



**▶ Polycom® VMC 1000™ Appliance  
Akamai CDN Integration Guide**

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# Configuring the Polycom VMC 1000 with an Akamai CDN

This chapter explains how to configure an Akamai CDN within the Polycom Video Media Center (VMC) 1000. It contains the following sections:

- [About the Akamai CDN](#)
- [Defining a ViewCast Encoder](#)

## About the Akamai CDN

The Polycom VMC 1000 supports Akamai CDN Akamai's FreeFlow services for Live and VOD using Pull technology and Live delivery using Push technology.

Pull technology requires that the encoder is accessible from the Internet. An Akamai ingest broadcast point designated to pull a stream must be able to resolve the encoder's address. creates a security risk for enterprises because encoders (or streaming servers) must be placed outside a firewall. Pull technology exposes streaming sources to malicious attacks and stream interception.

Push technology does not require that the encoder or streaming server be assessable from the Internet, but can exist from within a firewall. Push technology is a much more secure way to distribute live streams. With Push technology, the encoder must be aware of an Akamai CDN ingest point server address to successfully resolve it.

Contrary to the Pull method, with the Push method, the ingest server does not need to resolve the encoder address.

For information on how to define the ViewCast Encoder to push a stream to an Akamai CDN, see the section "[Defining a ViewCast Encoder in the ViewCast UI](#)" on page 10.

For more information on how to define ViewCast encoder profiles in the Polycom VMC 1000, see “[Encoder Profile Configuration \(ViewCast\)](#)” on page 10.

## Creating an Akamai Live Stream

You must create live streams in Akamai prior to using push encoders in the Polycom VMC 1000 for a Live Broadcast. You create live streams using the Akamai EdgeControl UI. Before you can create an existing Akamai stream, you must contact them to get an account.

Once a push live stream is created, Akamai sends a notification email to the creator with the stream parameters. These parameters can also be referenced by means of the Akamai GUI. The Polycom VMC 1000 Administration>Resources> Encoders UI requires the "Entry Point" and "Port" values to create an encoder profile for a ViewCast encoder. For more information about creating an encoder profile for a ViewCast encoder, see “[Format Specific Properties for ViewCast Encoders](#)” on page 7.

### To create an Akamai Stream:

- 1 Once you get an account, go to:  
*<https://control.akamai.com/EdgeAuth/login.jsp>.*

- Log in with the username and password provided by Akamai.  
Got to **Live Streams->Manage Streams**.

Stream Format:

Stream Name:

Encoder IP Address:

If your encoder is pingable, enter your encoder IP address. Otherwise, enter another pingable IP address near your encoder. Akamai will briefly ping this IP address from multiple locations to determine the best available Entry Point server for your stream.

Encoder Location:

Backup Stream:

Populate same as primary Encoder:

Backup Encoder IP:

Backup Encoder Location:

Akamai will create a backup stream for every new stream. If you do not have a backup encoder, enter the same encoder for both primary and backup streams. The backup stream will be assigned to a different Entry Point than the primary stream and provides redundancy should the primary Entry Point go down.

Encoder Type:  Encoder initiates the connection

- On the **Live Stream** properties page set the **Encoder Type** field to “Push.” Although a value for Encoder IP is required, it does not have to be the IP of the encoder since the encoder most likely resides behind a firewall. However, you must provide another "pingable" IP.

Once you create a Push Live Stream , Akamai sends a notification email to with the stream parameters.

Entry Point: p.ep42717.m.akamaientrypoint.net  
Port(s): 42717

- These parameters can also be referenced by means of the Akamai GUI. The "Entry Point" and "Port" values are required to create an encoder profile in the ViewCast encoder.



**NOTE:** Contrary to some Akamai documentation, not all Akamai secure streams start with “6.” Contact Akamai for more information.

## Setting Up Credentials for An Akamai CDN

In order to push a WMS stream to an Akamai ingest point, Akamai requires a special "Push User" account. These accounts differ from the Akamai EdgeControl user accounts.

### To setup a Akamai push user account:

- 1 From the Akamai UI, select the **WMS Push Users** option.

This option is in a drop-down list located in the upper right corner of the **Manage Streams** page.

ViewCast SCX encoder profiles utilize the "Push Accounts" in order to push a WMS stream to an Akamai ingest point.

## Adding an Akamai Delivery Option to Polycom

### To add an Akamai Delivery Option:

- 1 Click **Delivery**.
- 2 Click **Delivery Options**
- 3 Click the **Add** button.
- 4 Select **Akamai** from the context menu.
- 5 Use the following table to fill out the properties for the Akamai Streaming page.

Field	Definition
Delivery Display Name	The name that will identify this set of configuration values for the delivery option within the domain.
Customer Code	The Akamai CP Code designated for this domain.
Service Type	The type of Akamai service you are using: EdgeSuite or FreeFlow.
Live Enabled	Check this box if the Akamai Delivery Option will be used for live broadcasts.
EdgeControl User	Your User ID for logging into EdgeControl.
EdgeControl Password	Your password for logging into EdgeControl.
Confirm Password	Confirm your password for logging into EdgeControl.

Field	Definition
Use EdgeSuite	Check this box if the EdgeSuite service from Akamai will be used.
Download Host	Domain (Host) Name used by Akamai EdgeSuite for directing HTTP requests to the optimal Akamai edge. Example: <i>images.mydomain.com</i> Requires configuration on the Akamai side. Not used in FreeFlow.
VOD Host	Domain (Host) Name used by Akamai EdgeSuite for directing VOD requests to the optimal Akamai edge. Example: <i>images.mydomain.com</i> Requires configuration on the Akamai side. Not used in FreeFlow.
Live Host	Domain (Host) Name used by Akamai EdgeSuite for directing Live content requests to the optimal Akamai edge. Example: <i>images.mydomain.com</i> Requires configuration on the Akamai side. Not used in FreeFlow.
Use Akamai Storage	Determines if Akamai storage will be used when generating URLs.
Customer Code	The Akamai customer code designated for this domain.
Storage Upload Host	The host to use when uploading files to Akamai storage for this domain (typically <i>custname.upload.akamai.com</i> ).
Storage Download Host	The host to use when uploading files to Akamai storage for this domain (typically <i>custname.download.akamai.com</i> ).
FTP Username	The user name to use when uploading files to Akamai storage for this domain.
FTP Password	The password to use when uploading files to Akamai storage for this domain.
Confirm FTP Password	Confirm the password to use when uploading files to Akamai storage for this domain.
Upload Protocol	Designates the use of FTP or SFTP
Use Passive Mode	Flag indicating whether to use FTP in passive mode.

## Adding an Access Point for an Akamai Delivery Option

### To add a Download access point for an Akamai Delivery Option:

- 1 Click the **Add** button
- 2 From the context menu select **Download**
- 3 Specify an **Access Point Name**.
- 4 Select the Storage location to use.
- 5 Click **Save**.

### To add a VOD access point for an Akamai Delivery Option:

- 1 Click the **Add** button
- 2 From the context menu select **VOD**
- 3 Specify an **Access Point Name**.
- 4 Select the Storage location to use.
- 5 Click **Save**.

### To add a Live access point for an Akamai Delivery Option:

- 1 Click the **Add** button
- 2 From the context menu select **Live**
- 3 Specify an **Access Point Name**.
- 4 Select a **Primary Akamai Stream** (the Stream Name, Port, and Entry Point will automatically populate)
- 5 Select a **Secondary Akamai Stream** (the Stream Name, Port, and Entry Point will automatically populate)
- 6 If **Rebroadcasts** are to be enabled, check the box and specify a **Source Delivery Option**
- 7 If **Push** is to be enabled, check the box and specify a **Push Username and Password**
- 8 Click **Save**.

## Defining a ViewCast Encoder

### General Polycom Encoder Properties

For any Polycom VMC 1000 encoder, you must have the following properties:

#### Encoder Properties

Property	Definition
Display Name	The display name appears on the Live Encoder Setup.
Description	The description only appears on the Add Encoder page. Other users can view this description by Editing the Encoder information.
Host Name or IP Address	The host name or IP address of the computer on which the encoder runs.

### Format Specific Properties for ViewCast Encoders

ViewCast encoders support the Akamai CDN “Pull” and “Push” technology.

For information on how to define the ViewCast Encoder to push a stream to an Akamai CDN, see the section [“Defining a ViewCast Encoder in the ViewCast UI”](#) on page 10 in this chapter.

For more information on how to define ViewCast encoder profiles in Polycom VMC 1000, see [“Encoder Profile Configuration \(ViewCast\)”](#) on page 10 in this chapter.

For more information on how to configure push credentials for an Akamai CDN, refer to [“About the Akamai CDN”](#) on page 1.

Property	Definition
Display Name	The user login used for authentication.
Public Encoder URL for External CDNs	The encoder public pingable address, or the URL that is built of a public streaming server and a publishing point, (i.e. "http://server.com/live"). This field sets the Akamai Live Stream encoder URL to this IP and registered port by means of the Akamai Web Service APIs.
User ID	The user login used for authentication.
Password	The user password used for authentication.

## Profile Display Properties

For each Live Encoder in the Polycom VMC 1000, you must create at least one Live Encoder Profile. The profile specifies encoder configuration parameters that are used at broadcast time to determine how content is encoded, such as bit-rate, sound quality and video size. For the encoder profile, you must have the properties below. The following properties pertain to all encoder profiles.

Property	Definition
Name	A name to distinguish this profile from others. The display name appears on the Live Encoder Setup page and as an option when configuring Live Streams.
Description	The description only appears on the Edit Live Encoder and the Viewers Profile page. Other users can view this description by editing the profile information.
Video Size	The video size specifies the size of the video window shown to Viewers when they view content encoded using this encoder profile. This size should optimally be set to the same video size at which the profile instructs the encoder to output video at.

<p>Bit Rate</p>	<p>The value entered for bit rate is displayed to Viewers as part of the link to content encoded using this encoder profile. This value helps Viewers to choose from multiple streams based on their bandwidth capabilities. This bit rate value should reflect the actual bit rate of the encoded content based on the specification of the Profile Encoder Configuration properties below.</p>
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## Encoder Profile Configuration (ViewCast)

### Defining a ViewCast Encoder in the ViewCast UI

Before you add a ViewCast encoder profile to the Polycom VMC 1000, you must define a ViewCast Windows Media Service (WMS) encoder using the ViewCast UI in order to push a stream to an Akamai CDN. You must create an encoder profile in the Polycom VMC 1000 that corresponds to a ViewCast encoder profile set up for WMS push.

#### To define a ViewCast encoder:

- 1 From the ViewCast UI, select the **Enable Push** check box and set the following fields:
  - **Push to Port** - The port in the Akamai entry point URL, typically "8080." It is not a reflector port.
  - **Server** - The entry point specified in an Akamai WMS Push Live Stream. A port must not be included. For example, "p.ep42717.m.akamaientrypoint.net"
  - **Alias** - Refers to the reflector port in the form of "reflector:port". For example, "reflector:42717."
  - **User Name and Password** - Refers to a WMS push user credentials.

### ViewCast Encoder Properties in the Polycom VMC 1000

Property	Definition
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Profile Uses Pull Style Output	Select this check box to define this encoder and a pull encoder and enable Akamai provisioning.
Encoder Output Port	The port on the encoder through which output is published to the media server. Use this field only if the selected Profile uses Pull Style output checkbox.
Audio Only	Specify if the broadcast will not include video.
SCX Encoder Name	Refers to a predefined ViewCast Encoder profile. ViewCast SCX encoder profiles utilize the "Push Accounts" in order to push a WMS stream to an Akamai ingest point.
Specify Drivers and Profile	Allows you to specify audio, video and output profiles for a ViewCast encoder

When you select Profile Uses Encoder Push Style Output, Akamai immediately propagates the incoming stream throughout their network. This makes the stream available to end-users immediately without a delay.

Additionally, when a stream is pushed, there is no need to start the Live Stream entry point explicitly. This is because the Akamai stream is automatically started by the encoder.

This behavior is different for pull encoders. In the case of a pull method, a Live Stream has to be started explicitly. The Polycom VMC 1000 then accomplishes this by performing an "Akamai provisioning" step using the Akamai Web Service API.

Because of this auto-start and no-delay behavior, there is no need for Polycom to provision the Akamai CDN before starting a webcast. For push encoders, Polycom Administrators and Broadcasters do not have to do the provisioning step in the Live Broadcast Console (LBC). The Provision or Teardown button in the Broadcast tab of the LBC UI does not appear. The only button available is the "Start Broadcast" button. The "Start Broadcast" button starts an encoder (or encoders), which, in turn, starts the corresponding Akamai entry point's Live Stream.