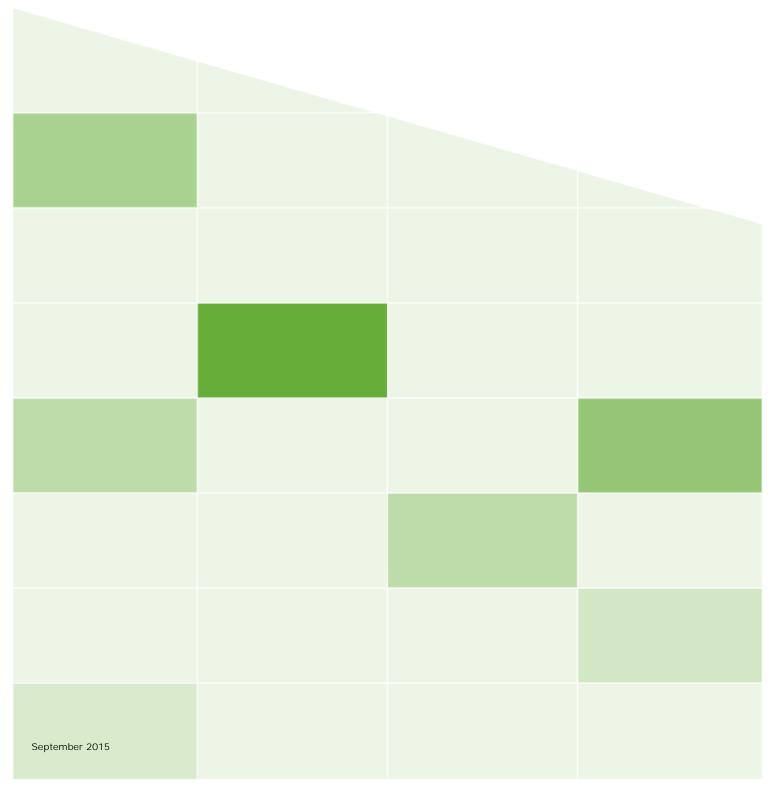


Cisco TelePresence Content Server (TCS) Integration with VBrick Systems

Quick Setup Guide v1.0

Includes VBrick Rev® and VBrick DME Integration Process



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About VBrick Systems

Founded in 1998, VBrick Systems is a privately held company that has enjoyed rapid growth by helping our customers successfully introduce mission critical video applications across their enterprise networks. Since our founding, VBrick has been setting the standard for quality, performance and innovation in the delivery of live and stored video over IP networks—LANs, WANs and the Internet. With thousands of video appliances installed world-wide, VBrick is the recognized leader in reliable, high-performance, easy-to-use networked video solutions.

VBrick is an active participant in the development of industry standards and continues to play an influential role in the Internet Streaming Media Alliance (ISMA), the MPEG Industry Forum, and Internet2. In 1998 VBrick invented and shipped the world's first MPEG Video Network Appliance designed to provide affordable DVD-quality video across the network. Since then, VBrick's video solutions have grown to include Video on Demand, Management, Security and Access Control, Scheduling, and Rich Media Integration. VBrick solutions are successfully supporting a broad variety of applications including distance learning and training, conferencing and remote office communications, security, process monitoring, traffic monitoring, business and news feeds to the desktop, webcasting, corporate communications, collaboration, command and control, and telemedicine. VBrick serves customers in education, government, healthcare, and financial services markets among others. VBrick products are manufactured in an ISO certified manufacturing facility.

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TCS Integration Quick Setup

TCS Quick Setup Preface

The TCS Integration Quick Setup is to provide a reference on the steps needed to quickly set up the two types of TCS integrations available with VBrick Systems. It is also intended to give a detailed overview of both types of integrations and what they will provide to end users.

The quick reference is beneficial to system administrators, software developers, network technicians, and end users in a variety of business environments. Information is arranged as follows:

Before You Begin	Provides a detailed overview of the TCS integration types, the software versions required, and device set up required before you begin.
Rev VOD Integration Setup	A detailed overview of a Rev VOD integration and step-by- step instructions on how to set it up.
Rev Webcast Integration Setup	A detailed overview of a Rev webcast integration and step- by-step instructions on how to set it up.



Note: PDFs are created for your convenience from several different HTML pages on our documentation site. As a result, not all hyperlinks will be active or branch as accurately as they will if you view Online versions of our documentation.

For best results, view our documentation online at www.vbrick.com/documentation. TCS integration documents are found under the "Integration" header in the Table of Contents. Rev and DME documents are found under the "VBrick Rev" and "Distributed Media Engine" headers respectively for references to those help topics.

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Chapter 1

Before You Begin

Required Product Versions

Full support of the integrations described in this document require the following product versions of each product component:

- Rev 7.5 or newer
- DME 3.5.1 or newer
- TCS 6.2.1 or newer

TCS Integration Functionality Overview

The Cisco TelePresence Content Server (TCS) is a network appliance that enables organizations to share knowledge and enhance communication by recording and streaming their video conferences and multimedia presentations.

VBrick® Rev® gives organizations a single platform to manage and view on demand video assets and live webcasts.

VBrick's Distributed Media Engine (DME) forms the backbone of an enterprise wide content delivery network (eCDN), enabling efficient distribution of live or stored video to large audiences by supporting a variety of endpoints, including popular smartphones and media tablets.

Together, they simplify the process of capturing and sharing video throughout your organization, in the most bandwidth efficient way possible.

This document focuses on the TCS integration to Rev and the DME. Functional and technical details about each specific product can be found in the product specific documentation. The integration steps described here are relevant for new installations and for existing Cisco customers migrating from Show and Share to Rev.

TCS Integration Types

The TCS can join and record up to ten teleconferences and it can join and forward a live stream from up to two teleconferences. It can capture video, audio, and user content from the teleconferences and it combines all of them into a single, composited output of H.264 video and AAC audio in a recorded mp4 file or in a live stream.

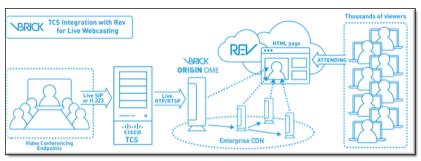
There are two main use cases of a TCS integration with Rev: **Rev webcast** and **Rev Video On-Demand (VOD)**.

Rev Webcast Integration

The Rev webcast integration allows teleconferences streamed through TCS to be used for Rev webcasts that can be watched by any authorized Rev user, anywhere on the network, on any device.

For live webcast streaming to Rev viewers, a recording alias using a "VBrick Live" media server is configured to send a live stream to a DME. Once configured, the TCS will automatically start/stop the live stream to the DME whenever that recording alias connects/

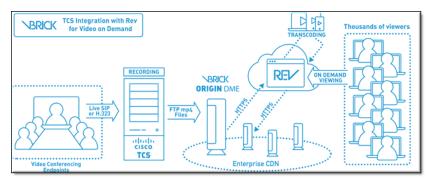
disconnects from a teleconference and when the DME receives the stream all of its standard eCDN features are available to automatically transmux and transrate the stream as needed. The origin DME then makes it available to local Rev viewers and forwards it to other DMEs for system-wide live stream distribution.



Rev VOD Integration

The Rev VOD integration automatically submits recordings created by TCS to Rev's standard "Add Video" workflow for content approval, transcoding, ingestion, and system-wide distribution so the content is available for on-demand viewing by any authorized Rev user, anywhere on the network, on any device.

To enable the integration, a TCS recording alias is configured with a "VBrick VOD" media server which will FTP recordings to the DME where a built-in DME feature automatically uploads the recordings to Rev's API.



Assumptions

The following assumptions have been made if you are attempting to set up a TCS/VBrick integration. You have working knowledge of the following products:

- Rev 7.5+
- DME 3.5.1+
- TCS 6.2.1+

Full functionality and user interface of the above products are beyond the scope of this documentation and are not covered.

You have downloaded and installed the following products:

- Rev
- DME
- TCS

Additional References

Rev Admin Guide

DME Admin Guide

TCS Documentation and Support

VBrick Downloads

Chapter 2

Rev VOD Integration Setup

Rev VOD Integration Steps

The Rev VOD integration automatically submits recordings created by TCS to Rev's standard "Add Video" workflow for content approval, transcoding, ingestion, and system-wide distribution so the content is available for on-demand viewing by any authorized Rev user, anywhere on the network, on any device.

▼ The steps to configure a Rev VOD integration are:

Rev VOD Setup

Create the Media Server Configuration Settings for the Rev VOD Integration

Create a Rev VOD Integration Template

Create a Rev VOD Integration TCS Alias

Rev VOD Setup

It is important that you have each VBrick device you will use set up correctly before you begin the Rev VOD integration. This document does not cover the setup steps for each device. However, each topic in Rev or DME Online help is noted for easy reference and a link to each Admin PDF is also provided for easy access as well.

Rev Device Setup

Rev Admin Guide

- Add a Distributed Media Engine (DME) Device
 - Make sure that the DME(s) you plan to use for your integrations have been added as devices in Rev.
- Designate a DME Video Storage Device
 - Make sure that, once added as devices, the DMEs that you have added have been configured for VOD storage.
- Add an API Key
 - You will need to create an API key for the DMEs that you will use in your integrations.
- Zone Logic and Hierarchy
- Add a Zone
 - Add a Zone in Rev specifically for VOD use with your VOD DME (or add the DME to the current zone logic you have set up).

DME Device Set Up

DME Admin Guide

Rev Interface

 Once you have added your DME to Rev as a device and created its API key, use the Rev Interface section in the DME to configure the DME to recognize and work with Rev.

Create the Media Server Configuration Settings for the Rev VOD Integration

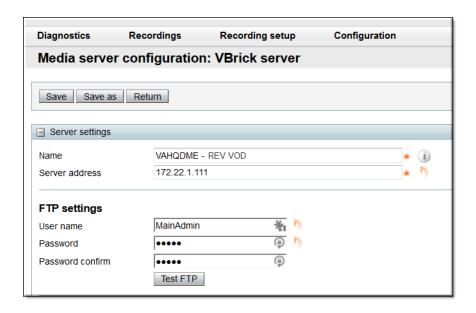
Media server configurations tell the TCS where the media for a recording is stored and how it is streamed. As a result, create one set of configurations for your Rev VOD integration and one for your Rev webcast integration.

See the "Media Server Configurations" chapter in the *TCS Admin Guide* for a complete description of all configuration settings of the TCS.

- ▼ To create a Rev VOD integration media configuration:
- 1. Log in to the Cisco TCS.
- $2. \quad Navigate \ to \ \textbf{Management} \ tab > \textbf{Recording setup} > \textbf{Media server configurations}.$
- 3. Click the Add VBrick VoD server configuration hyperlink. Complete the settings explained in the table below.
 - + Add Windows Media streaming server configuration
 - + Add QuickTime or Darwin streaming server configuration
 - + Add Wowza Media Server for Flash configuration
 - + Add Cisco Video Streamer configuration
 - + Add Media Experience Engine 3500 server configuration
 - + Add VBrick VoD server configuration
 - + Add VBrick live Server configuration
 - + Add Show and Share server configuration
 - + Add Podcast Producer server configuration
 - + Add iTunes U server configuration

Setting	Description	
Name	The name of the VBrick DME you plan to use for Rev VOD. Suggested convention: <rev -="" device="" dme="" name="" rev="" vod=""></rev>	
Server Address	The DME IP address or host name. Do not include port numbers or http: See the example in the image below.	
FTP Settings - User Name	The DME user name you are configuring the media server for.	
FTP Settings - Password	The DME password you are configuring the media server for.	

Your Rev VOD integration media server configuration settings should look similar to the image below.

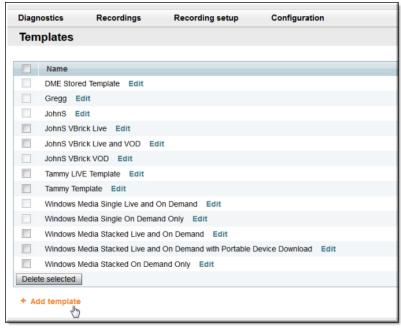


Create a Rev VOD Integration Template

Templates in the TCS are used to specify how a recording is streamed and played back. They will define the formats supported, the sizes for the outputs, and the outputs for portable devices, for example. Similar to both media server configuration settings and aliases, it is recommended that you create one template for each type of integration you plan to use.

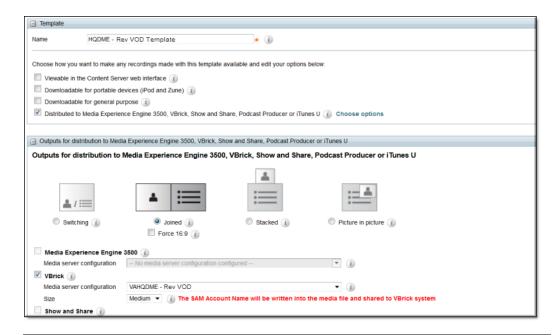
For more details on templates beyond the scope of this integration, it is recommended that you view the "Templates" and "Adding or Editing Templates" sections of the TCS Admin Guide.

- ▼ To create a Rev VOD template:
- 1. Log in to the Cisco TCS.
- 2. Navigate to Management tab > Recording setup > Templates.
- 3. Click the +Add template hyperlink. Complete the settings explained in the table below.



Setting	Description	
Template Name	The template name. It is recommended that you easily identify it as a Rev VOD template.	
Template Distribution	You must select the VBrick checkbox (4th checkbox) to create the Rev VOD template.	
Checkbox	Select the "Distributed to Media Experience Engine 3500, VBrick, Show and Share, Podcast Producer or iTunes U" checkbox.	
Distribution Outputs	You must select the VBrick checkbox under Outputs and then select the Rev VOD media configuration you created in the previous step. You may select the layout and size configuration of your choice for the template. The red text will note that your account name is being shared with VBrick systems. This is expected.	

Your Rev VOD template should look similar to the image below.





Best Practice: If you having difficulty with your alias making the correct call, make sure you have reset your template to the correct template for the integration type you intend to use.

Your recording alias may only use one template at a time which is why it is encouraged that you use one alias and one template for each integration you plan to use. You will not need to remember to reset your alias and/or template each time as a result.

Create a Rev VOD Integration TCS Alias

Recording aliases in the TCS are used to record calls and contain all the information about how the recording is created such as recording outputs, viewing and editing permissions, and several other properties. Similar to media server configuration settings, it is recommended that you create one alias for each type of integration you plan to use.

For details on recording aliases beyond the scope of this integration, it is recommended that you view the "Understanding Recording Aliases" and "Recording Alias Properties" sections of the TCS Admin Guide.

- ▼ To create a Rev VOD recording alias:
- 1. Log in to the Cisco TCS.
- 2. Navigate to Management tab > Recording setup > Recording aliases.
- 3. Click the **+Add recording alias** hyperlink. Complete the settings explained in the table below.



Setting	Description		
Recording Alias Name	The name of the account that will be creating Rev VOD recordings.		
Personal Recording Alias Owner	The owner of the recording alias. This will also be the "uploader" of the video and should match a user name in Rev exactly. Note: You must be added as a user to select your account in this dropdown. See your TCS account admin if you need assistance.		
SIP Address	Other systems can call into the TCS using the SIP Address or URI (Uniform Resource Identifier) if the TCS is registered to a SIP registrar. This string must be unique for each Recording Alias. The SIP Display Name is presented as a description of the SIP Address to other video conferencing systems when dialing into the TCS.		
Default recording information	The default recording information fields are used to automatically transfer metadata from the TCS recording into Rev. See detailed instructions at TCS Default Recording Information and Metadata Mapping in Rev.		
Template	You must associate a Rev VOD template to this alias. It is recommended that you use a different template for each type of integration you plan to use.		



Tip: If a recording does not appear in Rev as expected, double check that the **Personal Recording Alias Owner** field in the TCS matches a Rev user name exactly. You can also double check this in the DME Upload log. (DME > Admin > <u>Monitor</u> > <u>Upload Log</u>)

TCS Default Recording Information and Metadata Mapping in Rev

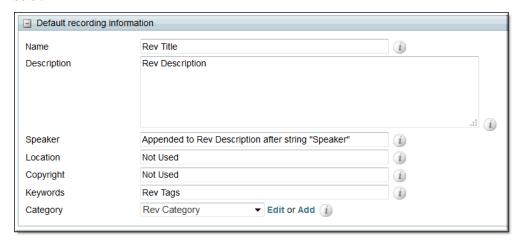
The Rev VOD integration automatically transfers metadata from TCS recordings into Rev. The TCS adds the configured recording information to the mp4 files before they are sent to the DME. The DME extracts the information from the files and uses the Rev API to set corresponding metadata as each file is uploaded to Rev.

The following shows how the TCS metadata for each recorded file maps to Rev video metadata:

- TCS Name => Rev Title
- TCS Keywords => Rev Tags

- TCS Category => Rev Category
- TCS Description => Rev Description
- TCS Speaker => Appended to the end of Rev Description after string "Speaker:"

Most of the automatic Rev metadata for each recording comes from the **Default Recording Information** section of the Rev VOD recording alias configuration, shown in the screen shot below.



The Rev functionality associated with each piece of metadata is beyond the scope of this document but can be viewed in the DME Admin manual in the Required File Types for Bulk Video Upload topics.

The following important notes apply to metadata, mapping, and the automatic integration process for on-demand content:

- Metadata is automatically set to Rev's default values for any of the mapped TCS recording information fields that are not configured. The exception to this is "Uploader".
 If an uploader is not provided, or if the Username provided does not match a user record in Rev, Rev will reject the upload.
- TCS recording information for Location and Copyright is not used by Rev.
- Rev Categories are created by the admin. A Category in Rev must be created to match the TCS Category or the TCS file will not be associated with any Rev Category.
- Multiple Tags can be automatically set in Rev by configuring multiple Keywords in TCS separated by spaces.
- "Description" is the only TCS recording information field that can contain multiple lines and the multi-line format is preserved when it is mapped to Rev's Description.
- The Upload Log page in DME's admin web interface shows logged information about each TCS recording that is received and uploaded.
- DME automatically deletes files from its FTP folder after they are successfully uploaded to Rev, but the recordings remain on TCS until they are manually removed using the TCS user interface.
- DME automatically retries the file upload to Rev several times in the event of a
 temporary issue, such as network or connectivity problems with Rev. Hard failures, such
 as not having a matching Rev user name, are not automatically retried but can be
 manually retried via the DME Admin interface.

Chapter 3

Rev Webcast Integration Setup

Rev Webcast Integration Steps

The Rev webcast integration allows teleconferences streamed through TCS to be used for Rev webcasts that can be watched by any authorized Rev user, anywhere on the network, on any device.

▼ The steps to configure a Rev webcast integration are:

Create the Media Configuration Settings for the Rev Webcast Integration

Create a Rev Webcast Integration Template

Create a Rev Webcast Integration TCS Alias

Rev Webcast Setup

Create the Media Configuration Settings for the Rev Webcast Integration

Media server configurations tell the TCS where the media for a recording is stored and how it is streamed. As a result, create one set of configurations for your Rev webcast integration and one for your Rev VOD integration.

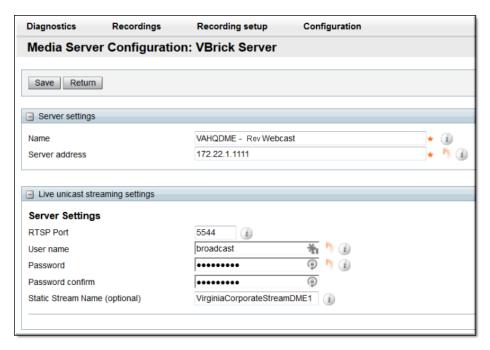
See the "Media Server Configurations" chapter in the *TCS Admin Guide* for a complete description of all configuration settings of the TCS.

- ▼ To create a Rev webcast integration media configuration:
- 1. Log in to the Cisco TCS.
- 2. Navigate to Management tab > Recording setup > Media server configurations.
- 3. Click the Add VBrick live Server configuration hyperlink. Complete the settings explained in the table below.

- + Add Windows Media streaming server configuration
- + Add QuickTime or Darwin streaming server configuration
- + Add Wowza Media Server for Flash configuration
- + Add Cisco Video Streamer configuration
- + Add Media Experience Engine 3500 server configuration
- + Add VBrick VoD server configuration
- + Add VBrick live Server configuration
- + Add Show and Share server configuration
- + Add Podcast Producer server configuration
- + Add iTunes U server configuration

Setting	Description		
Name	The name of the VBrick DME you plan to use for the Rev webcast. Suggested convention: <rev -="" device="" dme="" name="" rev="" webcast=""></rev>		
Server Address	The DME IP address or host name. Do not include port numbers or http: See the example in the image below.		
Live Unicast Streaming	Settings		
RTSP Port	The RTSP port of the Rev webcast DME you are using. Confirm this setting on your DME at: <u>System Configuration</u> > <u>Ports</u> > Multi-Protocol Server RTSP Port field.		
User Name	The DME user name you are using the Rev webcast for. Confirm this user name at: <u>User Configuration</u> > <u>Stream Input Authentication</u> > User Name field.		
Password	The DME password you are using the Rev webcast for. Confirm this password at: <u>User Configuration</u> > <u>Stream Input Authentication</u> > Password field.		
Static Stream Name	Note: This field appears as an optional field in the interface. However, it is required for the Rev webcast integration and must be populated for the integration to function.		
	It is important to note that two live streams from a single TCS system and/or multiple live streams from multiple TCS systems can be sent to the <i>same</i> DME so long as the Static Stream Name field is configured in each of the TCS media server configurations is <i>unique</i> compared to all other live streams being received by that DME.		
	This stream name must also match the stream name you provide the DME when you add a URL during device setup and should not contain any spaces. See: Admin > Rev > <u>Add a Distributed Media</u> <u>Engine (DME) Video Stream</u> online help topic.		

Your Rev webcast integration media server configuration settings should look similar to the image below.



If your live stream does not work as expected, check the following with regard to the **Static Stream Name** field:

- No spaces, per naming convention rules of the field in Rev
- It should match the Video Stream Name used in Rev when you created URLs for the DME you are using.
- Remember, this field is *not* optional as the interface implies.





Tip: If your live stream does not work as expected, you should first check your **Static Stream Name** in your Media Configuration Settings. Make sure it does not have any spaces and that it matches the same stream created in Rev for the DME.

Create a Rev Webcast Integration Template

In a Rev webcast integration, TCS templates are used to define the video output stream. Similar to both media server configuration settings and aliases, it is recommended that you create one template for each type of integration you plan to use to avoid confusion.

For more details on templates beyond the scope of this integration, it is recommended that you view the "Templates and Adding or Editing Templates" sections of the TCS Admin Guide.

- ▼ To create a Rev webcast template:
- 1. Log in to the Cisco TCS.
- 2. Navigate to Management tab > Recording setup > Templates.

3. Click the **+Add template** hyperlink. Complete the settings explained in the table below.





Distribution Outputs

On demand settings:

- Formats: MPEG-4 for Flash (must be used)
- Sizes: Your choice.

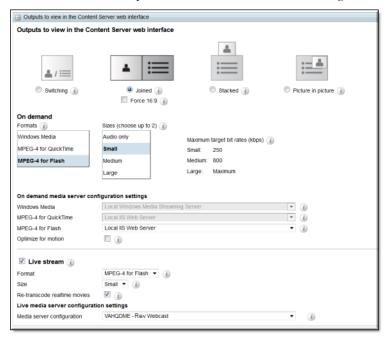
Note that more than one setting may be selected in this section. It is recommended that you deselect all other settings and have only *one* choice in each dialogue box selected as defined below.

Live Stream settings

- Live Stream checkbox = enabled;
- Format = MPEG-4 for Flash (must be used)
- Size = Defaults to earlier selection made in On demand settings above.
- Media server configuration = Rev webcast media configuration you created earlier. (must be used)

NOTE: Configuration options that are not referenced are not integration specific. Refer to your TCS guide to determine if they should be used for your specific template.

Your Rev webcast template should look similar to the image below.

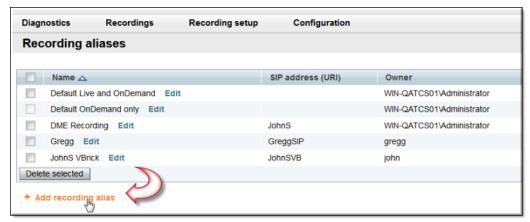


Create a Rev Webcast Integration TCS Alias

Recording aliases in the TCS are used to record calls and contain all the information about how the recording is created such as recording outputs, viewing and editing permissions, and several other properties. Similar to media server configuration settings, it is recommended that you create one alias for each type of integration you plan to use.

For details on recording aliases beyond the scope of this integration, it is recommended that you view the "Understanding Recording Aliases" and "Recording Alias Properties" sections of the TCS Admin Guide.

- ▼ To create a Rev webcast recording alias:
- 1. Log in to the Cisco TCS.
- 2. Navigate to Management tab > Recording setup > Recording aliases.
- 3. Click the **+Add recording alias** hyperlink. Complete the settings explained in the table below.



Setting	Description	
Recording Alias Name	The name of the account that will be creating Rev webcast recordings.	
Personal Recording Alias Owner	The owner of the recording alias. Note: You must be added as a user to select your account in this drop-down. See your TCS account admin if you need assistance.	
SIP Address	Other systems can call into the TCS using the SIP Address or URI (Uniform Resource Identifier) if the TCS is registered to a SIP registrar. This string must be unique for each Recording Alias. The SIP Display Name is presented as a description of the SIP Address to other video conferencing systems when dialing into the TCS.	
Template	You must associate a Rev webcast template to this alias. It is recommended that you use a different template for each type of integration you plan to use.	



Best Practice: If you having difficulty with your alias making the correct call, make sure you have reset your template to the correct template for the integration type you intend to use.

Your recording alias may only use one template at a time which is why it is encouraged that you use one alias and one template for each integration you plan to use. You will not need to remember to reset your alias and/or template each time as a result.

Rev Webcast Setup

Once you finish your Rev webcast integration, there are some final device set up steps in Rev you must make to ensure the webcast integration works correctly. They are described below.

Each topic in Rev online help is listed below for easy reference and a link is provided to the Admin PDF for easy access as well.

Rev Admin Guide

• Add a Custom Device

• Add your TCS as a custom device in Rev to be used as a video source.

• Add a Distributed Media Engine (DME) Video Stream

Make sure that, once added as a device, your DME has a stream name that exactly
matches the Static Stream Name in your Rev webcast Media Configuration Settings.
This is described when you <u>Create the Media Configuration Settings for the Rev</u>
Webcast Integration.

• Add a Presentation Profile

- Create a presentation profile that will utilize the custom device as a viewing source and DME streams you created as the viewing destination.
- Zone Logic and Hierarchy
- Add a Zone
 - Add a Zone in Rev specifically for Rev webcast use with your Rev webcast DME (or add the DME to the current zone logic you have set up).

