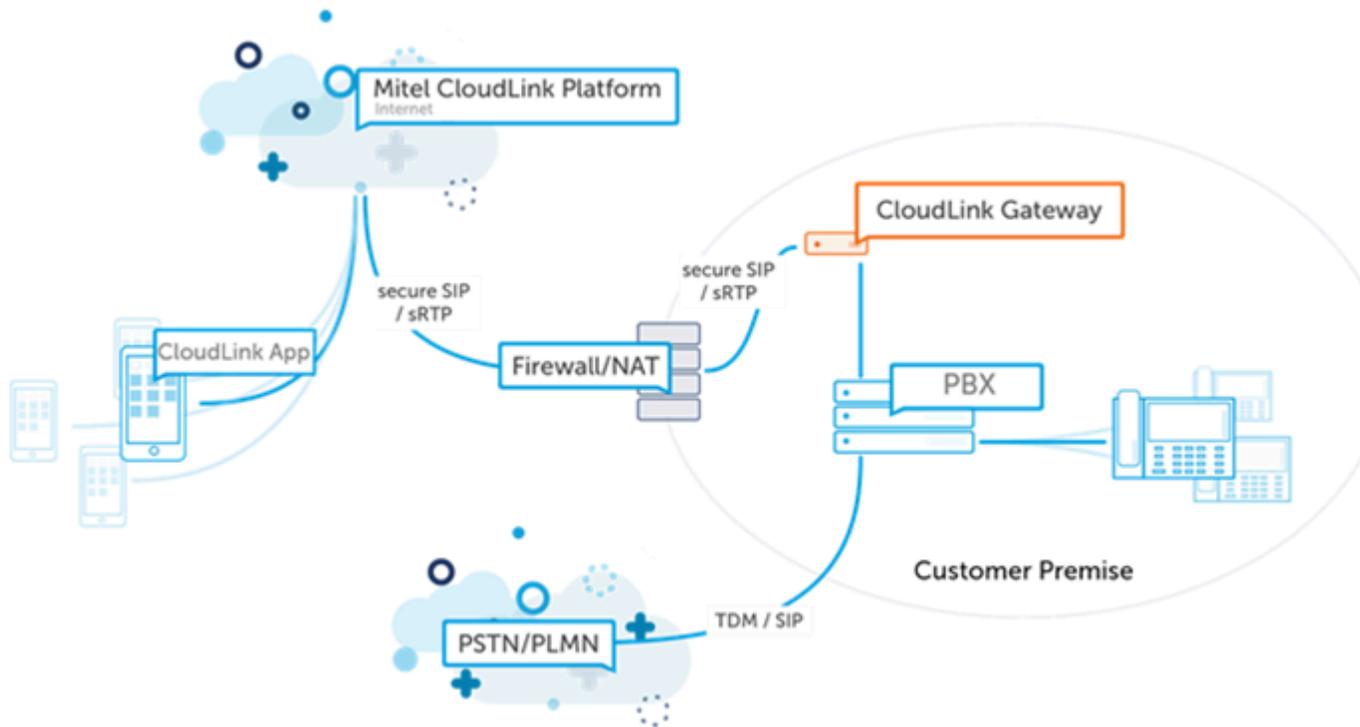


Figure 1: CloudLink Solution

The Mitel CloudLink solution is composed of the following components

- CloudLink Platform
- CloudLink Gateway
- CloudLink Applications

3.1 CloudLink Platform

The CloudLink Platform is the cloud computing platform that provides services for CloudLink applications. Some examples of the services provided are Chat Services, Voice Services, and Authorization Services. The platform is hosted by Mitel on Amazon Web Services (AWS). After a Partner has linked

the MiVoice Business through the CloudLink Gateway, enabling services such as CloudLink Telephony, Meetings or Chats is enabled from the CloudLink Accounts Console which will be discussed further in this document.

3.2 CloudLink Gateway

The CloudLink Gateway connects PBXs to the CloudLink Platform and the CloudLink Applications. The CloudLink Gateway facilitates the connection between the PBXs and the devices by normalizing the signaling protocols from different PBXs. This provides for a single Signaling and Messaging Protocol between the CloudLink Gateway and the CloudLink Platform infrastructure running on Amazon Web Services (AWS).

Mitel will provide assistance for the initial installation and configuration of the CloudLink Gateway between MiVoice Business and CloudLink. Eventually, Partners will be expected to receive self-study training before calling Mitel Support. Calls for CloudLink Onboarding on MiVoice Business will eventually follow the MiVoice Business call queue into support.

The CloudLink Gateway is the device/software blade that provides a connection from the on-premises Mitel PBXs to the CloudLink Platform. The following is the type of CloudLink Gateway:

- A Virtual Instance installed in a VMware environment or Microsoft Azure.
 - For the MiVoice Business solution, the CloudLink Gateway blade is available in the Virtual or Azure MSL/MBG server (Release 11.4 and later versions).
 - (Future release) Other deployments (AWS, Google).

3.3 CloudLink Applications

CloudLink applications leverage Mitel's application programming interfaces (APIs) and micro services so that next-generation applications can be continuously developed and rapidly deployed, are simple to manage, and deliver real-time communications to meet customer needs.

Mitel is expanding CloudLink Application opportunities to allow third-party applications under the [Mitel Developer program](#).

These applications make business communications simple, fast, and more effective by connecting Users back to their office, their coworkers, and back to their Phone System. It does this by using the necessary Mid-Call Functionalities of standard office Desktop Phones and the direct, immediate communication needed by Businesses.

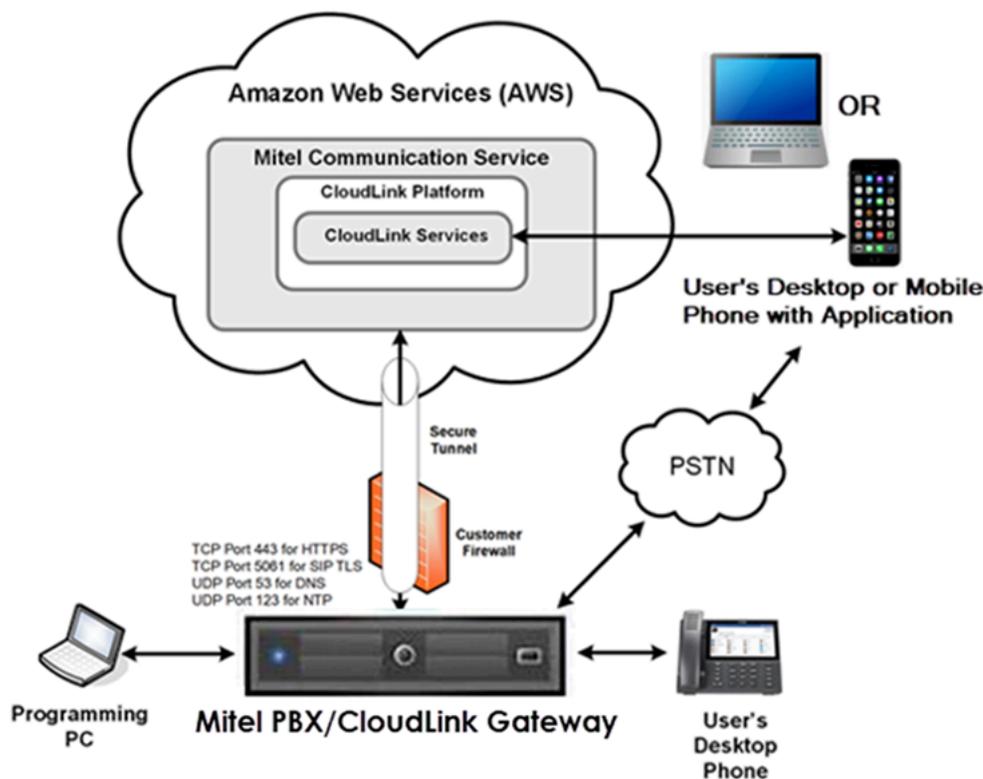


Figure 2: Mitel CloudLink Solution with Mitel PBX/CloudLink Gateway

Note:

It should be noted that once CloudLink Applications are purchased by the Partner/Customer for the Customer Account and Integrations/Licenses are applied, CloudLink will make the following changes to MiVoice Business:

- Network Elements programming referencing CloudLink will be completed
- SIP Peer Profile is completed for a connection to CloudLink
- Trunk Attributes will be completed for connections to CloudLink and MBG
- Additional changes to MiVoice Business as part of the CloudLink integration include System Speed Dials, Hunt Groups, Ring Groups, and Telephone Directories

The services in the CloudLink Platform provide hybrid communications solutions to Mitel customers. Applications are generally one of three types:

- Desktop applications that connect to an on-premises PBX to provide telephony features (CTI only).
- Integration applications that integrate with other applications. These include Mitel and third-party integration. An example of a third-party integration is Microsoft Office 365.

i Note:

For integration applications, no physical gateway installation is required. Integration with the server is done using the CloudLink Accounts Console.

- Mobile applications that connect to a PBX to provide mobile telephony features (CTI only).

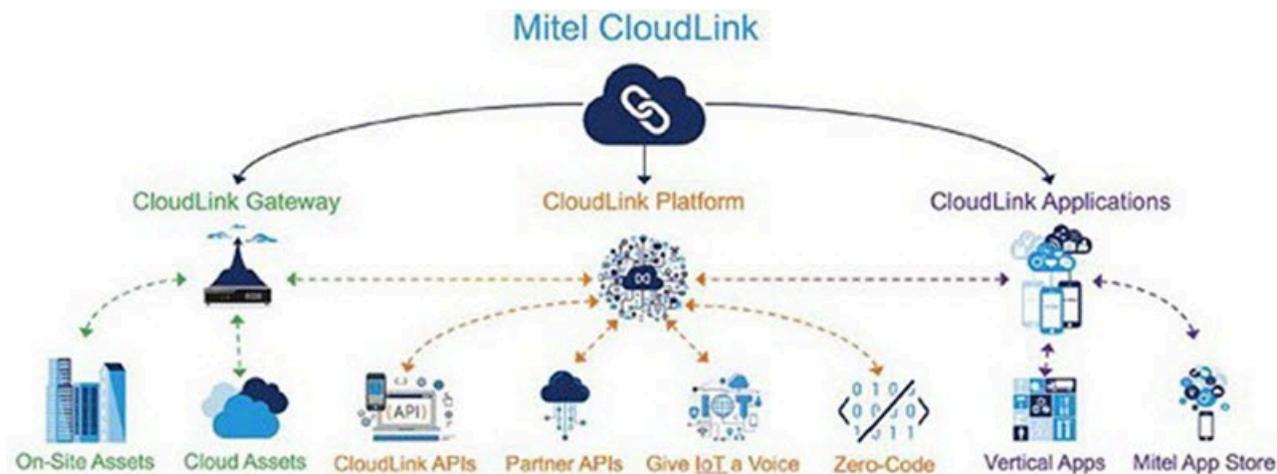
Environment

4

This chapter contains the following sections:

- [System Requirements](#)
- [Integrating CloudLink Gateway - Overview](#)

In the Mitel CloudLink environment, the CloudLink Gateway enables the connection between a MiVoice Business and the CloudLink Platform.



4.1 System Requirements

Licensing

There are no new MiVoice Business (MiVB) Licenses related to CloudLink Onboarding, nor has the MiVB licensing model changed. Although CloudLink, MiVoice Business, and MiVoice Border Gateway use SIP trunks for the integration, SIP Trunk licenses are not consumed for this integration.

Partners must have Software Assurance (SWA) to have access to the CloudLink API program.

CloudLink Solution Prerequisites

- MiVoice Business PBX Release 9.4 or later.
- MiVoice Border Gateway Release 11.4 or later
- MiCollab (not a prerequisite). However, if there is a requirement to have an MiVoice Border Gateway cluster with the MiVoice Border Gateway/MSL containing the CloudLink Gateway, the MBG software versions within MiCollab and on MiVoice Border Gateway servers must be the same software version (that is, MiVoice Border Gateway Release 11.4 or later) as per existing engineering guidelines.
- CloudLink enablement requires current Software Assurance (SWA) and End User licensing as indicated in the [Licensing](#) section.

**Note:**

Software Assurance is a requirement for CloudLink and CloudLink Applications. Expiring Software Assurance may result in CloudLink features being denied. Please consult the following [link](#).

- The Voicemail feature is available only if your organization has a MiVoice Office 400 PBX or MiVoice Business PBX deployment.
- The CloudLink Gateway must sync with the MiVoice Business where the voicemail resides, it will import the first (lowest numbered) Hunt Group with the type Voicemail.

CloudLink Gateway Prerequisites

The following are the prerequisites for CloudLink Gateway:

- An Internet connection that provides enough bandwidth.
- A DNS server that the CloudLink Gateway uses to resolve domain names.
- An Ethernet connection to the LAN.
- Passwords to be entered during the MiVoice Business configuration.
- Mitel MiAccess account.
- Ports: CloudLink Gateway requires certain ports to be accessible to communicate with the MiVoice Business. For information about these ports, see [Connections Between the CloudLink GW and PBX/Call Server > MiVoice Business Considerations](#).

4.1.1 Network Requirements

This section provides details of the network connections required between CloudLink Gateway and MiVoice Business. You must ensure that the ports on MiVoice Business are reserved for operational use for the CloudLink Gateway and that the connections are routed properly through the corporate network.

For more information about the network connections required between CloudLink Gateway and MiVoice Business, see the following sections in the *CloudLink Gateway User Guide*:

- [Configuration Prerequisites](#)
- [Network View](#)
- [Connections Between the CloudLink GW and PBX/Call Server > MiVoice Business Considerations](#)

4.2 Integrating CloudLink Gateway - Overview

As a CloudLink Administrator you will be required to create a CloudLink (Customer) account in the accounts console. After you create the CloudLink Account, you can begin the deployment of the CloudLink Gateway to associate the gateway with the Customer Account.

i Note:

For initial onboarding of CloudLink Gateway connections to the CloudLink Platform, Administrators of the CloudLink Gateway on MSL must use the CloudLink Portal button to connect with the CloudLink Platform to complete CloudLink Gateway Integrations.

During CloudLink Gateway integration, the PBX will be synchronized with CloudLink to import PBX users and to have some parameters on MiVoice Business and MiVoice Border Gateway automatically configured.

i Note:

For existing customer sites with MiCollab, MiCollab might already be integrated with CloudLink. Note that for the same Customer Account on CloudLink, the CloudLink Gateway to the MiVoice Business will still need to be integrated. This is discussed in the next module.

CloudLink applications can be enabled for users, but details of this are not covered in this document.

This document provides the initial steps required to configure the CloudLink Gateway. The supported type of CloudLink Gateway Appliances in Phase 1 is Virtual CloudLink Gateway (VMware and Azure).

Integration

5

This chapter contains the following sections:

- [Interface 1 \(Between CloudLink Application and CloudLink Platform\)](#)
- [Interface 2 \(Between CloudLink Platform and CloudLink Gateway\)](#)
- [Interface 3 \(Between MiVoice Border Gateway and CloudLink Platform\)](#)
- [Interface 4 \(Between CloudLink Gateway and MiVoice Border Gateway\)](#)
- [Interface 5 \(Between CloudLink Gateway and MiVoice Business\)](#)
- [Interface 6 \(Between MiVoice Business and MiVoice Border Gateway\)](#)

The following example shows MBG and CloudLink Gateway on a Virtual Machine with MSL. Azure will incorporate the MSL, MBG, CLGW and MiVB on a Virtual Machine but otherwise the description/information is consistent.

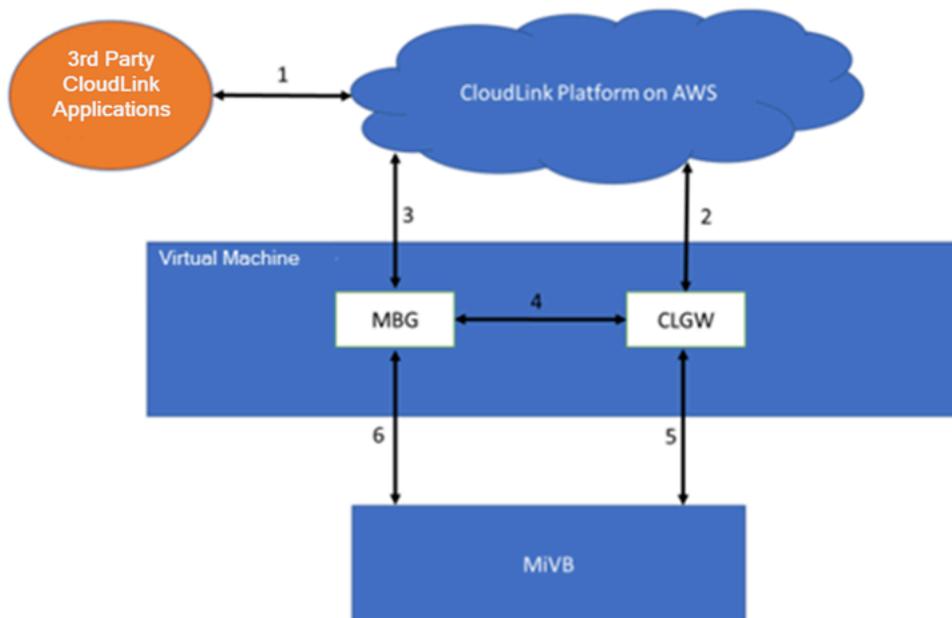


Figure 3: MiVoice Business with CloudLink Integration

[MiVoice Business with CloudLink Integration](#) is an attempt to simplify the architecture of this solution in a way that MiVoice Business Partners and customers can understand.

The CloudLink Solution is divided into four primary components:

- The PBX (for example; MiVoice Business)
- A Virtual Machine with CloudLink Gateway and MiVoice Border Gateway
 - CloudLink Gateway and MiVoice Border Gateway are both blades available for installation from Mitel Standard Linux.
 - Virtual Machine with VMware or Azure is supported.
- CloudLink Platform
- CloudLink Applications (Mitel or developed by third-party)

For the CloudLink Platform to fully interwork with Mitel PBXs (that is, MiVoice Business), it requires Mitel's Border Gateway and the Mitel's CloudLink Gateway. The MiVoice Border Gateway and CloudLink Gateway are both deployed on the same Virtual Machine.

In [Figure 3: MiVoice Business with CloudLink Integration](#) on page 11, you will find arrows indicating interface connections. The following will explain each interface:

5.1 Interface 1 (Between CloudLink Application and CloudLink Platform)

The CloudLink Platform provides **Third-Party Developers with APIs** to develop their own CloudLink applications. CloudLink provides APIs to help develop Telephony, Messaging and Administrative applications to interwork with MiVoice Business solution. More details can be found on [Mitel's Developer Portal](#).

Note:

It is possible that Mitel will provide an application using the same APIs. An example is Mitel One for the MiVoice Office 400.

5.2 Interface 2 (Between CloudLink Platform and CloudLink Gateway)

The CloudLink Platform interworks with the CloudLink Gateway to use the Telephony, CTI and Database APIs provided by the MiVoice Business. The main role of the CloudLink Gateway is to provide a common and standardized set of APIs to the CloudLink Platform so that the CloudLink Platform requires minimal knowledge of the intricacies of the Mitel PBXs it supports.

5.3 Interface 3 (Between MiVoice Border Gateway and CloudLink Platform)

The CloudLink Platforms interworks with the MiVoice Border Gateway to provide SIP Trunking for CloudLink applications (not currently used in Mitel CloudLink APIs). In the CloudLink or MiVoice Business solution, the MiVoice Border Gateway supports all of its current functionality in addition to supporting the CloudLink Platform and CloudLink Gateway.

5.4 Interface 4 (Between CloudLink Gateway and MiVoice Border Gateway)

The MiVoice Border Gateway provides APIs to the CloudLink Gateway to allow CloudLink to automatically provision the MiVoice Border Gateway during the configuration process ([CloudLink Gateway Configuration](#) on page 27), which includes the configuration of SIP Trunking.

Note:

MiVoice Border Gateway is typically used for Softphone functionality. CloudLink applications that do not include Softphone/Telephony services might not require MiVoice Border Gateway.

5.5 Interface 5 (Between CloudLink Gateway and MiVoice Business)

The CloudLink Gateway accesses existing CTI and Database interfaces on the MiVoice Business. From the MiVoice Business perspective, the CloudLink Gateway just looks like any other application that uses similar interfaces, such as MiCollab or OIG. Similar to Interface 4, the MiVoice Business is automatically configured to work with the CloudLink solution once the solution is deployed and the customer is CloudLink onboarded.

5.6 Interface 6 (Between MiVoice Business and MiVoice Border Gateway)

As mentioned earlier, the MiVoice Border Gateway and MiVoice Business interwork to support SIP Trunking integration with CloudLink.

MiVB and MBG Considerations

6

This chapter contains the following sections:

- [Requirements and Restrictions](#)

This section will begin by describing the requirements and restrictions and will prepare the Administrator for configuring MiVoice Business and MiVoice Border Gateway on CloudLink to complete the programming.

6.1 Requirements and Restrictions

The following requirements and restrictions are based on a MiVoice Business with CloudLink solution involving MiVoice Border Gateway and MiCollab.

- The solution currently supports a virtual (VMWare or Azure) or SMB Controller deployment that includes MiVoice Border Gateway paired with a CloudLink Gateway.
- If the MiVoice Business system is using a Mitel self-signed certificate, then no certificate is required to be uploaded in the CloudLink Accounts Portal at the time of onboarding.
- Support for up to 2500 users and 5000 devices on a standalone or resilient virtual MiVoice Business deployment. This implies a maximum of 2500 users with 2 devices, or 1666 users with 3 devices, and so on.
- (For SMBC only). Support for 150 UC users on a standalone or resilient MiVoice Business deployment. The UC user supports from 1 to 3 devices plus one hot-desk number, allowing up to 450 registered devices.
- Support for other MiVoice Business platforms in the same cluster. However, the CloudLink Gateway will support only a single/resilient pair within a cluster.



Note:

Users on other MiVoice Business platforms are not onboarded by CloudLink.

- Single MBG or clustered MBGs
 - A single MBG is required to communicate with CloudLink Gateway. The MBG will continue to support the same feature set it does today for SIP trunking and PBX devices. If the customer deployment is small enough and MBG resiliency not required, the solution might be deployed using one MBG.
 - Refer to the Virtual Appliance Deployment Solutions Guide for required resources when deploying CloudLink Gateway on MBG.
 - Additional MBGs can be deployed, each on a different virtual machine, and clustered to provide resiliency and scaling for non-CloudLink devices. But the additional MBGs will not communicate with the CloudLink Gateway. The CloudLink Gateway will communicate only with the MSL\MBG it is deployed on.

- MiCollab is not required to be part of the solution, but it is expected to be present in most cases because of MiCollab still being the primary UC application.

Note:

MiCollab has an embedded MBG. MBG running on MiCollab and the MBG running CloudLink Gateway must be running the same version. See the *MiCollab and/or MBG training material or documentation* for details.

- The CloudLink solution is primarily an enabler for development of third-party CTI applications on the CloudLink Platform. CloudLink APIs support:
 - Call, Answer, Clear/Release, Hold/Retrieve, Consultation Hold, and Transfer
 - Call History
 - Basic Voice Mail (currently, no support for Visual Voice Mail). Message Waiting Indicator and click-to-call voice mail (to retrieve messages). Support includes EMEM, NuPoint Messaging, and MiCollab Advanced Messaging (MiCAM).
- Engineering guidelines such as the number of users supported is provided in the documentation. As enhancements are expected to Mitel PBX/CloudLink solutions, check the Mitel Documentation Center and Release Notes for new updates.
- For a user to be successfully imported from MiVoice Business into CloudLink, the following user details are required:
 - Email Address
 - Extension Number
 - First or Last Name

As a high-level recommendation for Administrators, observe the following guidelines for MiVB, MiCollab, and MBG:

- Administrators should be familiar with MiVB and MBG (recommend MiVB and MBG training certification) before making any changes to the MiVB or MBG. Mitel Product Support assists only technicians who are certified on the product/solution.

Note:

If MiCollab is part of the solution, it is recommended that the Administrators of the solution be certified on MiCollab.

- It is assumed that the MiVoice Business is already set up for the users, along with the required call flows, before the CloudLink Gateway is installed and configured.
- This document does not include information on CloudLink Applications and does not focus on CloudLink Onboarding. After an Administrator has successfully integrated a CloudLink Application to the Customer Account on CloudLink and applied services to the users, this service might require users to have a license in CloudLink. This information is available in the CloudLink Application training or documentation.
- Connectivity (SIP Trunk) between the MiVoice Business and MBG, and a SIP Trunk between MBG and the CloudLink Platform will automatically be set up from CloudLink during the synchronization

step discussed in the next section. As indicated in the [Licensing](#) section, licenses for connections to CloudLink do not need to pre-exist.

 Note:

- CloudLink recognizes a user on MiVoice Business only if the user has valid Email Address, Last Name, and Directory Number. If any of these values are not present, the user will not be onboarded.
- CloudLink will onboard only CloudLink Services and it is not responsible for the configuration of other user services or endpoints (that is, MiNet or SIP sets or EHDUs).
- .For initial onboarding of CloudLink Gateway connections to the CloudLink Platform, Administrators of the CloudLink Gateway on MSL must use the CloudLink Portal button to connect to the CloudLink Platform and complete CloudLink Gateway Integrations.

Summary of CloudLink On-Boarding for MiVoice Business

To onboard Customers:

1. Log in to the CloudLink Accounts Console as an Administrator:
 - If you want to set up the Customer Account, or access the Customer Account after the initial onboarding, you can access the CloudLink Accounts Console from MiAccess, the CloudLink Portal (in the CloudLink Gateway application on MSL) or directly (for example, step 2 only).
 - If you want to onboard the CloudLink Gateway, use the CloudLink Portal (in the CloudLink Gateway application on MSL) to access the CloudLink Accounts Console (for example, step 2 to step 4).
2. Create the Customer Account (not necessary if MiCollab for Customer site is already integrated with CloudLink).
3. (Optional) Apply Subscription Licenses to the Customer Account.

Note:

This step is dependent on the CloudLink Application being installed and can be done at a later time.

4. Integration and Apps: Integrate (add) CloudLink Gateway for Customer Account (see step 1)
 - a. Enter Gateway Information
 - b. Enter the MiVoice Business PBX information (including MBG)
 - c. Sync the PBX
 - d. (Optional) Deploy the CloudLink Application
 - e. (Optional) Configure Advanced Settings and Options.

To guide the Administrator, the CloudLink Portal indicates the progress of the procedure as shown here. These bars are displayed near the top of the **CloudLink Accounts Console** page.



Figure 4: Onboarding Steps for MiVoice Business Virtual

Introduction to CloudLink Account Console

8

This chapter contains the following sections:

- [Access to CloudLink Account Console](#)
- [Create a CloudLink Customer Account](#)
- [Create and Add CloudLink Users to Customer Account](#)

Please also refer to the [CloudLink Accounts Console User Guide \(mitel.com\)](#).

The CloudLink Account Console portal allows you to perform the following actions:

Partner Level:

- Create and manage end customers in the CloudLink Platform.
- Create Administrator accounts for each customer.

Administrator Level:

- Associate a CloudLink Gateway with a customer.
- Configure the CloudLink Gateway.
- View and manage CloudLink users declared by the MiVoice Business.

After creating a customer on the CloudLink Platform, the customer is listed in the partner dashboard.

8.1 Access to CloudLink Account Console

As a Mitel Partner, you can log in to the [Mitel MiAccess Portal](#) either via Mitel MiAccess Portal or through the URL <https://accounts.mitel.io>.

A Mitel Partner, customer account Administrator or user can access the CloudLink Gateway directly at <http://gateway.mitel.io>.

8.2 Create a CloudLink Customer Account

To create a CloudLink Customer account, see the section Managing Accounts in [CloudLink Accounts Console User Guide \(mitel.com\)](#).

8.3 Create and Add CloudLink Users to Customer Account

To create a CloudLink user account, see the section Managing Users in [CloudLink Accounts Console User Guide \(mitel.com\)](#).

 **Note:**

A Mitel Partner can add users to customer accounts. An Account Admin of a customer account can add users to that account.

After a Mitel Partner or an Account Admin adds a user to a customer account, the CloudLink Accounts Console sends a verification email to the user. The user needs to verify the email address. For more details, see the section Create Customer Accounts and Add Users in [CloudLink Accounts Console User Guide \(mitel.com\)](#).

Deploying the CloudLink Gateway

9

This chapter contains the following sections:

- [VMWare Requirements](#)
- [Azure Requirements](#)
- [System Requirements](#)
- [Installing and Configuring CloudLink Gateway](#)
- [Applying Subscription Licenses to an Account](#)

For additional information about the topics in this chapter, refer to the [CloudLink Gateway User Guide \(mitel.com\)](#) on the Mitel website.

To configure the CloudLINK telephones

1. Integrate CloudLink Gateway with the CloudLink Customer account. See the section Integrating CloudLink Gateway with CloudLink Accounts in [CloudLink Accounts Console User Guide \(mitel.com\)](#) for more information.
2. Send welcome emails to the users in the customer account. See the section Managing Users in [CloudLink Accounts Console User Guide \(mitel.com\)](#) for more information.
3. Enable the MiNet Teleworker Devices in the MiVoice Border Gateway server manager application and connect the device to the primary configured ICP. See the section Add or Edit MiNet Devices in the [MiVoice Border Gateway Online Help](#) for more information.

Deployment Strategy

CloudLink will be integrated with both new and existing customers. The following strategy outlines and simplifies the deployment scenarios:

1. The CloudLink solution will not be integrated until the customer has fully deployed the rest of their MiVB solution, which might include MiCollab. “Fully deployed” infers that the site is fully licensed (MiVB, MBG, and MiCollab (if applicable)) and users are configured with functioning phones. This gives CloudLink a deterministic solution in which to integrate.

Note:

For existing customer sites with MiCollab, MiCollab might already be integrated with CloudLink. For the same Customer Account on CloudLink, you must integrate MiVoice Business with CloudLink Gateway.

2. If a customer already has an MBG in the solution through MiCollab or standalone, there will be no attempt to integrate it with the MBG packaged with CloudLink Gateway. The existing MBG will continue to support the solution as it already does (that is, Teleworker) and a new MBG with CloudLink Gateway will be used for CloudLink-specific activities related to the CloudLink SIP Trunk.
3. CloudLink is solely responsible for the provisioning and management of CloudLink services. All other solution provisioning and management is done in the same manner as with any other MiVoice Business Solution.

More specifically, MiCollab would continue to manage the user as a whole and all their other non-CloudLink devices.

Installing Virtual Machine CloudLink Gateway

The CloudLink Gateway software will be available as a blade on MSL when MiVoice Border Gateway (MBG Release 11.4 or later) is installed.

Note:

The Partner/Customer can choose whether or not the CloudLink Gateway will be installed.

9.1 VMWare Requirements

The Virtual CloudLink Gateway Appliance is supported in the following VMware environments (the requirements being the same as for MiVoice Border Gateway).

- ESXi 6.5 or later

9.2 Azure Requirements

For the Azure requirements, see the [MiVoice Business Solution Azure Deployment Guide](#).

9.3 System Requirements

Refer to the *MiVoice Border Gateway release 11.4 or later version Engineering Guideline* documentation for the latest VMware, Azure and CloudLink Gateway guidelines - including CloudLink Gateway resource impacts bandwidth requirements and system size - as well as impacts to MiVoice Border Gateway usability.

9.4 Installing and Configuring CloudLink Gateway

After you create a CloudLink account in the accounts console, you can begin the deployment of the CloudLink Gateway to associate the Gateway with the Customer Account. During CloudLink Gateway integration, the PBX will be synchronized with CloudLink to import PBX users and to automatically configure some parameters on MiVoice Business and MiVoice Border Gateway.

The CloudLink Gateway will be bundled with MiVoice Border Gateway (MBG) Release 11.4 or later. The CloudLink Gateway blade will appear within the **Blades** panel, when an Application Record ID (ARID) for MBG 11.4 or later is applied to a Virtual Machine with Mitel Standard Linux (MSL). CloudLink Gateway software will appear as a separate blade.

Note:

- Currently, only installations of CloudLink Gateway on VMware or Azure are supported.
- Other deployments (including MiVB on a SMB Controller (SMBC) or MiVB on AWS) will be supported in a future offering.

The following example shows the **Blades** panel after the CloudLink Gateway is installed. The CloudLink Gateway will appear as an available blade to be installed.

Blade	Description	Status	Installation	Document
Mitel CloudLink Gateway	Mitel CloudLink Gateway		Install Cache (V1.2.12)	View
MVF	The Mitel Virtualization Framework provides features and functions to support a Virtual Infrastructure for Mitel Applications. It also bundles VMWare Tools, wrapped to work correctly on Mitel Standard Linux.		Install Cache (V5.0.25.0)	
Blade-MiVoice_Border_Gateway	A secure gateway for VoIP traffic and associated Mitel applications	installed	Remove (V12.0.0.224)	
ServiceLink	ServiceLink for Mitel Standard Linux	installed	installed (V11.0.96.0)	

Figure 5: Mitel Standard Linux – CloudLink Gateway Blade

The CloudLink Gateway Blade must be installed on the MBG server, and this integration does not support standalone MSL servers.

To install the CloudLink Gateway application, follow the same steps as for installing it on the MBG server by clicking the **Install** option. The Administrator will be presented with the following:

Note:

- If you do not plan to use CloudLink Gateway, click **Remove** and follow the on-screen instructions to remove the blade.
- Successful completion of the installation of the CloudLink Gateway blade is dependent on there being internet connectivity.

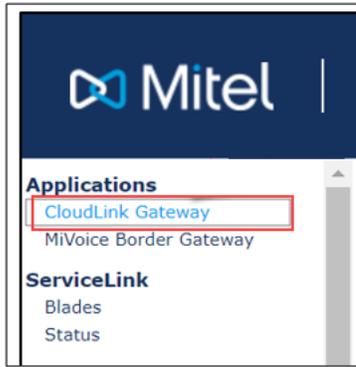


Figure 6: Mitel Standard Linux – CloudLink Gateway Application

CloudLink Gateway will reference the same external-facing IP address that was configured on the MBG server during its installation. You can also find the IP address under the MBG Dashboard shown here (for example, refer to the WAN setting under Interface IPs).

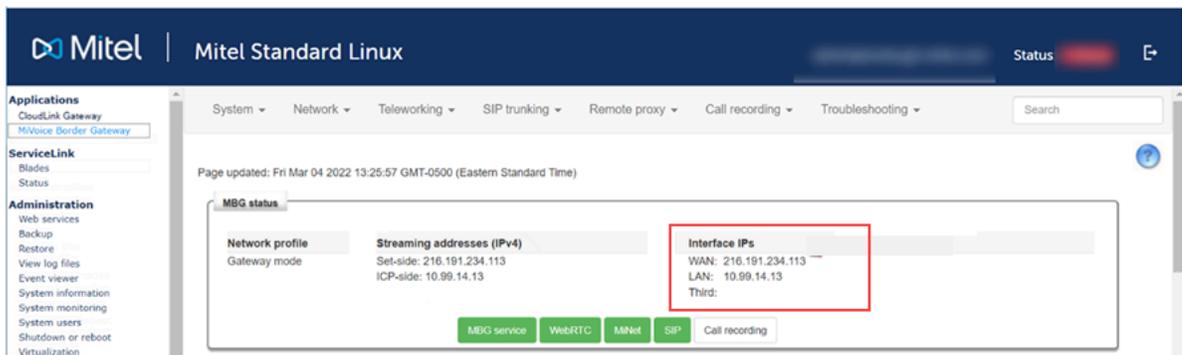


Figure 7: MiVoice Border Gateway - Dashboard

Select the CloudLink Gateway application under **Applications**.

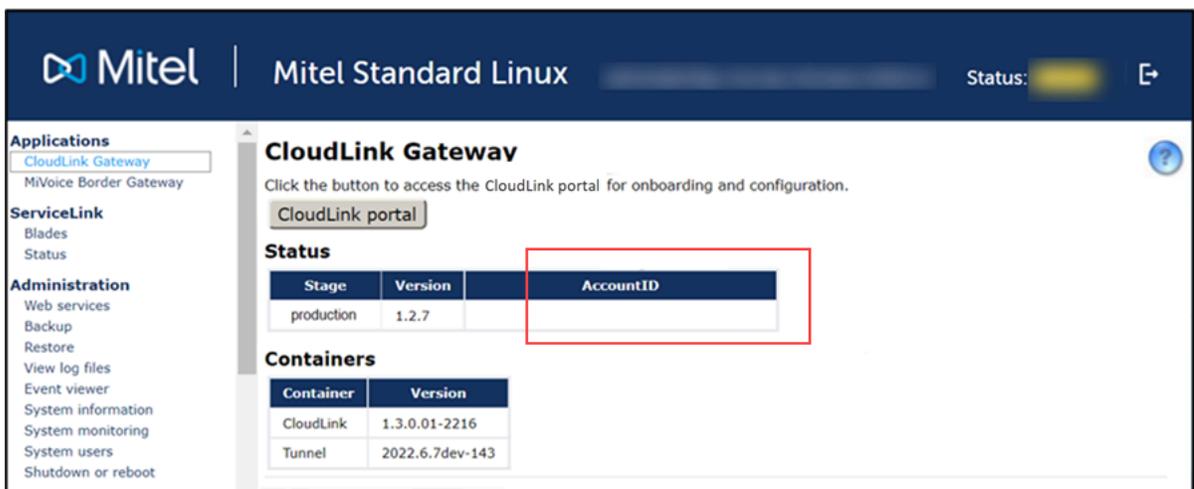


Figure 8: CloudLink Gateway Application – Blank AccountID

If the screen appears as shown in [Figure 8: CloudLink Gateway Application – Blank AccountID](#) on page 23, it means that the CloudLink Gateway application has been installed successfully. A blank AccountID

indicates that the CloudLink Gateway has not been successfully onboarded with CloudLink through CloudLink Accounts Console.

9.5 Applying Subscription Licenses to an Account

CloudLink applications generally require subscription licenses. When license bundles are purchased and applied against a Partner Account, the Partner Administrator must apply the licenses to a specific Customer Account in the CloudLink Accounts Console.

CloudLink subscription licenses do not use Mitel's AMC or SLS licensing server. CloudLink subscription licenses as part of an overall License profile are ordered using CPQ and appear automatically under the Partner Account on CloudLink.

This section provides a high-level description of how to view, search for and assign Orders to a Customer (Account). Note that CloudLink Accounts Console is continuing to evolve.

The following link will provide an up-to-date description of Billing and Orders:

<https://www.mitel.com/document-center/technology/cloudlink/all-releases/en/cloudlink-accounts-html>

Prerequisite

- CloudLink Account Console Administrator user name and password
- Access privileges to any account you plan to view or assign licenses to.

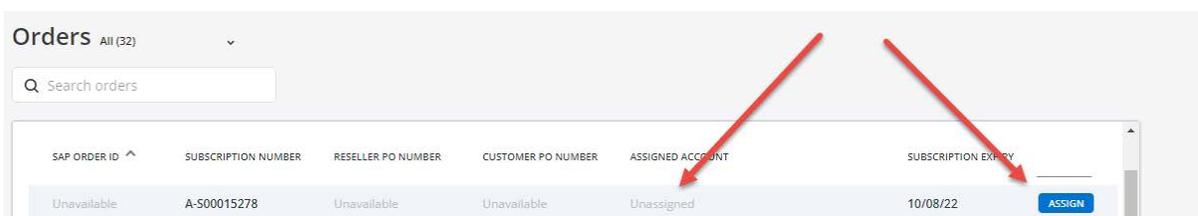
Steps to View and Assign Subscription Licenses

1. Log in to the CloudLink Account Console as the Partner Administrator.
2. On the left side of the **Accounts** page, next to **Billing** select Down arrow and select **Orders** to view all CloudLink subscriptions purchased by the Mitel Partner along with details.

i Note:

When the Partner purchases licenses through CPQ, the subscription license are automatically listed in the **Orders** page for the Partner.

3. To assign an order, click the **ASSIGN** button.



SAP ORDER ID	SUBSCRIPTION NUMBER	RESELLER PO NUMBER	CUSTOMER PO NUMBER	ASSIGNED ACCOUNT	SUBSCRIPTION EXPIRY
Unavailable	A-500015278	Unavailable	Unavailable	Unassigned	10/08/22

4. The Administrator can:

- a. Identify how many CloudLink Application **Licenses** will be provided based on the Subscription Number.
- b. Select the **Company** drop-down list to apply the Licenses.

OR

- a. If the required Customer Account does not exist, select **Create New Account**. CloudLink will move you to the Accounts section where you can create an Account.

5. Select the **Assign** button.

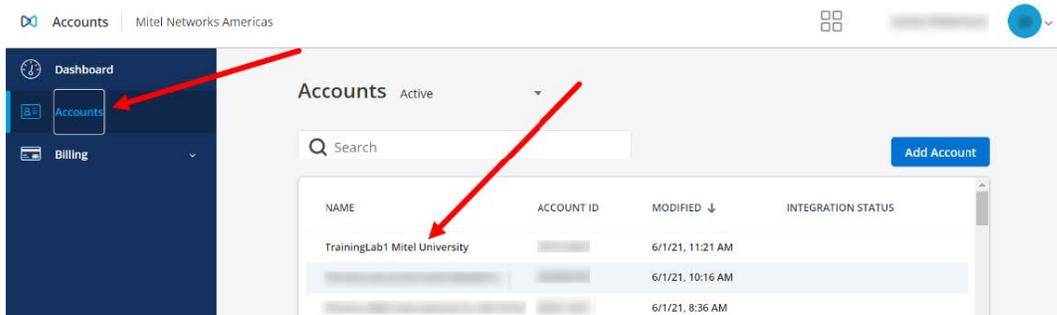
After the license has been assigned to the Customer Account, the Partner Administrator (or an Account Administrator belonging to that particular Customer Account) can add and configure (if necessary) the corresponding integration.

9.5.1 CloudLink Gateway Integration

To enable the CloudLink Gateway for a Customer Account, a user must log in to the CloudLink Accounts Console as explained earlier.

The following procedure will take the Administrator through the steps to enable the CloudLink Gateway for a Customer Account. It is assumed that the Administrator has already logged in to the CloudLink Accounts console.

1. Log in to the CloudLink Account Console as the Partner Administrator.
2. On the left side of the **Accounts Console Dashboard** page, click **Accounts** to view all the CloudLink customer accounts.
3. Select an account from the customer **Accounts** list.



The **Account Information** page opens.

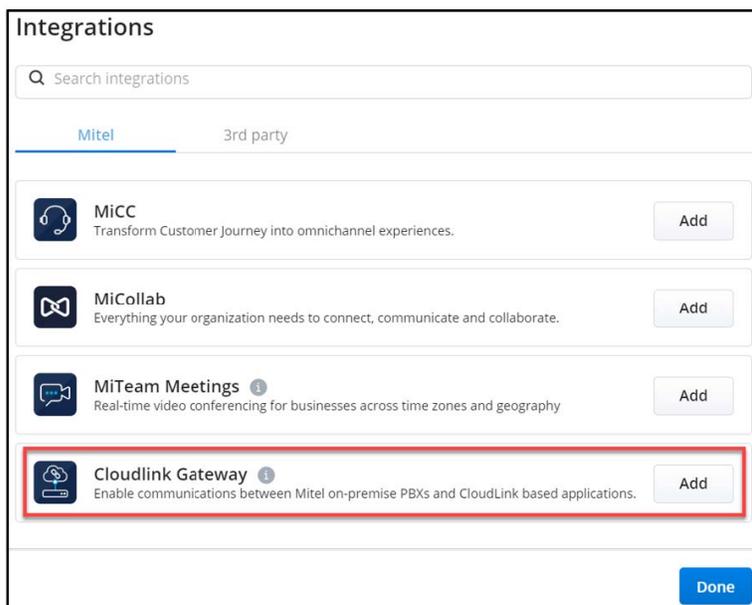
4. In the **Account Information** page, select **Integrations**.

A pop-up screen displays the **Integrations** panel.



5. Click **+Add New**.

6. From the **Mitel** tab, click the **Add** button associated with **CloudLink Gateway** and click **Done**.



CloudLink Gateway is now integrated for the customer account and listed in the **Integrations** window.

For further information about the status message that appears beneath CloudLink Gateway, see [CloudLink Gateway Status](#) on page 31.

9.5.1.1 Onboarding the CloudLink Gateway

After enabling the CloudLink Gateway integration in the CloudLink Accounts console, you must associate the gateway to the Customer Account, configure the gateway and sync a PBX to pull in PBX Users into CloudLink. For more information, see https://productdocuments.mitel.com/AEM/Technology/CloudLink/All%20Releases/CloudLink%20Gateway/EN/HTML5/index.html#=Content/Onboard_Customers.html.

9.5.1.2 Advanced Settings and Options

Configure the Advanced Screen as required. For more information, see [Configure Advanced Settings and Options](#).

9.5.2 CloudLink Gateway Configuration

After integrating the CloudLink Gateway with the CloudLink Accounts console, you must configure the gateway and sync a PBX to pull in PBX users into the CloudLink Customer account.

1. In the **Account Information** page, select **Integrations**.

A pop-up screen displays the **Integrations** panel.

2. Click **Add Gateway**. The **Gateway** page will open.



3. In the **Gateway Information** section of the **Gateway** page, provide the following details:

- Site Name
- Complete address for the physical location of the PBX

4. Click **Next**.

5. In the **Configure PBX** section, provide the following details:

- a. **PBX Type: MiVoice Business**

Note:

When MiVoice Business is entered as the PBX, the display will change to include MiVoice Border Gateway settings.

- b. **PBX Name:** enter a name for the PBX
- c. **IP Address:** enter the IP Address or FQDN for the PBX
- d. **MBG IP Address or FQDN:** Enter the appropriate IP address or FQDN for the MBG
- e. **MBG Password:** Enter the admin password for MBG.

Note:

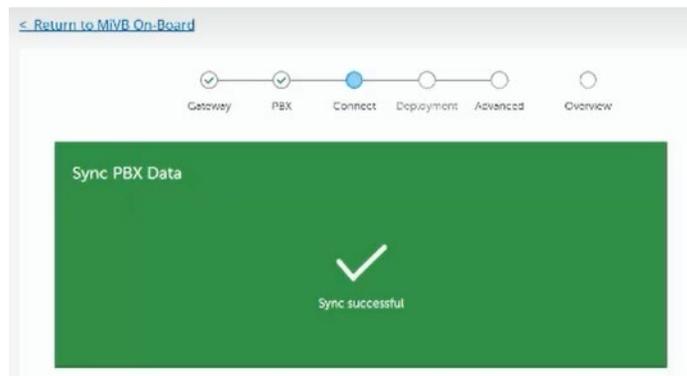
Currently, the password can contain a maximum of 15 characters.

Click **Next**.

The accounts console will try to establish a connection with the CloudLink Gateway at the customer site. When a successful connection is established with the PBX, a pop-up message will be displayed indicating: **Successfully created PBX link**.

6. Click **Sync** to synchronize PBX users with the CloudLink Account.

A successful synchronization will result with the following display:

**Note:**

Do not click **Sync Now** after you have just connected with the PBX. A synchronization will have automatically started or may be in progress. To verify this, you can observe whether the user count is increasing for the Customer Account. A synchronization is required only if changes have been made on the PBX.

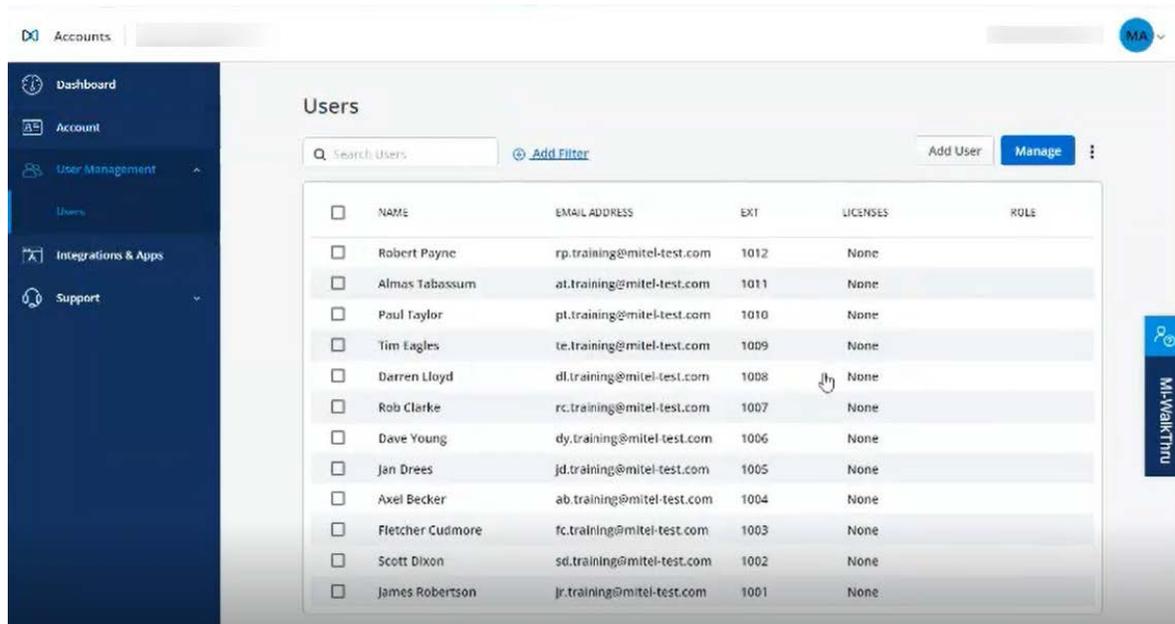
By default, synchronization occurs every 20 minutes.

7. Click **Next**.

- (Optional) You can use the **Deployment** page if you want to deploy the CloudLink Application associated with your PBX by sending deployment emails to the imported users so that they can register their account and receive introductory information about the application.

Sending deployment emails can be done any time from the **Users** page in Mitel Administration. To navigate to the **Users** page, select the **Select the check box to go to the Users List page after you press the Complete button** check box and click **Complete**.

The **Users** page displays with a list of users that were added to the CloudLink Account.

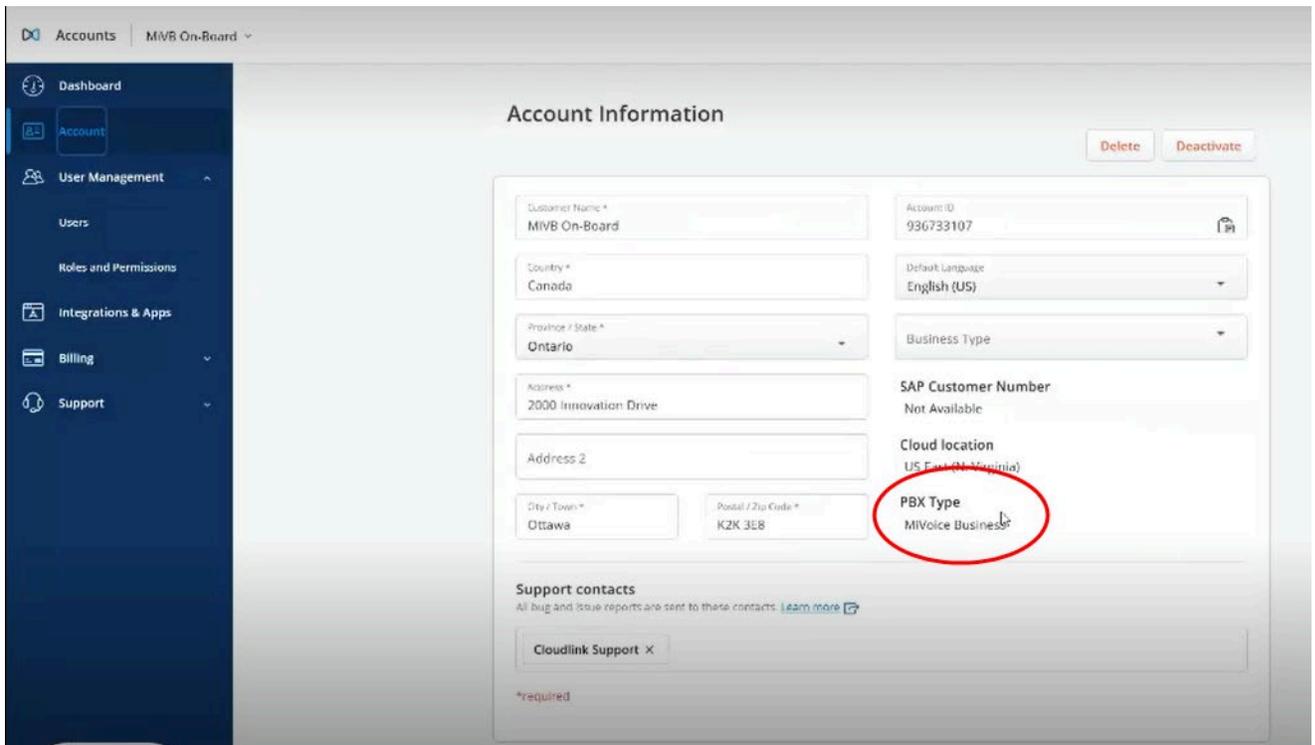


The screenshot shows the Mitel Administration interface. On the left is a navigation menu with options: Dashboard, Account, User Management (expanded), Users, Integrations & Apps, and Support. The main content area is titled 'Users' and contains a search bar, an 'Add Filter' button, and 'Add User' and 'Manage' buttons. Below this is a table with the following data:

<input type="checkbox"/>	NAME	EMAIL ADDRESS	EXT	LICENSES	ROLE
<input type="checkbox"/>	Robert Payne	rp.training@mitel-test.com	1012	None	
<input type="checkbox"/>	Almas Tabassum	at.training@mitel-test.com	1011	None	
<input type="checkbox"/>	Paul Taylor	pt.training@mitel-test.com	1010	None	
<input type="checkbox"/>	Tim Eagles	te.training@mitel-test.com	1009	None	
<input type="checkbox"/>	Darren Lloyd	dl.training@mitel-test.com	1008	None	
<input type="checkbox"/>	Rob Clarke	rc.training@mitel-test.com	1007	None	
<input type="checkbox"/>	Dave Young	dy.training@mitel-test.com	1006	None	
<input type="checkbox"/>	Jan Drees	jd.training@mitel-test.com	1005	None	
<input type="checkbox"/>	Axel Becker	ab.training@mitel-test.com	1004	None	
<input type="checkbox"/>	Fletcher Cudmore	fc.training@mitel-test.com	1003	None	
<input type="checkbox"/>	Scott Dixon	sd.training@mitel-test.com	1002	None	
<input type="checkbox"/>	James Robertson	jr.training@mitel-test.com	1001	None	

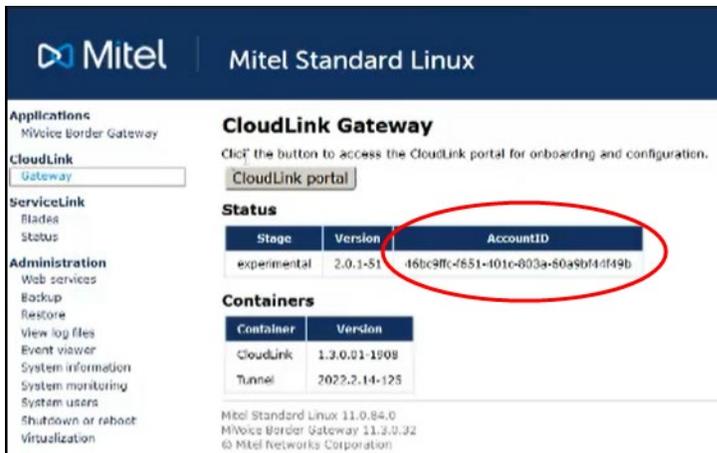
The Cloudlink Gateway is successfully configured.

The **Account Information** page now displays the PBX type:



The status message under **Integrations** in the **Account Information** page will show Onboarding Complete for CloudLink Gateway.

Customer Account ID has been added to the Mitel Standard Linux CloudLink Gateway page.



CloudLink Gateway Status

10

This section describes a few useful Gateway statuses that are important to know.

If there is no CloudLink Gateway shown under integrations, you have logged into the CloudLink Accounts console from MiAccess or directly before the CloudLink Gateway was initially onboarded. Install the CloudLink Gateway application on MSL, select the **CloudLink Portal** option and proceed with the onboarding to remedy the situation.



Indicates that the CloudLink Gateway onboarding is complete and functioning.

Note:

To disable the integration, use the toggle button associated with CloudLink Gateway to Off.



Indicates that there is a System Update available. The Update can be accomplished from the **Support** portal under **Gateway**.



Indicates that CloudLink has lost its connection with the CloudLink Gateway. This could be a setup problem; the external gateway has been reset or there is a network problem. After investigating network and appliance issues, as the Administrator, you can use the toggle to remove the Gateway integration and then use the **Add New** button to re-add the integration.



Indicates that CloudLink Gateway has not yet finished being deployed. The Administrator can click the **Continue** button to complete the setup.

Cloudlink Gateway ⓘ

⚠ No gateway detected

Add Gateway



Indicates that an integration was added but no gateway was detected.

This chapter contains the following sections:

- [CloudLink Status](#)
- [Support – Gateway](#)
- [Partner Support Roles and Responsibilities](#)

Troubleshooting CloudLink

This section describes how to troubleshoot CloudLink.

Table 2: Troubleshooting CloudLink issues

Problem	Solution
The browser displays <i>Lost Connection to Gateway</i> and Retry does not work.	Clear the browser cache or open a new Browser Tab or Window.
Browser displays <i>Failed to Connect to mitel.io</i> .	Check Firewall Settings for outgoing https access to *.mitel.io <ul style="list-style-type: none">• No DNS Server servicing the subnet• DHCP Server failed to provide DNS Service• Outgoing port blocked by firewall. Check Firewall Settings for outgoing https access to *.mitel.io
CloudLink Gateway needs to be replaced	When the connection fails, there is a link to configure a new CloudLink Gateway

11.1 CloudLink Status

As a Partner/VAR technician, in the unlikely event of an outage, it is important to quickly identify any systemic issues immediately. One area to check is the status of the CloudLink.

The **Status** page for CloudLink is located at <http://status.mitel.io>. This site has a broad overview of the status of all the CloudLink microservices, an overall API response time graph, and a history of incidents. It is recommended that the Partner/VAR technicians use the **Subscribe To Updates** option at the top right corner of the status page to be automatically notified of any incidents as they happen.

The current status is shown beside each service. Further information can be found by selecting the status (that is, Operational) beside the services defined (as shown in Status.mitel.io).

Figure 9: Status.mitel.io



SUBSCRIBE TO UPDATES

All Systems Operational

About This Site

This page provides the status of the [Mitel CloudLink Platform](#) services.

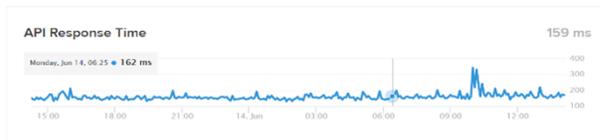
For Mitel MiCloud Flex on Google Cloud status updates, please visit: <https://status.flex.gc.mitel.io>
For Mitel MiCloud Connect status updates, please visit: <https://oneview.mitel.com/s/trust>

CloudLink Services (US)	Operational
Admin	Operational
Authentication	Operational
Billing	Operational
Carrier	Operational
Chat	Operational
GCP Gateway	Operational
Media	Operational
Notifications	Operational
Presence	Operational
Router	Operational
SMS	Operational
Tunnel	Operational
Workflow	Operational
CloudLink Services (EU)	Operational
CloudLink Services (AP)	Operational
CloudLink Authentication Portal ?	Operational
CloudLink Accounts Portal ?	Operational
CloudLink Gateway Portal ?	Operational
MIteam Meetings ?	Operational
Contact Center Admin Portal	Operational
Contact Center Web Chat	Operational
Mitel Help Center ?	Operational
AWS	Operational



System Metrics

Day | Week | Month



Past Incidents

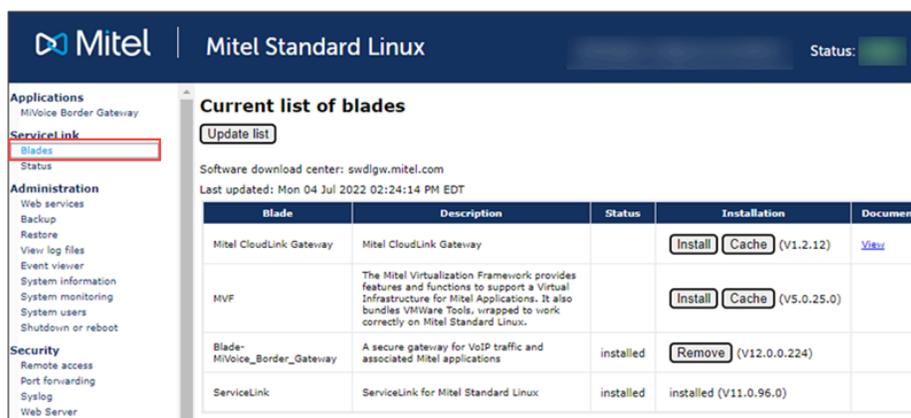
- Jun 14, 2021**
No incidents reported today.
- Jun 13, 2021**
No incidents reported.
- Jun 12, 2021**
No incidents reported.
- Jun 11, 2021**
No incidents reported.
- Jun 10, 2021**
No incidents reported.

11.1.1 Blades Panel

To check whether your CloudLink Gateway is installed, the Administrator can proceed to the **Blades** section under **ServiceLink**. This is also the method used for checking MiVoice Border Gateway.

Note: You can either remove or ignore the CloudLink Gateway services if it is not being used.

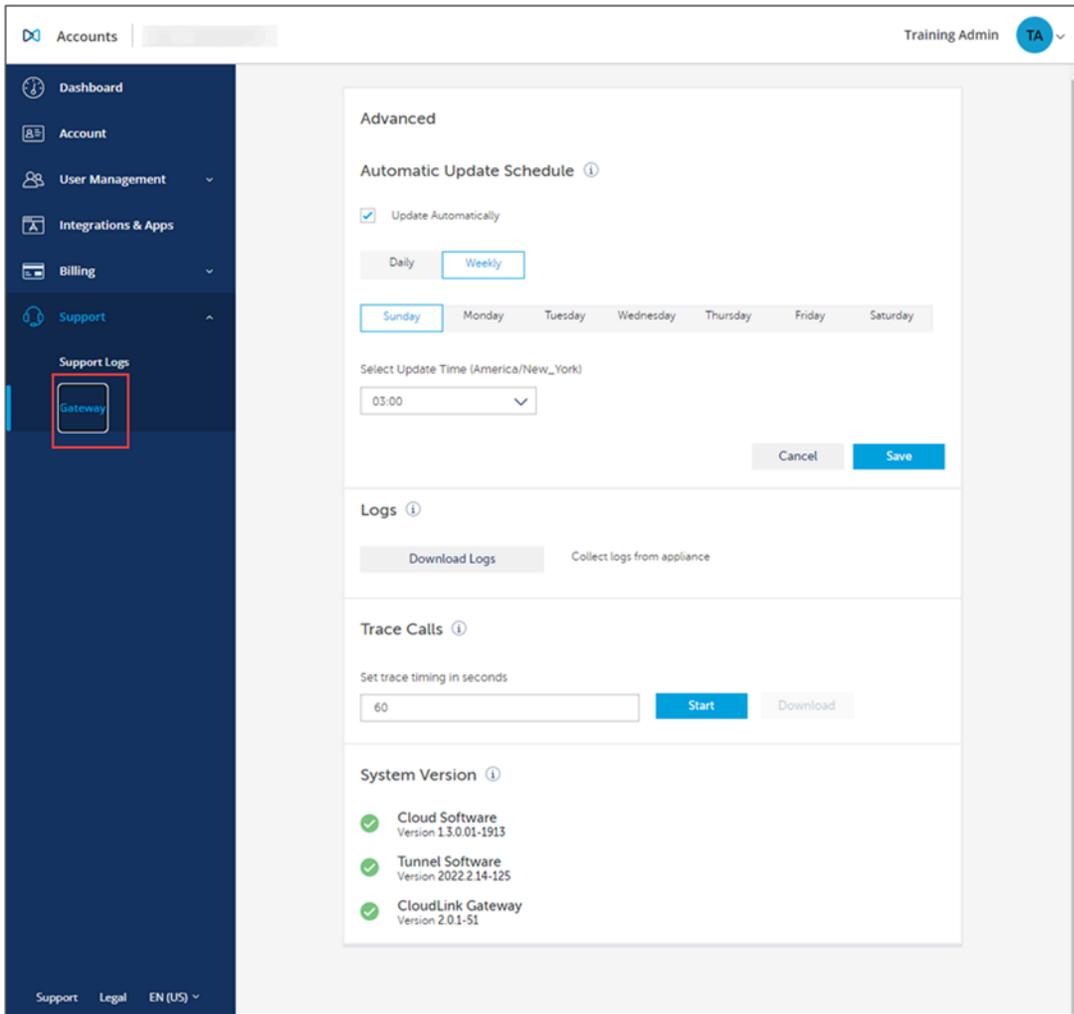
Figure 10: CloudLink Gateway in Blades panel



11.2 Support – Gateway

A support view of the Gateway Portal is available under the left-hand Navigation menu under support. The new support view is called **Gateway**. The **Gateway** page is a modified version of the **Advanced** page (used when provisioning the Gateway).

Figure 11: CloudLink Account Console – Support / Gateway



The **Gateway** page includes the following:

Option	Description
<p>Automatic Upgrade Schedules</p>	<p>Select this option to keep the CloudLink Gateway up-to-date with the latest software updates. When the Gateway installs an update, a short service outage can occur where users can experience trouble placing calls through the Gateway. It is recommended to select an after-hours automatic update time to minimize the impact of the service outage. Updates are periodic, therefore, updates might not be available when the schedule calls for an update.</p>

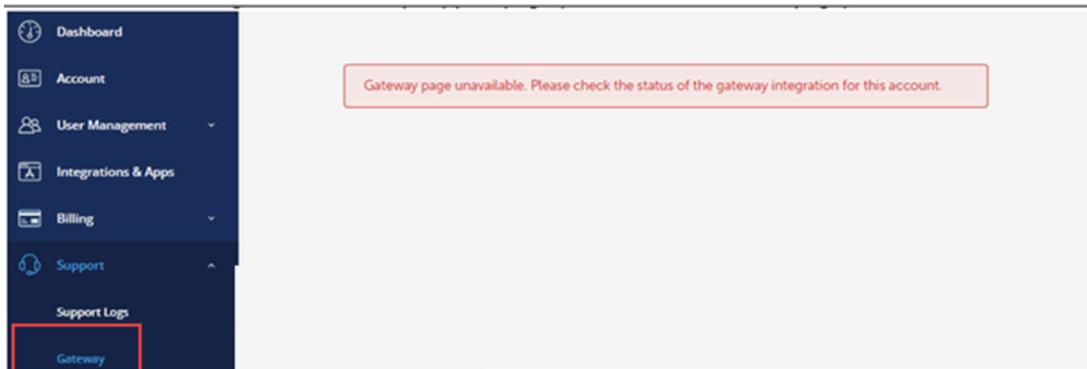
Option	Description
<p>Logs</p>	<p>Use this feature to download Diagnostic Logs from the CloudLink Gateway to your system. It will appear on your PC downloads page as a .tar file (for example, 86568999-3a88-4bf0-8a6b-c98fe46805da-2022-06-27T15_59_46.270Z-cloudlink.tar). This file will have a log folder containing additional files. The original .tar file can be submitted to Mitel Product Support to accompany a CloudLink problem report.</p> <div data-bbox="846 583 1471 919" style="background-color: #e1f5fe; padding: 10px;"> <p>Note: You must not confuse this option with the Support Logs option under the Support menu, which enables the Mitel Partner or an Account Admin to view the support logs in the customer account. Support logs are created when a user in the customer account reports an issue with a CloudLink Application.</p> </div>
<p>System Version</p>	<p>All Software versions are displayed in this section. This is useful information should an Administrator need to verify that the system is running at the latest software levels or when they are discussing issues with Mitel Support. The latest versions are available at https://download.mitel.io/.</p>

Many of the themes for the **Support > Gateway** page are discussed when setting up the Gateway as part of the CloudLink Onboarding instructions (see [Advanced Settings and Options](#) on page 26). As a Partner or Administrator, you can use the tools on the **Support > Gateway** page such as **Automatic Upgrade Schedule** (that is, setup an upgrade to the CloudLink Gateway on a regular basis).

Errors

In some cases, when trying to access the **Support > Gateway** page, the following error message might appear.

Figure 12: Error message



An error message occurs when:

- The customer account has the CloudLink Gateway integration added, but it has not passed the Gateway onboarding step yet to connect a Gateway to the account.
- There is a connection issue with the Gateway of the Customer account.

In this situation, the Partner or Account Admin must go to the **Integrations & Apps** section and select the CloudLink Gateway integration to further investigate the issue.

11.3 Partner Support Roles and Responsibilities

Mitel Partners will be expected to perform first level troubleshooting. Following is a list of information and key questions that the Partner should be able to answer/document with respect to CloudLink Onboarding (CloudLink Applications are not covered below):

- Is the CloudLink Gateway functioning properly within the customer's account?
- Provide CloudLink Gateway logs through the Accounts Console
- Go to Mitel CloudLink **Status** page and determine if there are any outages or if everything green

After the Partner determines that the issue must be escalated to Mitel support, they must provide the following information:

- Customer PBX ARID number
- CloudLink account number
- Network topology
- All relevant PBX logs and MBG logs if using MiVB
- CloudLink Gateway logs
- Reproduction steps and time stamps of issue

The following tools are available to the L1 Partner:

- Log collection from PBX as part of standard process
- Mitel CloudLink Accounts Console
 - **Gateway** tab – logs collection
 - **Support logs** section

