Mitel Revolution
Configuration Guide for Clearspan

FEBRUARY 2021

Release 20.2

Clearspan®

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Mitel Revolution
Configuration Guide for Mitel Clearspan
Release #20.2 February 2021

REVISION HISTORY

The following represents the revision history of this publication:

REVISION NUMBER	DATE COMPLETED	POINT OF CONTACT	DESCRIPTION
0.1	02/2021	Clearspan Technical Publications	Draft
0.1	01/20/2020		Draft

INTRODUCTION

Mitel Revolution provides a platform to centrally manage creating and sending notifications. This application can be used to send emergency and non-emergency notifications to Clearspan-supported devices.

Mitel Revolution can only be integrated into one of the Clearspan-supported on-premise environments. More details are available in Deployment Environments Section.

Notification methods including Multicast, XML-Push and/or individual calls are supported. Mitel Revolution can be provisioned to send audio and/or message (text & images) notifications. A combination of notification methods can be utilized to perform a single mass notification to different types of endpoints.

OVERVIEW

The Mitel Revolution application provides a Dashboard for quick access to frequently used notifications, status of sent notifications, and scheduled notifications. The Dashboard can be configured for each application user. Users having the required permission can maintain their Dashboard themselves.

An application user can quickly send notifications and get real-time status and view scheduled notifications and a list of recently sent notifications from his/her Dashboard. A user can also view sent notification details to see which endpoints received notifications. They can manage notifications from a single location, viewing all notifications, endpoints assigned, and the type of notification.

Creating notifications involve three main steps:

- Assign the triggers that send notifications.
- Create the content (image, audio, text) to be sent.
- Assign the endpoints and contacts to receive the notifications.
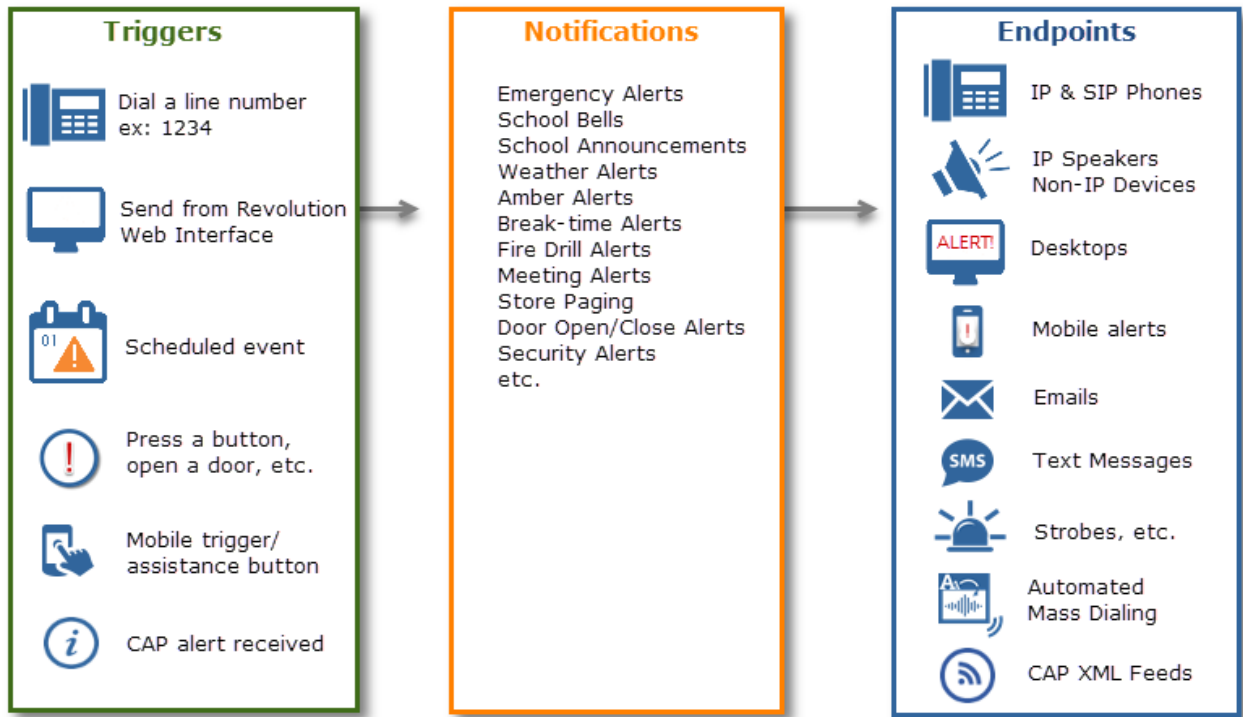
Each notification can be triggered by one of the following actions:

- Dialing a line number from a phone
- Manually sending from the Mitel Revolution interface
- According to a scheduled date and time
- By opening a door or pushing a button
- By an incoming CAP alert

DEPLOYMENT ENVIRONMENTS

Mitel Revolution can only be integrated into one of the following Clearspan on-premise environments as shown below.

- Serial-NAT, AudioCodes eSBC/MSBR
- Serial-NAT, Ribbon EdgeMarc
- Direct Access via premise NAT/Router

SERIAL-NAT, AUDIOCODES ESBC/MSBR
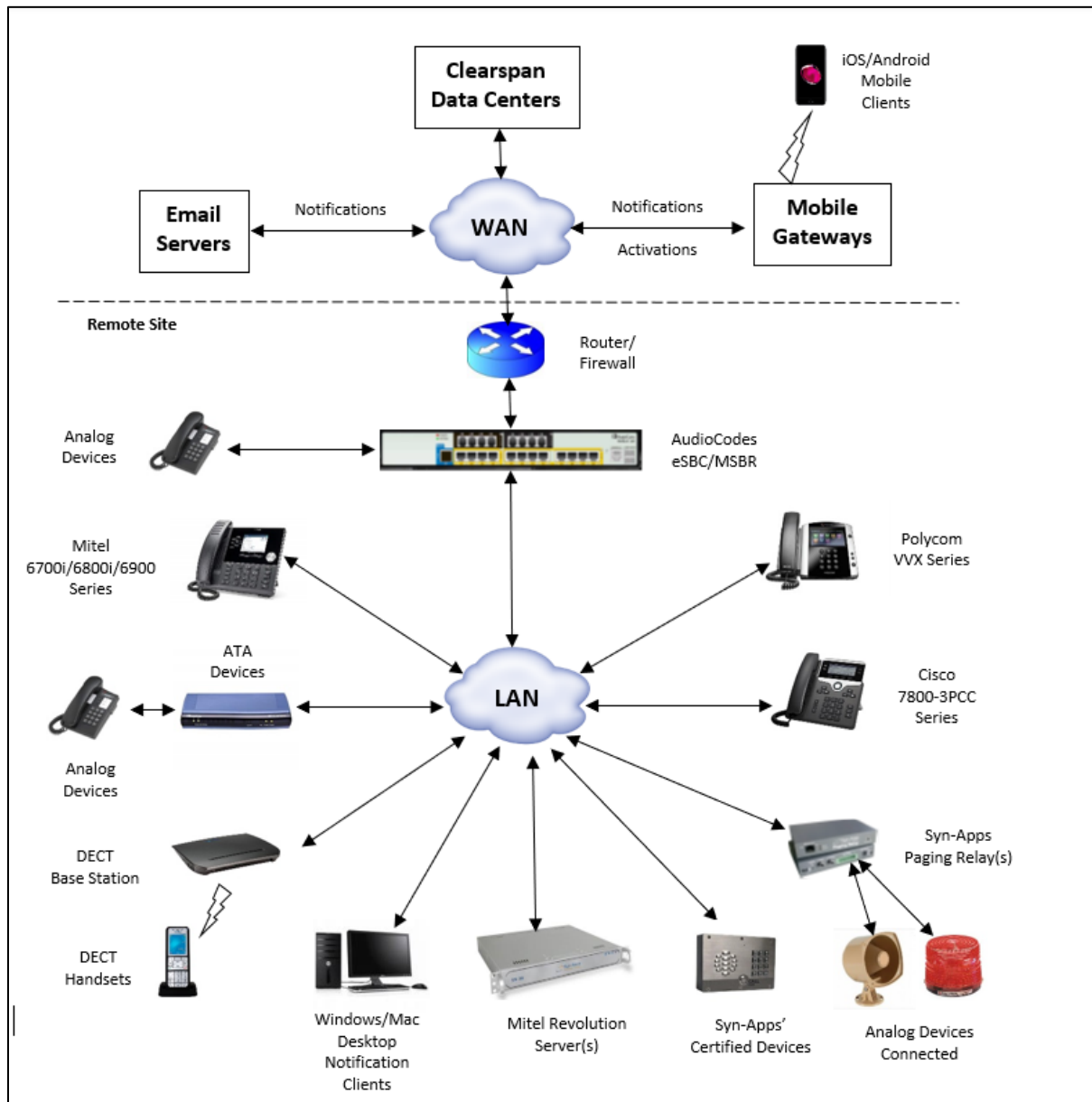
SERIAL-NAT, RIBBON EDGEMARC
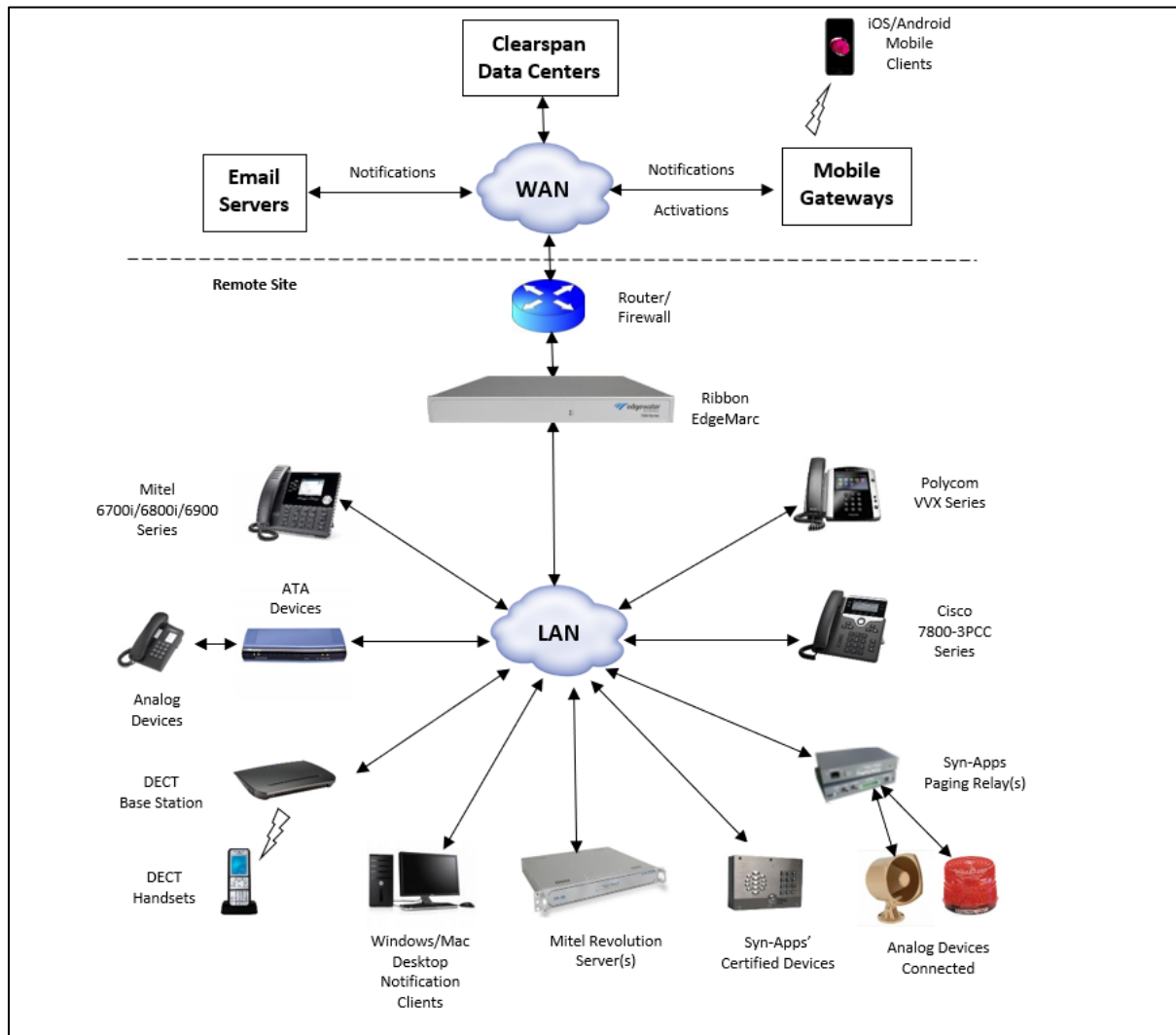
DIRECT ACCESS
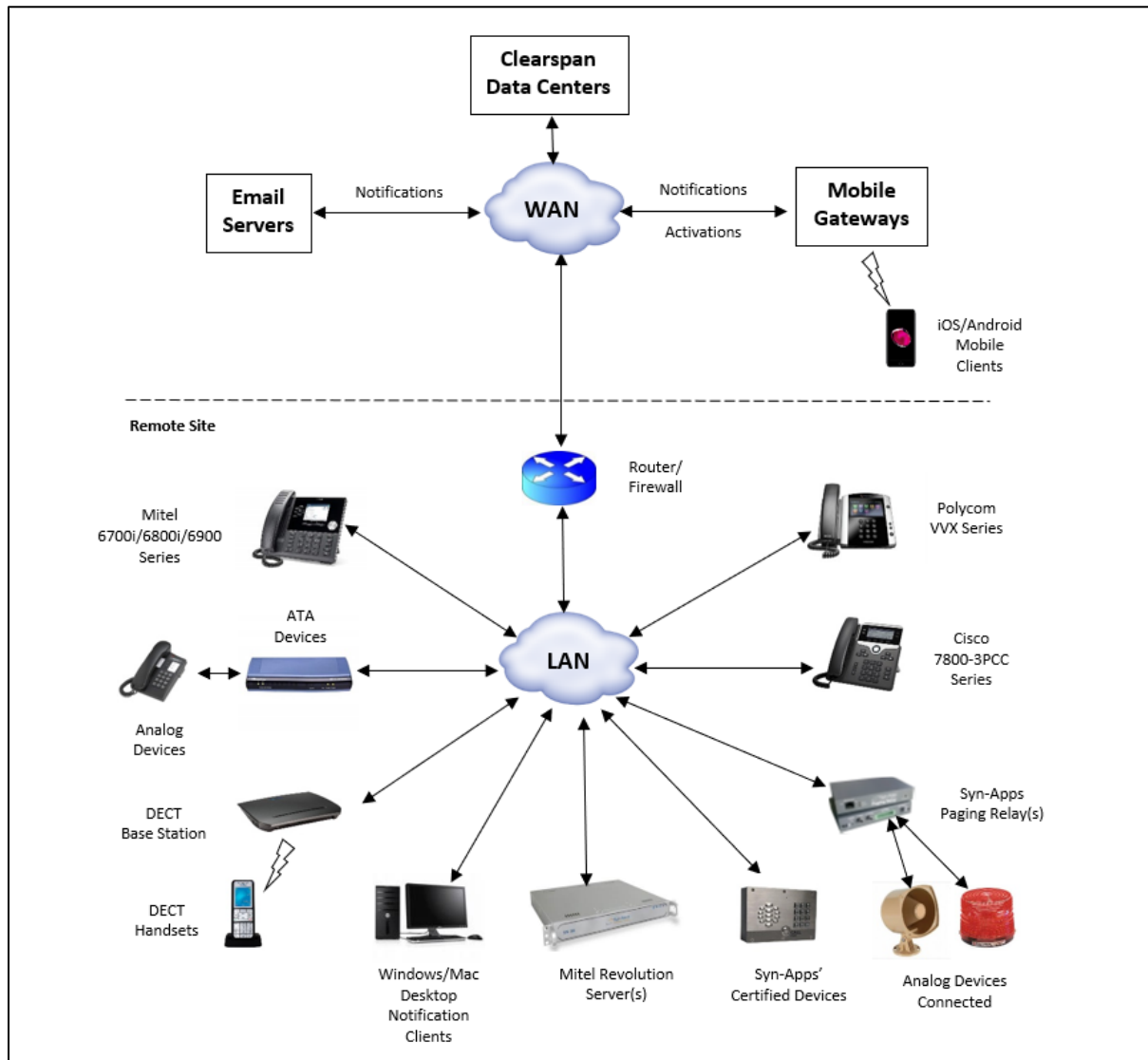
MITEL REVOLUTION

HARDWARE REQUIREMENTS

Minimum server requirements:

- System memory: 4GB
- Disk space: 10 GB free
- Dual-core processor

The following table shows the recommended number of notifying endpoints supported. Note that these values are guidelines only. A given system may support more or less than these maximum amounts because of other applications included in the deployment.

MAX NOTIFYING ENDPOINTS	CPUS CORES	MEMORY (GB)	DISK (GB)
2500	2	4	80
7500	4	6	110
10000	4	8	110

Additional hardware information can be found at the Hardware Requirements topic.

SOFTWARE REQUIREMENTS

The following software must be installed:

- Platform: VMware (ESXi 5.5 or newer) or Hyper-V VHD (Virtual Windows 2016)
- Operating System: Microsoft Windows Server 2016
- Applications
  - Microsoft IIS*
  - Google Chrome 55.x or later
    * Typically installed with Microsoft Windows Server 2016

Additional software information can be found on the Software Requirements topic page.

NETWORK REQUIREMENTS

The following network requirements must be satisfied to fully support Clearspan features. Traffic listed below must be allowed.

Firewall

Incoming Traffic

FUNCTION	DESTINATION PORT	PROTOCOL
Access from Mobile Services	443	HTTPS, TLS
License Updates		
Signaling from Clearspan Core-SBC (Direct Access environment)	5060	SIP, UDP
Media from Clearspan Core-SBC (Direct Access environment)	12000-12099	RTP, UDP

Outgoing Traffic

To Clearspan Core-SBC

FUNCTION	DESTINATION PORT	PROTOCOL
Signaling from Mitel Revolution (Direct Access environment)	5080	SIP, UDP

To Mobile Gateways

FUNCTION	LINK/DESTINATION	DEST. PORT	PROTOCOL
Notifications from Mitel Revolution to Apple	17.0.0.0/8	2195 and 2196	TCP
Notifications from Mitel Revolution to Google	Google - Firebase Cloud Messaging (FCM) - Google IP addresses (SPF record)	5228, 5229 and 5230	TCP, HTTPS
Mitel Revolution's Access to Mobile Services	tcp://rev-mobile-api.syn-apps.com:8124	8124	WebSocket, TCP

To Common Alert Protocol (CAP) Servers

FUNCTION	DEST. PORT	PROTOCOL
CAP Servers	80/443	HTTP/HTTPS

To Email/SMTP Servers

FUNCTION	DEST. PORT	PROTOCOL
Email/SMTP Servers	25/587	SMTP, TCP/TLS

To Self-Management Portal

FUNCTION	LINK	PORT	PROTOCOL

Self-Management Portal	tcp://portal.syn-apps.com:8125	8125	WebSocket, TCP

To Optional SMS Text Mesaging Service Providers

FUNCTION	LINK	PORT	PROTOCOL
Clickatell	https://api.clickatell.com	443	HTTPS, TCP
Twilio	https://api.twilio.com	443	HTTPS, TCP
Mitel Summit	https://api.us1.corvisa.io/sms/	443	HTTPS, TCP

To Optional Mass Outbound Dialer Service Provider

FUNCTION	LINK	PORT	PROTOCOL
Twilio	https://api.twilio.com	443	HTTPS, TCP

Local Networks

Multicast Audio Paging

Selected multicast addresses and ports to be used must be allowed in customer's local networks**.**

Multicast addresses and ports can be selected from the lists below:

- Standard multicast address range: 224.0.0.0 – 239.255.255.255

- Standard multicast port range: 20480 – 32768 (even-numbered ports only)

- The multicast address and destination port number used for Polycom VVX phones must be distinct if the customer environment includes SIP phones from other manufacturers.

The following settings for protocols must also be implemented as follows.

- IP Protocol-Independent Multicast (**PIM**) in LAN networks must be **enabled**. PIM is a family of multicast routing protocols for Internet Protocol networks that provide one-to-many and many-to-many distribution of data over a network.

- Internet Group Management Protocol (**IGMP**) must be **enabled for Layer-3 routers**. IGMP is used to dynamically register individual hosts in a multicast group on a particular LAN. Hosts identify group memberships by sending IGMP messages to their local multicast router.

- **IGMP snooping** must be **disabled.** IGMP snooping is the process of listening to IGMP network traffic. The feature allows a network switch to listen in on the IGMP conversation between hosts and routers. By listening to these conversations, the switch maintains a map of which links need which IP multicast streams. Multicasts may be filtered from the links which do not need them and thus controls which ports receive specific multicast traffic.

- For **Cisco Layer-2 switches or Layer-3 routers** resided on customer's LAN, Cisco Group Management Protocol (**CGMP**) must be **enabled**. CGMP is Cisco-developed protocol that allows Cisco Catalyst switches to utilize IGMP information on Cisco routers and make Layer 2 forwarding decisions. It only works with Cisco equipment.

XML-Push Paging

FUNCTION	DESTINATION PORT	PROTOCOL
From Mitel Revolution to SIP Phones	80	HTTP

Edge Devices

Serial-NAT, AudioCodes eSBC/MSBR

FUNCTION	DESTINATION PORT	PROTOCOL
Signaling from Mitel Revolution to eSBC/MSBR's LAN IP	5060	SIP, UDP
Signaling from eSBC/MSBR to Mitel Revolution	5060	SIP, UDP
Audio from eSBC/MSBR to Mitel Revolution	12000-12099	RTP, UDP

Serial-NAT, Ribbon EdgeMarc

FUNCTION	DESTINATION PORT	PROTOCOL
Signaling from Mitel Revolution to EdgeMarc's LAN IP	5060	SIP, UDP
Signaling from EdgeMarc to Mitel Revolution	5060	SIP, UDP
Audio from EdgeMarc to Mitel Revolution	12000-12099	RTP, UDP

Note: Mitel Revolution can only make or receive SIP calls via its SIP outbound proxy.

Syn-Apps Paging Relays

FUNCTION	DESTINATION PORT	PROTOCOL
Mitel Revolution to Syn-Apps Paging Relays	6789	Revolution Control, TCP

IP Speakers, Intercoms and Panic Buttons

FUNCTION	DESTINATION PORT	PROTOCOL
Devices to Mitel Revolution	80	HTTP, TCP
Mitel Revolution to Devices	80	HTTP, TCP

PC/Mac Desktop Notification Clients (DNC)

FUNCTION	DESTINATION PORT	PROTOCOL
DNC Registers to Mitel Revolution	4443	Websocket, TCP
Communications between DNCs and Mitel Revolution	443	HTTPS, TCP
Notifications from Mitel Revolution to All DNC Clients	3001	Websocket, TCP
Notifications from Mitel Revolution to Individual DNC Client	5436	Websocket, TCP

Ethernet Switch Port

The following minimum settings are recommended.

- 100 Mbps
- Full duplex
- Flow control enabled
- Portfast enabled

IP Address

If Mitel Revolution redundancy is not implemented, the application should be configured with static IP addresses for easy access and control.

INITIAL INSTALLATION

In addition to the above requirements, Clearspan customers are expected to manage the following items prior to the installation of Mitel Revolution application software:

- Install and set up a VMware (ESXi 5.5 or newer) or Hyper-V VHD (Virtual Windows 2016) platform on your organization's server.
- Install the Microsoft Windows Server 2016 operating system specified in the Software Requirements section.
- Install all applications specified in the Software Requirements section.
- Provide remote access to the server to Clearspan Support.
- If multicast to SIP phones will be used for notifications, specify multicast addresses and ports allowed in your local networks.
- If multiple sites are required, define site names to be used.
- Provide a list of users with his/her assigned user role. See Users, Contacts and Sites section below for more details.
- Provide a list of Contacts as described in the Users, Contacts and Sites section below.
- Provide a list of endpoints available for notifications.
- Provide a list of notifications including the following items:

- Endpoints and Contacts associated with each notification

- DID or extension number selected for each audio notification

The installation preparations for setting up Mitel Revolution application software as a Virtual Appliance (VA) can be found on the Installation Requirements topic page.

APPLICATION INSTALL

When the initial installation is completed, Clearspan Support will then perform the following functions:

- Install Mitel Revolution application

- Configure all settings required

- Test setups in cooperation with customer

- Troubleshoot problems

- Manage change requests

USERS, CONTACTS AND SITES
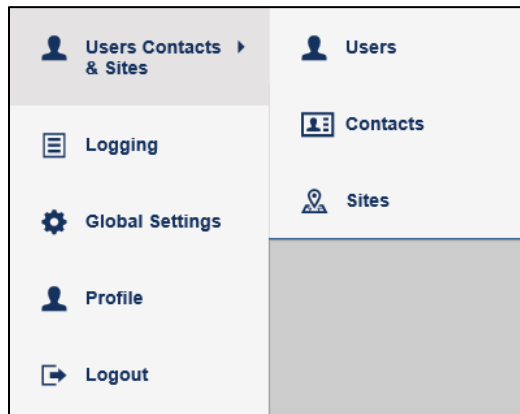
There are four predefined user roles that determine which parts of the application are accessible to which users. All users have access to their Dashboard.

- Admin

- Editor

- Sender

- Viewer

Admin accounts are reserved for Clearspan Support personnel. Other account types will be available to your organization as requested. Your organization must determine what your user role is.

Users

Admin User Role

Clearspan Support access.

Editor User Role

Editors can perform the following functions:

- Access to Manage Notifications and Scheduler
- Create, edit, send and delete notifications
- Configure the User Dashboard
- View status

Sender User Role

Senders can send existing notifications and check their status, but they cannot create notifications.

Viewer User Role

Viewers cannot take any actions in Mitel Revolution. They can access their Dashboard to check if a notification was sent and to view scheduled notifications.

Contacts

Contacts are typically the people who can receive notifications, as opposed to endpoints that are usually devices (phones, speakers and etc.). External or local contacts are allowed.

Clearspan Support can manually create or import contact records for any site. A contact list from your organization is required. A contact list can be extracted from your organization's Active Directory or a Google/Microsoft Outlook CSV file. See the Contacts topic to generate a contact list. Creating or importing contacts can only be performed by Clearspan Support.

Sites

The Default site will be used for most on-premise deployments. If an on-premise deployment is spreaded to multiple buidings or locations, multiple sites could be requested and supported. Sites can only be managed by Clearspan Support.

GLOBAL SETTINGS

GLOBAL SETTINGS

Company or Organization Information

Multicast

IP Device

Paging Relay

Logging Level

Notification

Text to Speech

Active Directory Authentication

Time & Date

Login Timeout

Notification Status
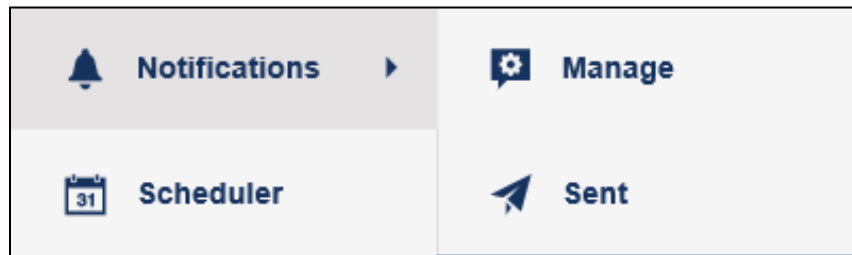
Areas

Network

Endpoints

Licensing

SAVE

Only Clearspan Support personnel have access to Global Settings.

CONFIGURATION
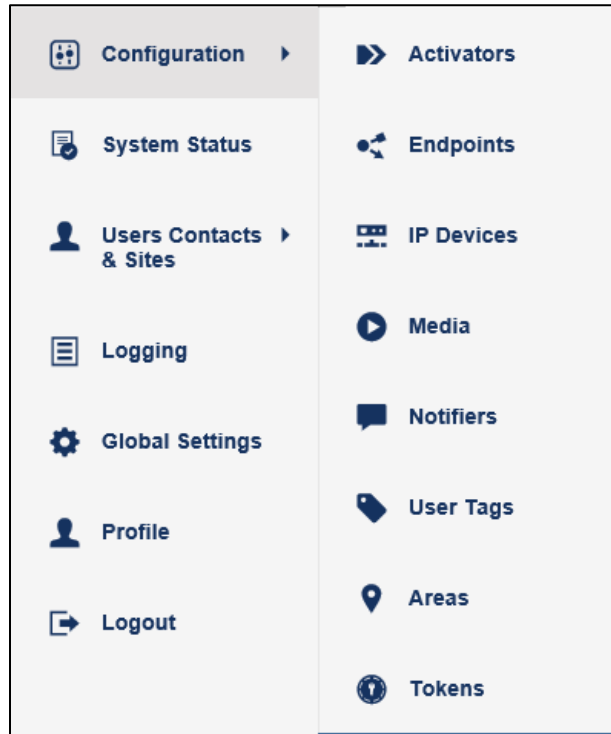
Only Clearspan Support has access to Configuration. Initial configuration settings and changes will be managed by Clearspan Support. Your organization can request configuration updates via Clearspan Support.

NOTIFICATIONS

The following notification types are supported in Clearspan:

- Live Audio
- Recorded Audio
- Stored Audio
- Text-to-Speech

- Text & Image
- Direct Two-Way Audio
- Two-Way Audio

Other notification types are also available in Mitel Revolution, but they are not supported within the Clearspan platform.

Follow the sections below and the Manage Notifications topic page for more details.

Manage

Only Clearspan Support and Editors can create, edit and delete notifications.

There are four basic tasks to creating a notification:

- General Settings – name, notification type and priority level.
- Selecting what triggers the notification.
- Entering the notification content – images, audio, text, variables.
- Selecting the endpoints and contacts to receive the notification.

Live Audio Notification

A caller can send live audio broadcast/page to multiple endpoints using the One-Way notification method. A live audio broadcast can only be initiated when a call to its designated SIP activator is received at Mitel Revolution.

A new One-Way notification can be created using the steps below.

1. Go to Notifications > Manage.

2. Click NEW NOTIFICATION and a new screen is shown.

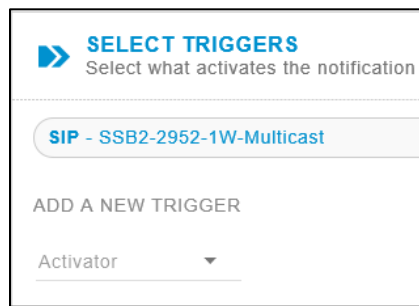3. Define parameters in General section as shown in the table below.

General

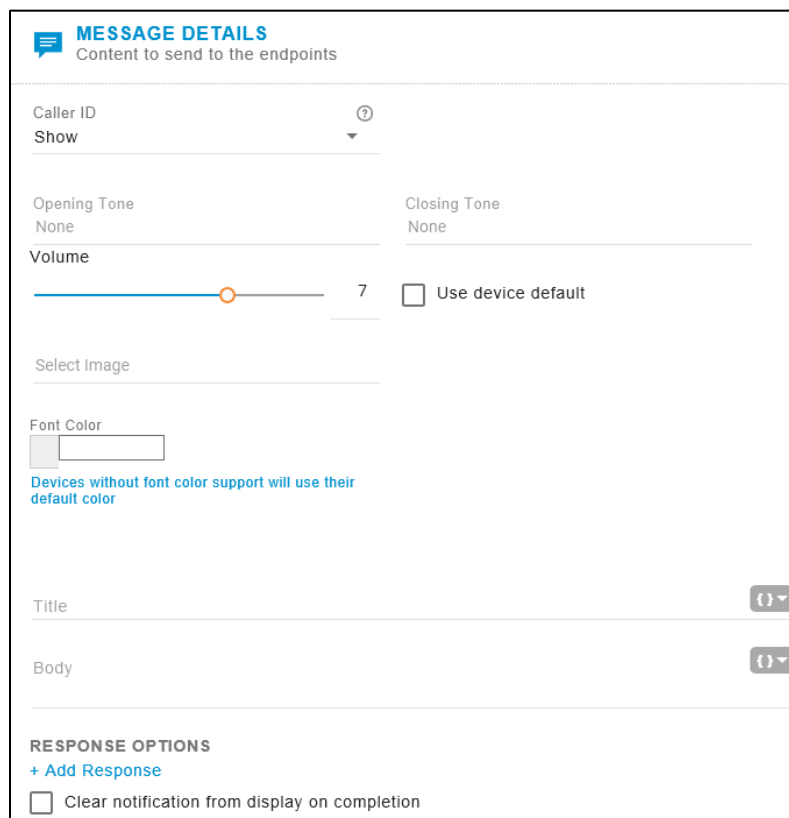| PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	One-Way	Select One-Way from the drop-down list.
Priority	<1-10>	Moving the bar to adjust a desired priority level. Priorities 9 and 10 are considered emergency alerts. Not all phones and speakers supporting priority.
Dashboard Icon	None	An optional icon can be selected from the drop-down list if needed.
Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

5. Use Activator's pull-down menu and select SIP as an activator type.

6. Use Trigger's pull-down menu to select its SIP activator defined in Configuration > Activators > SIP.

SELECT TRIGGERS
Select what activates the notification

SIP - SSB2-2952-1W-Multicast

ADD A NEW TRIGGER

Activator ▼

7. Click MESSAGE DETAILS to expand its setting parameters.

MESSAGE DETAILS
Content to send to the endpoints

Caller ID ⑦
Show ▼

Opening Tone   Closing Tone
None   None

Volume
━━━━━━━━○━━━━━━ 7   ☐ Use device default

Select Image

Font Color

Devices without font color support will use their
default color

Title { }▾

Body { }▾

RESPONSE OPTIONS
+ Add Response
☐ Clear notification from display on completion

8. From the Caller ID pull-down menu, select Show.

9. Optionally select opening tone and closing tone using its pull-down menu.

10. Optionally change the volume or check Use device default. This volume overrides the volume set on the endpoints receiving the notification.

11. From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

12. Optionally choose the Font Color.

13. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

14. Select the Endpoints tab. A list of endpoints is displayed.

15. Choose notifying endpoints. Search tool is available. Combinations of the following device types can be chosen.

- Mitel phones
  - ❖ Multicast via the Stream Module or
  - ❖ XML-Push via the Mitel Module
- Polycom phones
  - ❖ Multicast via the Polycom Module
- Cisco phones
  - ❖ Multicast via the Stream Module only

- Clearspan ATA/DECT/soft clients and PSTN endpoints
  - ❖ Individual calls via the SIP Module
- Syn-Apps Paging Relays (IP Device Module)
  - ❖ Line Out
  - ❖ Relay
- Syn-Apps approved IP devices
  - ❖ Speakers and/or intercoms via the IP Device Module
- Desktop notification clients (Desktop Module)
- Mobile notification clients (Mobile & Third-Party Module)
- Email notification clients (Email Module)

16. If a Syn-Apps Paging Relay is selected and GPO is involved, additional GPO settings might be required. The GPO SETTINGS is located at the bottom of the page. If a Syn-Apps Paging Relay is not selected, GPO setting is not applicable. The following GPO operational options are available to select.

   - ***On While Active- Relay is on only for the duration of the notification.***
   - ***Off While Active- Relay is off for the duration of the notification.***
   - ***Pulse - Relay is on for the user-defined length of time, regardless of whether the notification is still playing or finished.***
   - ***Turn On/Turn Off - Relay is turned on when notification is received and stays on until a notification with GPO=Turn Off is received.***
   - ***Turn Off - Relay is turned off.***

17. Select Contact tab. A list of contacts is displayed.

18. Optionally choose one or more contacts. Search tool is available.

19. If a contact is selected, one or more contact methods should be selected at the Choose Contact Methods section below.

20. Select User Tags tab if User Tabs will be used. A list of User Tags is displayed.

21. Optionally choose one or more User Tags. Search tool is available.

22. Select System Tags tab if System Tags will be used. A list of System Tags is displayed.

23. Optionally choose one or more System Tags. Search tool is available.

24. No area is selected for mobile application's geo-boundaries.

25. Click Save.

Recorded Notification

A caller can record an audio message on the fly and then send live audio broadcast/page to multiple endpoints using the Record notification method. **A recorded audio broadcast can only be initiated when a call to its designated SIP activator is received at Mitel Revolution**.

A new one-way notification can be created using the steps below.

1. Go to Notifications > Manage.

2. Click NEW NOTIFICATION and a new screen is shown.

3. Define parameters in General section as shown in the table below.

General

PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	Recorded	Select Recorded from the drop-down list.
Activation Type	<Iteration/Continuous>	
Iterations	<1+>	When Iterations is increased, the notification repeats the designated number of times with a pause in between as defined by the repeat interval.

Priority	<1-10>	Moving the bar to adjust a desired priority level. Priorities 9 and 10 are considered emergency alerts. Not all phones and speakers supporting priority.
Dashboard Icon	None	An icon can be selected from the list if needed.
Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

- Use Activator's pull-down menu and select SIP as an activator type.

- Use Trigger's pull-down menu to select its SIP activator defined in Configuration > Activators > SIP.

5. Click MESSAGE DETAILS to expand its setting parameters.

- From the Caller ID pull-down menu, select Show.

- Optionally select opening tone and closing tone using its pull-down menu.

- Optionally change the volume or check **Use device default**. This volume overrides the volume set on the endpoints receiving the notification.

- From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

- Optionally choose the Font Color.

6. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

- Select the Endpoints tab. A list of endpoints is displayed. Combinations of the following device types can be chosen.

  - Mitel phones

    ❖ Multicast via the Stream Module or

    ❖ XML-Push via the Mitel Module

  - Polycom phones

    ❖ Multicast via the Polycom Module

  - Cisco phones

    ❖ Multicast via the Stream Module only

  - Clearspan ATA/DECT/soft clients and PSTN endpoints

    ❖ Individual calls via the SIP Module

  - Syn-Apps Paging Relays (IP Device Module)

    ❖ Line Out

    ❖ Relay

  - Syn-Apps approved IP devices

    ❖ Speakers and/or intercoms via the IP Device Module

  - Desktop notification clients (Desktop Module)

  - Mobile notification clients (Mobile & Third-Party Module)

  - Email notification clients (Email Module)

- Select Contact tab. A list of contacts is displayed.
  - Optionally choose one or more contacts. Search tool is available.
  - If a contact is selected, one or more contact methods should be selected at the Choose Contact Methods section below.
- Select User Tags tab if User Tabs will be used. A list of User Tags is displayed.
  - Optionally choose one or more User Tags. Search tool is available.
- Select System Tags tab if System Tags will be used. A list of System Tags is displayed.
  - Optionally choose one or more System Tags. Search tool is available.
- No area is selected for mobile application's geo-boundaries.
- Click Save.

Stored Audio

There are multiple ways to trigger Stored Audio notifications. Stored audio announcements to phones and speakers are supported and can be configured as follows.

1. Go to Notifications > Manage.
2. Click NEW NOTIFICATION and a new screen is shown.
3. Define parameters in General section as shown in the table below.

General

PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	Stored Audio	Select Stored Audio from the drop-down list.
Activation Type	<Iteration/Continuous>	
Iterations	<1+>	
Priority	<1-10>	
Dashboard Icon	None	An icon can be selected from a pull-down list if needed.
Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

- Use Activator's pull-down menu and select activators and associated triggers.

5. Click MESSAGE DETAILS to expand its setting parameters.

- From the Caller ID pull-down menu, select Show.

- Optionally select opening tone and closing tone using its pull-down menu.

- Optionally change the volume or check **Use device default**. This volume overrides the volume set on the endpoints receiving the notification.

- From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

- Optionally choose the Font Color.

6. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

- Select the Endpoints tab. A list of endpoints is displayed. Combinations of the following device types can be chosen.
  - Mitel phones
    - ❖ Multicast via the Stream Module or
    - ❖ XML-Push via the Mitel Module
  - Polycom phones
    - ❖ Multicast or XML-Push via the Polycom Module
  - Cisco phones
    - ❖ Multicast via the Stream Module only
  - Clearspan ATA/DECT/soft clients and PSTN endpoints
    - ❖ Individual calls via the SIP Module
  - Syn-Apps Paging Relays (IP Device Module)
    - ❖ Line Out
    - ❖ Relay

- Syn-Apps approved IP devices
    - ❖ Speakers and/or intercoms via the IP Device Module
- Desktop notification clients (Desktop Module)
- Mobile notification clients (Mobile & Third-Party Module)
- Email notification clients (Email Module)

- Select Contact tab. A list of contacts is displayed.

    - Optionally choose one or more contacts. Search tool is available.

    - If a contact is selected, one or more contact methods should be selected at the Choose Contact Methods section below.

- Select User Tags tab if User Tabs will be used. A list of User Tags is displayed.

    - Optionally choose one or more User Tags. Search tool is available.

- Select System Tags tab if System Tags will be used. A list of System Tags is displayed.

    - Optionally choose one or more System Tags. Search tool is available.

- No area is selected for mobile application's geo-boundaries.

- Click Save.

Text-to-Speech

Text-to-Speech announcements to phones and speakers are supported and can be configured as follows.

1. Go to Notifications > Manage.
2. Click NEW NOTIFICATION and a new screen is shown.
3. Define parameters in General section as shown in the table below.

General

PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	Text-to-Speech	Select Text-to-Speech from the list.
Activation Type	<Iteration/Continuous>	
Iterations	<1+>	
Priority	<1-10>	
Dashboard Icon	None	An icon can be selected from the list if needed.
Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

   - Use Activator's pull-down menu and select activators and associated triggers.

5. Click MESSAGE DETAILS to expand its setting parameters.

   - From the Caller ID pull-down menu, select Show.

   - Optionally select opening tone and closing tone using its pull-down menu.

   - Optionally change the volume or check **Use device default**. This volume overrides the volume set on the endpoints receiving the notification.

   - From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

   - Optionally choose the Font Color.

6. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

   - Select the Endpoints tab. A list of endpoints is displayed. Combinations of the following device types can be chosen.
     - Mitel phones
       - ❖ Multicast via the Stream Module or
       - ❖ XML-Push via the Mitel Module
     - Polycom phones
       - ❖ Multicast or XML-Push via the Polycom Module
     - Cisco phones
       - ❖ Multicast via the Stream Module only
     - Clearspan ATA/DECT/soft clients and PSTN endpoints
       - ❖ Individual calls via the SIP Module
     - Syn-Apps Paging Relays (IP Device Module)

  - ❖ Line Out

  - ❖ Relay

- Syn-Apps approved IP devices

  - ❖ Speakers and/or intercoms via the IP Device Module

- Desktop notification clients (Desktop Module)

- Mobile notification clients (Mobile & Third-Party Module)

- Email notification clients (Email Module)

- Select Contact tab. A list of contacts is displayed.

  - Optionally choose one or more contacts. Search tool is available.

  - If a contact is selected, one or more contact methods should be selected at the Choose Contact Methods section below.

- Select User Tags tab if User Tabs will be used. A list of User Tags is displayed.

  - Optionally choose one or more User Tags. Search tool is available.

- Select System Tags tab if System Tags will be used. A list of System Tags is displayed.

  - Optionally choose one or more System Tags. Search tool is available.

- No area is selected for mobile application's geo-boundaries.

- Click Save.

Text & Image

Text & Image announcements to Polycom phones are supported and can be configured as follows.

1. Go to Notifications > Manage.
2. Click NEW NOTIFICATION and a new screen is shown.

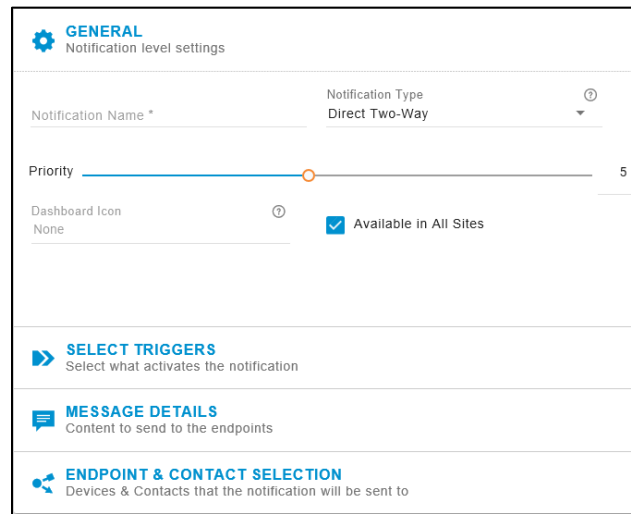3. Define parameters in General section as shown in the table below.

General

PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	Stored	Select Text and Image from the list.
Activation Type	<Iteration/Continuous>	
Iterations	<1+>	
Priority	<1-10>	
Dashboard Icon	None	An icon can be selected from the list if needed.
Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

- Use Activator's pull-down menu and select activators and associated triggers.

5. Click MESSAGE DETAILS to expand its setting parameters.

- From the Caller ID pull-down menu, select Show.

- Optionally select opening tone and closing tone using its pull-down menu.

- Optionally change the volume or check **Use device default**. This volume overrides the volume set on the endpoints receiving the notification.

- From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

- Optionally choose the Font Color.

6. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

- Select the Endpoints tab. A list of endpoints is displayed. Combinations of the following device types can be chosen.
  - Mitel phones
    - ❖ XML-Push via the Mitel Module
  - Polycom phones
    - ❖ XML-Push via the Polycom Module
  - Desktop notification clients (Desktop Module)
  - Mobile notification clients (Mobile & Third-Party Module)
  - Email notification clients (Email Module)
- Select Contact tab. A list of contacts is displayed.
  - Optionally choose one or more contacts. Search tool is available.
  - If a contact is selected, one or more contact methods should be selected at the Choose Contact Methods section below.

- Select User Tags tab if User Tabs will be used. A list of User Tags is displayed.
  - Optionally choose one or more User Tags. Search tool is available.
- Select System Tags tab if System Tags will be used. A list of System Tags is displayed.
  - Optionally choose one or more System Tags. Search tool is available.
- No area is selected for mobile application's geo-boundaries.
- Click Save.

Direct Two-Way

Direct Two-Way notification behaves like an intercom between two devices. Direct Two-Way intercom are supported and can be configured as follows.

1. Go to Notifications > Manage.
2. Click NEW NOTIFICATION and a new screen is shown.
3. Define parameters in General section as shown in the table below.

General

PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	Direct Two-Way	Select Direct Two-Way from the list.
Activation Type	<Iteration/Continuous>	
Iterations	<1+>	
Priority	<1-10>	
Dashboard Icon	None	An icon can be selected from the list if needed.

Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

- Use Activator's pull-down menu and select activators and associated triggers.

5. Click MESSAGE DETAILS to expand its setting parameters.

- From the Caller ID pull-down menu, select Show.

- Optionally select opening tone and closing tone using its pull-down menu.

- Optionally change the volume or check Use device default. This volume overrides the volume set on the endpoints receiving the notification.

- From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

- Optionally choose the Font Color.

6. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

- Select the Endpoints tab. A list of endpoints is displayed. Only choose two notifying endpoints. Combinations of the following device types can be chosen.
  - Individual Mitel phones
    - ❖ XML-Push via the Mitel Module
  - Individual Polycom phones
    - ❖ XML-Push via the Polycom Module
  - Clearspan ATA/DECT/soft clients and PSTN endpoints
    - ❖ Individual calls via the SIP Module
  - Syn-Apps approved IP devices
    - ❖ Talk-back speakers via the IP Device Module

- No area is selected for mobile application's geo-boundaries.

- Click Save.

Two-Way

Two-Way notification behaves like an intercom. **A Two-Way notification can only be initiated by calling its assigned SIP activator**. There are couple rules for Two-Way notifications:

- If the endpoint is a phone, it cannot be a shared line.

- If the endpoint is a phone and that phone is in Do Not Disturb mode, the call will not be connected.

Two-Way notifications to a phone/speaker are supported and can be configured as follows.

1. Go to Notifications > Manage.

2. Click NEW NOTIFICATION and a new screen is shown.

3. Define parameters in General section as shown in the table below.

General

PARAMETER	VALUE	COMMENTS
Notification Name	<Notification name>	
Notification Type	Two-Way	Select Two-Way from the drop-down list.
Activation Type	<Iteration/Continuous>	
Iterations	<1+>	
Priority	<1-10>	
Dashboard Icon	None	An icon can be selected from the list if needed.
Available in All Sites	Checked	

4. Click SELECT TRIGGERS to expand its setting parameters.

- Use Activator's pull-down menu and select a SIP activator and its associated trigger.

5. Click MESSAGE DETAILS to expand its setting parameters.

- From the Caller ID pull-down menu, select Show.

- Optionally select opening tone and closing tone using its pull-down menu.

- Optionally change the volume or check **Use device default**. This volume overrides the volume set on the endpoints receiving the notification.

- From Select Image, optionally select an image to be sent with the notification. Additional images can also be added using the same steps.

- Optionally choose the Font Color.

6. Click ENDPOINT & CONTACT SELECTION to expand its setting parameters.

- Select the Endpoints tab. A list of endpoints is displayed. Choose only one notifying endpoint from the following device types available.

  - Individual Mitel phones

    ❖ XML-Push via the Mitel Module

  - Individual Polycom phones

    ❖ XML-Push via the Polycom Module

  - Clearspan ATA/DECT/soft clients and PSTN endpoints

    ❖ Individual calls via the SIP Module

  - Syn-Apps approved IP devices

    ❖ Talk-back speakers via the IP Device Module

- Click Save.

Conference

Conference notification is not currently supported in Clearspan. No configuration setting should be made.

Sent

The Sent Notifications page diplays all sent notifications stored in the log display. Users can filter the list by keywords and can print out the list of notifications currently displayed on the page.

All user roles have access to Sent Notifications. This page provides read-only details. Follow the Sent Notifications topic for more details.
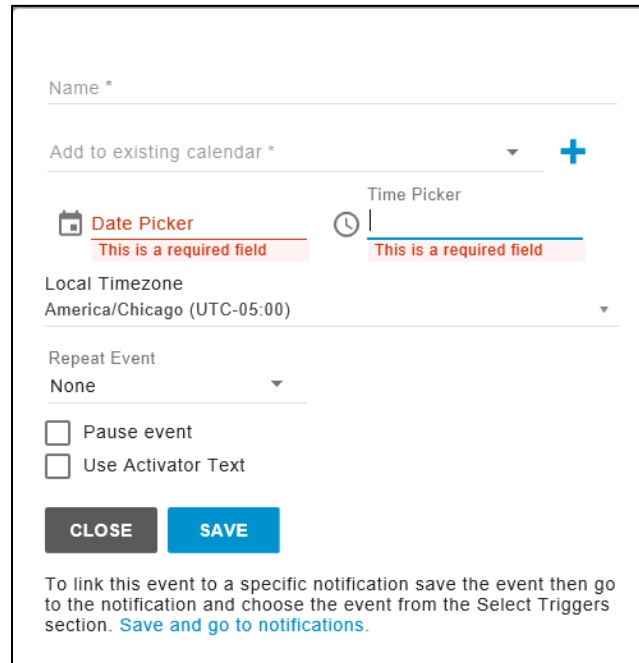
SCHEDULER

The Scheduler is another type of Activator used to trigger notifications at a date and time specified in the event. A single event can be assigned to multiple notifications, and a single notification can be triggered by multiple events. More details are also available at the Scheduling Notifications topic.

Permissions

Clearspan Support and Editors can create and manage calendars and events and can assign calendar events to notifications as triggers.

Senders and Viewers can filter which calendars display for them. They can double-click on existing events to view the details of that event; however, they can't make changes to the event.

Creating

To create an event,

1. Go to Scheduler.
2. Click on NEW EVENT. A new screen is shown.
3. Fill out the parameters shown below.

PARAMETER	VALUE	COMMENTS
Name	<Event Name>	Event names must be unique within the same calendar but can be repeated in a different calendar.
Add to existing calendar		Click in the Calendar Name field and do one of

		the following: - Select an existing calendar from the list. - Click the + and enter a name for the new calendar.
Date Picker	<Date selected>	Click on the calendar symbol to browse and select.
Time Picker	<Time selected>	Click on the clock symbol to browse and select.
Local Timezone	<Local time zone selected>	Use its pull-down menu to select a time zone.
Repeat Event	<None, Daily, Weekly, Monthly or Yearly>	Use its pull-down menu to select a repetition interval.
Pause Event	<Checked/Unchecked>	
Use Activator Text	<Checked/Unchecked>	Checked: use Activator text (Title & Body will be shown. Fill out those fields.)

4. Click SAVE after finish.

Editing

Event

- Use the All Calendars pull-down menu to check on a desired calendar.
- Use the calendar shown to locate the desired event.
- Modify fields as needed.
- Click SAVE.

Calendar

To edit a calendar,

- Click on the edit symbol (Pencil) located at the top right corner of the screen.
- Select EDIT CALENDAR. A new screen is shown.
- Use the pull-down menu to select the calendar to be edited.
- Click SAVE.

Pausing

Event

To pause an event,

- Locate and click on the event.
- If this is a recurring event, do one of the following:

- Click Edit Individual Occurrence to pause just this event.
- Click Edit Entire Series to pause all recurring events in this series.
- Check Pause Event.
- Click SAVE.

Calendar

To pause a calendar,

- Click on the edit symbol (Pencil) located at the top right corner of the screen.
- Select PAUSE CALENDAR. A new screen is shown.
- Check on the calendar to be paused.
- Click SAVE.

Deleting

Event

To delete an event,

- Locate and click on the event.
- If this is a recurring event, do one of the following:
    - Click Edit Individual Occurrence to pause just this event.
    - Click Edit Entire Series to pause all recurring events in this series.
- Check DELETE EVENT at the bottom of the event screen.

Calendar

To delete a calendar,

- Click on the edit symbol (Pencil) located at the top right corner of the screen.
- Select DELETE CALENDAR. A new screen is shown.
- Use the pull-down menu to select a calendar to be deleted.
- Click DELETE.

DASHBOARD
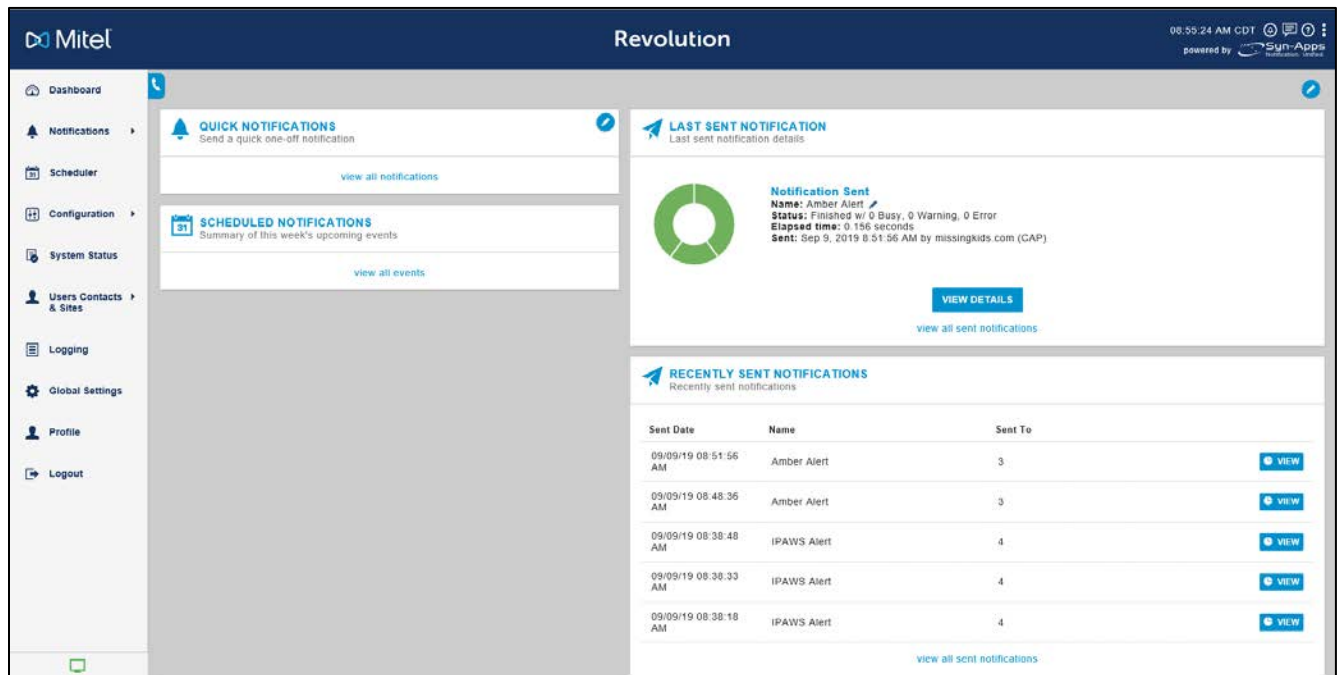
The Dashboard provides a place to quickly

- Send emergency and frequently used notifications

- View scheduled events that trigger notifications

- Check the status of notifications that have been sent

The Dashboard is linked to your user account, so that you can customize it to assign important and frequently used notifications so they're quickly available to you. The Dashboard automatically updates when notifications are activated and completed. Up to five quick notifications can be added.

The Dashboard lets all users view calendar events and check sent notification statuses.

Read the Dashboard topic to learn more about the features available from the Dashboard, how to customize it, and how to send notifications from it.

Note: Users assigned the Viewer User Role cannot customize their Dashboard. Only the Scheduled Notifications calendar and Recently Sent Notifications are displayed for this user role.

Quick Notifications

Create

A user can display up to five notifications on his/her Dashboard that he/she frequently sends. **Live broadcast notifications are not available for selection here, only notifications that contain stored audio and/or text are available**.

To create quick notifications, follow the below steps.

1. Click the pencil symbol located at the top right corner of the section to edit.
2. Click **ADD NEW NOTIFICATION**.
3. Add a descriptive name to **Notification Label**.
4. Use a pull-down menu of **Notification to Trigger** to select a notification.
5. Click **ADD NOTIFICATION**.
6. If there is additional notification required, **repeat** Steps 2-5.
7. If adding quick notifications is completed, click **Save**.

Send

With Quick Notifications, a user has the opportunity to change the notification title and body text before sending it.

To send a quick notification, follow the below steps.

1. Click the send symbol located to the right of the notification.
2. Optionally add information to the Notification Title.
3. Optionally add information to the Notification Body.
4. Click SEND.

Scheduled Notifications

The Scheduled Notifications section shows upcoming events, scheduled across all calendars, so users have a quick view of what's scheduled. Users cannot change scheduled events from this calendar. That's done in the Scheduler.

Scheduled events trigger notifications on a particular day at a particular time. Events and calendars are created in the Scheduler.

Click View All Events at the bottom of the section to jump to the Scheduler.

View Scheduled Notifications topic for more details.

Last Sent Notifications

The Last Sent Notifications section display the summary of the last sent notification. Click VIEW DETAILS to see a list of the endpoints the notification was sent to, which endpoints received the notification, and which encountered an error.

Recent Sent Notifications

The Recent Sent Notification section displays the most recent five sent notifications.

- Click **VIEW** for a notification to see a list of the endpoints the notification was sent to, which endpoints received the notification, and which encountered an error.

- Click **View All Sent Notifications** at the bottom of the box to jump to the Sent Notifications page where all sent notifications stored in the log display. Users can filter the list by keywords and can print out the list of notifications currently displayed on the page.

SYSTEM STATUS

◈ **SYSTEM STATUS**

Revolution - 2019.2.0
Normal

GUI - 2019.2.0
Normal

Logging Service - 2019.2.0
Normal

MRCP Server - 2019.2.0
Normal

Paging Relays - 2019.2.0
Normal

CAP Module - 2019.2.0
Normal

Desktop Notifier - 2019.2.0
Normal

Dialer Notifier - 2019.2.0
Normal

Email Notifier - 2019.2.0
Normal

IP Device Module - 2019.2.0
Normal

Mitel Module - 2019.2.0
Normal

Mobile & 3rd Party Module - 2019.2.0
Normal

Polycom Module - 2019.2.0
Normal

Scheduler - 2019.2.0
Normal

Self-Management Plugin - 2019.2.0
Normal

SIP Module - 2019.2.3
Normal

SMS Notifier - 2019.2.0
Normal

SNMP Module - 2019.2.0
Normal

Status - 2019.2.0
Normal

Stream Notifier - 2019.2.0
Normal

UN-LICENSED

Avaya Module - 2019.2.2

Cisco Module - 2019.2.2

X-618 Notifier - 2019.2.2

All users have access to the status pages. Only Clearspan Support administrators can make configuration changes. Editors, Senders and Viewers simply have access to view the details.

Revolution
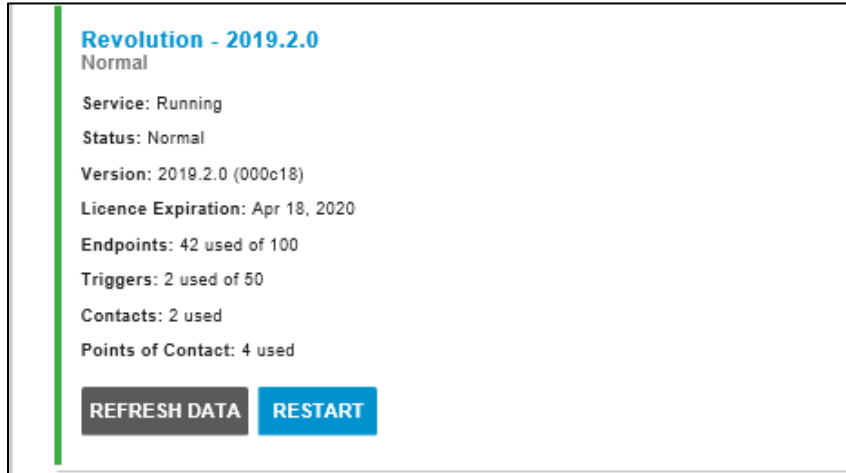
Click on the link to observe the following information:

- Service
- Status
- Version
- License Expiration
- Endpoints (actual vs licensed)
- Triggers (actual vs licensed)
- Contacts
- Points of Contact

GUI

Click on the link to observe the following information:

- Status
- Version
- Last Startup

Logging Service

Click on the link to observe the following information:

- Service
- Status
- Version

- License Expiration

MRCP Server

Media Resource Control Protocol (MRCP) is a communication protocol used by speech servers to provide various services to their clients. Mitel Revolution supports Neospeech, which requires a license. Click on the link to observe the following information:

- Status
- Version
- Last Startup

Paging Relays

Click on the link to observe the following information:

- Status
- Version
- License Expiration
- Endpoints

CAP Module

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration

Desktop Notifier

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Endpoints

Dialer Notifier

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Contacts
- Points of Contact

Email Notifier

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Contacts
- Points of Contact

IP Device Module

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Triggers

Mitel Module

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Endpoints

Mobile & Third-Party Module

Click on the link to observe the following information:

- Service
- Status
- Status Detail
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- **Contacts (actual vs licensed)**
- **Points of Contact (actual vs licensed)**

Polycom Module

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Endpoints

Scheduler

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration

Self-Management Plugin

Click on the link to observe the following information:

- Status
- Status Detail
- Version
- Last Startup

SIP Module

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration

- Endpoints

SMS Notifier

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration
- Contacts
- Points of Contact

SNMP Module

Click on the link to observe the following information:

- Service
- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration

Status

Click on the link to observe the following information:

- Status
- Version
- Last Startup
- Last Heartbeat
- License Expiration

Stream Notifier

Click on the link to observe the following information:

- Service
- Status

- Version

- Last Startup

- Last Heartbeat

- License Expiration

- Endpoints

Avaya Module

Unlicensed. It should be shaded out.

Cisco Module

Unlicensed. It should be shaded out.

X-618 Notifier

Unlicensed. It should be shaded out.

LOGGING

Clearspan Support administrators have access to application logging for assistance in troubleshooting.

SOFT NOTIFICATION CLIENTS

The Desktop Notification Client (DNC) application can be installed on a Windows or Mac desktop/laptop. It automatically loads when your computer is started or restarted. Then the DNC automatically opens and displays notifications that include your DNC as an endpoint. Read the [Desktop Notification Client](#) topic to learn how the DNC works. The DNC works the same for all users regardless of user role. Everyone has access to their Desktop Notification Client.

Configuration

It is optional to make any DNC settings changes, and most end users won't.

1. Click on the DNC icon in the Windows Notification area or Mac System Tray.
2. Click Settings.
3. You can adjust the number of days to keep notifications history. This defines how many days' worth of notifications display in your Received Notifications window.
4. Click Save.

Operation

When a notification is triggered that has a DNC assigned as an endpoint, the notification is sent to the DNC, which automatically opens to display the notification. For regular notifications, it's displayed in the lower right corner. Hovering on the blue heading displays the close icon.

If Windows desktop is locked or in screen saver mode, the audio, if included with the notification, plays. The notification is not displayed but is recorded in the DNC Received Notifications window. On a Mac desktop, no audio is played, and the notification is not displayed, but the notification is recorded in the DNC Received Notifications window.

When a Windows or Mac desktop is in sleep mode or logged out, no notification is received.

MOBILE

The Mobile Notification Client (MNC) application can be installed on an iOS or Android phone/device. The MNC automatically opens and displays notifications that include your MNC as an endpoint. Read the Mobile Notification Client topic to learn how the MNC works. The MNC works the same for all users regardless of user role. Everyone has access to their Mobile Notification Client.

Anyone using the Mobile Notification Client (MNC) app must be set up as contacts in Mitel Revolution before they can use the app. This includes all Mitel Revolution users. Contacts are typically the people who can receive notifications. Contacts can be located locally or externally.

Receiving Notifications

The Mobile app automatically logs contacts into the Receiving Account when they tap on the invitation code in the mobile invite email.

The Mobile app can receive any notification type as long as contacts with registered mobile devices are assigned as notification recipients and Mobile is selected as one of the Contact Methods.

Notification alert sounds and banners are controlled by the mobile device OS, just like any other app. When notification sound and banner is enabled on the device, users will see on the lock screen that a notification has been received.

Audio recordings attached to the notification automatically play when the notification is opened, even when the device is muted. Audio attached to notifications cannot automatically play in the background when the notifications are closed. Neither Android nor iOS allow this behavior.

One-Way live broadcast is recorded, and the audio is forwarded to contacts assigned to the notification when Mobile is selected as a Contact Method. TTS audio is recorded and both text and audio are sent.

Sent Notifications cannot track whether an individual contact received a notification to their mobile device. Sent notifications log as successful when the notification is received by the Mobile Notifier engine.

Notifications received on the Mobile app may include response options. These notifications ask a question. The app user taps the Respond button and selects a response, which is sent back to Mitel Revolution and recorded on the Sent Notifications Detail page.

Sending Notifications

Clearspan Support and users with the Editor role assigned can create triggers of notifications. These triggers display as buttons in the Mobile app to allow users to send notifications from within the app.

Trigger buttons are only available to users with the Mobile App Sending Account.