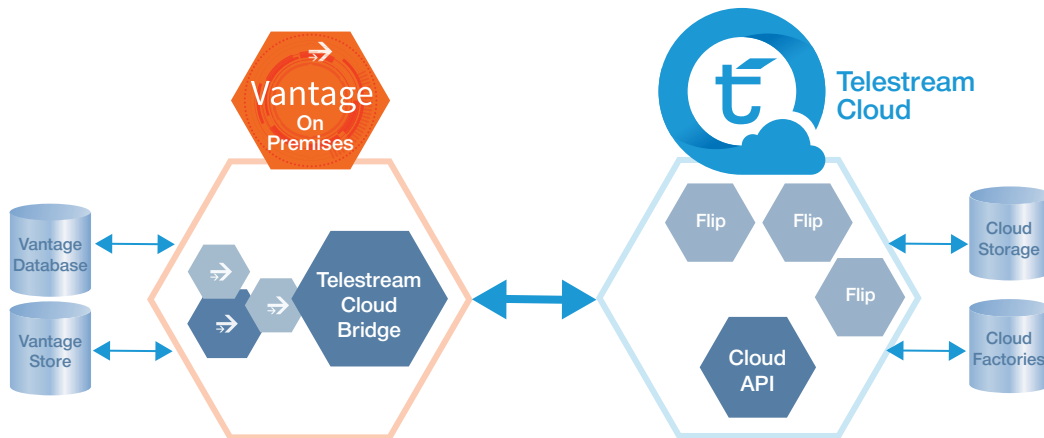


Using the Vantage Bridge to Telestream Cloud

This app note
applies to
Vantage version
7.0 and later

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Overview

The Vantage Bridge to Telestream Cloud connects Vantage workflows and Telestream Cloud Transcode Factories, adding scalable cloud transcoding capacity to Vantage enterprise systems. The Bridge to Telestream Cloud uses the Cloud Flip action, which can be added to any Vantage workflow, and will submit jobs to the Telestream Cloud and report real-time status in the Vantage status management dashboard.

Connectivity between the Vantage system and the Telestream Cloud system persists during configuration and operation of the Bridge to Telestream Cloud.

Outline of Steps to Get Started

Getting set up to use the Vantage Bridge to Telestream Cloud is simple, and only requires a few main steps. Here is an outline of the steps to get started using the Bridge to Telestream Cloud:

1. Create a Telestream Cloud account at cloud.telestream.net.
2. Create a Transcoding Factory in Telestream Cloud.
3. Add your Telestream Cloud account credentials in the Vantage Management Console.
4. Add the Cloud Flip action to your Vantage workflow, configure it, and activate it.

See [Configuring the Vantage Bridge to Telestream Cloud](#) for details on completing the steps to get started.

Vantage Software

The Cloud Flip action, which facilitates the operation of the Vantage Bridge to Telestream Cloud, is available starting in Vantage 7.0 and is included with all Vantage configurations. Additional Vantage licensing is not required.

Configuring the Vantage Bridge to Telestream Cloud

This section describes how to create a Telestream Cloud account, configure the transcoding factories, and then configure the Vantage Management Console and the Cloud flip action.

Creating a Telestream Cloud Account

To use the Cloud Flip action you must have a Telestream Cloud account. To create an account on the Telestream Cloud web site, point your browser to this URL: cloud.telestream.net

You will be prompted to log in or create an account.

Access Keys

When you create a Telestream Cloud account, it will include an Access Key and a Secret Key. Click Overview at the top of the left menu in Telestream Cloud, then select the "API Access" menu item in your account to find your access keys. You will use these keys later in the Vantage Management Console to activate the Cloud Flip action.

Creating a Factory in Telestream Cloud

After you have created your account, you will need to create at least one Transcoding Factory in Telestream Cloud. When you add a Factory in Telestream Cloud you can select to make it public or private, enable a web widget, and choose from a variety of storage and format options.

Each Factory defines a single storage location for your uploaded videos, and any resulting encodings or thumbnails. A Factory also contains a list of profiles that your content will be encoded to.

Factories that are integrated with Vantage will create one output for each job submission and the output will have specific output characteristics. Therefore, you should create separate factories for each deliverable.

See the Telestream Cloud online documentation, tooltips, and live chat feature if you need help creating a factory.

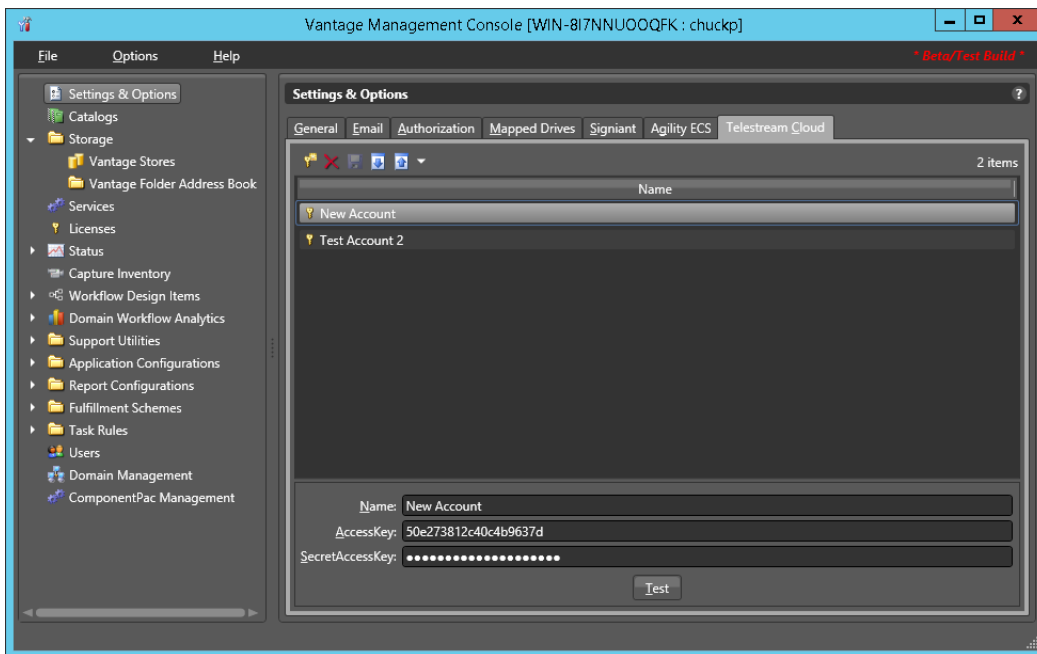
Adding Your Telestream Cloud Account to Vantage



After you have created your factories, you add your account to Vantage by entering your access keys into the Vantage Telestream Cloud panel. The Cloud Flip action in Vantage workflows uses these credentials to automate logging into Telestream Cloud and sending media to your account for transcoding.

To add your Telestream Cloud account to Vantage:

1. Start the Vantage Management Console. (See *Starting the Vantage Management Console* in the *Vantage Domain Management Guide* for more information.)
2. Select Settings & Options from the menu.

3. In the Settings & Options details panel, select the Telestream Cloud tab.
Vantage displays the Telestream Cloud configuration panel.



4. Click the Add New Setting button  in the toolbar (or right-click in the empty space below the button and select Add new setting).
5. In the Name field, enter a practical name for the Telestream Cloud account.
6. In the AccessKey field, enter the Access Key you received when you signed up for an account at the Telestream Cloud web site.
7. In the SecretAccessKey field, enter the Secret Key from the Telestream Cloud web site.
8. Click the Save icon  to save the new account
9. To test the Vantage-Telestream Cloud connection, click Test at the bottom of the window. A dialog pops up to confirm test success or failure of logging into the Cloud account.
10. Close the Vantage Management Console when configurations are complete.

You can add Accounts as needed for each Telestream Cloud account you create.

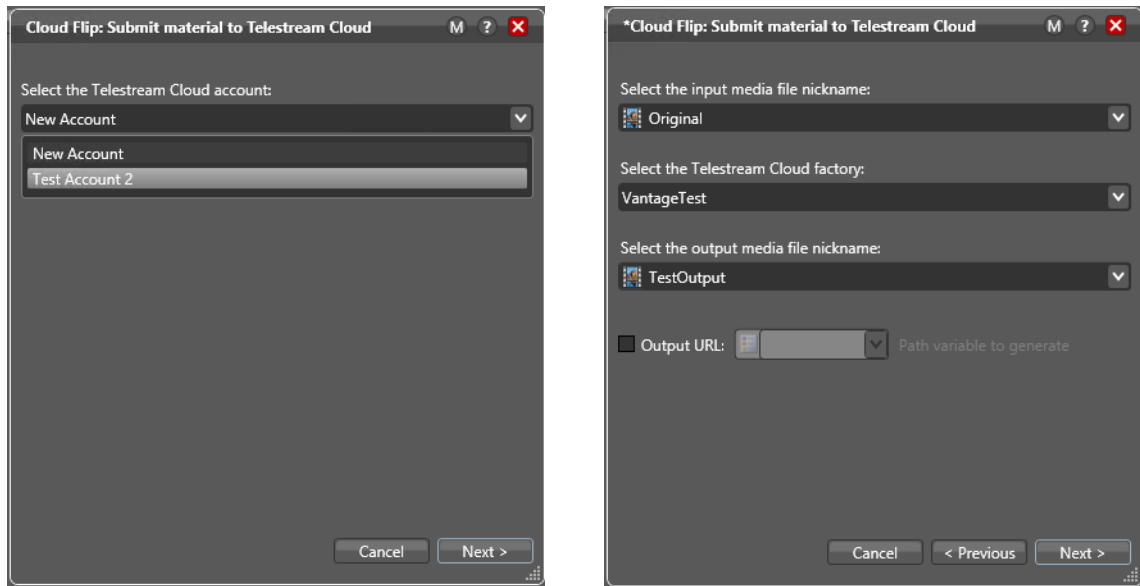
See the *Vantage Domain Management Guide* for additional information on working with your Telestream Cloud account configuration and settings.

Configuring the Cloud Flip Action

Use the Cloud Flip action to submit media to the Telestream Cloud platform from Vantage workflows. Each Cloud Flip action can submit media to one Telestream Cloud Factory. You can include multiple instances of the Cloud Flip action in the same workflow to send media to multiple, or different, Telestream Cloud Factories.

In the Vantage Workflow Designer, add a Cloud Flip action to a workflow. Double-click the Cloud Flip action, or click the "i" icon, to open the Inspector Wizard and make your configuration selections.

For complete information about creating and configuring workflows, click the ? in the upper right of any Vantage window to open the *Vantage User Guide*.



The following options are available in the Cloud Flip action:

Note: Your Vantage system must have connectivity to the Telestream Cloud during this configuration process.

Telestream Cloud account—Select the account to use for this job submission. The available accounts are the ones you created in the Telestream Cloud tab of the Vantage Management Console.

Input media file nickname—Select the nickname of the media file input you want to use. This nickname must have been created by an upstream action, such as a Watch action.

Telestream Cloud factory—Select the Telestream Cloud Factory you want to use to process the media. All factories that are configured in your Telestream Cloud account appear in this list.

Output media file nickname—Specifies the nickname (which you can select or enter) to assign to the processed file. The media nickname is used by Vantage workflows to reference the output item.

Output URL—This is the variable that contains the URL to the first output from the Telestream Cloud Factory. Select from the list of variables that you have already created, or select "Create New Variable" to open a dialog and configure the variable parameters. The Output URL contains the output location of the media item for reference by other systems outside of the Vantage workflow.

Finish—Saves the action and closes the inspector.

Add other Actions to the Workflow

You can add additional actions to the workflow to perform various operations in your system. As a minimum, you need at least two actions in a workflow in order to activate it. For example, you can use a Watch action to watch a folder for incoming media to process, creating a nickname that you select in the Cloud flip action.

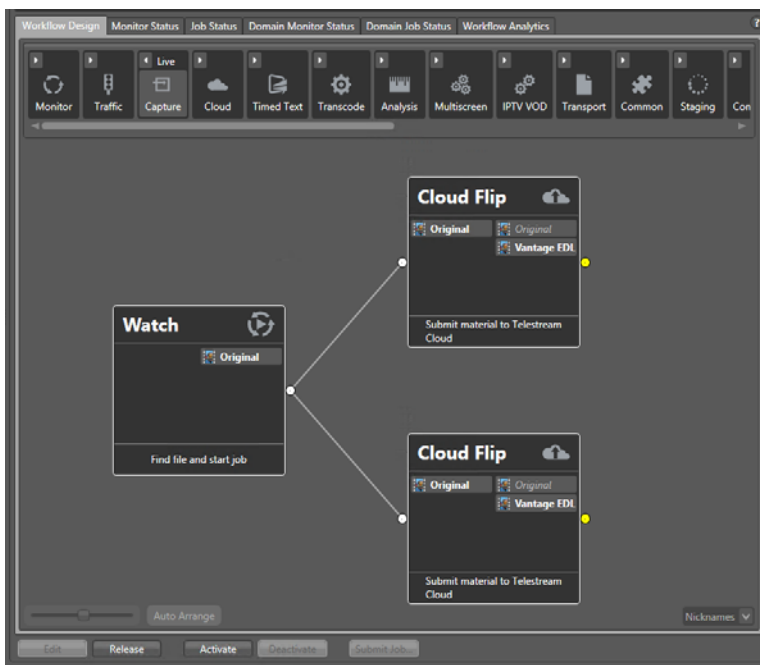
Operation of the Bridge to Telestream Cloud

To operate the Vantage Bridge to Telestream to Cloud you first activate the workflow and submit a job to the Vantage workflow by watch folder, manually, by API, or from other Vantage workflows. The input media must be submitted to this workflow to be passed over the bridge to Telestream Cloud. Status and job information is returned to Vantage and provided for your monitoring and usage.

Activating the Workflow

After you have configured and saved the Cloud Flip action and workflow components, you are ready to activate it. You can include multiple instances of the Cloud Flip action in the same workflow to send media to multiple, or different, Telestream Cloud Factories.

Click the Activate button at the bottom of the Workflow Designer window. Upon activation the view automatically switches to the Monitor Status tab.



Processing and Distribution

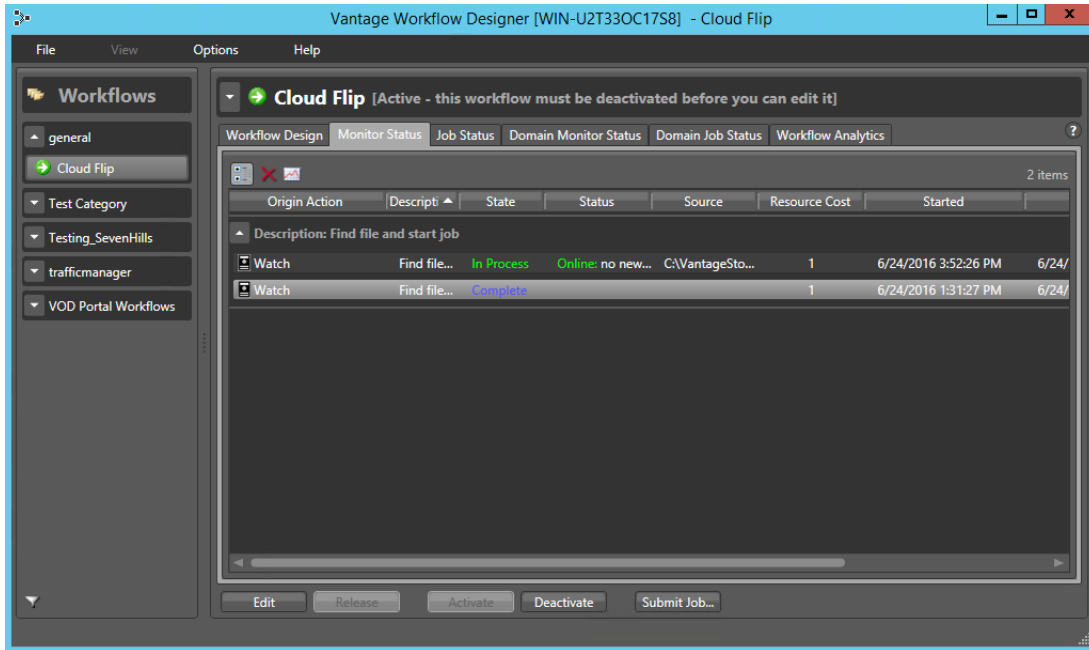
Upon job submission to an activated workflow, the Vantage system forwards the source file to Telestream Cloud where it is processed for distribution. The Vantage workflow may be configured to process the source file into a standard mezzanine format prior to submitting it to the Telestream Cloud Factory. A mezzanine file is pre-processed to support all distribution requirements, including playlist assembly, closed caption insertion, graphics overlays, audio channel mapping and mixing, video resizing and up/down conversion, masking, and any video filtering.

If additional modifications are required for specific deliveries, those are provided by filters inside Telestream Cloud. Telestream Cloud Factories are pre-configured for compatibility with the mezzanine file and destination output specifications.

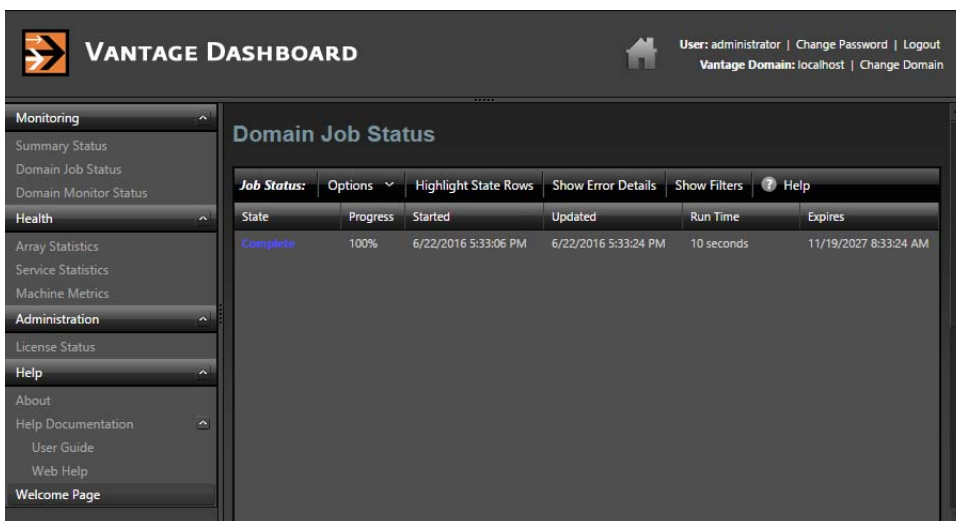
Output from Telestream Cloud routes to Telestream Cloud storage, and file references are returned to Vantage as Vantage Nicknames. Vantage will be able to use the returned references to notify CDNs of the origin location of the media and to update local systems with the media references needed to copy, move, or play the media files.

Status Reporting

After you configure and activate the workflow, the Monitor Status and Job Status tabs in the Workflow Designer will provide returned status messages from the Telestream Cloud Factory of the job progress, success, or failure, as shown in the following view of the Monitor Status tab.



The status messages are also available in the Vantage Web Dashboard, shown below. You can use Job Status Views to access job information and manage jobs in your Vantage domain from anywhere on the LAN, or via the Internet if you provide such access to your Vantage domain.



Output Management Options

The following are a few suggestions for options of how to manage the output from Telestream Cloud Transcode Factories:

- You can have the cloud storage accessible directly by the consumer that you are providing the media to, or even use a storage owned by the consumer.
- You could also use your own cloud storage. You can send references to the output using the Output URL variable through the Notify action in Vantage, for example.

The Output URL is a text variable that contains the media location reference that can be used outside the Vantage workflow to access the media. For example, it can be provided to a player to display the media, or to an FTP server to move or copy the content to another location.

Note: If the output needs to be further processed by the local Vantage system, such as by a Copy action, a *Vantage store* is needed to store temporary files.

Copy Action Does Not Copy Multi-File Output from Telestream Cloud

For Vantage to operate on any Output from the Cloud Flip action, the Telestream Cloud factory that is targeted must only emit a *single* file output. If the Cloud factory is configured to produce a format that is inherently multi-file, such as HLS or HTTP Live Stream, then a Copy action (or any other Vantage action) will not operate correctly. The only item which would be copied is the top level manifest file.

For example, if your factory produces a single MP4 file, Vantage can copy and manipulate the output of the Telestream Cloud Flip action. However, if the Cloud Flip action references a factory which creates a multi-file output, such as HTTP Live Stream, then the information received back from Telestream Cloud is not sufficient to allow Vantage to copy (or otherwise manipulate or access) all of the files created by the Factory. In this case, you would *not* want to copy the output from the Cloud Flip action in a Vantage workflow.

How to Copy a Single-File Cloud Output

To copy a single-file Cloud output with a Copy action in Vantage, you can use the output media item *nickname*. This will first copy the output to the local Vantage system and then write it to the target system.

The nickname is a Vantage attribute that is a reference to further manipulation of the output by the Vantage workflow. The nickname can be used to move or copy the media to other destinations. For example, Vantage can FTP the content to an origin server, or send a copy to an archive.

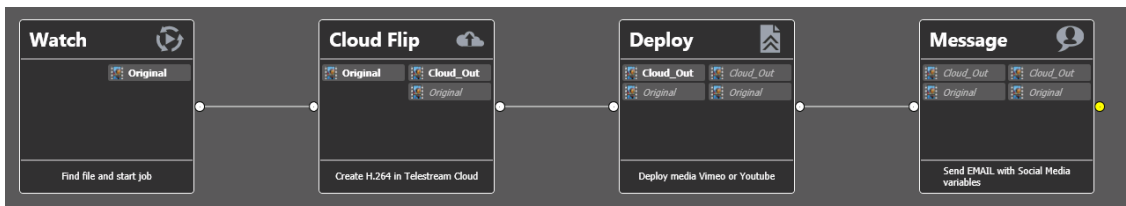
Example Workflows

The example Vantage workflows described here will give you an overview of how to implement your own transcoding operations when using the Cloud Flip action to create a functioning bridge between Vantage and Telestream Cloud. Once these types of workflows are configured and activated, they operate automatically when a video file is acquired by the workflow.

Send Transcoded Video to Social Media Sites

This example describes how to configure a workflow to transcode a video file for the web, have it upload to Social Media sites, and automatically send out an email that provides links to the video.

1. Add a Factory in Telestream Cloud and configure it to transcode the file in a Web format, such as H.264 with HD 1080p resolution.
2. Use the Vantage Workflow Designer to create a workflow that contains a Watch, Cloud Flip, Deploy, and Message actions, and connect them together.



3. Set the Watch action to acquire a media file. (You can also use another Vantage origin action to acquire a file, such as a Receive or Capture action.)
4. Configure the Cloud Flip action to connect to the input media, select the Factory you created in Telestream Cloud, and specify output parameters.
5. Configure the Deploy action to send the transcoded video to Social Media sites, such as Vimeo, YouTube, and LinkedIn.
6. Configure the Message action to send an email that includes the Social Media links to the deployed video.
7. Click the Activate button at the bottom of the Workflow Designer window. Upon activation the view automatically switches to the Monitor Status tab and the workflow is ready to process files collected by the Watch action.

Transcode with Either Telestream Cloud or Vantage Based on File Size

This example describes how to configure a workflow to analyze incoming media for file size, then automatically send the files to either Telestream Cloud or process them within Vantage.

1. Add a Factory in Telestream Cloud and configure it to transcode to a Professional format, such as the MPEG Program Stream (MPEG-2).
2. Use the Vantage Workflow Designer to create a workflow that contains the actions shown in the following diagram.



3. Set the Watch action to acquire a media file. (You can also use another Vantage origin action to acquire a file, such as a Receive or Capture action.)
4. Configure the Identify action to analyze the File Properties for file size.
5. Configure the Decide action to provide two paths for transcoding based on file size.
 - a. Path #1—If the media file size is less than or equal to 500MB:
 - Use the Cloud Flip action to transcode in the Telestream Cloud, using the Factory you created in step 1.
 - Set the Copy action to copy the media file to a new location.
 - Configure the Message action to send an email with details of the transcode.
 - b. Path #2—If the media file size is greater than 500MB:
 - Transcode the media in Vantage with the Flip action.
 - Set the Copy action to copy the media file to a new location.
 - Configure the Message action to send an email with details of the transcode.
6. Click the Activate button at the bottom of the Workflow Designer window. Upon activation the view automatically switches to the Monitor Status tab and the workflow is ready to process files collected by the Watch action.

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