Vantage 8.1

System Administration

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Using the Vantage Management Console

This chapter describes how to use the Vantage Management Console (VMC), which enables Vantage system administrators to configure their Vantage domain and to scale Vantage services across multiple servers (creating a Vantage array) to meet their operating requirements.

Note: Features in products for which you don't have a license are disabled and indicate that you need a license to use them.

The following topics describe how to use the Vantage Management Console:

- Introduction
- Starting the Vantage Management Console
- Managing the Vantage Domain Connection
- Using the Vantage Management Console Workspace
- Managing Tips and Warnings
- Using the Help System
- Displaying Software and Database Versions
- Vantage Management Console Reference

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Introduction

The Vantage Management Console is designed to facilitate centralized management of the software components and resources that comprise a Vantage domain, including settings and options, Vantage catalogs, Vantage stores, Vantage services, licenses, workflow design items, and client application configurations. The Vantage Management Console also provides real-time status details for services, machines, and the domain at large, plus a domain backup/restore utility and other support utilities.

The Vantage Management Console manages a single Vantage domain at a time.

CAUTION: Although the Vantage Management Console is a multi-user application, modifying a domain is intended to be done by one user on one domain at a time. Connecting multiple consoles to the same Vantage domain for any other purpose than viewing status and configuration details is not recommended and can lead to domain configuration problems.

Each Vantage domain includes a single Vantage domain database, which consists of a Microsoft SQL Server instance, Vantage domain database software, and database files. All configurations that you create with the Vantage Management Console are stored in the Vantage domain database.

Many organizations implement Vantage as a single domain. However, in large facilities, you may have several separate and independent Vantage domains for scaling to high-volume workflow processing or for specialization and departmentalization purposes.

In a facility with multiple Vantage domains, you can connect to any Vantage domain in the network from any Management Console in the network.

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Starting the Vantage Management Console

To start the Management Console, do one of the following:

- Select Start > Programs > Telestream > Vantage > Vantage Management Console
- Double-click the Vantage Management Console shortcut on your desktop:

After you start the Vantage Management Console, your domain configuration may prompt you for additional information, which is described in the following topics:

- Selecting a Domain
- Entering a Username and Password

Selecting a Domain

Each time you start the Vantage Management Console, the program connects to the last domain to which it was connected. If you are starting the program for the first time, the Vantage Management Console polls the network for domains in the same subnet, and displays the domains that responded in a list, as depicted in this figure.
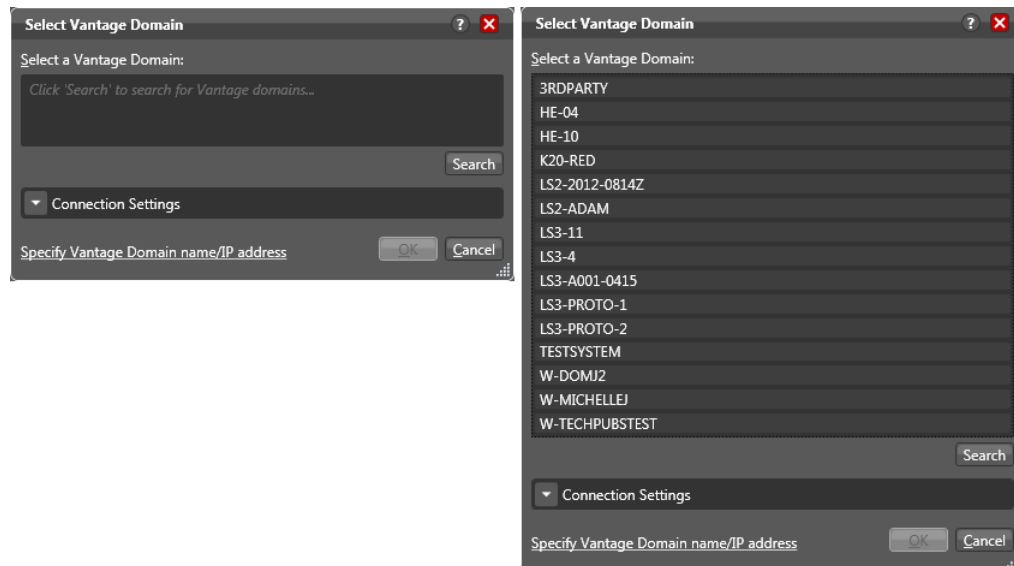
The name for each Vantage domain is the name of the computer that hosts the Vantage domain database. If you do not know which domain you should connect to, see your Vantage domain administrator.

To select a domain, do the following:

1. Click Search. Select the desired domain if it appears in the list (as shown in the figure above).

2. If the Vantage domain's SQL database default username and password were changed during installation, do the following:

a. Click Connection Settings to display a dialog that you can use to specify the correct username and password for the MS SQL Server (see the figure, below).
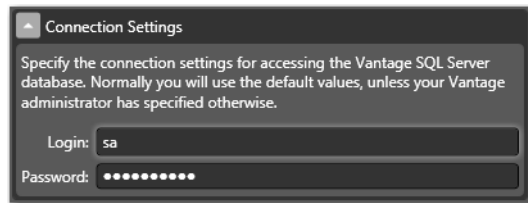
b. Enter the Vantage domain database SQL Server account username and password (obtained from your Vantage administrator).

3. If the domain you want is not in the list (not in your current subnet), do the following:

a. Click *Specify Vantage Domain name/IP address* in the bottom left corner to display a dialog to manually enter the domain, as shown here:
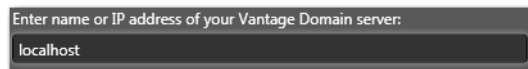
b. Enter the domain name or IP address of the server that hosts the Vantage domain database (for example, *VantageServer203* or *192.168.1.1*).

If you do not know IP address of the server that hosts the Vantage domain database, see your Vantage domain administrator.

4. Click OK to continue.

Entering a Username and Password

User administration requiring login is disabled by default in Vantage. However, if it is enabled, when you start the Vantage Management Console and access a Vantage domain, you are asked to log in (the figure, below) by providing a Username and Password. The login is your Vantage user name and password, or if Active Directory is enabled, your Windows Active Directory user name and password. (See *Managing Vantage Users* for login details.)
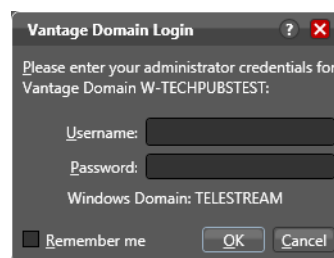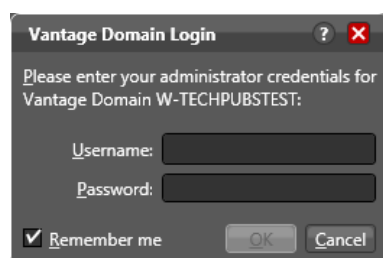
If the dialog prompts for credentials to a domain you cannot or do not want to access, click Cancel and select the domain to which you want to connect as described in *Selecting a Different Domain*.

When the dialog displays the correct domain name, enter your username, and password, if required, and click OK to connect.

The default Vantage user is *Administrator*, with no password assigned, and this user has Administrator privileges. Only Vantage users who are administrators can log into the Vantage Management Console.

Note: All user passwords are encrypted in the Vantage domain database.

Managing the Vantage Domain Connection

Vantage Management Console connects to one domain at a time. You must connect to a domain before you can use the Vantage Management Console to manage that domain. In an environment where more than one Vantage domain is operating, you can use the same Management Console to connect to any single domain.

The following topics describe tasks for managing your domain connection:

- Identifying the Selected Domain
- Selecting a Different Domain

Identifying the Selected Domain

Each Vantage domain is identified by the name of the computer on which the Vantage domain database instance is running. To determine the domain to which the Management Console is currently connected, note the [Vantage domain name : user name] in the window title as shown in the   figure below.

Current Vantage [Domain : User] shown in title area
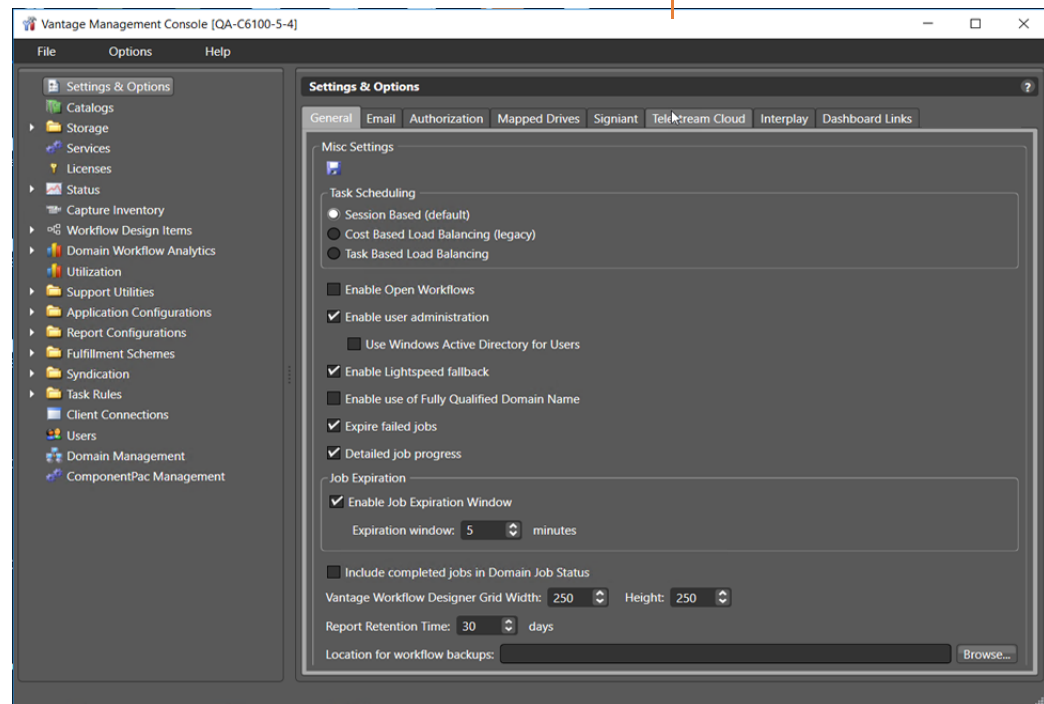
Selecting a Different Domain

To select a different Vantage domain, do the following:

1. Select File > Recent Domains, and choose from the list of recently used domains. Click OK in the dialog shown below. (You can also enter a domain name or IP in the dialog shown and click OK.)
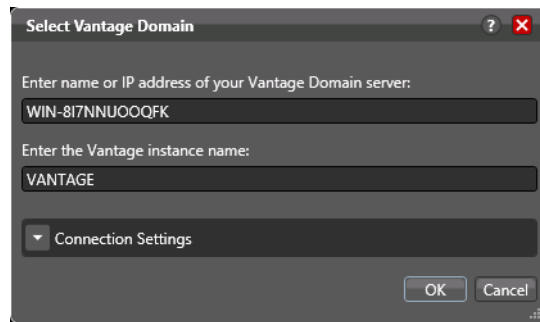
2. If the domain you want is not shown, click File > Change Vantage Domain.
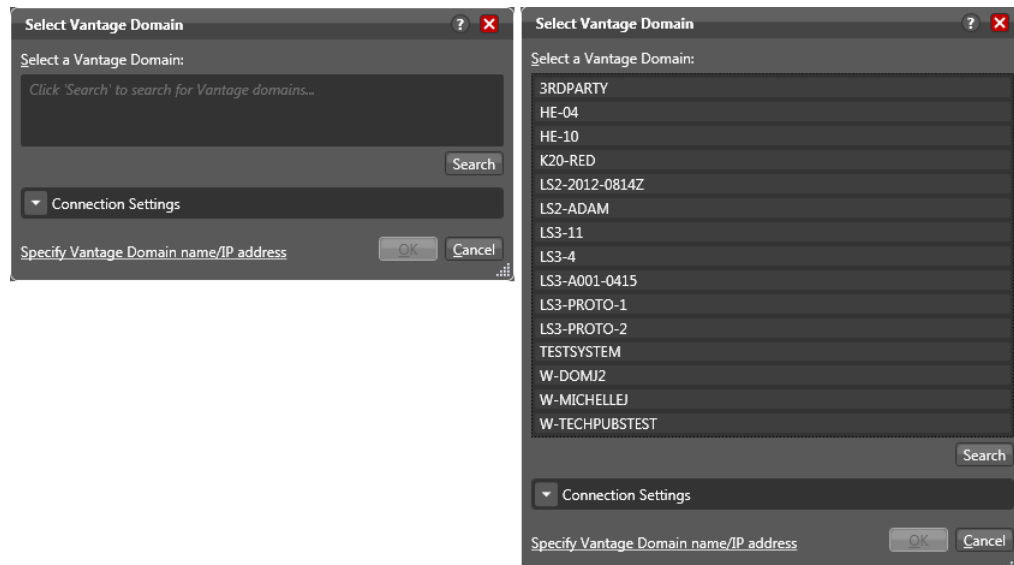
3. Select a domain from the list and click OK. (For more details, see *Selecting a Domain*.)

When you change domains, the Vantage Management Console closes its connection to the current domain's Vantage domain database and connects to the new domain's database, refreshing the details of all of its components.

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Using the Vantage Management Console Workspace

The Vantage Management Console window displays two panels that show Vantage configuration components and configuration settings as shown in this figure:

Components Panel   **Details Panel**
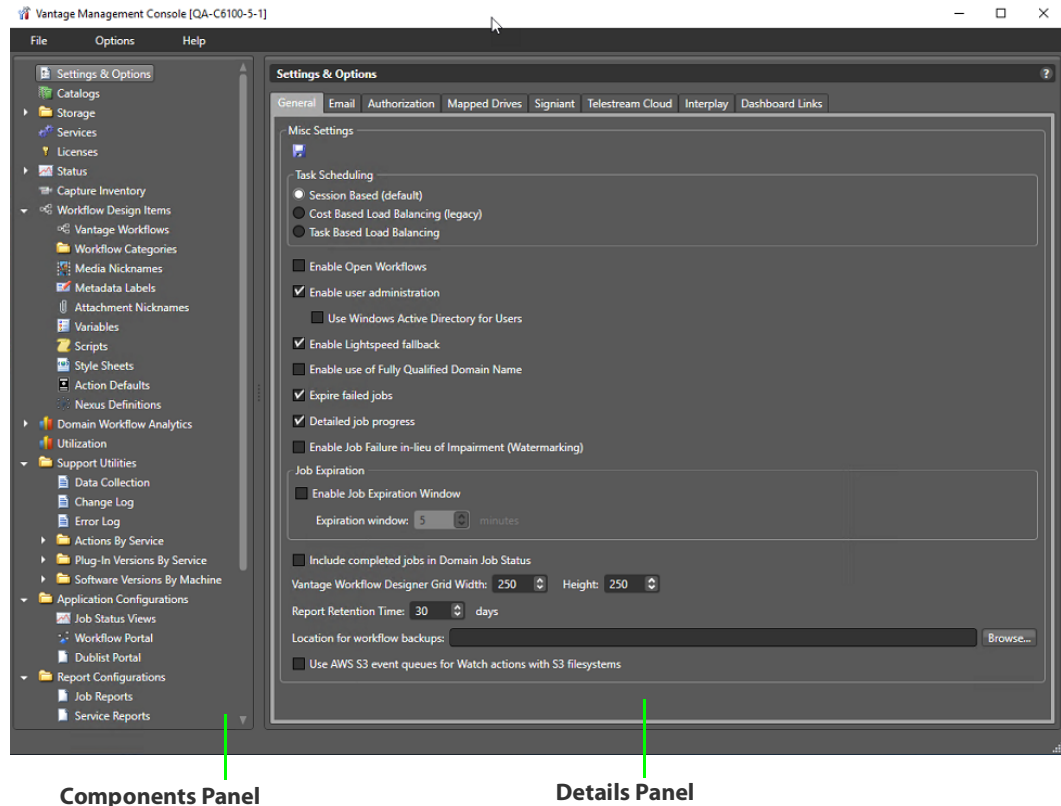
Panel
Components Panel

On the left is the Vantage components panel, which lists Vantage configuration components.

Details Panel

To the right of the components panel is the details panel, which lists the configuration settings for the Vantage component selected in the components panel.

For example, when you select the Settings & Options component, the details panel displays all the configuration options for this component as shown in the figure above. For the Settings and Options component, the details panel options are divided into four tabs. The details panel for other components is further divided into subpanels. These tabs and subpanels help to organize the configuration options.

Managing Tips and Warnings

To restore tip and warning messages that were previously disabled by clicking *Don't show me this again*, select Options > Restore Tips & Warnings. When tips and warnings are restored, these tips and warnings display as you interact with the Vantage Management Console.

To disable all tip and warning messages select Options > Hide Tips & Warnings. These messages can also be individually disabled by clicking *Don't show me this again* when they appear.

Using the Help System

The Vantage Management Console provides the following help documentation:

■ Context-Sensitive Help

■ The Vantage Domain Management Guide

■ Tool Tips

■ Online Help

Context-Sensitive Help

When you are using the Vantage Management Console, context-sensitive help displays the appropriate section of the Vantage Domain Management Guide (which is this guide). For example, if you select the Storage component in the components panel and open context-sensitive help, Vantage displays the Managing Vantage File Storage section of this guide. To start context-sensitive help, press F1 or click the ? button.

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The Vantage Domain Management Guide

The Vantage Domain Management Guide is available in PDF and program help formats. When you use context-sensitive help, you are opening the program help version of this guide to a section appropriate for the configuration settings you are viewing. You can also open this guide by selecting one of the following:

- Help > Contents—Displays the table of contents of this guide.
- Help > Index—Displays an index for this guide.
- Help > Search—Displays a search panel that you can use to search for information.

The Favorites tab in the help program can be used to save and display topics you want to quickly access. While viewing a help topic, click the Add button to add the current topic to the favorites list. To remove a topic, select the topic and click Remove.

Tool Tips

Tool tips display information about buttons and configuration options in the Vantage Management Console. To display the tool tip for a button or option, hover the cursor over the button or option.

Online Help

The latest documentation is posted on the Telestream.net Web site. To quickly access the Telestream online documentation from within Vantage Management Console, select Help > Online Help.

Note: Access to the Vantage Online Help requires an Internet connection.

Displaying Software and Database Versions

The Vantage software version is listed in the Help menu of Vantage programs. To view the software version of a Vantage program, select Help > About....

The Vantage database version is listed in the Help menu of the Vantage Management Console and the Vantage Workflow Designer. To view the Vantage database version in those programs, select Help > Database Version.

You can also find versions listed in the Vantage Management Console > Support Utilities > Software Versions by Machine folder. Click on a machine name in the folder to display the Vantage version and Vantage services versions installed on that machine.

Vantage Management Console Reference

The following topics provide descriptions of Vantage Management Console controls:

■ Vantage Management Console Menus

■ Vantage Component Descriptions

Vantage Management Console Menus

This table describes the Vantage Management Console menus.

Menu	Selection	Description
File	Change Vantage Domain	Displays a dialog that you can use to select another domain as described in *Selecting a Domain*.
	Recent Domains	Lists recently accessed domains. Select one to open a dialog for accessing that domain.
	Exit	Quits the Vantage Management Console Program.
Options	Restore Tips & Warnings	Restores tip and warning messages after they have been disabled. See *Managing Tips and Warnings*.
	Hide Tips & Warnings	Hides tip and warning messages. See *Managing Tips and Warnings*.
	Prompt for login next time application is launched.	When this selection is checked (enabled), a password is required for the next login. If unchecked, Vantage remembers the password and does not ask for it next time the user launches the Vantage Management Console application.
Help	Contents	Displays the contents of this guide in program help.
	Index	Displays an index of this guide in program help.
	Search	Displays a search panel that you can use to search for information in the program help.
	Online Help	When you are connected to the Internet, this option opens the Vantage documentation Web page in your browser.
	About	Displays version information for the Vantage Management Console program.
	Database Version	Displays the version number of the Vantage Domain Database.

Vantage Component Descriptions

This table describes the components in the Vantage Management Console components (left) panel.

Parameter	Description
Settings & Options	Use this panel to display settings that configure Vantage operation. Tabs include General for overall settings, Email for configuring automated notifications, Authorization for adding user accounts, Mapped Drives for mapping Windows drives to UNC paths, Signiant for configuring a Signiant server connection, Telestream Cloud for adding account information used by the Cloud Flip action, Interplay for server login for the Interplay actions, and Dashboard Links for adding your own URLs to the Web Apps panel. For details, see *Settings and Options* in this chapter and also *Managing Settings and Options* in the *Managing the Vantage Domain* chapter.
Catalogs	The Catalogs panel allows you to manage catalogs and the binders they contain. For more information, see *Managing Catalogs with the Vantage Management Console* in the *Vantage Domain Management Guide* or the *Vantage Workflow Administration Guide*.
Storage	The Storage panel allows you to manage the Vantage Stores and Vantage Folders where Vantage files are stored. For more information, see *Managing Vantage File Storage* in the *Vantage Domain Management Guide* or the *Vantage System Administration Guide*.
Services	Use the Services panel to configure Vantage services. Using a right-click, you can put services in or out of Maintenance mode or restart them. Using the tabs at the bottom, you can manage various service settings. For details, see *Managing Services* in the *Vantage Domain Management Guide* or the *Vantage System Administration Guide*.
Licenses	Use the Licenses panel to view, add, delete, and deactivate licenses for Vantage features. For more information, see *Managing Licenses* in the *Vantage Domain Management Guide* or the *Vantage System Administration Guide*.
Status	The Status selections allow you to monitor and manage performance of actions, machines, and the domain. See *Viewing Status* in the *Vantage Domain Management Guide* or the *Vantage Workflow Administration Guide*.

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Parameter	Description
Capture Inventory	The Capture Inventory panel is a Vantage Live Capture feature that shows live capture sources present in the domain. See the *Vantage Live Capture Guide* for details.
Workflow Design Items	See *Managing Workflow Design Items* in the *Vantage Domain Management Guide* or the *Vantage Workflow Administration Guide* for the following topics describing Workflow Design Items menu selections: • *Managing Vantage Workflows* • *Managing Workflow Categories* • *Managing Media Nicknames* • *Managing Metadata Labels* • *Managing Attachment Nicknames* • *Managing Variables* • *Managing Scripts* • *Managing Style Sheets* • *Managing Action Default Settings* • *Managing Nexus Definitions*
Domain Workflow Analytics	See *Viewing Workflow and Action Analytics* in the *Vantage Domain Management Guide* or the *Vantage Workflow Administration Guide*.
Utilization	Shows a bar graph of the average demand for a selected service type over a specified time period across the entire Vantage domain. Waiting times for complete sessions are used to color-code the graph, adding a visual indication of the waiting times resulting from the demand. This graph can be viewed on a day-by-day or hour-by-hour basis. See *Monitoring Utilization* in the *Vantage Domain Management Guide* for details.
Support Utilities	Use the Support Utilities panel to access Vantage utilities. Search the Vantage Domain Management Guide for the following topics for details: • *Using the Data Collection Utility* • *Using the Change Log* • *Using the Error Log* • *Listing Actions By Service* • *Displaying Plug-in Versions* • *Displaying Software Versions by Machine*

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Parameter	Description
Application Configurations	Use the Application Configurations panel to select a Vantage application to configure. For more information, see these topics in the *Vantage Domain Management Guide*: • *Configuring Job Status Views* • *Setting up Workflow Portal* • *Creating Dublist Portal Configurations and Dublist Schemes*
Report Configurations	See *Creating Report Configurations* in the *Vantage Domain Management Guide* or the *Vantage Workflow Administration Guide*.
Fulfillment Schemes	See *Creating Dublist Portal Configurations and Dublist Schemes* in the *Vantage Domain Management Guide*. Also see *Configuring Catch Server Schemes*.
Syndication	Provides the capability of creating templates for use by the TrafficManager Syndication feature. See the *Managing the Vantage Domain* chapter in the *Vantage Domain Management Guide*, and see the *TrafficManager User Guide*.
Task Rules	Allows creating multiple rules to govern machine and domain capacities under different operating circumstances. See *Managing Task Scheduling and Load Balancing* in the *Vantage Domain Management Guide*.
Client Connections	Presents a list of all open Vantage clients and their hosts.
Users	Use the Users panel to manage how Vantage users access and use Vantage features. For more information, see *Managing Vantage Users* in the *Vantage Domain Management Guide* or the *Vantage System Administration Guide*.
Domain Management	Use the Domain Management panel to back up and restore or shrink the Vantage domain database. For more information, see *Backing Up and Restoring the Vantage Domain Database* in the *Vantage Domain Management Guide* or the *Vantage System Administration Guide*.
ComponentPac Management	Allows installing and uninstalling updates to Vantage actions and services using ComponentPacs. This method makes smaller, more frequent Vantage updates possible. For details, see *Managing ComponentPacs* in the *Vantage Domain Management Guide*.

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Settings and Options

The table below provides descriptions and references for the Settings & Options parameters.

Tab	Parameter	Description
General	Check one of the following Task Scheduling modes: - Session Based - Cost Based - Task Based	Enables the selected method of task scheduling. For more information, see *Managing Task Scheduling and Load Balancing* in the *Vantage System Administration Guide* or the *Vantage Domain Management Guide*.
	Enable Open Workflows	Enables the Open Workflows option. To create Open Workflows, you must also enable them in specific workflows and actions. For details, see the *Vantage User Guide*.
	Enable user administration	Enables or disables Vantage user management. Includes a check box to enable using Windows Active Directory, so your users can log in with their Windows credentials. See *Managing Vantage Users* in the *Vantage System Administration Guide* or the *Vantage Domain Management Guide*.
	Enable Lightspeed Fallback	Allows jobs to run on CPU-based servers when all Lightspeed GPU servers are unavailable.
	Enable use of Fully Qualified Domain Name (FQDN)	Enables Vantage services to use an FQDN for identification. An FQDN follows this pattern *[host name].[domain].[top level domain]*, for example, *myhost.telestream.net*. Restart all services after changing this selection. After restart, the services will display messages indicating that they are using FQDN.
	Expire failed jobs	See *Enabling and Disabling Expiration of Failed Jobs* in the *Vantage Workflow Administration Guide* or the *Vantage Domain Management Guide*.
	Detailed job progress	When enabled, displays more detailed job progress information in the Workflow Designer Job Status table Progress column. When disabled, displays less detailed information. Enabling increases database activity, potentially reducing performance, especially on an all-in-one domain.

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Tab	Parameter	Description
	Enable Job Failure in Lieu of Impairment (Watermarking)	When enabled, jobs will fail when a license feature is unavailable in lieu of watermarking. Disabled by default.
	Job Expiration	When enabled, allows user specified time period for job expiration based on arrival of new jobs.
	Include completed jobs in Domain Job Status	Disabled by default. When this feature is enabled, the Workflow Designer Domain Job Status tab shows all jobs in the Vantage domain, including completed jobs.
	Vantage Workflow Designer Grid	See *Setting the Vantage Workflow Designer Grid Width/Height* in the *Vantage Workflow Administration Guide* or the *Vantage Domain Management Guide*.
	Report Retention Time	Determines how many days of historical logging to retain (for use in historical *Service Reports*). The default is the past 30 days, and the range is 1 day to 730 days (2 years). See *Service Reports* in the *Vantage Workflow Administration Guide* or the *Vantage Domain Management Guide*.
	Location for workflow backups	Browse to specify a UNC location where workflow backups can be saved when actions are upgraded. If not specified, backups are stored on the local drive in a VantageWorkflowBackup directory.
	Use AWS S3 Event Queues for Watch actions with S3 Filesystems	When enabled, Monitor actions such as Watch/Associate which are targeting an S3 filesystem will use event based mode. If disabled (default), actions fall back to directory listing mode.
Email	Credentials for sending email notifications about Vantage events	See *Monitoring Utilization* in the *Vantage Domain Management Guide*.
Authorization	Credentials for Vantage remote login to storage	See *Specifying Authorization Credentials for Remote Folder Access* in the *Vantage Domain Management Guide*.
Mapped Drives	Map network drives to UNC path	See *Assigning Mapped Drives* in the *Vantage Domain Management Guide*.

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Tab	Parameter	Description
Signiant	Credentials for remote login to Signiant	Allows saving credentials for connecting to Signiant servers from Vantage workflows. See *Configuring a Signiant Connection* in the *Vantage Domain Management Guide*.
Telestream Cloud	Credentials for logging into Telestream Cloud	Allows saving credentials for connecting to Telestream Cloud from Vantage workflows. See *Configuring Telestream Cloud Settings* in the *Vantage Domain Management Guide*.
Interplay	All	Allows saving credentials for connecting to Interplay servers from Vantage workflows. See *Configuring Interplay Settings* in the *Vantage Domain Management Guide*.
Dashboard Links	Controls for creating, deleting, saving, importing, and exporting frequently used URLs.	Provides controls for entering and saving URLs that appear on the Vantage Web Apps page as "bookmarks" to frequently used links. See *Creating Dashboard Links*.

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Managing the Vantage Domain

This chapter describes how to manage a Vantage domain. Topics are arranged in the order of the Management Console left panel.

Some topics are covered in the *Vantage Workflow Components* chapter of the *Domain Management Guide* because they are more closely related to workflow design than system administration. These include Catalogs, Workflow Design Items, Domain Workflow Analytics, Application Configurations, Report Configurations, and Fulfillment Schemes.

Note: Features in products for which you don't have a license are disabled and indicate that you need a license to use them.

The following topics describe how to manage a Vantage domain:

- Managing Settings and Options
- Managing Vantage File Storage
- Managing Services
- Managing Licenses
- Viewing Status
- Monitoring Utilization
- Using Support Utilities
- Managing Task Scheduling and Load Balancing
- Managing Vantage Users
- Managing Domains
- Managing ComponentPacs

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Managing Settings and Options

The Settings and Options left panel selection opens a set of tabbed panels on the right that control some of the overall features of Vantage.

- Making General Settings
- Configuring Vantage Email Notifications
- Specifying Authorization Credentials for Remote Folder Access
- Assigning Mapped Drives
- Configuring a Signiant Connection
- Configuring Telestream Cloud Settings
- Configuring Interplay Settings
- Creating Dashboard Links
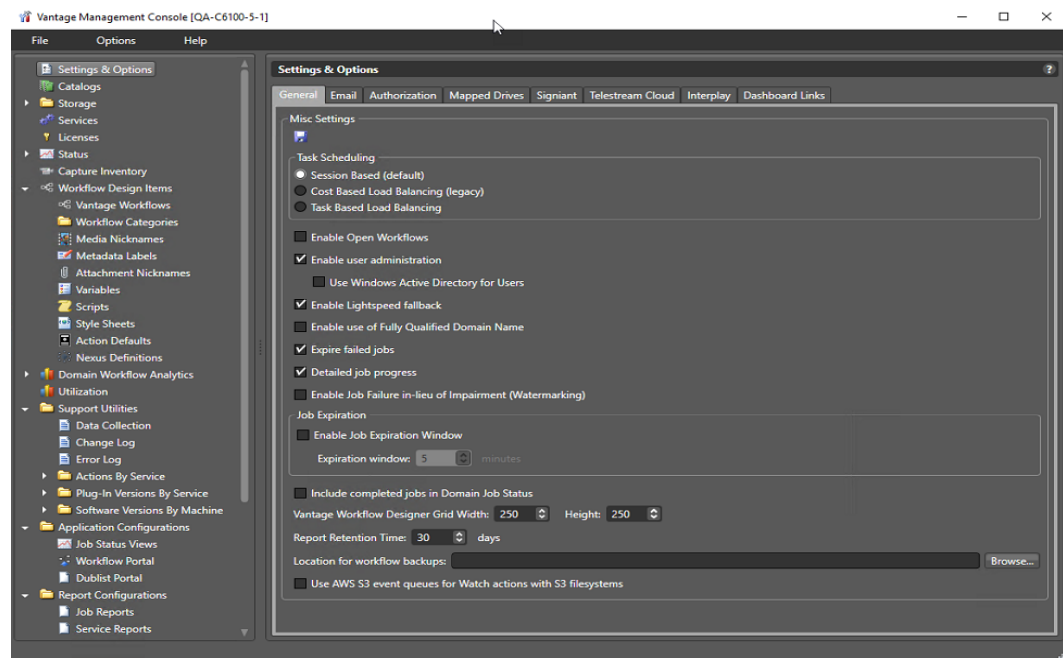
Making General Settings

The Settings and Options General panel includes the following selections:

- Task Scheduling—Enables task scheduling and load balancing. See *Monitoring Utilization* for details.

- Open Workflows—Enables the Open Workflows feature. This must be enabled and licensed before open workflows can be used in Workflow Designer. Refer to the *Vantage User Guide* for details about what open workflows are and how to use them.

- User Administration—Enables user administration, which allows an administrator to create user accounts and passwords for logging into Vantage clients. When disabled, no login is required to use the clients. If Active Directory is enabled, existing Windows user accounts are enabled, but the administrator still needs to add the specific users. To add users, select Users near the bottom of the left panel (see *Managing Vantage Users* for details about how to add users).

- Enable Lightspeed fallback—Check to allow Lightspeed actions to execute on a multicore server if a Lightspeed GPU server is not available when the action is ready to execute. Also see *Enabling Lightspeed Fallback* in the *Vantage Domain Management Guide*.

- Enable use of Fully Qualified Domain Name—Enables use of Fully Qualified Domain Names (FQDN) in Vantage. An FQDN follows this pattern *[host name].[domain].[top level domain]*, for example, *myhost.telestream.net*.

- Expire failed jobs—Check to allow failed jobs to be expired with other jobs. If disabled, failed jobs must be manually deleted. See also *Enabling and Disabling Expiration of Failed Jobs* in the *Vantage Domain Management Guide*.

- Detailed job progress—Check to include more details in job progress reporting. This feature may slow down overall system performance.

- Enable Job Failure in Lieu of Impairment (Watermarking)—Check to fail jobs rather than add a watermark.

- Job Expiration—When enabled, allows user specified time period for job expiration based on arrival of new jobs.

- Include completed jobs in Domain Job Status—Check to include completed jobs in the Workflow Designer Domain Job Status panel. Uncheck to exclude completed jobs.

- Workflow Designer grid size (visible only if Show Grid Lines is enabled in the WFD). See also *Setting the Vantage Workflow Designer Grid Width/Height* in the *Vantage Domain Management Guide*.

- Report Retention Time—deletes service report historical data after the number of days specified. See also *Generating Reports* later in this chapter.

- Location for workflow backups—Browse to specify a UNC path to the location where you want to store your workflow backups. See also *Backing Up and Restoring the Vantage Domain Database* later in this chapter.

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- Use AWS S3 Event Queues for Watch actions with S3 Filesystems—Enable to use event based mode for Monitor actions such as Watch/Associate which are targeting an S3 filesystem.

Configuring Vantage Email Notifications

Vantage can send email messages to announce workflow and service events.

Message actions in Vantage workflows can be configured to send email messages for workflow events. The configured email destination address can be for an individual, a system, or an alias for a group of Vantage users or administrators.

Note: Until you configure these settings, you will not be able to execute Message actions that utilize email in your workflows.

If a Vantage Service starts or stops running, or if a service fails, an email is sent to the administrator email address.

Note: An email is not sent when a Vantage Service enters or exits Maintenance Mode.

To manage email notifications, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console* in the Vantage Domain Management Guide.

2. In the components panel, select Settings & Options.

3. In the Settings & Options details panel, select the Email tab.

4. Configure the email parameters, which are described in the table below.

5. Click the Save button .

Option	Description
Hostname or IP Address	Supply the computer's host name or IP address of the SMTP server.
SMTP Port	Supply the port number of the SMTP server.
SMTP Host Requires Authentication	Check if the SMTP server is configured to require authentication.
Username and Password	Supply the user name and password if SMTP Host Requires Authentication is checked.
This server requires an encrypted connection (SSL)	Check this checkbox if SMTP server requires an encrypted connection.
Administrator Email Address	Supply the email address of the Vantage administrator. The email specified for this account can be an alias for a larger group, maintained by your IT department.
Send Test Email	Click to test your settings by sending an email to the administrator email address.

Option	Description
Email administrator upon service starting	Check to email the administrator when a service starts. For example, if a Vantage machine hosting an Analysis and a Monitor service is started without any problems, two emails are sent reporting the starting of each service.
Email administrator upon service stopping	Check this checkbox to email the administrator when a service stops.
Email administrator upon service failure	Check to email the administrator when this service fails (crashes or otherwise stops unexpectedly). For example, if a Vantage Analysis service is stopped from the Task Manager (forced termination), an email is sent to the administrator. Or, if a Vantage Analysis service crashes during start-up, an email is also sent to the administrator.

Specifying Authorization Credentials for Remote Folder Access

This feature allows you to specify credentials (username and password) for a folder that is not located in the Windows domain or workgroup for which the Vantage application is authorized. For example, if Vantage services are configured with a username and password for Domain A or Workgroup A, but output files must be saved to a folder in Domain B or Workgroup B, you can use this feature to specify the credentials to access the remote folder.

The following topics provide information on managing authorization settings:

- Understanding Authorization Settings
- Displaying the Authorization Settings
- Refreshing the Authorization Record List
- Adding an Authorization Record
- Modifying an Authorization Credentials Record
- Deleting an Authorization Credentials Record
- Exporting and Importing Authorization Records

Understanding Authorization Settings

Authorization settings are considered supplemental to Windows account and share settings, which should be your primary means of providing access and authentication to required storage for Vantage services. When accessing computers in workgroups, Vantage administrators should make sure that Vantage services are running under an account that has access to the locations that will be referenced. If this is done, then authorization records are unnecessary unless some computers must have unique accounts.

Use the Authorization Settings tab when Vantage services must access shares using an account different from the Vantage Windows logon account. Authorization Settings allow you to create, test, and manage multiple credentials for various Windows shares (on Windows computers) or UNC paths.

When each service starts, it reads all authorization records and stores them for use at runtime, as necessary. For example, the transport service may be called to execute a Copy action, which needs to write a file to a share or a non-domain server and directory, where the service is not authorized by its own account. The transport service will process the authorization records based on the path supplied, to determine if it can gain authority via one of its authorization records.

Note: Authorization settings should only be used when the normal Windows account and share settings do not provide access to necessary shares: for example, shares on other Windows domains, or on workgroups.

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The purpose of entering authorization records is to enable Vantage to maintain this information for network locations—*independent of the authentication inherent with the logon account of a specific service*—the Vantage Monitor Service, for example. If you know that a specific service does not have the authorization to utilize a given network location, you can create an authorization record to provide credentials.

When you provide authorization records for a network location, any service in the domain can utilize it.

It is important to understand that when you access network locations via Workflow Designer, the locations you navigate to are accessed with Workflow Designer's logon account permissions—which may be different than the logon account for Vantage services.

However, these locations will ultimately be accessed by Vantage services during execution of your workflow—services which may have different users and permissions. Therefore, you need to take the extra step of ensuring that the service, which will be accessing this share at workflow runtime, has authenticated access to the location.

Additionally, authentication does not control sharing and security permissions (for example, access, and read/modify/delete/write permissions). Make sure that when you set up network locations, you have set each location with the proper permissions for the user accounts that will access it.

After you add, modify, or delete a record, click the Save button 💾 to update the records in the Vantage domain database as encrypted data.

Displaying the Authorization Settings

To display the authorization settings, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Settings & Options.

3. In the Settings & Options details panel, select the Authorization tab.

Vantage displays the Authorization tab shown in this figure.
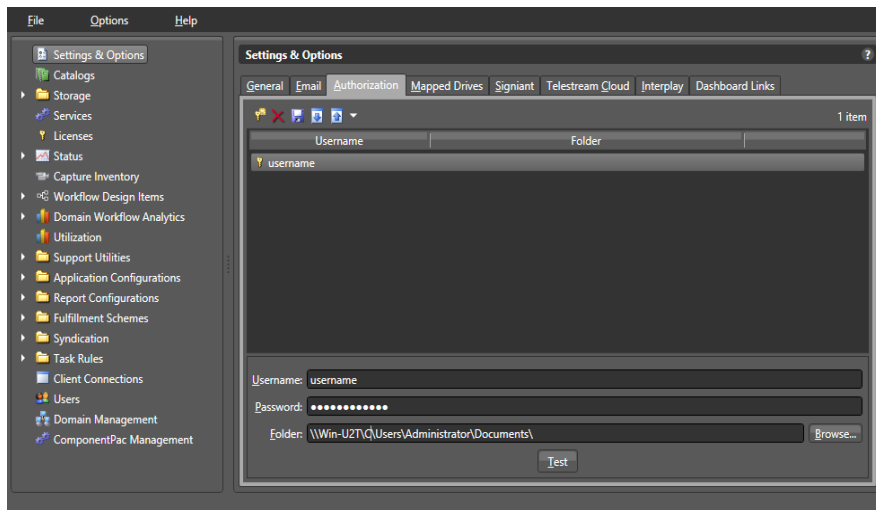
Refreshing the Authorization Record List

To refresh the list of authorization records, move a Vantage service in and out of maintenance mode as follows:

1. In the Vantage Management Console, click on Services in the details panel.

2. Right-click the target service and select Enter Maintenance Mode.

3. Right-click the service again and select Exit Maintenance Mode.

Adding an Authorization Record

Click the Add new credentials button 🔑 in the toolbar (or right-click and select Add new credentials or Import credentials), and supply the details. Click Test to validate the record, and click the Save button to add this validated authorization record to the database for use by all Vantage services in the domain.

Option	Description
Username	Enter the authorized username required to access the Windows share identified by the UNC path.
	If the user account is part of a Windows domain, the username must include the domain or computer name, in the format *domain\username* or *ComputerName\Username.* For example, `SierraVideo\Vantage` or `NewsServer\Bill`.
	If the username is part of a workgroup (a non-domain account), you must provide the machine name in addition to the user name. For example, if you want to use the account: *VantageUser* that exists on machine *FooServer1*, you should specify *FooServer1\VantageUser*.
Password	Enter the authorized password for the Windows share.
Folder	Click Browse and navigate to the Windows share you are authenticating. Or, enter it manually. The path must be in valid UNC form: *ComputerName\Sharename*.
Test	Click Test to verify that your credentials are entered correctly for access to the specified Windows share.

Modifying an Authorization Credentials Record

Click on the record you want to modify. Make changes to the username, password, and folder and click the Save button 💾 in the toolbar.

Deleting an Authorization Credentials Record

Click on the record you want to delete, click the Delete button ✖ in the toolbar (or right-click and select Delete), and click OK to confirm.

Exporting and Importing Authorization Records

Vantage allows you to export an authorization record to an XML file, which you can then use to import the same record into another Vantage domain.

To export all authorization records, click the Export drop down menu and select Export All. Use the file system dialog to save the exported records.

To export selected authorization records, do the following:

1. Select the record to export. Shift-click or Ctrl-click to select multiple records.
2. Click the Export button 🔳 (or right-click and select Export, or click the Export drop down menu and select Export Selected).
3. Use the file system dialog to save the exported record.

   The default file name is the record name, but you can change the file name.

Note: Changing the name of the XML file does not change the name of the record in the XML file.

To import an authorization record, do the following:

1. Click the Import button (or right-click and select Import credentials).

2. Use the file system dialog to locate and select the record to import, then click Open.

Note: If you try to import an authorization record that is already in this Vantage domain, Vantage prompts you to overwrite the record (click Yes) or cancel the import (click No).

Assigning Mapped Drives

The Mapped Drives tab under Settings and Options in the Management Console includes a panel that allows you to assign existing network drives with drive letters assigned in Windows to the same drive letters within Vantage and then map the letters to UNC paths. This feature supports generic Windows mapped drives, not special SAN mapped drives.

The Workflow Designer, for example can access a mapped drive by letter and have that mapping translated to a UNC path, saving the time and trouble of looking up and supplying a network path each time the drive is used in a Vantage action.

Note: The Vantage Mapped Drives feature maps drive letters to UNC paths. This feature makes data sharing easier among Vantage servers when some servers have a drive letter mapped directly to storage and others do not. Those that do not can be mapped in Vantage so that all Vantage servers can share data with that storage location. The feature should not be used when all Vantage servers already have a mapped connection, such as a fiber-channel connection to a SAN system. In such a case, the fiber connections are much faster than a UNC path connection, so using the Vantage mapped drive to a UNC path would result in a slower connection and a less efficient network.

To map a drive in the Mapped Drives panel, follow these steps:

1. Ensure the drive you want to map in Vantage has already been mapped to a drive letter in Windows > Tools > Map Network Drive. Arrays require all systems in the array to map the drive to the same drive letter.

2. Select Settings & Options in the Management Console left Components panel.

3. Select the Mapped Drives tab in the main panel (the figure).

4. Check the Enable mapped drives option.

5. Select the new drive icon 🖼 in the top tool row. A drive is added to the drive list.

6. Select a drive letter matching the assigned Windows drive letter using the drop-down Drive menu near the bottom of the panel.

7. Enter a path to the drive using the UNC Path field. The form of the path is \\machine\folder\subfolder\.

8. Click Save in the top tool row to save the mapping of the drive to the path.

   A dialog informs you to restart Vantage services to make the new drive available.

Once the drive letters are mapped to paths, when you specify a drive letter in a Vantage application, the UNC path is automatically used to access the desired drive.
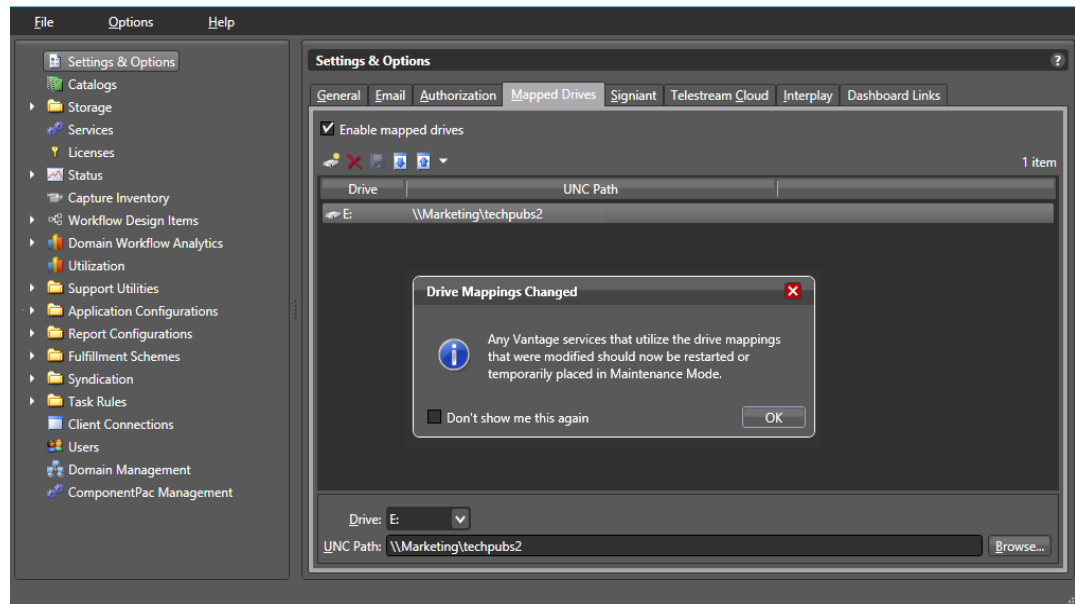
Configuring a Signiant Connection

When you configure a Signiant connection, you enable the Vantage domain to communicate with the Signiant server by supplying required credentials. The optional Signiant Delivery action can then be used to deliver files to Signiant-enabled servers. The Vantage Signiant Delivery action uses the Signiant feature, which must be licensed on the Signiant server. A Signiant Agent must be configured in the Management Console before it can be used in a Vantage workflow.

To configure a Signiant Agent in Vantage and test its connection, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Settings & Options.

3. In the Settings & Options details panel, select the Signiant tab.

Vantage displays the Signiant agent configuration panel.
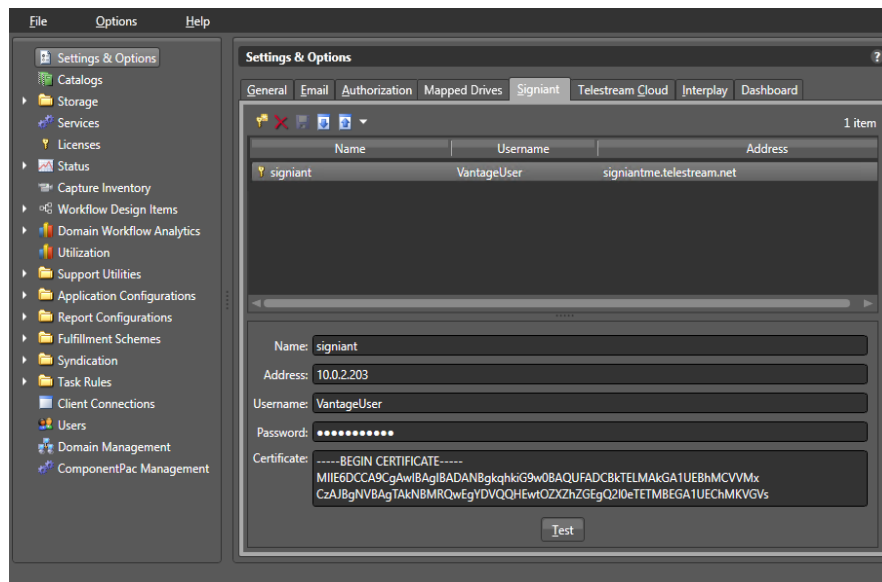
4. Click the Add New Setting button 🚩 in the toolbar (or right-click in the empty space below the button and select Add new setting).

5. In the Name field, enter a practical name for the Signiant server (for example, *Signiant-Vantage Server*).

6. In the Address field, enter the IP address or domain name of the Signiant server.

7. In the Username field, enter the username from your Signiant server.

8. In the Password field, enter the password associated with the username from your Signiant server.

9. In the Certificate field, paste the CA Certificate text copied from the Signiant server. For instructions on obtaining a CA Certificate, see the following *Signiant CA Certificate Instructions*.

10. Click the Save icon to save the new agent.

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11. To test the Vantage-Signiant connection, click Test at the bottom of the window.

You can add Agents as needed for each Signiant server.

Signiant CA Certificate Instructions

To get a CA Certificate to enable a Vantage-Signiant connection, follow the steps in either one of the two procedures that follow:

Use a Web Page to Get a Certificate

1. Use a Web browser to log into the Signiant server (e.g. signiant.sierrapost.com).

2. Navigate to Developer > CTE Test Configurations and click Add Configuration.

3. Enter a configuration name and configure settings for your system.

4. In the CA Certificate field (under Advanced Transfer Settings), select the certificate text and copy it (including the -----BEGIN CERTIFICATE----- and -----END CERTIFICATE----- lines).

5. Click Save at the bottom and close your Web browser.

6. Paste the certificate text into the Vantage Management Console > Settings & Options > Signiant > Certificate field as explained in the previous procedure (*Configuring a Signiant Connection*).

Use the Command Line to Get a Certificate

1. Log into the Signiant Manager host as an administrator.

2. In a terminal window, navigate to the Signiant bin directory.

3. Enter the command *dds_cert extract* to extract a certificate from the credentials store.

4. Open the text file named *ddsCA_Cert.pem* and copy the entire text (including the -----BEGIN CERTIFICATE----- and -----END CERTIFICATE----- lines).

5. Paste the certificate text into the Vantage Management Console > Settings & Options > Signiant > Certificate field as explained in the previous procedure (*Configuring a Signiant Connection*).

Deleting a Signiant Agent

To delete a configuration, do the following:

1. Display the Signiant configuration window.

2. Select the configuration to delete. (Ctrl-click or Shift-click to select multiple configurations.)

3. Click the Delete button ✖ (or right-click and select Delete).

4. When the confirmation dialog appears, click OK.

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Exporting and Importing Signiant Agents

Vantage allows you to export Signiant agents to files, which you can then use to import the same agents into another Vantage domain.

To export agents, do the following:

1. Select the agents to export. (Ctrl-click or Shift-click to select multiple views.)
2. Click the Export button ![export icon] to export selected agents (or right-click and select *Export*, or select *Export all* from the Export button drop down menu).
3. Use the file system dialog to save the exported agents.

   The default file name is the agent name, but you can change the file name.

Note: Changing the file name does not change the name of the agent in the file.

To import agents, do the following:

1. Click the Import button ![import icon].
2. Use the file system dialog to locate and select the agent file to import, then click Open.

Note: If you try to import an agent that is already in this Vantage domain, Vantage prompts you to cancel or confirm replacement.

Configuring Telestream Cloud Settings

The Telestream Cloud settings panel allows you to save Telestream Cloud account settings for use by Vantage Cloud Port, Cloud Flip, Cloud QC, and Cloud Speech actions. These actions send media to the Cloud for processing using the credentials you enter here to gain access. Before you can enter account settings in this panel, you must create an account on the Telestream Cloud web site.

To create an account on the Telestream Cloud web site, point your browser to this URL: https://cloud.telestream.net/. You will be prompted to log in or create an account. When you create an account, the Cloud web site asks you for a user name and provides you with an API Key for logging in from Vantage (as well as other keys for logging in directly). Once logged in, you will need to set up your account for working with Vantage, such as configuring your account for Vantage Cloud Port or creating and configuring "factories" for Cloud Flip actions, and configuring "projects" for Cloud QC and Cloud Speech actions. See the Telestream Cloud online documentation, tooltips, and live chat if you need help. For additional details, refer to the Vantage Cloud Port User Guide on the Telestream website.

After your account is fully configured, you can enter your Name and API Key in the Telestream Cloud panel of Vantage. The Cloud and Vantage Cloud Port actions in Vantage workflows use these credentials to automate logging into the Cloud and sending media to your account for transcoding:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Settings & Options.

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

   Vantage displays the Telestream Cloud configuration panel.
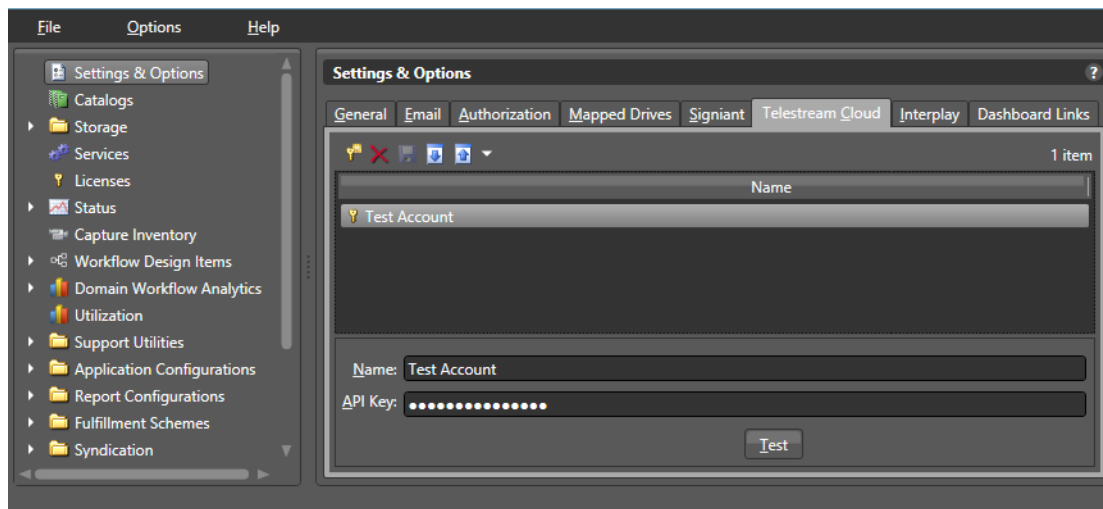
4. Click the Add New Setting button in the toolbar (or right-click in the empty space below the button and select Add new setting).

5. In the Name field, enter a practical name for the Telestream Cloud account.

6. In the API Key field, enter the API Key you received when you signed up for an account at the Telestream Cloud web site.

7. Click the Save icon to save the new account

8. 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 at logging into the Cloud account.

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

Deleting a Telestream Cloud Account

To delete a configuration, do the following:

1. Display the Telestream Cloud panel.

2. Select the account to delete. (Ctrl-click or Shift-click to select multiple accounts.)

3. Click the Delete button ✖ (or right-click and select Delete).

4. When the confirmation dialog appears, click OK.

   Note that deleting an account in Vantage does not delete the account on the Telestream Cloud web site.

Exporting and Importing Telestream Cloud Settings

Vantage allows you to export your Telestream Cloud settings to files, which you can then use to import the same accounts into the same or another Vantage domain.

To export, do the following:

1. Select the accounts to export. (Ctrl-click or Shift-click to select multiple views.)

2. Click the Export button to export selected accounts (or right-click and select *Export*, or select *Export all* from the Export button drop down menu).

3. Use the file system dialog to save the exported accounts.

   The default file name is the account name, but you can change the file name.

Note: Changing the file name does not change the name of the account in the file.

To import accounts from a previously exported file, do the following:

1. Click the Import button .

2. Use the file system dialog to locate and select the file to import, then click Open.

Note: If you try to import an account that is already in this Vantage domain, Vantage prompts you to cancel or confirm replacement.

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Configuring Interplay Settings

The Settings & Options Interplay panel lets you create, save, export, delete and import Avid Interplay server connection settings. When you configure an Interplay connection, you enable the Vantage domain to communicate with the Interplay server by supplying required credentials. An Interplay connection must be configured in the Management Console before it can be used in a Vantage workflow.

To configure an Interplay account in Vantage and test its connection, follow these steps:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Settings & Options.

3. In the Settings & Options details panel, select the Interplay tab.

   Vantage displays the Interplay configuration panel.
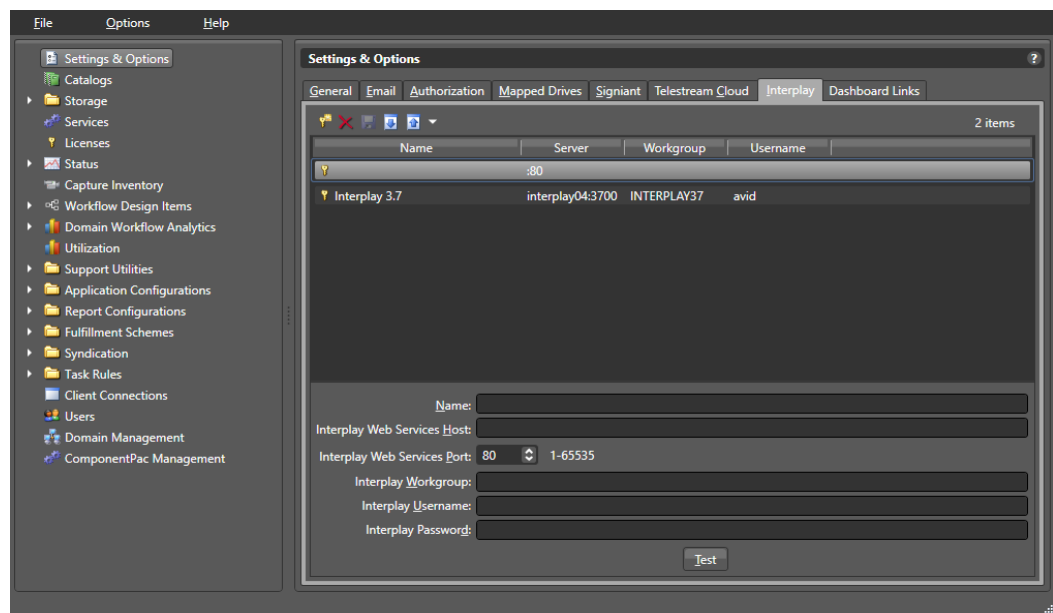
4. Click the Add New Setting button 🌳 in the toolbar (or right-click in the empty space below the button and select Add new setting).

5. In the Name field, enter a practical name for the Interplay server (for example, *Interplay-Vantage Server*).

6. In the Interplay Web Services Host field, enter the domain name of the Interplay server.

7. In the Interplay Web Services Port field, select or enter a port number (default 80).

8. In the Interplay Workgroup field, enter the work group name.

9. In the Interplay Username field, enter the user name expected by the Interplay server.

10. In the Interplay Password field, enter the Interplay user's password.

11. Click the Save icon to save the new agent.

12. To test the Vantage-Interplay connection, click Test at the bottom of the window.

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Exporting and Importing Interplay Settings

Vantage allows you to export your Interplay settings to files, which you can then use to import the same accounts into the same or another Vantage domain.

To export, do the following:

1. Select the accounts to export. (Ctrl-click or Shift-click to select multiple views.)

2. Click the Export button [icon] to export selected accounts (or right-click and select *Export*, or select *Export all* from the Export button drop down menu).

3. Use the file system dialog to save the exported accounts.

The default file name is the account name, but you can change the file name.

Note: Changing the file name does not change the name of the account in the file.

To import accounts from a previously exported file, do the following:

1. Click the Import button [icon].

2. Use the file system dialog to locate and select the file to import, then click Open.

Note: If you try to import an account that is already in this Vantage domain, Vantage prompts you to cancel or confirm replacement.

Deleting an Interplay Account

To delete an Interplay settings configuration, do the following:

1. Display the Interplay panel.

2. Select the account to delete. (Ctrl-click or Shift-click to select multiple accounts.)

3. Click the Delete button [icon] (or right-click and select Delete).

4. When the confirmation dialog appears, click OK.

Note that deleting an account in Vantage does not delete the account on the Interplay server but only deletes the account settings from Vantage.

Creating Dashboard Links

The Settings & Options Dashboard Links panel lets you create, save, export, delete and import URLs that appear as frequently used links on the Vantage Web Apps main page.

To configure an Interplay account in Vantage and test its connection, follow these steps:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Settings & Options.

3. In the Settings & Options details panel, select the Dashboard Links tab.

Vantage displays the Dashboard Links configuration panel.
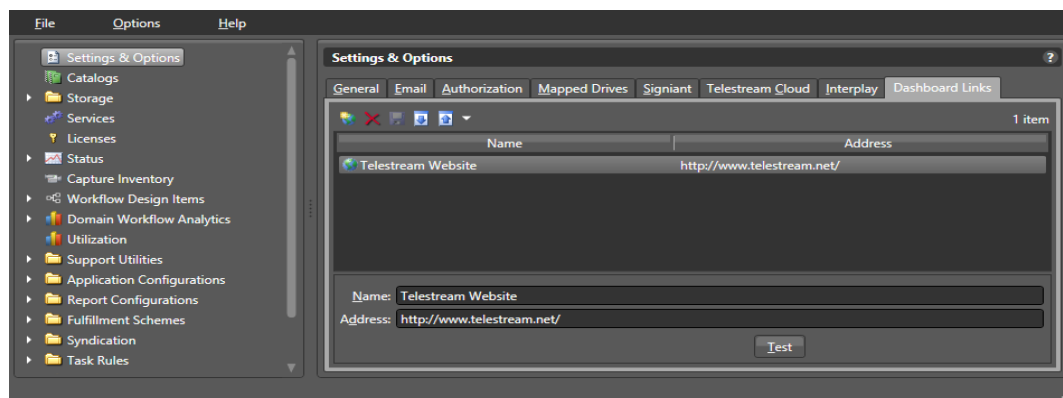
4. Click the Add New Dashboard Link button [icon] in the toolbar (or right-click in the empty space below the button and select Add new dashboard link).

5. In the Name field, enter a practical name for the link.

6. In the Address field, enter the URL for the link.

7. Click the Save icon to save the new dashboard link.

8. To test the new link, click the Test button. Your default browser should open to the web page you specified. Also open the Vantage Web Apps page and verify that the new link is present.

Exporting and Importing Dashboard Links

Vantage allows you to export your Dashboard links to files, which you can then use to import the same links into the same or another Vantage domain.

To export, do the following:

1. Select the links to export. (Ctrl-click or Shift-click to select multiple views.)

2. Click the Export menu [icon] (or right-click) and select *Export Selected*, or *Export all*.

3. Use the file system dialog to save the exported links file.

The default file name is the base URL, but you can change the file name.

Note: Changing the file name does not change the URL in the file.

To import a previously exported file, do the following:

1. Click the Import button ⬇.

2. Use the file system dialog to locate and select the file to import, then click Open.

Note: If you try to import a set of links that is already in this Vantage domain, Vantage prompts you to cancel or confirm replacement.

Deleting Dashboard Links

To delete Dashboard links, do the following:

1. Display the Dashboard Links panel.

2. Select the link to delete. (Ctrl-click or Shift-click to select multiple accounts.)

3. Click the Delete button ✕ (or right-click and select Delete).

4. When the confirmation dialog appears, click OK.

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Managing Vantage File Storage

Vantage storage is disk space that can be used to store files for Vantage processing. The following topics provide information on Vantage storage:

■ Understanding Vantage Storage

■ Understanding Path Specifications for Vantage Storage

■ Managing Vantage Stores

■ Managing Vantage Folders

Understanding Vantage Storage

Vantage storage is disk space that Vantage can use to store media files and attachments. Vantage storage is different from database storage, which stores data for Vantage configuration, job/binder status, and system status.

Vantage uses storage for purposes:

• Vantage stores—Managed disk space where media files and attachments are temporarily stored and automatically deleted when they are no longer referenced by a binder.

• Vantage folder addresses—Unmanaged disk space to which media files and attachments can be delivered, but from which files are not automatically deleted.

Vantage stores are defined in the Management Console. There are two types of stores that may be selected when created: Live Store and File Store. The two types are completely separate and cannot be used interchangeably. Live Stores are used by the Live Capture action for capture storage. File stores can be used in workflow actions that perform file operations (file stores).

Vantage file stores can also be associated with Vantage services for temporary storage (such as the location for a file that is being created during transcoding). Managed files remain in a Vantage store while either of the following is true:

• The files are referenced by a binder during job processing.

• The files are referenced by a binder that has been registered in a catalog, and the binder expiration date has not yet passed.

Vantage folders can be created in the console or in Vantage Workflow Designer. Like stores, Vantage folders can then can be used in workflow actions that perform file operations.

Transport actions that are responsible for saving files can use both stores and folders as file access and delivery points.

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Understanding Path Specifications for Vantage Storage

Vantage stores and folders can be specified using the following path forms:

- UNC form: *ComputerName**Sharename*
- Physical drive-letter form: *C:\\folder\\folder*
- Mapped drive managed by SAN client software (for example, StorNext)

Note: Vantage cannot access network locations defined using a Windows mapped drive unless you specifically enable mapped drives and map each drive to a UNC path using the Settings & Options/Mapped Drives panel. For all network locations other than properly configured SAN locations, you must use a UNC path to define network locations for Vantage use.

If all your Vantage services, clients, and storage are on the same server, you can use either path form. However, Telestream recommends always using the UNC path form.

The disadvantage to using the drive-letter path form is that the drive letter is defined on the local machine, and the drive letter does not identify the computer that hosts the drive. For example, if you specify a Vantage store on drive C: using the drive-letter path form and a Vantage Workflow Portal operator tries to view files in that store on a different computer, the Vantage Workflow Portal will search for those files on drive C: on the operator's computer, not on the Vantage server.

When any Vantage service or client program uses Vantage storage from a different computer, you must specify the path using the UNC form. You should also use the UNC form if you think you might ever support Vantage services or clients on another computer. You can change the path form later, but it is easier to use the UNC path form now, and it can prevent troubleshooting issues in the future.

Note: When services or clients will access Vantage storage from another computer, the Vantage storage location must be published as a share, and access must be granted to the appropriate Windows users. For more information, see *Windows Authentication Guidelines* in the *Vantage Domain Management Guide*.

When you want to use a SAN system, be aware that some SAN systems expose the shared drive as a letter (mapped) drive (for example, X:) that is visible on any client of the SAN. You can utilize SAN drives via a letter drive reference, provided that each Vantage server is a client of the SAN and that all mount points use the same letter.

Note: When creating a store to hold proxy files viewed in Vantage Workflow Portal, reference the store with a UNC path. Some SAN clients do not allow frame-accurate representation of proxies using shared drives.

Note: The Microsoft User Account Control (UAC) feature may deny access to Vantage stores or folders that are placed in protected locations. If Vantage users report that access to a store or folder is denied, place the store or folder in a directory that is not protected by UAC on the machine where the store or folder resides.

Managing Vantage Stores

Vantage stores management is performed in the Management Console. When you install Vantage in all-in-one mode, a default store named *Local Store* is created so that you can use Workflow Designer and access at least one store. You can add other stores as necessary.

To manage your stores, start the Vantage Management Console and select Storage > Vantage Stores in the components panel. Vantage displays the Vantage Stores detail panel shown in this figure, which shows helpful information such as the name, description, offline indicator, type, location, and total and free disk space available for the store, as well as space used.
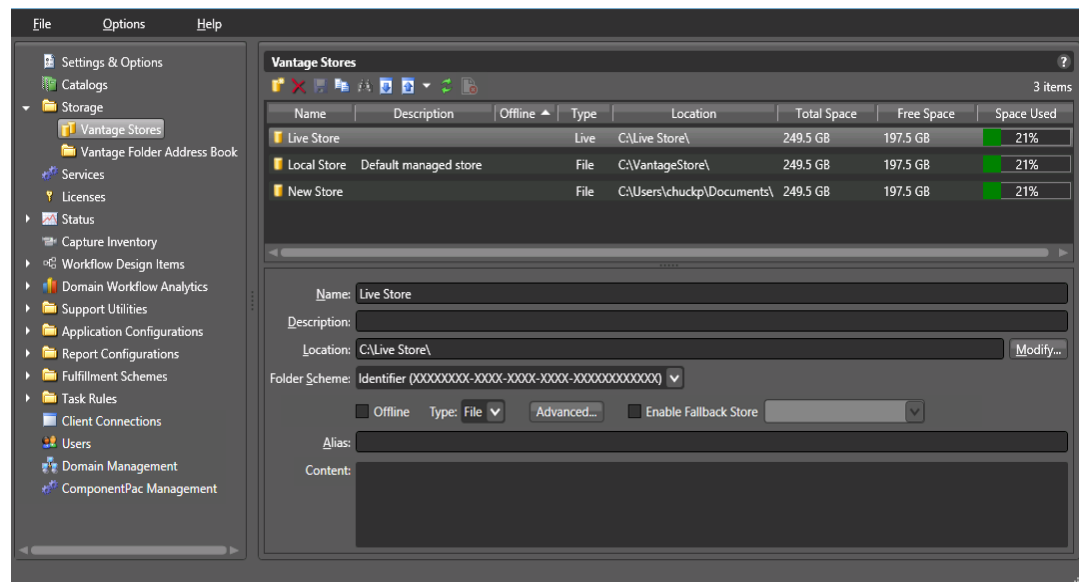
Use the Vantage Stores details panel to view, add, and configure stores. You also use the details panel to modify and delete stores.

The following topics describe how to manage Vantage stores:

■ Adding and Configuring Vantage Stores

■ Viewing Content in a Vantage Store

■ Modifying a Vantage Store

■ Moving a Store Online or Offline

■ Identifying Workflows that Use a Store

■ Setting the Block Size

■ Duplicating a Vantage Store

■ Exporting and Importing Vantage Stores

■ Deleting a Vantage Store

Note: The Alias feature (figure) supports the Web-based Vantage Workflow Portal application described in *Managing Web Workflow Portal Client Alias Support* in the

Vantage Domain Management Guide. The *Alias* field allows entering a path to a virtual Vantage store using this pattern: *http://IIShostname/Virtual Directory*.

Note: If a store's location becomes unreachable or invalid, such as if a system loses power, the store name and location will be flagged in red under the Vantage Stores listing in the Vantage Management Console. To prevent attempted usage of such stores by jobs in Vantage, Telestream recommends taking such stores offline until the issue can be resolved.

Adding and Configuring Vantage Stores

To add a new Vantage store, do the following:

1. Click the New Vantage Store button 📁 in the toolbar to display the Add New Store dialog (or right-click and select New Vantage Store).

2. Type a name for the store in the Name text box.

   The name that you enter here is the name that appears in Workflow Designer when an action is configured to access a media file or attachment.

3. To specify the store root directory with a UNC path (recommended), do the following:

   a. Click Modify to display the Browse for Folder dialog box.

   b. Open Network, open the computer name, and then select the root directory for the store.

   c. Click OK.

   You can also type a UNC path in the Location text box. For example, *Computer-Name\Sharename*.

Note: If the Vantage store is on a different computer, you must publish a share and grant access to the appropriate Windows users before it will appear in the Browse for Folder dialog. For more information, see *Windows Authentication Guidelines* in the *Vantage Domain Management Guide*.

4. To specify the store root directory with a drive letter path, do the following:

   a. Click Modify to display the Browse for Folder dialog box.

   b. Select a local folder.

   c. Click OK.

   You can also type a drive letter path in the Location text box. For example, *C:\folder\folder*.

Note: If you use a physical drive letter to specify a directory, only Vantage services and clients on the same computer can access the store. For more information, see *Understanding Path Specifications for Vantage Storage*.

   5. Select Store type.

      Options are File (standard Vantage store) and Live (special store type for Vantage Live Capture).

   6. Click OK.

   7. Click the Save button 💾 to save the new store.

Creating a Live Store

To make a Live Store for Lightspeed Live Capture, set the *Type:* to *Live*. For an ordinary Vantage Store to be used for non-Live workflows, set the *Type:* to *File*. The two types are completely separate and cannot be used interchangeably.

Viewing Content in a Vantage Store

The Content text box on the Vantage Stores page displays the content in the Vantage store. You can also use tools in the host file system (Windows Explorer, for example) to view the contents in the store. To refresh the display of contents, click the refresh button 🔄.

Modifying a Vantage Store

To modify a Vantage store, do the following:

   1. Select an existing store in the Vantage Stores list.

   2. To change the store name, type a new name in the Name text box.

   3. To enter a description for the store, type a description in the Description text box.

   4. To specify the store root directory with a UNC path (recommended), do the following:

      a. Click Modify to display the Browse for Folder dialog box.

      b. Open Network, open the computer name, and then select the root directory for the store.

      c. Click OK.

      You can also type a UNC path in the Location text box. For example, *Computer-Name\Sharename*.

Note: If the Vantage store is on a different computer, you must publish a share and grant access to the appropriate Windows users before it will appear in the Browse for Folder dialog. For more information, see *Windows Authentication Guidelines* in the *Vantage Domain Management Guide*.

   5. To specify the store root directory with a drive letter path, do the following:

      a. Click Modify to display the Browse for Folder dialog box.

      b. Select a local folder.

      c. Click OK.

      You can also type a drive letter path in the Location field, such as *C:\folder\folder*.

Note: If you use a local drive letter to specify a directory, only Vantage services and clients on the same computer can access the store. For more information, see *Understanding Path Specifications for Vantage Storage*.

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6. To specify a folder naming scheme for the store, select the scheme from the Folder Scheme drop down list.

   When content is placed in a Vantage Store, Vantage creates a subfolder in the Store location to save the files in. If you select Identifier, the subfolder is named by auto-generating a GUID. Date uses the current time and date stamp, and Name+Date uses the content name plus the time and date. For example, a Name+Date sub-folder for a media file named *Butterfly* would be named something similar to: *Butterfly_2010-09-17_01-59-50-5785*.

7. To take a Vantage store offline, check the Offline checkbox. Clear the checkbox to bring the store back online.

   For more information, see *Moving a Store Online or Offline*.

8. To modify store Type, select File or Live.

9. To set the block size used for the store access, click the Advanced button and follow the instructions in *Setting the Block Size*.

10. (Optional) Enable Fallback Store. When checked, allows specification of a fallback store to use if the specified store is unavailable. (File stores ONLY)

11. For information on managing aliases for the store, see *Managing Web Workflow Portal Client Alias Support* in the *Vantage Domain Management Guide*.

12. Click the Save button 🖫 to save the changes.

Moving a Store Online or Offline

There may be times when you want to move a Vantage store offline to perform maintenance. When a store is offline, the Offline column in the Vantage Stores list displays an X for all stores that are offline.

When you move a store offline, any jobs in progress that are using that store continue to run, but the offline store is no longer available for new jobs. A good practice is to take the store offline, let all jobs in progress for that store complete, and then perform the planned maintenance. If the store becomes inaccessible before the jobs in progress complete, the jobs in progress for that store fail.

To move a Vantage store offline or online, do the following:

1. Select an existing store in the Vantage Stores list.

2. To take a Vantage store offline, check the Offline checkbox. Clear the checkbox to bring the store back online.

   The Offline checkbox is disabled if the store is assigned to a Vantage service. To enable the offline checkbox in this situation, identify to which service the store is assigned, and place that service in maintenance mode. You can located which service is using the store by looking at the Storage tab for each service. For more information, see *Managing Services*.

3. Click the Save button to save the changes.

Identifying Workflows that Use a Store

Vantage allows you to search all workflows in a domain to see which workflows are using a store. This is very useful when you need to change or delete a store, and you want to know which workflows might be affected by the change.

To search workflows, do the following:

1. Select the store for which you want to search.

2. Click the Search button ⚲ in the toolbar.

   If the store is used by any workflows, Vantage displays a list of workflows that use the store. Double-click any workflow in the list to open that list in Vantage Workflow Designer. Click Done to dismiss the list.

   If the store is *not* used by any workflows, Vantage displays a message to that effect. Click OK to dismiss the message.

Setting the Block Size

Vantage allows you to specify the block size used when writing data to and reading data from Vantage stores. The default setting works best for most storage systems, but some fiber attached storage systems support higher throughput with larger block sizes.

Note: The block size feature is only utilized by Vantage Transport related actions (Copy, Move, Deploy). It is not used by and does not affect Vantage Transcode Actions (Flip, IPTV, Conform, Multiscreen, etc..)

CAUTION: This is an advanced system feature, and misconfiguration can disable your Vantage store. Be sure you understand the block size requirements of the storage system before making changes, and consider making changes to a production system only when you know the system is idle.

To specify and test a new block size, do the following:

1. Click Advanced to display the Advanced Store Settings dialog.

Figure 1. Advanced Stores Settings Dialog
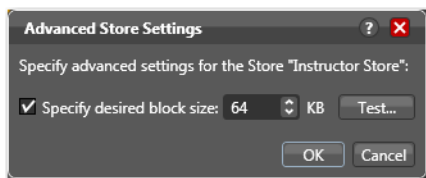
2. Check the *Specify desired block size* checkbox.

3. Use the up and down arrows to specify the new block size.

4. To test the new block size, do the following:

   a. Click Test.

   b. Use the file selection dialog to select a test file, and then click Open.

   The test does not open the test file or evaluate file content, so you can use any file, regardless of file content. Larger files usually give a more accurate average throughput result.

   c. Click OK.

   Vantage displays the test results.

5. Click OK to save the new setting and close the dialog.

Duplicating a Vantage Store

To duplicate a Vantage store, do the following:

1. Select an existing store in the Vantage Stores list.

2. Click the Duplicate button 🗐 (or right-click and select Duplicate).

3. Select the new store and customize it as needed (see *Modifying a Vantage Store*).

Exporting and Importing Vantage Stores

Vantage allows you to export one or more Vantage stores to XML files, which you can then use to import the same stores into another Vantage domain.

To export all stores in the list, click the Export drop down menu and select Export All. Then use the file system dialog to save the exported stores.

To export selected stores, do the following:

1. Select the store to export. You can Shift-click or Ctrl-click to select multiple stores.

2. Click the Export button 🔼 (or right-click and select Export, or click the Export drop down menu and choose Export Selected).

3. Use the file system dialog to save the exported stores.

The default file name is the store name, but you can change the file name.

Note: Changing the name of the XML file does not change the name of the store in the XML file. Also note that exporting a Vantage store only exports the store path information, not the contents of the store.

To import a store, do the following:

1. Click the Import button 🔽.

2. Use the file system dialog to locate and select the store to import, then click Open.

Note: If you try to import a store that is already in this Vantage domain, Vantage prompts you to either overwrite the existing store (click Yes) or cancel the import (click No).

Deleting a Vantage Store

Click on the store you want to delete, click the Delete button ✖ in the toolbar (or right-click and select Delete), and click OK to confirm.

Note: If there are any files in the store that are maintained by Vantage—such as those for unexpired jobs or binders in a catalog, you cannot delete the store. Deleting a store permanently removes the store from the domain. It does not delete directories, shares, or any files in them.

Managing Vantage Folders

Vantage folders are aliases (or alternate names) for specific file system directories or folders, on any supported file system in Vantage. You can create (and name) Vantage folders as URLs, UNCs, or drive letters to identify specific paths you use frequently. Vantage folders simplify directory referencing by allowing you to specify a short, descriptive folder name instead of a long, complex file path. Vantage folders also allow you to update a path or credentials once, and automatically update all actions using that Vantage folder.

For example, you might have a folder on a Windows server for HD MPEG2 content: *voyager\SunupCampaign\Darwin\WaitingApproval\HDMPEG2*. You can create a Vantage folder in the Vantage folder address book for this path, and name it *SunupHDWaitingApproval*. If you need to change the path or any password associated with the address later, you can simply change it in the address book and all actions will automatically update.

When you create a workflow that accesses a folder for a file or generates media you want saved in this folder path, you simply select *SunupHDWaitingApproval* in the action's inspector.

For Windows, Telestream recommends using UNC paths instead of drive letter paths, and it is required in Vantage arrays. For a detailed discussion, see *Paths for Vantage Storage Overview*.

You can also create Vantage folders in the Address Book to identify buckets in your Cloud accounts—Amazon AWS or Google Cloud, for example.

Vantage folder address book management can be performed either directly in the Management Console or in Vantage Workflow Designer (in Copy or Move actions).

To manage your Vantage folder addresses in the Vantage Management Console, start the Vantage Management Console and select Storage > Vantage Folder Address Book

in the components panel. Vantage displays the Vantage Folder Address Book detail panel shown in this figure:
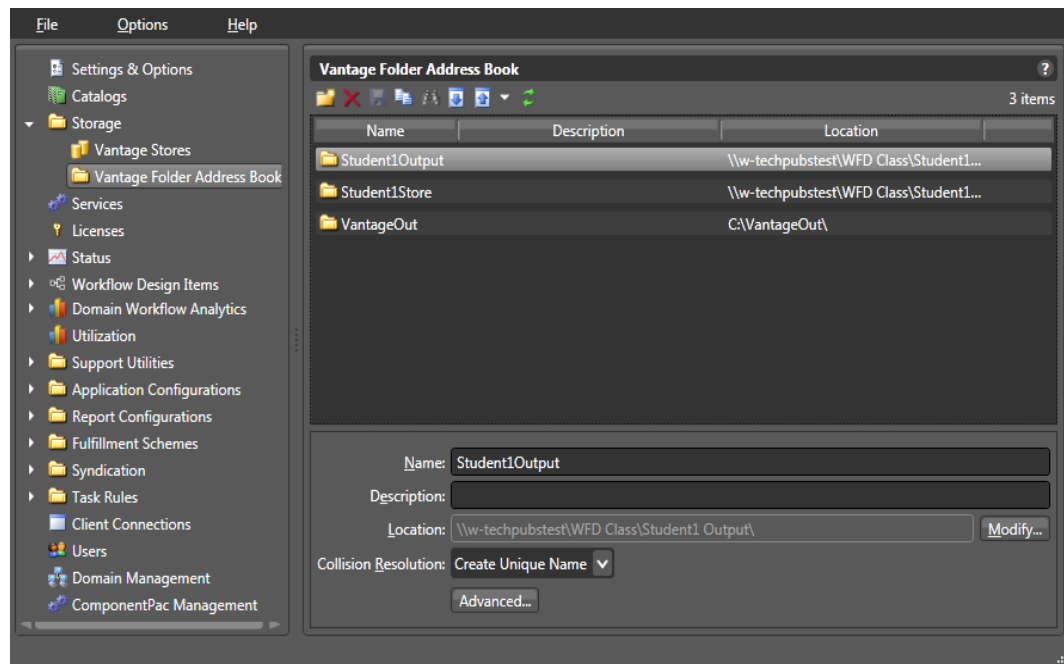
You can use the Vantage Folders Address Book details panel to add and configure Vantage folders. You also use the details panel to modify and delete Vantage folders.

The following topics provide information on managing Vantage folder addresses:

- Adding a Vantage Folder Address
- Refreshing the List of Folders
- Modifying a Vantage Folder Address
- Identifying Workflows that Use a Vantage Folder
- Deleting a Vantage Folder Address
- Setting the Block Size
- Duplicating a Vantage Folder Address
- Exporting and Importing Folder Addresses

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Adding a Vantage Folder Address

To add a new folder address, do the following:

1. Click the Add Folder button 📁 to display the Add New Folder dialog.
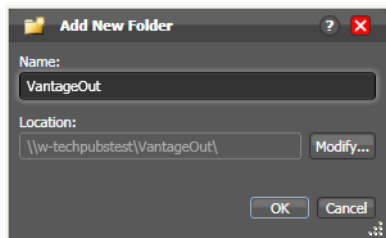
2. *Name*—Enter the Vantage folder name.

3. *Location*—Click Modify to display the Folder Location Editor dialog, which presents you with a list of all supported file system types in Vantage:

4. Select the file system where the Vantage files will be stored, then click Next.

5. Configure each field or control in each panel to set up the folder address—panels and controls vary by file system, of course.

6. To specify a Windows directory with a UNC path (recommended), do the following:

a. Click Browse to display the Browse for Folder dialog box.

b. Open Network, open the computer name, and then select the root directory for the folder.

c. Click OK.

You can also type a UNC path in the Location text box. For example, *Computer-Name\Sharename.*

7. To specify a Windows directory with a drive letter path, do the following:

a. Click Browse to display the Browse for Folder dialog box.

b. Select a local folder.

c. Click Select Folder.

You can also type a drive letter path in the Location text box. For example, *C:\folder\folder*.

Note: If the Vantage folder is on a different computer, you must publish a share and grant access to the appropriate Windows users before it will appear in the Browse for Folder dialog. For more information, see *Windows Authentication Guidelines* in the *Vantage Domain Management Guide*. Also, if you use a drive letter to specify a folder, only Vantage services and clients on the same computer can access the folder. For more information, see *Understanding Path Specifications for Vantage Storage*.

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8. Click Finish to close the Folder Location Editor dialog. (You may have to click OK on the local folder warning dialog.)

9. Click OK to save this new Vantage folder address and close the Add New Folder dialog.

10. Description—Enter the description, purpose, or use of this folder address.

11. Collision Resolution (not supported on all file systems)—Specifies the action Vantage takes when it saves a file with the same name of a file that already exists:

– Create Unique Name—create the file with a unique name, leaving the other file intact.

– Overwrite—overwrite the existing file.

– Set Failure State—do not save a new file. Set a Failure state on the action that attempted to create the file.

12. To test your connection speed to this location and optimize the block size for file transfer, click the Advanced button. For instructions, see *Setting the Block Size*.

13. Click the Disk icon in the toolbar to save changes to this new Vantage folder address.

Note: When using Amazon AWS S3 address locations in the Watch and Associate actions and when specifying a Vantage folder address, you must also configure specific AWS IAM policy settings for S3 access. These are the minimal IAM parameter settings for Vantage 6.x, 7.0, 7.1, 7.2, 8.0, and 8.1:

```
Updated IAM permissions list for S3 with Vantage:
{
"Statement": [
{ "Effect": "Allow", "Action": [ "s3:DeleteObject",
"s3:GetObject", "s3:ListAllMyBuckets", "s3:ListBucket",
"s3:PutObject", * "s3.GetBucketLocation"* ], "Resource": [ "*" ] }
]
}
```

Refreshing the List of Folders

To refresh the folder list, click the refresh button ⟳.

Modifying a Vantage Folder Address

To modify a Vantage folder address, do the following:

1. Select the folder in the Vantage Folder Address Book list.

2. Name—Enter a new name for the Vantage folder.

   This name is displayed in Copy and Move action inspectors where you are specifying the location in which to save a file.

3. Description—Enter the description, purpose, or use of this folder address.

4. Location—To change the folder storage location, click Modify (or right-click the folder name in the list and select Modify) and specify the new location as described in *Adding a Vantage Folder Address*.

5. Collision Resolution (not supported on all file systems)—Specifies the action Vantage takes when it saves a file with the same name of a file that already exists:

   – Create Unique Name—create the file with a unique name, leaving the other file intact.

   – Overwrite—overwrite the existing file.

   – Set Failure State—do not save a new file. Set a Failure state on the action that attempted to create the file.

6. Advanced—to test your connection speed to this location and optimize the block size for file transfer, click the Advanced button. For instructions, see *Setting the Block Size*.

7. Click the Save button 💾.

Identifying Workflows that Use a Vantage Folder

Vantage allows you to search all workflows in a domain to see which workflows are using a Vantage folder. This is useful when you need to change or delete a store, and you want to know which workflows might be affected by the change.

To search workflows, do the following:

1. Select the Vantage folder for which you want to search.

2. Click the Search button 🔍 in the toolbar (or right-click and select Find Workflows).

   If the folder is used by any workflows, Vantage displays a list of workflows that use the folder. Double-click any workflow in the list to open that list in Vantage Workflow Designer. Click Done to dismiss the list.

   If the folder is *not* used by any workflows, Vantage displays a message to that effect. Click OK to dismiss the message.

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Deleting a Vantage Folder Address

Click on the folder you want to delete, click the Delete button ✖ in the toolbar (or right-click and select Delete), and click OK to confirm.

Note: Deleting a folder permanently removes the folder from the domain. It does not delete directories, shares, or any files in them.

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Setting the Block Size

Vantage allows you to specify the block size used when writing data to and reading data from Vantage folders. You can also use Vantage to test the throughput of different settings. The default setting works best for most storage systems, but some fiber attached storage systems support higher throughput with larger block sizes.

Note: The block size feature is only utilized by Vantage Transport related actions (Copy, Move, Deploy). It is not used by and does not affect Vantage Transcode Actions (Flip, IPTV, Conform, Multiscreen, etc..)

CAUTION: This is an advanced system feature, and misconfiguration can disable your Vantage folder. Be sure you understand the block size requirements of the storage system before making changes, and consider making changes to a production system only when you know the system is idle.

To specify and test a new block size, do the following:

1. Click Advanced to display the Advanced Store Settings dialog (see the *Advanced Stores Settings Dialog* figure).
2. Check the *Specify desired block size* checkbox.
3. Use the up and down arrows to specify the new block size.
4. To test the new block size, do the following:
   a. Click Test.
   b. Use the file selection dialog to select a typical media file, and click Open.

      Larger files will usually provide a more accurate average throughput result.
   c. Click OK.

      Vantage displays the test results.
5. Click OK to keep the save the new setting and close the dialog.
6. Click the Save button 💾.

Duplicating a Vantage Folder Address

Select the folder you want to duplicate, click the Duplicate button 📑 in the toolbar (or right-click and select Duplicate). Select the duplicated folder, make the necessary changes and save it.

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Exporting and Importing Folder Addresses

Vantage allows you to export folder addresses to XML files, which you can then use to import the same addresses into another Vantage domain.

To export all folder addresses, click the Export drop down menu and select Export All. Then use the file system dialog to save the exported folder addresses.

To export selected folder addresses, do the following:

1. Select a folder in the list, or you can Shift-click or Ctrl-click to select multiple folders.
2. Click the Export button , right-click and select Export, or select *Export Selected* from the Export button drop down menu.
3. Use the file system dialog to save the exported folder addresses.

   The default file name is the folder address name, but you can change the file name.

Note: Changing the name of the XML file does not change the name of the folder address in the XML file.

To import a folder address, do the following:

1. Click the Import button .
2. Use the file system dialog to locate and select the folder address file to import, then click Open.

Note: If you try to import a folder address file that is already in this Vantage domain, Vantage prompts you to either overwrite the existing folder address (click Yes) or cancel the import (click No).

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Managing Services

The term *Services*, as used in Vantage, refers to Vantage running as Windows services, which are required to perform a given action in a workflow. The term *service* refers to the specific instance of the Windows service on a particular computer that is responsible for actually executing the actions specified in a workflow when that workflow is executed as a result of a job submission to process a given media file.

Use the Services component of the Management Console to configure your Vantage services operating on various machines to function according to your requirements.

You can configure each service's program settings, storage requirements, variables, and qualification rules.

The following topics describe how to manage services:

- Using the Services Details Panel
- Grouping Services
- Adding a Service to the Domain
- Removing a Service from the Domain
- Entering and Exiting Service Maintenance Mode
- Resetting the Service Metrics History
- Restarting a Service
- Changing a Service Logon
- Viewing Average Time Spent Waiting
- Generating Reports
- Configuring Vantage Services

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Using the Services Details Panel

To begin Vantage service management, start the Vantage Management Console and select Services in the components panel. Vantage displays the Services detail panel shown in this figure.
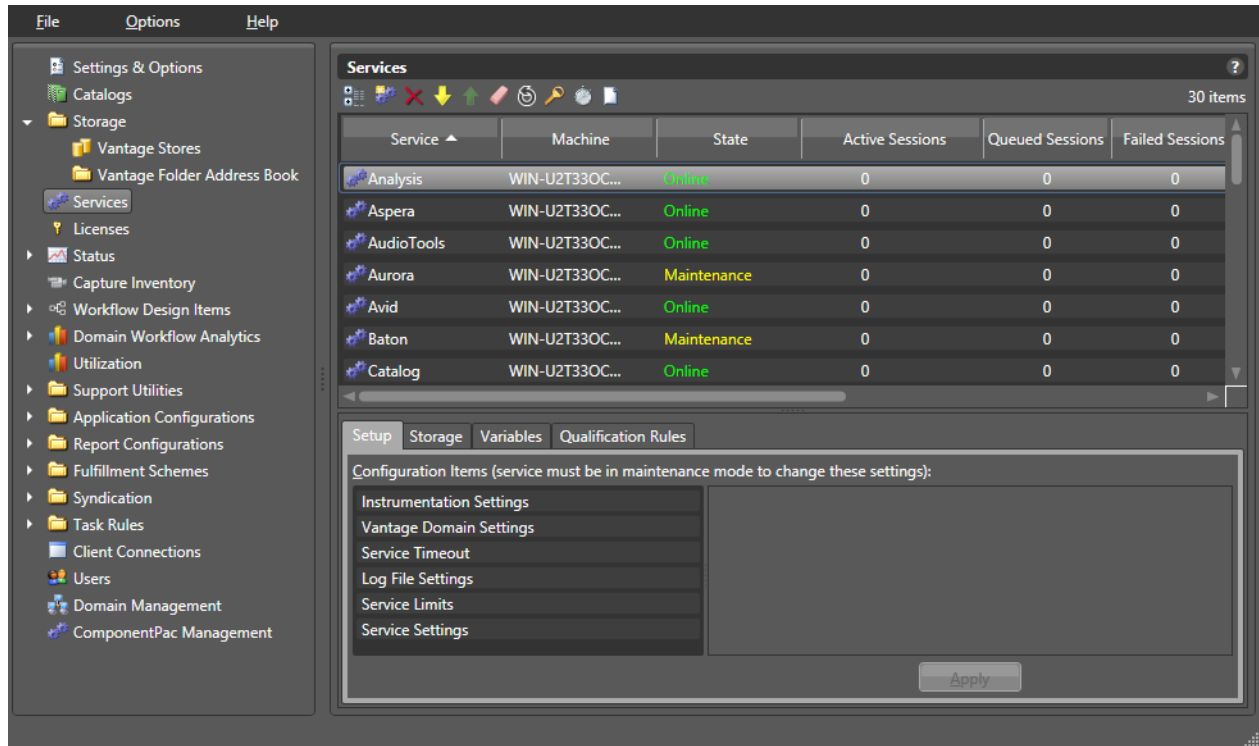
Note: If duplicate entries appear for services on a specific Vantage server, it could be that the server has multiple network interface cards and one of them has been disabled. This does not affect Vantage operation.

The columns in the Services panel are described in the *Services Panel Column Descriptions* table.

Clicking a column heading lists the services in order by that column type. Clicking the column heading again restores the Services display to the default view. For example, clicking the Service column heading organizes the services list alphabetically by service name; clicking the Machine column organizes the services alphabetically by machine name; clicking State organizes services by state, and so on.

Services Panel Column Descriptions

Column Heading	Description
Service	Lists Vantage services by name.
Machine	Displays the machine name that hosts the service.
State	Displays the service state: Online—Running and ready to use. Offline—Stopped. Right-click and Restart Service or use Task Manager to start. Unreachable—Service is transitioning states. Wait for completion. Maintenance—Maintenance mode; right-click to Enter/Exit Maintenance Mode.
Active Sessions	Displays the number of active sessions for the service. A service starts a session each time a workflow uses that service to process a job.
Queued Sessions	Displays the number of sessions that have been assigned to a service and are waiting for the service to become available.
Failed Sessions	Displays the number of sessions that did not complete successfully.
Total Sessions	Displays the total number of jobs that have used the related service since the metrics were last reset.
Session Limit	Displays the maximum number of concurrent sessions allowed for a service. This setting is made using the Setup tab, Service Limits selection. When cost based load balancing is enabled, this setting is disabled. For more information on load balancing, see *Managing Task Scheduling and Load Balancing*.
Average Wait Time	Displays the average time that all jobs spend waiting in the queue while the service is saturated and unable to take on new jobs. For example, if the service has processed 10 jobs and the waiting times were 0,0,0,0,0,0,0,0,0,10 (the last job waited 10 seconds), an average wait time of 1 second would be reported. This indicator helps to highlight ongoing load imbalances or the need for additional computing power to handle overloads.
License Failures	Displays the number of times users have requested a service and have been denied because no license was available for the session.
Lightspeed Fallback Count	For each service, indicates the number of jobs that could have run on a Lightspeed Server if one had been available.

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Grouping Services

Services can be viewed in groups using the Show in Groups button ![icon]. Once in group display mode, the groupings can be changed by clicking the column headings, allowing you to view groups by Service, Machine, State, etc. Clicking the Show in Groups button a second time restores the default view.

Adding a Service to the Domain

Before you can add a Vantage service to a domain, it must first have been installed and started on a computer on your network subnet.

To add a Vantage service to a domain, click the Add Service button ![icon] in the toolbar.

The Vantage Management Console scans the network for available services and displays those that are not currently part of this domain.
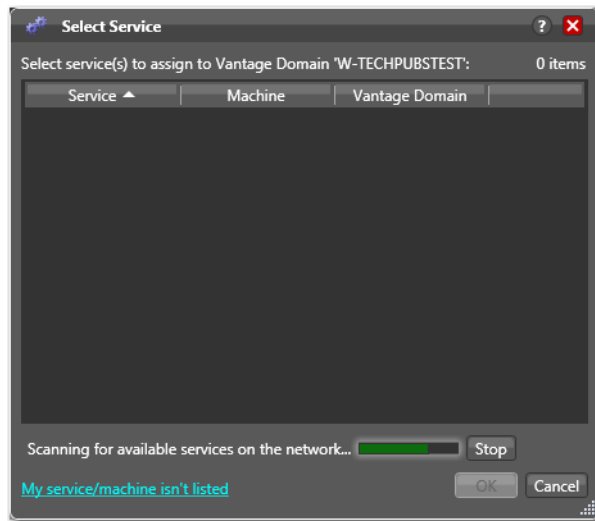
Select the service you want to add to the current domain and click OK.

Services cannot be part of more than one Vantage domain at a time. Be sure that adding a service to your Vantage domain will not harm another Vantage domain by removing that service from it.

Removing a Service from the Domain

To remove a Vantage service from a domain, select the service (Shift-click or Ctrl-click to select multiples) and click the Delete button ![icon] in the toolbar.

Note: Removing a service does not stop or uninstall the service from any computer. It merely disengages it from the current domain.

Entering and Exiting Service Maintenance Mode

You can enter and exit maintenance mode by selecting a service and clicking the Enter
⬇ or Exit ⬆ button (or right-click the service and select Enter/Exit Maintenance Mode).
When a service is in maintenance mode it will not process any transactions. Exit
maintenance mode to re-activate the selected service and cause it to reload its
resources from the database.

Note: Placing a service in maintenance mode erases the metrics for that service,
which affects the Vantage Dashboard bar graphs for that service.

Note: The Tachyon Cinnafilm service is supported only on Lightspeed servers. On all
other Vantage servers, this service stays in Maintenance Mode.

To move multiple or all services on a server in and out of maintenance mode, do the
following.

1. Display the Services detail panel.

2. Select a service in the list (Shift- click or Ctrl-click to select multiples).

3. Click the Enter button ⬇ to place the services in maintenance mode.

4. Click the Exit button ⬆ to restart the services and exit maintenance mode.

Note: Placing all services in maintenance mode erases the metrics for all services,
which affects the Vantage Dashboard bar graphs for those services.

Resetting the Service Metrics History

Click the Clear button 🧽 (or right-click and select Clear) to reset the service metrics
history. This also resets all failed service metrics for the selected services. You can do
this for multiple or all services by Ctrl-clicking or Shift-clicking the services you want.

Restarting a Service

To restart one or more services, follow these steps:

1. Display the Services detail panel.

2. Select a service in the list (Shift-click or Ctrl-click to select multiple services).

3. Click the Restart button 🔄 to restart the services.

Note: Restarting services erases the metrics for those services.

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Changing a Service Logon

As part of a workflow, a Vantage service may need to access network folders shared only with a certain user account. In such cases, you may need to change the logon of that service to the permitted user. To change a service logon, follow these steps:

1. Display the Services detail panel.

2. Select a service in the list (Shift-click or Ctrl-click to select multiple services).

3. Click the Change Service Logon button 🔑 or right-click and select Change Service Log On. A dialog opens, requesting the logon.

4. Select Local System account to use the account currently accessing Vantage from your local machine, or select *This account* and fill in the user name and password for the account that has access to the desired network location.

5. Click OK. A message confirms that the logon is changing.

Note: Changing a service logon restarts that service. Also note, when changing the logon for multiple services simultaneously, some services may not restart properly. If this occurs, go to Start > Services on the server, select the affected services, and click (or right-click) Restart to manually restart the services.

Viewing Average Time Spent Waiting

The Average Time Spent Waiting button opens a small dialog box that reports the average time spent waiting by a service, by an array node, or by the domain. This can be helpful in spotting processing bottlenecks at the action, server, and domain levels and helping administrators determine when more servers should be added to increase processing capabilities during peak load times.

To display the average time spent waiting, follow these steps:

1. Display the Services detail panel.

2. Select a service in the list (Shift-click or Ctrl-click to select multiple services).

3. Click the Average Time Spent Waiting button 🌕.

4. Select one of the viewing options in the dialog box:

– *By service type* to see the average wait time for the service selected in the drop-down menu.

– *By array node* to see the average wait time for the server selected in the drop-down menu.

– *Entire domain* to see the average wait time for the whole domain.

5. Click Next. The dialog box displays a message showing how much time on average the selected item spent waiting (as opposed to actively processing).

Generating Reports

The Generating Report button initiates a report from a report format that you have already created using the Vantage Management Console Report Configurations > *Service Reports* feature (see the *Vantage Domain Management Guide* for information).

Note: This feature requires the Reporting & Analytics option.

To generate a report, follow these steps:

1. Display the Services detail panel.

2. Select a service in the list (Shift-click or Ctrl-click to select multiple services).

3. Click the Generate Report button ▢. A Generate Service Report dialog box opens.

4. Select from the options in the dialog box:

    – The *Report* drop-down menu lets you select a report from the list of Service Reports you have created.

    – *Start* lets you specify a starting time (and date for historical reports) for gathering report data. Data that occurred before the Start time (and date) is not included.

    – *End* lets you specify an end time (and date for historical reports) for gathering report data. Data after the specified time (and date) is not included.

    In the Start and End fields, you can click on each item, including month, date, year, hours, minutes, seconds, and AM/PM, and use the selection arrows to set each item. You can also click the drop-down arrow to display a calendar and select a date.

    Note: For historical reports, the number of days of available historical information is determined by the Report Retention Time setting in the *Settings and Options > General* tab. This setting retains the past 30 days of information by default, or you can set it for a lesser or greater retention time.

5. Click OK, navigate to the location where you want to save the report file. You can change the report name to anything you prefer, or leave the default name, and then click Save.

    A message indicates that the report has been generated, and another message shows the location of the report and includes an Open Folder button providing access to the report.

6. To open the folder and access the report, click Open Folder.

Reports can be opened in a text editor or spreadsheet program. If you use a spreadsheet program, you can not only view the data in columns and rows, but you can also produce charts and graphs using the spreadsheet's built-in graphing functions.

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Time of Day Report Example

The following example shows a typical TOD Report for the Transcode service for a 24-hour period (abbreviated to 12 hours to save space). Data is shown at each hour.

This type of report helps you see which hours of the day may be over- or under-loaded.

TOD_Report.csv

	A	B	C	D	E	F	G
1	Time	Service Type	Active Sessions	Queue Length	Utilization	Wait Time (seconds)	
2	0:00	Transcode	0	0	0%	0	
3	1:00	Transcode	0	0	0%	0	
4	2:00	Transcode	0	0	0%	0	
5	3:00	Transcode	0	0	0%	0	
6	4:00	Transcode	0	0	0%	0	
7	5:00	Transcode	0	0	0%	0	
8	6:00	Transcode	0	0	0%	0	
9	7:00	Transcode	0	0	0%	0	
10	8:00	Transcode	2	0	31%	3	
11	9:00	Transcode	3	0	51%	5	
12	10:00	Transcode	2	0	30%	3	
13	11:00	Transcode	1	0	16%	1	
14	12:00	Transcode	2	0	42%	2	

Historical Report Example

The following example shows an excerpt from a typical historical report for all services on one node over multiple days.

This type of report helps you see service or machine loading trends over an extended period of time.

Historical_Report.csv

	A	B	C	D	E	F	G	H
1	Date	Time	Machine	Active Sessions	Queue Length	Utilization	Wait Time (seconds)	
2	6/3/2014	20:00	W-TECHPUBSTEST	1	0	15%	1	
3	6/3/2014	21:00	W-TECHPUBSTEST	1	0	17%	1	
4	6/3/2014	22:00	W-TECHPUBSTEST	0	0	0%	0	
5	6/3/2014	23:00	W-TECHPUBSTEST	0	0	0%	0	
6	6/4/2014	0:00	W-TECHPUBSTEST	0	0	0%	0	
7	6/4/2014	1:00	W-TECHPUBSTEST	0	0	0%	0	
8	6/4/2014	2:00	W-TECHPUBSTEST	0	0	0%	0	
9	6/4/2014	3:00	W-TECHPUBSTEST	0	0	0%	0	
10	6/4/2014	4:00	W-TECHPUBSTEST	0	0	0%	0	
11	6/4/2014	5:00	W-TECHPUBSTEST	0	0	0%	0	
12	6/4/2014	6:00	W-TECHPUBSTEST	0	0	0%	0	
13	6/4/2014	7:00	W-TECHPUBSTEST	0	0	0%	0	
14	6/4/2014	8:00	W-TECHPUBSTEST	2	0	41%	3	
15	6/4/2014	9:00	W-TECHPUBSTEST	2	0	20%	1	
16	6/4/2014	10:00	W-TECHPUBSTEST	2	0	64%	6	
17	6/4/2014	11:00	W-TECHPUBSTEST	2	0	26%	2	
18	6/4/2014	12:00	W-TECHPUBSTEST	2	0	33%	4	
19	6/4/2014	13:00	W-TECHPUBSTEST	2	0	37%	4	
20	6/4/2014	14:00	W-TECHPUBSTEST	2	0	48%	5	
21	6/4/2014	15:00	W-TECHPUBSTEST	2	0	29%	3	
22	6/4/2014	16:00	W-TECHPUBSTEST	2	0	27%	2	

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Configuring Vantage Services

Vantage services have a variety of configuration options; most of them with default settings. The following topics describe how to configure the settings on each tab:

■ Setup

■ Storage

■ Variables

■ Qualification Rules

Setup

The Setup tab includes Vantage domain database settings, service ports, instrumentation, time-out settings and log file options.

Changing settings in the Setup tab requires that you restart the service before they take effect. You can make changes to settings in the other tabs without restarting the service—they take effect immediately. To modify the settings in the Setup tab, select the service you want to modify and click the Enter Maintenance mode button ⬇ in the toolbar (or right-click and select Enter). After making the changes, click the Exit Maintenance mode button ⬆ in the toolbar (or right-click and select Exit). Exiting maintenance mode reactivates the selected service and causes it to reload its resources from the database so it can begin accepting jobs again.

Changes to these settings can only be made in maintenance mode.

Click on each category in the Setup tab to display its settings.

Vantage Domain Settings	
Host	Name of the computer on which this domain database is installed. Not changeable.
Failover	Name of the optional fail-over database instance that serves as the fail-over database should the primary database fail. This is the name of the mirrored database server (i.e. "BackupServer").
Instance	Name of the primary Vantage domain database instance.
Database	Name of the database.
User	Username of the Microsoft SQL Server database user. Default: *sa*. Do not change the user name or password unless you have created a user with *db_owner* access for the Vantage instance in Microsoft SQL Server.
Password	Password of the database user. Default: *vantage12!* Do not change the user name or password unless you have created a user with *db_owner* access for the Vantage instance in Microsoft SQL Server.

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Service Limits	
Session Limit	In sessions mode (which is the default mode), this configures the maximum number of concurrent sessions for a service. For CPU-intensive services—such the Transcode service—you should gate the maximum number of sessions to the power of the computer. For less demanding services, such as the Monitor service, a higher number is less likely to cause problems.
	The Cloud service has unique requirements. It should be set equal to the number of worker nodes specified for the Telestream Cloud. For example, if the Telestream Cloud account is set to 30 workers and the Vantage domain consists of 2 nodes, the session limits of the Cloud services in each Vantage array node should be set to 15.
	If the Cloud service is set to a session limit higher than the capacity of the Telestream Cloud account, the jobs will be shown as in process in Vantage and queued in Telestream Cloud.
	When cost based load balancing is enabled, this setting is disabled. For more information on load balancing, see *Managing Task Scheduling and Load Balancing*.
Target Resource Usage	When cost based load balancing is enabled, this setting configures the target resource usage level for this service. Each service has a default value for this setting. If server performance permits, raise this value to support simultaneous processing of additional workflow actions. If the server is having performance issues, lower this value to reduce the number of actions that run at the same time.
	For more information on load balancing, see *Managing Task Scheduling and Load Balancing*.
Service Settings	
TCP Port	The TCP port is utilized for all intra-service traffic in the domain. If a certain port range is allowed by your IT infrastructure (given constraints such as routers and firewalls) an IT administrator can specify which port to use for intra-service communication to fit their environment. The default port settings are listed in the *Before You Install* chapter of the *Vantage Domain Management Guide*.
HTTP Port	The HTTP port is utilized for HTTP server traffic in the domain. An IT administrator can specify which port to use for intra-service communication to fit their environment. The default port settings are listed in the *Before You Install* chapter of the *Vantage Domain Management Guide*.

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Pause Limit	
Pause Session Limit	Allows specifying the number of sessions that may be paused for these services: Transcode, Multiscreen, IPTV, and Edit. Users may then pause multiple sessions up to that number. Note that the pause limit is independent of the session limit and may be set higher or lower than the session limit.
Allow Paused Actions	When unchecked, actions may not be paused. When checked, allows actions to be paused. Hierarchical Pausing allows jobs that have paused other jobs to themselves be paused. For example, if a low priority job is paused by a medium priority job, a high priority job may pause the medium job. This feature must be enabled by the administrator and will be set on a service-by-service basis in the session limit category for transcoding services.
Instrumentation Settings	
Enable Instrumentation	Registers and reports certain internal events as Windows Management instrumentation events.
Service Timeout	
Timeout	The time (in minutes), that a non-responsive task will run before being terminated and failed.
Log File Settings	
Log File Name	The base name of the log file generated by this service. Log files are generated by service, and are stored in each service's folder in *<installdrive(C:)>\Program Files\Telestream\<Service Folder>*.
Log File Size	The maximum file size (in bytes) before the service creates an incrementally-numbered log file for continued logging.
Max Log File Count	The maximum number of log files for this service, before the oldest is deleted when a new one is written.
Upload Limit	
Concurrent Upload Limit	Sets a limit on the total number of concurrent file uploads to the cloud allowed for this service. The default is 4 concurrent files.

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Storage

The Storage tab enables you to specify stores for a service to provide a repository so that their actions can obtain storage if they require it. Certain actions require storage where they can create temporary files or perform other operations that involve writing files to disk.

For example, the Transcode service requires access to a store in order to produce the files that it creates as part of the transcode process.

The process of assigning a specific store to a service is made with performance in mind. If you know you want a particular Transcode service to utilize a specific store, you can assign it here. In the absence of an assigned store for Transcode service, service is free to utilize any Vantage store it chooses for managing temporary files. This may not be optimal based upon your network topology.

Adding Stores

To add a store to the selected service, click the Add Store button 📁, select the store from the Select Storage dialog and click OK.

Note: The Flip actions and other actions can also specify a store for output files. The selection of a store in an action is separate from stores attached to a service.

Removing Stores

To remove a store from the selected service, select the store and click the Delete button ✖ in the toolbar.

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Variables

Use the Variables tab to attach variables to a service. Variables attached to a service perform two functions. First, they dictate which services can perform tasks as set up by the Run On Rules in actions executing in the context of a workflow. Run On Rules allow you to target specific services to execute tasks, based upon whether or not a variable is set correctly for a Service.

Note: Run on rules examine service variable values, not job variable values.

Second, variables attached to a service allow workflows to examine their values in the context of a job. Variables (such as service hosts and action priority) can be passed to workflows to provide information about the service, and workflow actions can include this information in the output or make workflow processing decisions based on the variable values.

When you add a variable to a service, you supply a constant (or static) value—one that does not change from job to job. The value is static for the service instance. For example, you may want to implement email generation in the event of a transcode failure in a large domain with 20 concurrent Transcode services, each running on separate servers. This allows a user to receive an email when a transcode fails that identifies the server where the failure occurred.

To implement this, create a text variable named *EmailSubject* as described in Creating Variables. Next, add the *EmailSubject* variable to each Transcode service as described in *Adding Variables to a Service*, and set the value of *EmailSubject* for each service to a combination of the respective machine name and the service name by typing it in manually in the Value field. For example, one might be named *M-ORION-VantageTranscodeService*.

Finally, in each workflow, add a Message action and specify the email option, bind the Subject line with the *EmailSubject* variable, and set the Message action to only run on a Failure state.

Now, if a transcode failure occurs, the user receives an email indicating which server was transcoding the media when the failure occurred.

Adding Variables to a Service

To add a variable to the selected service, click the Add Variable button ▦ (or right-click and select Add Variable), select the variable from the Select Variable dialog and click OK. Next, enter the static value for this variable in the Value field. When you click away, the Save Variable dialog displays. Click Yes to save this variable and its value.

Note: If you are using any Lightspeed Server to host Lightspeed-aware services, Vantage automatically assigns a *Lightspeed* variable to that service, set to *True*. This variable is used for automated load balancing and can be tested by actions in a workflow for Run On rule processing or job reporting. Additionally, all Vantage services have an automatic system variable, *VantageMachineName*, set to the name of the host on which the service is running.

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Removing Variables from a Service

To remove a variable from the selected service, select the variable and click the Delete button ✖ in the toolbar (or right-click and select Delete).

CAUTION: Deleting a variable may render workflows using the variable inoperable. When you delete a variable from a service, make sure that you modify any affected workflows as well.

Qualification Rules

Qualification rules give you control over which actions a service will process. Using these rules, a service compares variable values set by the workflow against a baseline value, generates a merit value based on the comparison, and uses that value in conjunction with other variables to determine if the service should process the job.

Note: Vantage also supports run on rules, which are defined in a workflow and allow a workflow designer to select a service based on Vantage variable values. Generally, run on rules are easier to configure if you want to specify that parts of a workflow execute on specific services. For more information, see the *Vantage User Guide*.

Qualification rules can be based on system variables (such as *Priority, K20,* and *K80*) and user-defined variables (for example, *HD Job* or *File Size*). You can create multiple qualification rules per service to fine-tune each service's fitness to perform certain tasks and improve over-all domain workflow and performance.

For example, suppose you have a large domain with 20 transcoding services on different machines. Your goal is to divide the transcoding services into groups: those that process the bulk of the jobs—those involving media of less than about 80MB in size. Another group is configured to optimally transcode media up to 2GB, another for long-form files, over 2GB.

To implement this, you create a variable named *FileSize* (Select Domain > Workflow Design Items > Variables).

Next, you select the service that you want to run short jobs here, in Services > Qualification Rules, and create a qualification rule.

Select the *FileSize* variable and click OK. Configure the rule to specify operator = less than or equal, merit = 100 (an arbitrary value), qualifier = required, and value = 80,000,000. This rule will pass the merit value of 100 to Vantage when a job being considered for execution has a FileSize variable with a value less than or equal to 80,000,000.

For each other transcode service, add a similar rule (or rules) to qualify it appropriately.

Now, in each workflow, add an Identify action before each Flip action and configure it to update the *FileSize* variable with the File Size metric.

When a job starts, the Identify action updates the *FileSize* variable, and each transcode service examines the variable against its comparison value to determine its fitness to

process the Flip action, and if true, submits its merit value, if false, submits merit value 0 to Vantage for final arbitration on which transcode service is assigned the job.

Adding Qualification Rules

To add a qualification rule to the selected service, click the Add Qualification Rule button 🔧 (or right-click and select Add Qualification Rules), select the variable from the Select Variable dialog and then configure the rule.

Option	Description
Operator	Select an operator from the dropdown list to qualify the workflow variable value being compared against the baseline value specified in the rule.
	For mathematical operators, if the equation is true, the merit value you supply is passed; if the equation is false, 0 is passed.
	For the *contains* operator, the equation is true if the workflow variable contains the text specified in the baseline value. The merit value you supply is passed if the equation is true, and 0 is passed if the equation is false.
Merit	When an action meets the qualification rule requirements for multiple service instances, the action is assigned to the service with the highest merit value. For example, if a Flip action meets the qualification rule requirements for the Transcode service on both Server A and Server B, Vantage assigns action processing to the server that hosts the service qualification rule with the highest merit value.
	Merit values should be consistent with a predetermined plan of implementation, so that each service is responding appropriately to influence the distribution of tasks. If you have few services and rules, values from 1 to 10 may provide enough granularity; for lots of services and/or rules, you may need values from 1 to 100 to provide enough granularity.
Qualifier	Choose Optional when workflows may or may not provide a value for comparison. If no value is provided, the comparison always is false, and 0 merit is provided. Choose Required when workflows must provide a value for comparison. If no value is provided, the service rejects the request to process the job without further analysis.
Value	Enter the baseline value against which the variable's value is to be compared. (A null value is a valid value.)

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Option	Description
Use Wildcards	Enables or disables the use of wildcard characters in the Value field. When enabled (checked), you can use a question mark (?) to indicate a single character that can have any value, and you can use an asterisk (*) to indicate a variable number of characters that can have any value. For example, *.mov matches any value that ends in '.mov'.
	When disabled (unchecked), the * and ? characters are regular characters, not wildcard characters.
Ignore Case	Enables or disables case validation in the Value field. When enabled (checked), the case in the Value field is ignored when comparing the value to a value received from an action. For example, TEST1 and test1 are considered a match when the Ignore Case option is checked.
	When disabled (unchecked), the case in the Value field must exactly match that received from an action to be considered a match.

Deleting Qualification Rules

To remove a qualification rule from the selected service, select the rule and click the Delete button ✖ in the toolbar (or right-click and select Delete).

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Managing Licenses

Telestream provides Vantage licenses to enable a specific set of capabilities in a Vantage domain database. A single license file activates capabilities for every server in the domain—functionality that was specified in your license request. Production licenses can only be used by one Vantage Domain at a time.

When you receive a license file from Telestream, you need to activate the license file. Activation locks the license in the Vantage domain database, and the license remains locked until deactivated. Once activated, the license file is no longer used by Vantage. However, you should keep the license file in case it needs to be reactivated later.

The following topics provide information on managing Vantage licenses:

- Viewing Vantage Licenses
- Adding a License
- Deactivating a License
- Searching Licenses
- Portal Sessions
- Cloud Billing

Note: For details about Vantage Workflow Portal session management, see *Viewing and Resetting Vantage Workflow Portal Sessions* in the *Vantage Domain Management Guide*.

Viewing Vantage Licenses

To view the Vantage licenses in your domain, start the Vantage Management Console and select Licenses in the components panel on the left. You use the Licenses details panel to add or remove a license and activate it. Select a license to open and view the policies in this license and the capabilities it enables.
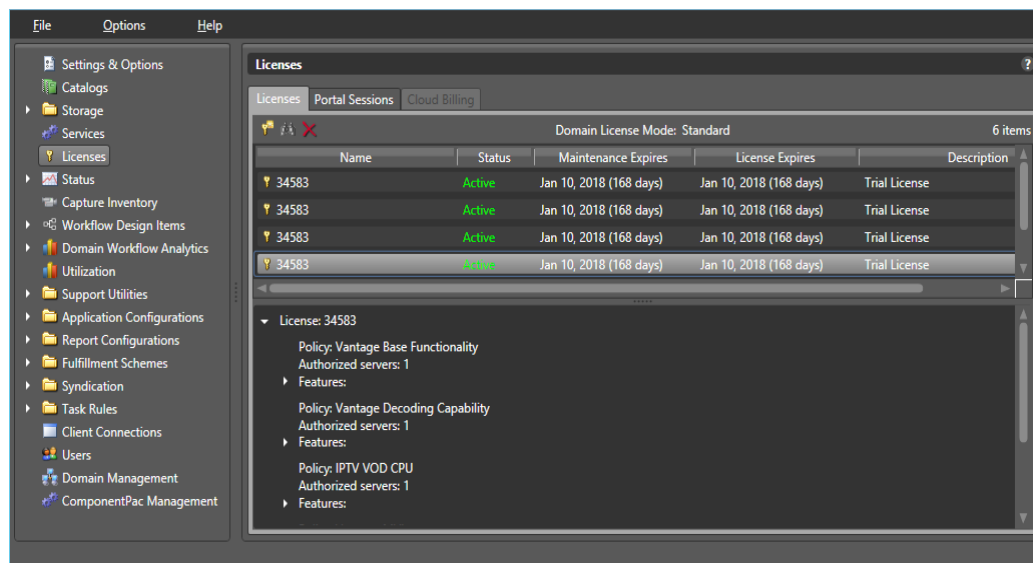
Adding a License

Vantage licenses are normally installed when the domain is installed. For instructions on adding a license, see *Enabling Vantage Licenses* in the *Vantage Domain Management Guide, Installing Vantage* chapter.

Deactivating a License

Note: Before deactivating a license, all jobs using the license should be stopped, and all services using the license should be put into Maintenance Mode. Otherwise, the license will report being in use.

To deactivate a license in a domain, select the license and click the Remove license button ✖ in the toolbar (or right-click and select Delete). Click Yes to confirm.

When you remove a license, Vantage attempts to deactivate it. A license should only be removed if you intend to install the same license on a different Vantage domain. In this case, the removal process also attempts to deactivate the license. The deactivation process will indicate that the license may be loaded on a different domain. If a license is not deactivated prior to adding it to another Vantage Domain, an error occurs—indicating that the license is currently in use on a different Vantage domain and that it can not be activated a second time.

Searching Licenses

You can search installed licenses for a particular word or feature. For example, if you have forgotten whether you have bought a particular option, such as Aspera, you can enter Aspera in the search field, and any license containing that feature will be listed.

To perform a license search, click the binoculars button ▦ to open the search dialog. Then enter the feature you want to search for.
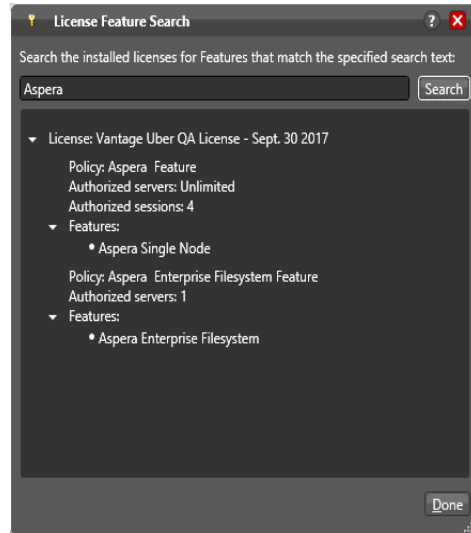
Portal Sessions

The Portal Sessions tab lists Workflow Portal status for any running Workflow Portal clients.

Cloud Billing

The Cloud Billing tab logs information such as if a Metric service has been enabled for billing reconciliation, the last time Vantage was able to report usage to Telestream Cloud, and whether Vantage is able to communicate with Telestream Cloud.

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Enabling Open Workflows

To enable or disable the Open Workflows option, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console* in the Vantage Domain Management Guide.

2. In the components panel, select *Settings and Options*.

3. On the General tab in the details panel, check the *Enable Open Workflows* checkbox to enable this feature, or clear the checkbox to disable this feature.

4. Click the Save button 💾.

5. Cycle the Vantage services into and out of maintenance mode so the change can take effect.

Note: Enabling Open Workflows requires enabling settings in three locations:

- The Vantage Management Console, Settings & Options, General tab, Enable Open Workflows

- The drop-down menu at the top of each specific workflow in Workflow Designer

- The context (right-click) menu for each action to be used in open mode

You must check to enable Open Workflows in each of the three locations. Additionally, the Open Workflows option license must be purchased and enabled. Not all actions are open-capable. For details, refer to the Tours topic in the Vantage User Guide, which includes an extensive tour of how to use Open Workflows.

Viewing Status

When monitoring Vantage or troubleshooting workflow issues, it can be helpful to see status information (as shown in the following figure) about which workflows and actions are active and view information about those workflows and actions. You can also view machine activity.
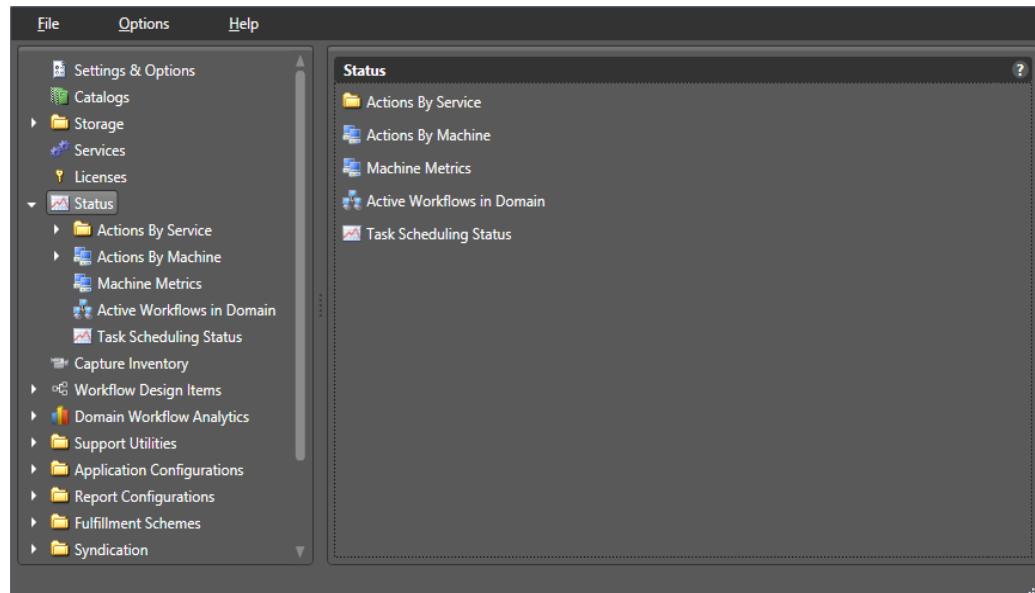
The following topics describe how to use Vantage Management Console to get information on the active workflows and actions:

■ Viewing Active Actions

■ Viewing Machine Metrics

■ Viewing the Active Workflows in a Domain

■ Checking Task Status

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Viewing Active Actions

You can view the following information about active actions in the Vantage domain:

- Action name
- State
- Host Vantage server (machine)
- Host workflow
- Job name
- Date created
- Date updated
- Description

You can view the active actions for a specific service or a specific Vantage server:

- Viewing Active Actions for a Service
- Viewing Active Actions by Machine

Viewing Active Actions for a Service

To view the active actions for a service, do the following:

1. Start the Vantage Management Console by double-clicking the desktop icon.
2. In the components panel, select Status > Actions By Service.
3. Select the service that hosts the actions you want to view.

   Vantage displays a details panel for the service you selected, which lists all active actions for that service. You can sort action entries in ascending or descending order by clicking a column label.

Note: The Vantage Management Console might not display action list items the first time that the Vantage Management Console is started after installation. To resolve this issue, close and restart the Vantage Management Console.

Viewing Active Actions by Machine

To view the active actions for a Vantage server, do the following:

1. Start the Vantage Management Console by double-clicking the desktop icon.
2. In the components panel, select Status > Actions By Machine.
3. Select the Vantage server that hosts the actions you want to view. Vantage lists all active actions on that server.

You can sort action entries in ascending or descending order by clicking a column label.

Note: The Vantage Management Console might not display action list items the first time it is started after installation. To resolve this issue, close and restart the console.

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Viewing Machine Metrics

Selecting Status > Machine Metrics displays key performance information for each Vantage server in the Vantage domain (see the   figure, below). This can clarify workloads and bottlenecks at a glance. These are the measurements displayed in each column:

- *Machine*—Lists the name of the machine described by that display row
- *CPU Utilization*—Shows the percentage of CPU capacity in use
- *Network Utilization*—Shows the percentage of network throughput being used
- *RAM Utilization*—Shows the percentage of available memory being used
- *Total RAM*—Shows the total available memory
- *Model*—Identifies the Lightspeed server model or Vantage Server for non-Lightspeed
- *GPU Utilization*—Shows the percentage of total GPU capacity being used
- *GPU Memory Utilization*—Shows the percentage of total GPU memory in use
- *Total GPU Memory Per Card*—Shows total MB of GPU memory capacity per card
- *Current GPU Memory Per Card*—Shows in-use MB of GPU memory per card
- *GPU Utilization Per Card*—Shows percentage of GPU capacity in use per card
- *GPU Memory Per Card*—Shows percentage of GPU memory in use per card
- *Database Size*—Lists the size of the domain database in megabytes

You can sort the list order according to any measure by clicking the column title.

Pre-Shutdown Notification

In the Machine Metrics view, you can prepare to shut down a Vantage node by right-clicking the machine in the list and selecting *Pre-Shutdown Notification*. This places all services for the node in *Pending Shutdown* mode as seen in VMC Services. Queued sessions will migrate to other services in the domain, and the selected services will go offline when their active sessions finish. This prepares the node for Windows shutdown, which must be done separately.

Viewing the Active Workflows in a Domain

When you view the active workflows in the domain, you can view the following information about each workflow:

- Workflow name
- Type of workflow
- Category
- State
- Date and time started
- Date and time updated
- Scheduled expiration date and time

This information can help you discover the source of problems. For example, if a workflow was working until yesterday and you notice the workflow was updated today, you might want to investigate what change was made.

To view the active workflows, do the following:

1. Start the Vantage Management Console by double-clicking the desktop icon.

2. In the components panel, select Status > Active Workflows in Domain.

   Vantage displays the Active Workflows in Domain panel:
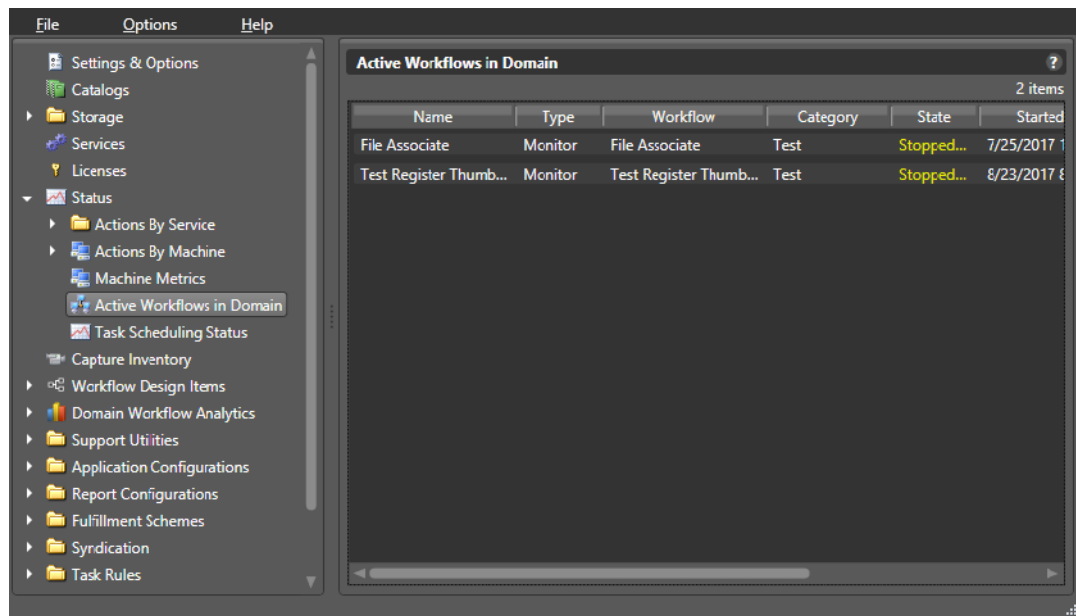
You can sort the workflows in ascending or descending order by clicking a column title.

Monitoring Utilization

The Utilization feature selected in the Vantage Management Console left panel assists system administrators with capacity planning. The bar graph shown in the details panel on the right makes it easy to see when a Vantage domain is running under or over capacity for specified time periods. Bar heights below the Capacity line indicate available unused sessions, whereas bar heights above the line indicate session demand beyond capacity, causing session queuing. Bar colors are blue, orange, or red corresponding to sessions that had low, medium, or high wait times.

Specifically, utilization displays the following information:

- Graphs the aggregate of all sessions for a selected service and time period
- Shows all sessions or only successful sessions
- Displays utilization by days in a month or by hours in a day
- Conveys mean session wait time by color (blue, orange, red)
- Shows session capacity making over and under utilization plainly visible
- Intended for monitoring cumulative historical performance, not real-time data
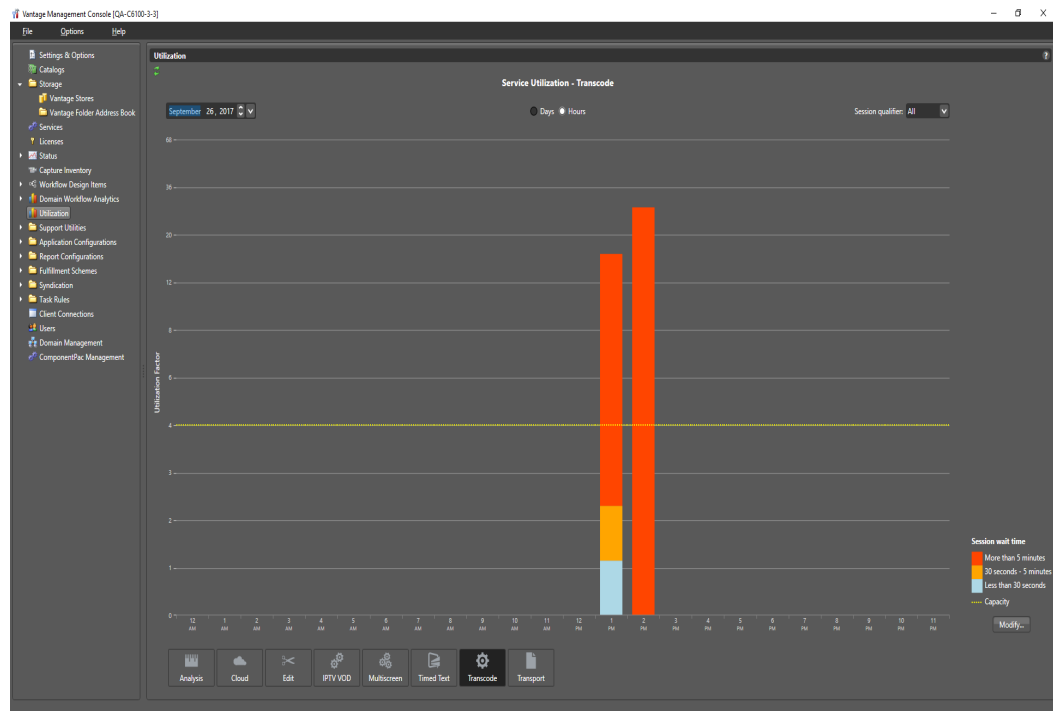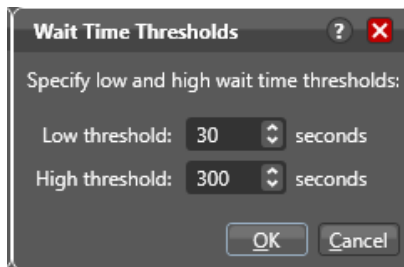
Use the Utilization feature as follows:

1. In the top center, select Days or Hours. Days sets the bottom timeline to show all days in the selected month. Hours sets the timeline to show 24 hours in the selected day. **Note:** For the Utilization feature to work correctly, all Vantage computers must use the same NTP server for synchronized time.

2. In the top left, select a month or day.

3. In the top right, set the session qualifier to display All sessions or only Successful sessions.

4. Scroll the bottom service selector and click a service. The bar graph shows utilization for the selected service.

You can adjust the thresholds indicated by the bar colors as follows:

1. Click Modify in the lower right corner. The Wait Time Thresholds dialog opens.

2. Set the low threshold in seconds indicated by the blue part of the bar.

3. Set the high threshold in seconds indicated by the red part of the bar.

4. Click OK. The units shown in the color legend change to match your settings.

Utilization Display Details

Button or Option	Description
Days/Hours	Selects whether the chart displays a month of days on the timeline or 24 hours.
Month/Date	Selects a month (if Days is selected) or a specific date (if Hours is selected).
Session qualifier	Sets the chart to display All sessions for the selected service or only Successful sessions.
Service Selector	Scrolls left or right to show all services. Click a service to display it on the bar graph.
Bar graph	Bar heights indicate the overall session demand for the selected service type. The bar height value is calculated using time-weighted averaging of all active and queued sessions for selected domain services over the indicated time period. Bar heights below the Capacity line (see Capacity line below) indicate available unused sessions for the time period. Bar heights above the Capacity line indicate that session demand exceeded capacity, causing session queuing. To prevent large session queues from going off-scale, values above the Capacity line are displayed using a log base 2 scale, as shown by exponential acceleration of the scale marks on the left side of the graph. Bar color coding presents a separate data set, visually overlaid on the utilization demand data described above. The proportion of a given blue, orange, or red bar corresponds to sessions completed within the time period that had low, medium, or high wait times. These wait time thresholds are configurable using the *Modify* button.
Modify	Opens a dialog that lets you set the number of seconds for the low threshold (blue) and the high threshold (red).
Capacity line	Shows session capacity for the selected service as a dotted yellow line. (Note: to change the session limit, select Services in the Management Console left column, select the service from the detail list and right-click it to choose Enter Maintenance Mode. Click the Setup tab, click Service Limits, and change the Session Limit. Then right-click the service to Exit Maintenance Mode. The capacity line in Utilization shows the new limit.)
Refresh	Click the green refresh button in the upper left corner, or press F5 to refresh the Utilization display.

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Using Support Utilities

The Support Utilities folder contains a collection of log generation and other utilities useful in monitoring and managing the domain:

- Using the Data Collection Utility
- Using the Change Log
- Using the Error Log
- Listing Actions By Service
- Displaying Plug-in Versions
- Displaying Software Versions by Machine

Using the Data Collection Utility

The Data collection utility enables you to collect relevant information about selected services for transmission to Telestream during a troubleshooting session. You can also log point-in-time details about a selected service into a log file for diagnostics purposes.

To open the Data Collection utility, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Support Utilities > Data Collection.

   Vantage displays the Data Collection details panel, as shown here in this figure.
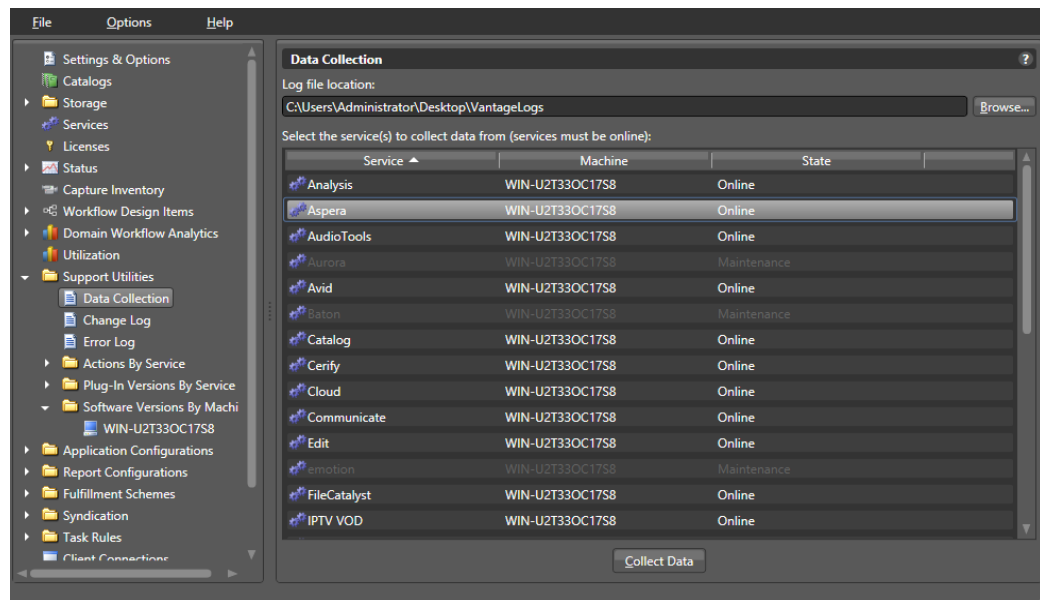
To collect data for one or more services

1. Select the service (Shift-click or Ctrl-click to select multiple services)

2. Click Collect Data.

Files named for each service are saved in the specified directory. Vantage writes the files out as <ServiceType>.txt and displays a dialog to notify you of the location of the file so that you can open and read the file or send it to others for analysis.

You can email these files to Telestream for assistance in solving problems during troubleshooting sessions.
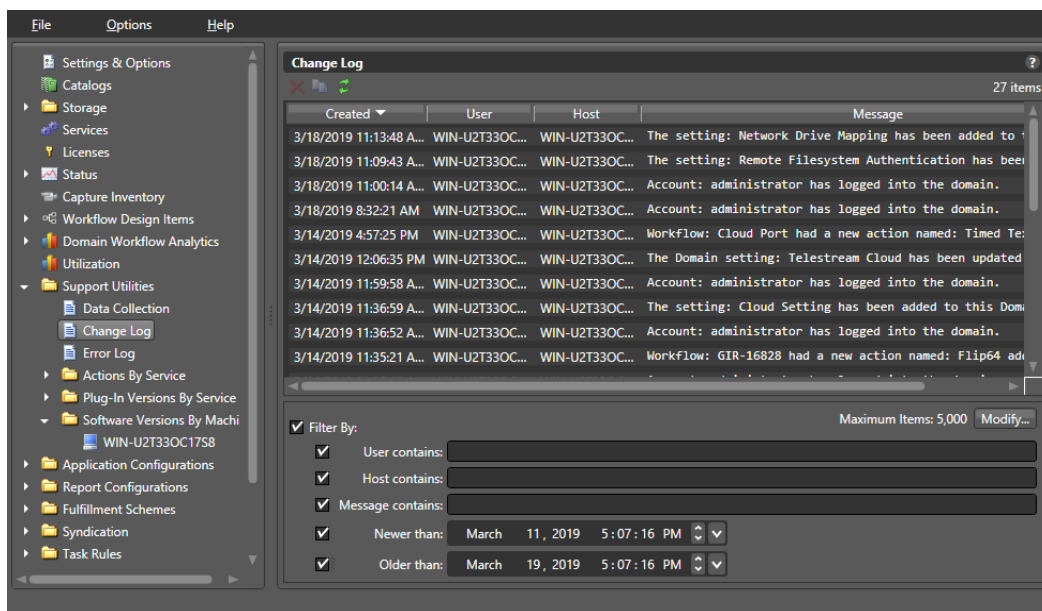
Using the Change Log

The Change Log utility captures changes to the Vantage domain configuration and operation and records the following for each change:

- Date and time of change
- Vantage user who made the change
- Host computer where the change occurred
- Change summary message

To open the Change Log utility, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Support Utilities > Change Log.

Vantage displays the Change Log details panel shown below.

You can use the Change Log utility to copy, delete, and refresh the entries in the change log. You can also use filters to display only the log entries that meet your criteria. The following table describes the Change Log utility controls.

| Button or Option	Description
Delete button ✖	To delete one or more change log records, select the records to delete and do one of the following: • Click the Delete button. • Right-click a selected entry and select Delete.
Copy button	To copy one or more change log records to the clipboard, select the records to copy and do one of the following: • Click the Copy button. • Right-click a selected entry and select Copy. • Press Ctrl-C on the keyboard. After you copy change log entries, you can paste the records into another application document, such as a spreadsheet or word processing document.
Refresh button ↻	Click to update the table from the database.
Filter By	Check Filter by to enable the filtering controls.
Modify	Click Modify to display a dialog that enables you to specify the maximum number of log items.
User contains	Specifies change log entries that contain the specified text in the User field.
Host contains	Specifies change log entries that contain the specified text in the Host field.
Message contains	Specifies change log entries that contain the specified text in the Message field.
Newer than	Displays change log entries that are newer than the specified date.
Older than	Displays change log entries that are older than the specified date.

Using the Error Log

The Error Log utility captures Vantage errors and records the following for each error:

- Date and time of error
- Error source (Vantage service)
- Host computer where the error occurred
- Type of error (Info or Error)
- Error message

To open the Error Log utility, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Support Utilities > Error Log.

Vantage displays the Error Log details panel shown here:
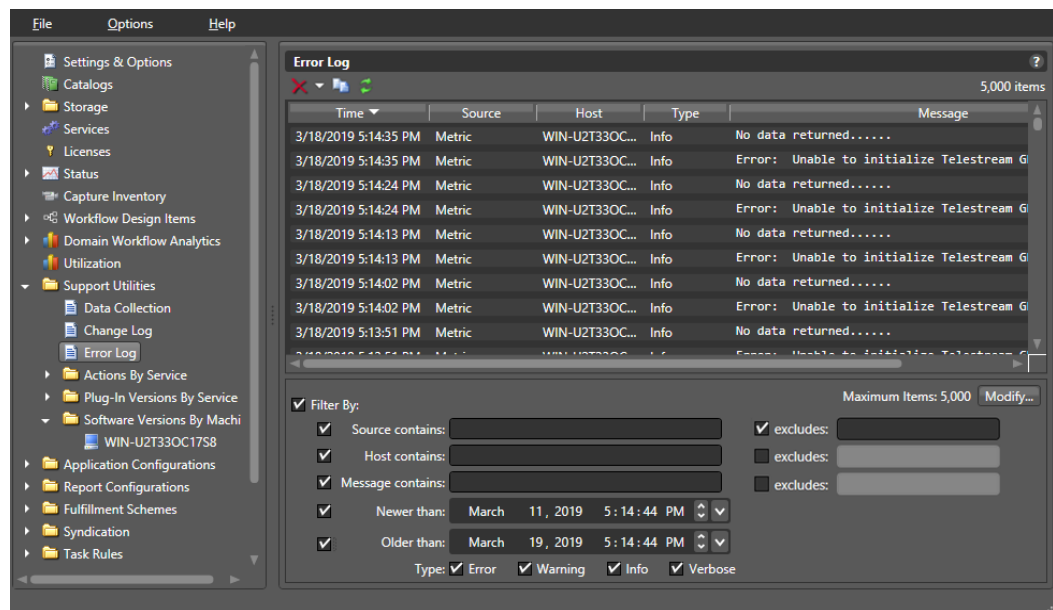
You can use the Error Log utility to copy, delete, and refresh the entries in the error log. You can also use filters to display only the log entries that meet your criteria. The Error Log utility controls are described in the following table.

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| Button or Option	Description
Delete button ✕	To delete one or more error log records, select the records to delete and do one of the following: • Click the Delete button. Select Delete All or Delete Selected. • Right-click a selected entry and select Delete.
Copy button	To copy one or more error log records to the clipboard, select the records to copy and do one of the following: • Click the Copy button. • Right-click a selected entry and select Copy. • Press Ctrl-C on the keyboard. After you copy error log entries, you can paste the records into another application document, such as a spreadsheet or word processing document.
Refresh button	Click to update the error log display.
Filter By	Check Filter by to enable the filtering controls.
Modify	Click Modify to display a dialog that enables you to specify the maximum number of log items.
Source contains/ excludes	Specifies error log entries containing or excluding the specified text in the Source field.
Host contains/ excludes	Specifies error log entries containing or excluding the specified text in the Host field.
Message contains/ excludes	Specifies error log entries containing or excluding the specified text in the Message field.
Newer than	Displays error log entries that are new than the specified date.
Older than	Displays error log entries that are older than the specified date.

Listing Actions By Service

To display a list of actions in the domain by service, open the Vantage Management Console and select Support Utilities > Actions By Service. Then click a service on the left to see its details on the right.

This feature lets you see many of the details about an action:

- Name of the action
- Description, including selected media format
- Date it was created
- Version with which it was created
- Workflow in which it resides
- Category where the action's workflow is located.
- Template used to create it
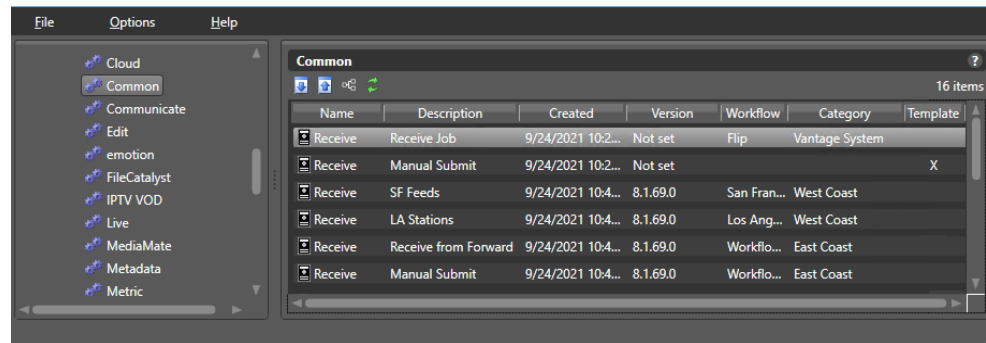
You can sort the list by clicking on any column heading.

The arrow buttons above the action list allow you to export the selected actions to an XML file. You can then import previously exported XML files. Using this feature, you can transfer configured actions between Vantage systems, or save them as backups.

The Workflow icon allows you to open the workflow containing the action using the Vantage Workflow Designer.

The green Refresh button refreshes the list if you have made changes to any listed actions.
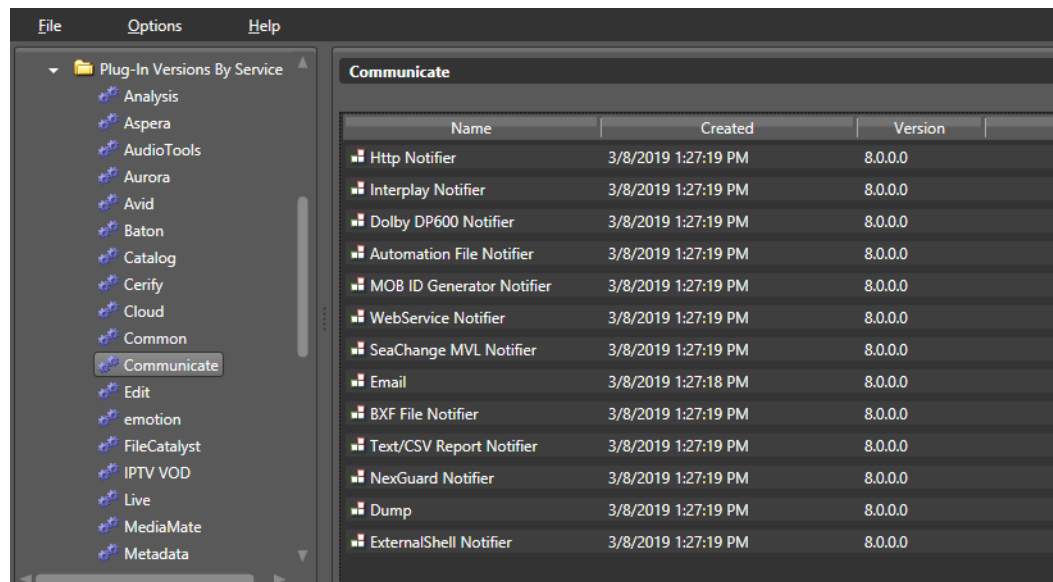
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Displaying Plug-in Versions

Use the Plug-in Versions utility to display the list of plugins in the domain by service, including their version number. Plug-ins reside in the domain database and are available to perform functions required by multiple services.

To open the Plug-in Versions utility and display information for a service, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Support Utilities > Plug-in Versions By Service.

3. Click a service to display the details panel for that service.

Vantage displays the details panel for the service, which will be similar to the Metadata service details panel.

Displaying Software Versions by Machine

Use the Software Versions by Machine utility to display the list of machines in the domain and examine the versions of services and transcoding software components on each machine. This allows you to see which transcoding and analysis engine is installed on each machine, and which patches. All Vantage machines should use the same engine and patch versions.

To open the Software Versions by Machine utility and display version information, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Support Utilities > Software Versions by Machine.

3. Click a machine icon to display the Vantage and services versions installed on that machine.
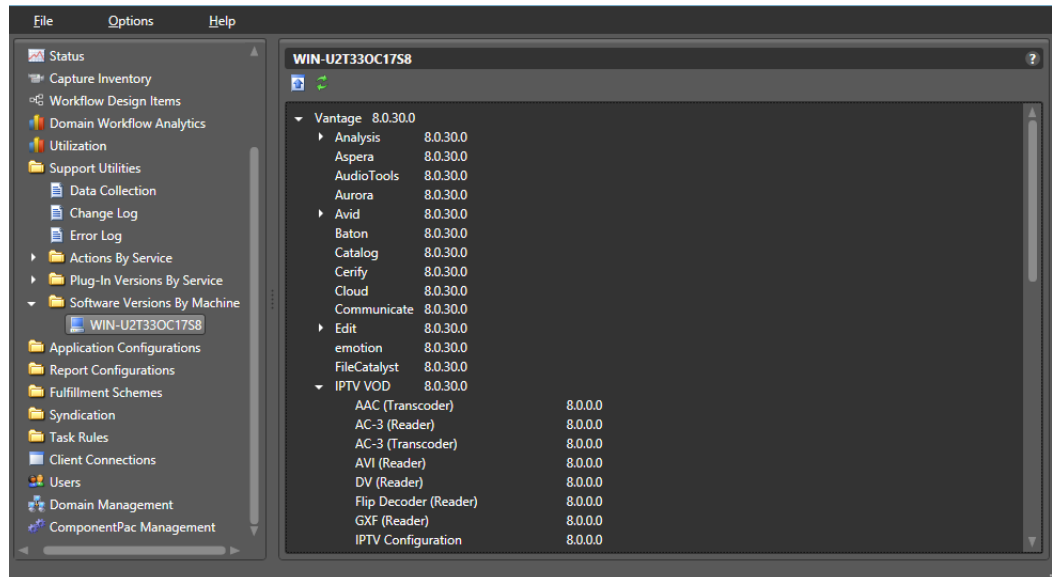
Managing Task Scheduling and Load Balancing

The following topics provide information on managing load balancing:

- Enabling Task Scheduling/Load Balancing
- Overview of Session and Cost Based (Legacy) Load Balancing
- Examples of Cost Based Load Balancing (Legacy)
- Overview of Task Based Load Balancing
- Configuring Task Based Load Balancing
- Enabling Task Scheduling/Load Balancing
- Examples of Task Scheduling

Enabling Task Scheduling/Load Balancing

Task Scheduling is an umbrella term that includes the default Session Based selection and the optional Cost Based and Task Based Load Balancing selections. The Advanced Task Scheduling license enables all three selections, so you can choose among them (they are mutually exclusive). Without the Advanced Task Scheduling license, only the Session Based selection is available.

To enable or disable any of the three Task Scheduling options, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console* in the Vantage Domain Management Guide.

2. In the components (left) panel, select *Settings and Options*, and select the General tab in the details (right) panel.
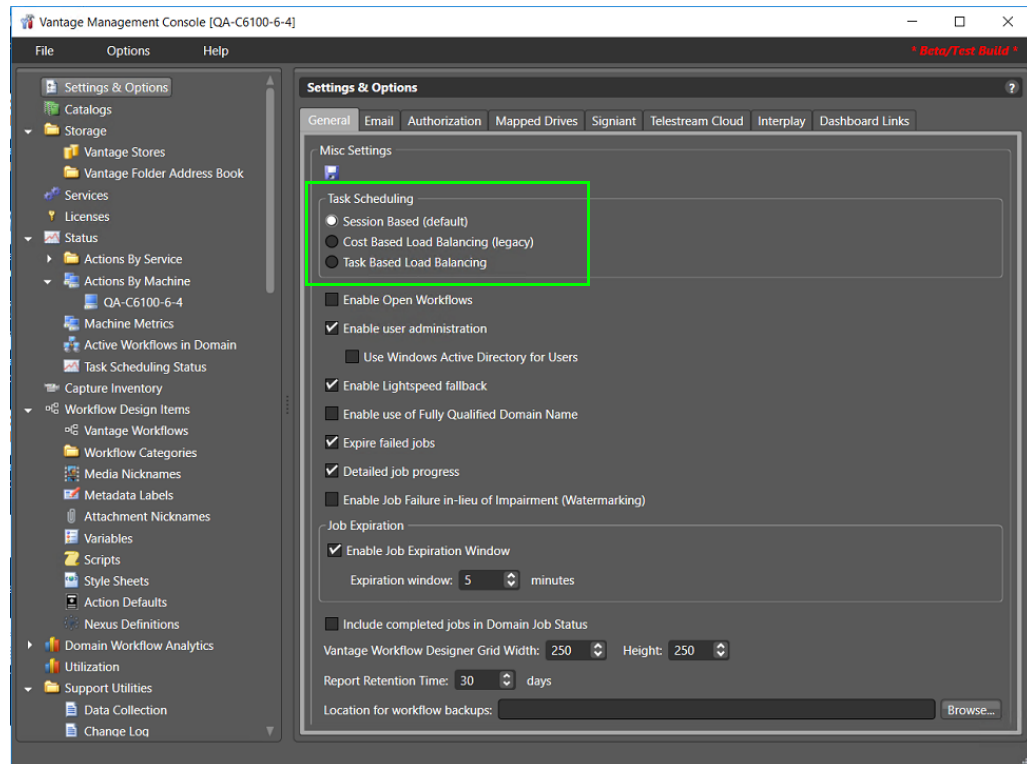
3. Under Task Scheduling, check the *Session Based*, *Cost Based Load Balancing*, or *Task Based Load Balancing* checkbox to enable a load balancing feature.

4. Click the *Save* button 💾 above Task Scheduling.

5. When the Service Restart Required dialog appears, click OK.

6. Restart all Vantage services by clicking Services in the left panel and then right-clicking each service in the right panel and selecting Restart Service. (You can Ctrl-click or Shift-click to select multiple services.) As a quicker alternative to restarting, you can enter and exit all services into and out of maintenance mode.

Note that this merely enables the features. Using the features requires appropriate licensing and configuration in other panels, as explained below.

Overview of Session and Cost Based (Legacy) Load Balancing

The following topics explain Session and Cost Based Load Balancing; Task Based Load Balancing is covered later as a separate topic.

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Session and Cost Based Load Balancing methods govern and balance the workload for each service on individual or multiple Vantage servers. For example, if you have the Transcode service running on three Vantage servers, the Flip action, which is processed by the Transcode service, can run on any of the servers. Load balancing determines which server receives the action to process.

Session-Based Load Balancing

Session-based load balancing, which is included with Vantage and does not require a license, allows you to distribute the processing of actions across multiple servers that support the same service. Session-based load balancing distributes action processing among the available servers up to the configured session limit for each server.

Note: A Lightspeed K20 Server can run a maximum of six concurrent Lightspeed jobs regardless of the capacity setting. (K80 Lightspeed servers have no such concurrency limit.) The default session limit setting for each transcode service is four. This helps ensure the server retains enough GPU memory to efficiently process all jobs. If Lightspeed jobs fail because they exceed memory limits, try a lower setting.

This load balancing is done by taking the CPU capacity and current utilization of each machine into account, as well as ensuring that any Run On rules are observed. (Run On rules allow tasks to be routed to specific machines. They are configured in the Management Console > Services > Variables and are set in the Workflow Designer by right-clicking on actions and selecting Run On Rules.)

When the configured session limit is reached on all servers, actions are queued until the workload drops below the configured session limit. (An exception to this is that some actions support the *pause for priority* feature in which an action pauses, yielding to a higher priority action of the same type.)

You set the Session Limit in the Vantage Management Console by selecting Services and selecting the service you want to change. The Session Limit is listed in the Setup panel below the services list. To change the limit for a service, you must first right-click

and select Enter Maintenance Mode, which enables the Session Limit selection. After changing the Session Limit, right-click the service and select Exit Maintenance Mode.
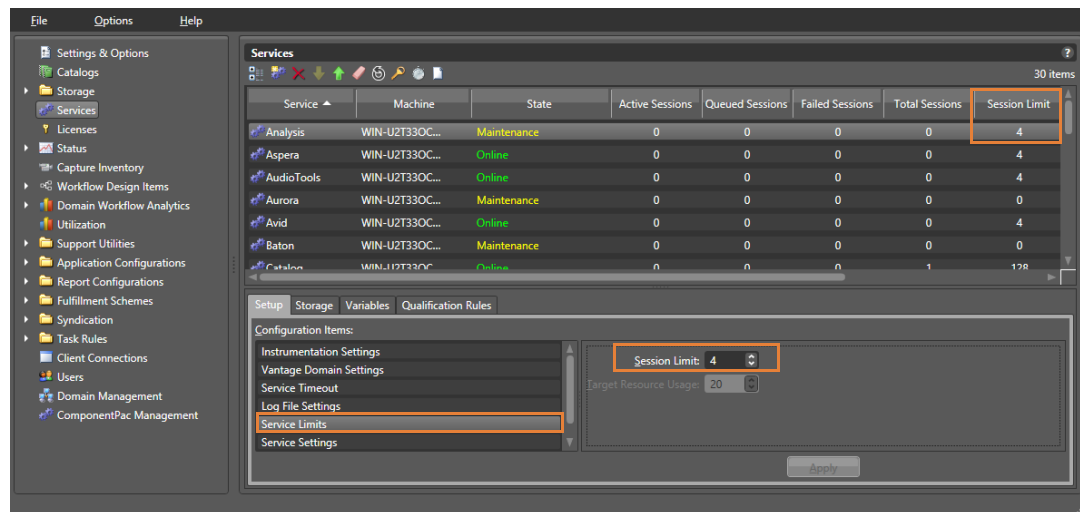
Cost Based Load Balancing (Legacy)

Cost based load balancing is a legacy method that has been improved upon by Task Based Load Balancing. Cost based load balancing requires a Vantage Array license and the Advanced Task Scheduling license and allows you to do the following:

- Assign a default cost for each type of action used in workflows
- Define a target resource usage level for each service on a server
- Override the default resource cost in workflows as needed

Note: Session limits are ignored when cost based load balancing is enabled, and the target resource usage level is ignored when session-based load balancing is enabled.

To determine its available resources, each service monitors the total cost of all actions it is processing and compares that cost to the configured target resource usage level for that service. A service can accept an action for processing if the available resource usage is at least half the cost of the action.

Unless priority is used, actions are assigned to services in the order in which they are processed, which prevents low cost actions from consuming all service resources and starving higher-cost actions. Each action is forwarded to the service with the most available resources. If the action is forwarded to a service that does not have resources to immediately process the action, the action is queued for later processing.

To implement cost based load balancing, enable the feature (as described in *Enabling Task Scheduling/Load Balancing*) and monitor the following:

- The server performance using server monitoring tools.
- The Services panel in the Vantage Management Console, which displays a list of services, including the current and target resource usage levels. For more information, see *Using the Services Details Panel*.

If the server is under- or over-loaded, you might adjust the default target resource usage level for each service as described in *Configuring Vantage Services*.

To adjust the default resource cost of an action, search for *Managing Actions* in the Domain Management Guide. For information on overriding an action's default resource cost in a workflow, see the *Vantage User Guide*.

Examples of Cost Based Load Balancing (Legacy)

You can use the target resource usage setting to limit the total action cost that a service will simultaneously process. For example, if you configure the Transcode service for a target resource usage of 16 and you configure the default Flip action resource cost to 4, the Transcode service supports a maximum of 4 simultaneous Flip actions.

Some services support multiple actions, and you can set the action resource cost for each action to a different value to define the relative usage levels. For example, the Transport service supports the Copy, Delete, Deploy, and Move actions, which are assigned default resource costs of 2, 1, 1, and 2, respectively. Based on the default values, a Transport service can support twice as many Delete and Deploy actions as Copy and Move actions.

Different codecs require different levels of processing resources. Using Workflow Designer, you can override the default resource cost for specific actions within a workflow. For example, you might configure a Transcode service to target resource usage of 16, specify a resource cost of 1 for a 3GP Flip action, and a resource cost of 8 for an MPEG-2 HD Flip action. During load balancing, Vantage will ensure that:

- No more than two MPEG-2 HD jobs execute simultaneously
- Up to 16 3GP jobs can execute simultaneously
- One MPEG-2 HD and eight 3GP jobs can execute simultaneously in ideal situations
- MPEG-2 jobs are not starved by 3GP jobs which only require one slot

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Note: Resource costs are integer values that have an ordinal relationship. You can implement any scale. Greater scales enable finer-grained control.

Overview of Task Based Load Balancing

Vantage Task Based load balancing is Vantage's most advanced load balancing capability and augments the existing Vantage Session Based load balancing and the Vantage Cost Based load balancing. Task Based load balancing ensures that all Vantage servers remain fully utilized, maximizing server efficiency and increasing workflow throughput. Task Based load balancing also helps avoid the situation where some Vantage servers are over utilized and others are under-utilized.

The older session-based and cost based methods discussed previously are limited to a single service on a single machine. These methods can prevent a service from becoming overloaded, but they cannot effectively balance between different types of actions on a single machine, and they do not offer a global way of managing sessions across multiple machines.

Task based load balancing is a separately licensed option that provides a single set of metrics shared across all services for scheduling tasks and balancing workload on a single machine or all the machines in a domain.

These are the key features of task based load balancing:

- Each metric can be edited and has machine scope (across all services on the machine) or global scope (across all services on all machines).

- Each metric has two inputs: Cost (set for each action) and Capacity (set per machine, or globally). You can edit both on a per-machine basis (for per-machine metrics) or for the entire Vantage Domain (for global metrics).

- A default metric called System Resources is pre-configured to provide a per-machine metric. This metric cannot be deleted and must remain per-machine. However, you may set the capacity for this metric on each machine, and you may remove the metric from an individual action.

- You can create and name your own new metrics.

- By default, each metric has machine scope, but you can edit this after creation.

- The default capacity is 100 "units" for each machine, allowing each cost to indicate the resource percentage an action will use. The capacity can be changed.

- You can choose which metrics are relevant to an action, and you can set the cost for each action.

- When executing a task:

  – Vantage evaluates all metrics that you attach to the action. If a metric is not attached to an action, it is not considered.

  – Vantage tracks the aggregate cost of all executing actions on a machine, across all machine-based metrics, and will track the aggregate cost of executing actions across the entire system for global metrics.

  – Vantage only executes an action when the aggregate cost of executing current actions, plus the new task, does not exceed the capacity of any of the metrics attached to the task.

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Vantage will never execute a task when the aggregate cost of executing actions, including the new task, would exceed the capacity of any of the metrics attached to the task.

- When tasks are queued, they may be pre-empted only by higher priority actions:
  - Certain high priority tasks will pause an appropriate number of low priority tasks (executing on the same service on the same machine) to free up sufficient resources across all metrics, to allow that high priority task to execute. If doing so would exceed the maximum number of paused jobs specified by the user, then the high priority task will wait until a different set of tasks are present which may be paused. Pauses will not occur across multiple machines; they occur only for actions hosted by the same service.

The new task based load balancing capability allows you to define custom task scheduling rules which allow jobs to be controlled/allocated based on criteria on a given machine or across an entire domain.

Vantage task based load balancing is enabled via the settings panel in the Vantage Management Console. As with other system level settings, when task based load balancing is enabled (or changed), services must be restarted to implement the new settings.

Task based load balancing includes capabilities that replace and extend the Cost based load balancing mode. The new capabilities replace the existing action cost mechanisms, and are used in-conjunction with the existing service capacity to provide more granularity on when and where an action may run.

Configuring Task Based Load Balancing

The following topics explain how to configure task based load balancing. The overall process consists of these steps:

1. Install the Advanced Task Scheduling license via the Vantage Management Console > Licenses panel.

2. Enable Task Based Load Balancing in Vantage Management Console > Settings & Options > General.

3. Put all Vantage services in Maintenance mode

4. .Set Service and Session limits for each service in the Vantage Management Console > Services panel. This limits how many actions can run within a given service to prevent service overload.

5. Take the services out of Maintenance mode to restart them.

6. Create machine and domain rules in the Vantage Management Console > Task Rules > Task Scheduling Rules. You can create multiple rules to govern machine and domain capacities under different operating circumstances.

7. Adjust the capacity of rules for machines and domains using the Vantage Management Console > Task Rules > Task Capacity Manager.

8. Apply default costs and rules to actions using the Vantage Management Console > Workflow Design Items > Action Defaults. You can use the Configure Task Scheduling button to set default values and rules to apply to each action.

9. When creating workflows in the Workflow Designer, you can use the action defaults, or you can customize costs and rules for specific instances. To customize an action, right-click the action, and select Resource Cost > Configure Task Scheduling.

10. Monitor overall rule operation on machines and the domain using the Vantage Management Console > Status > Task Scheduling Status panel. Monitor workflow performance in the Workflow Designer Status panels, such as Domain Job Status.

Task Scheduling Rules Panel

The Task Scheduling Rules panel shown below provides a list of currently defined task scheduling rules. This panel allows machine or domain task scheduling rules to be added, configured, managed, and deleted. For the currently selected rule, you can set the default capacity for the rule and the Scope of the rule.

The System Resource rule is a system task scheduling rule that may not be deleted or changed and is assigned to any new machine added to a Vantage domain.
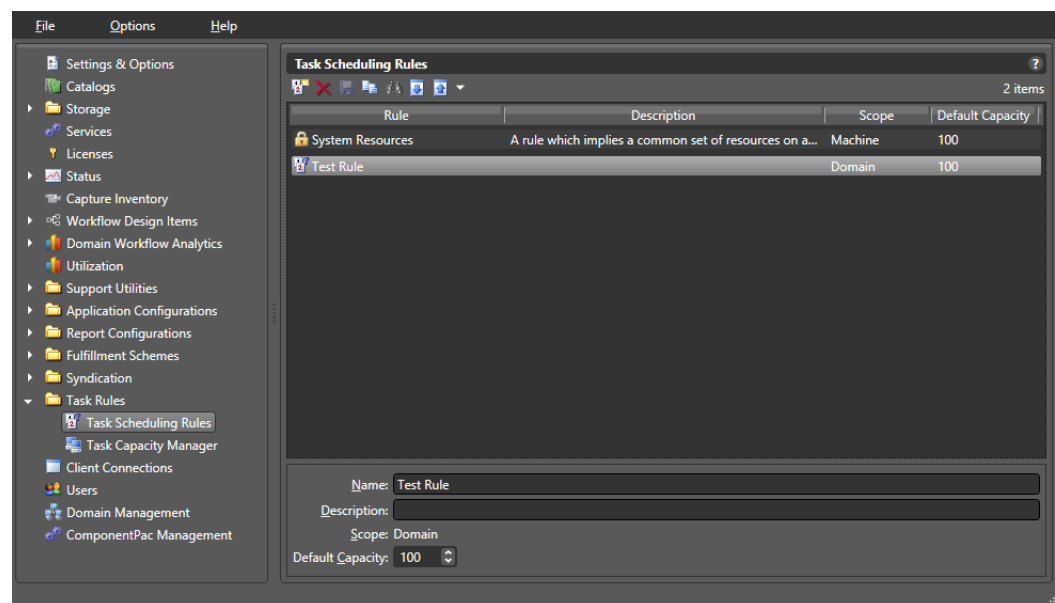
To add and configure a task scheduling rule, follow these steps:

1. Click Task Scheduling Rules in the left panel to open the Task Scheduling Rules panel on the right.

2. Click the *Create a new rule* button in the upper left corner of the panel.

3. In the Create New Rule dialog, select a *Machine* rule or a *Domain* rule and click OK. A Machine rule applies to a particular Vantage node, and a Domain rule applies to all nodes in the domain. The Scope you choose displays in the bottom panel.

4. In the bottom panel, name the rule, describe it, and if you wish change the Default Capacity. Capacity is the percentage of a machine or domain to devote to a service.

5. Click the Save button 🖫 to save the rule. The new rule appears in the rule list.

These are the controls available in the Task Scheduling Rules panel:

Create a new rule—🖼 Adds a new machine or domain task rule.

Delete a rule—✖ Deletes the selected rule from the rule list.

Save a rule—🖫 Saves a newly created or edited rule.

Duplicate a rule—🖼 Replicates the selected rule. Be sure to enter a new name.

Show usage—🖼 Lists actions and workflows where the selected rule is used. A rule must be located and deleted from all actions and workflows before you can delete it from the list.

Import—🔽 Imports rules previously exported as XML files.

Export—🔼 Exports rules as XML files that can be reimported using the Import function.

Note also that the above listed controls are also available in context menus. Right-click in the open space below rules to see a context menu containing the New Rule, Import Rules, and Export Rules functions. Right-click a particular rule to access Delete, Duplicate, Show usage, and Export functions.

Task Capacity Manager Panel

The Task Capacity Manager panel lets you assign Task Scheduling Rules to particular machines or to the domain.
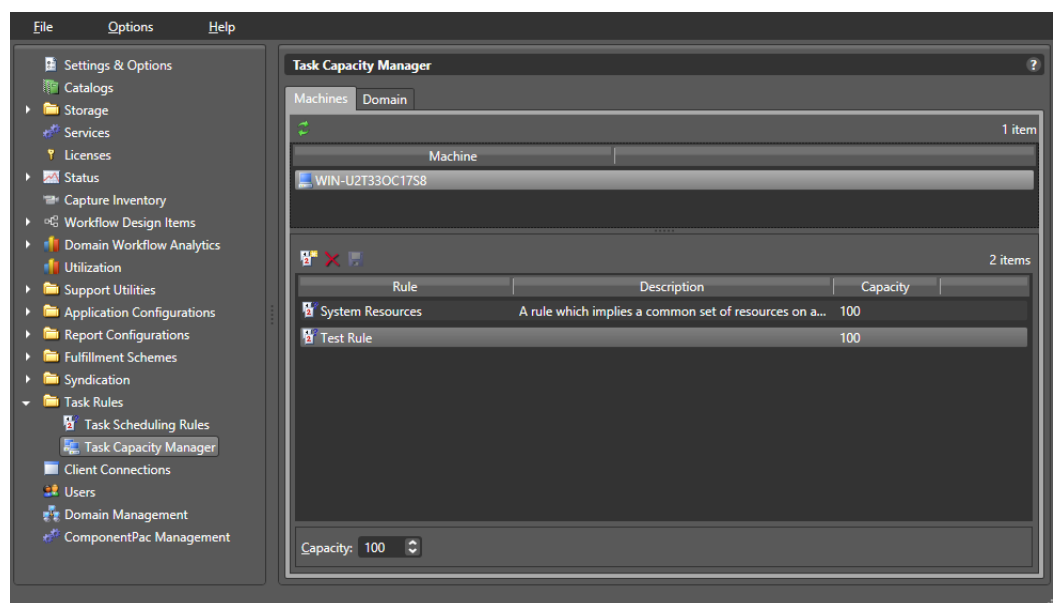
To apply a task scheduling rule to a machine or domain, follow these steps:

1. Click Task Capacity Manager in the left panel to open the Task Capacity Manager right panel.

2. Click the Machines tab to add rules to a machine, or click the Domain tab to add rules to the domain.

3. For machines, select the machine to which you want to apply a rule; for the domain, no selection is required.

4. Click the Add rule button, and select a rule from the list to apply to the domain or the selected machine.

5. At the bottom of the panel, set the Capacity that you want to apply.

6. Click the Save button to save your changes. Once saved, rules cannot be changed without putting Vantage services into maintenance mode.

These are the controls for the Task Capacity Manager Panel:

Refresh— ⟳ Refreshes the machine list to detect machines that have come online.

Add a rule— ⊞ Adds a rule to the selected machine or domain.

Delete a rule— ✖ Deletes the selected rule from the rule list.

Save a rule— 🖫 Saves changes to added rules.

Capacity—Changes the maximum percentage capacity allocated to a rule.

Action Task Scheduling

To add task scheduling rules to actions in a workflow, follow these steps in the Vantage Workflow Designer.

1. Right-click the action, and select Configure Task Scheduling.

2. In the Task Scheduling Rules dialog, select Custom or Default. Use Custom to apply rules you've created. Use Default to apply existing system rules.

3. Select the rule you wish to apply to the action from the Rule list.

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4. You can also select Resource Cost Settings and specify custom costs.
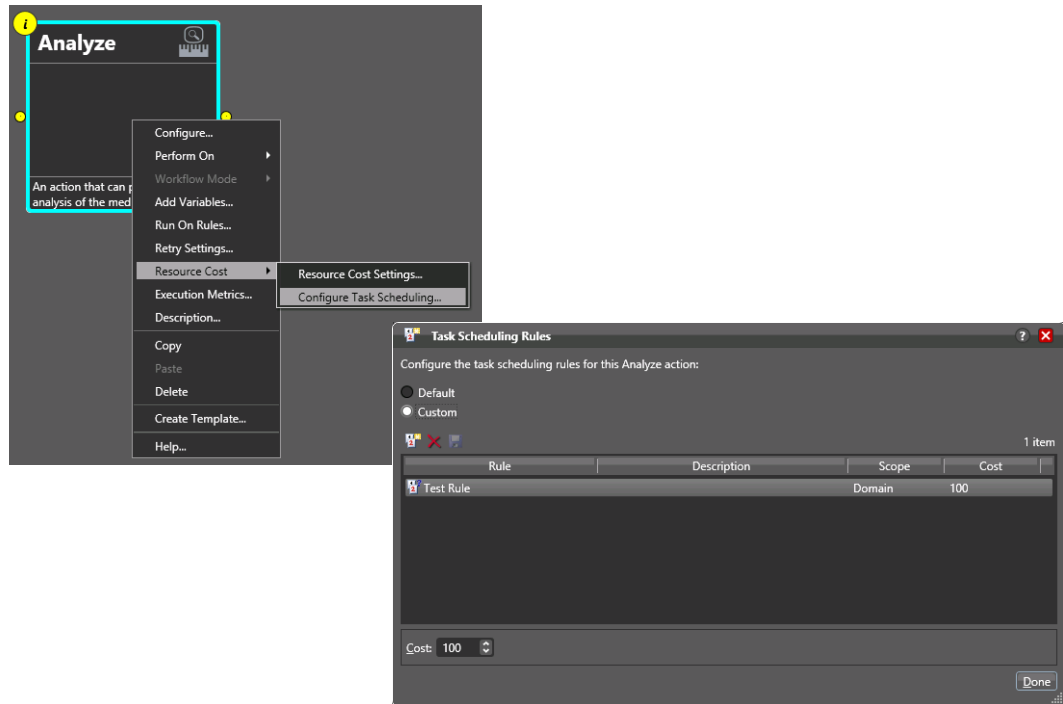
Action Defaults for Task Scheduling

Action default costs and task scheduling rules apply to all actions of a specified type globally. These can be set up for each action in the Vantage Management Console > Workflow Design Items > Action Defaults. By setting up the default Resource cost and using Configure Task Scheduling to set up default rules, you can reduce the number of times you have to specify custom rules when you deploy individual actions.

For details about setting Action Defaults, see the *Vantage Domain Management Guide > Configuring Vantage Workflow Components* chapter > *Managing Action Default Settings*.

Checking Task Status

To check the status of running task rules, click Task Scheduling Status in the Vantage Management Console left panel. The state of machine and domain rules is displayed.
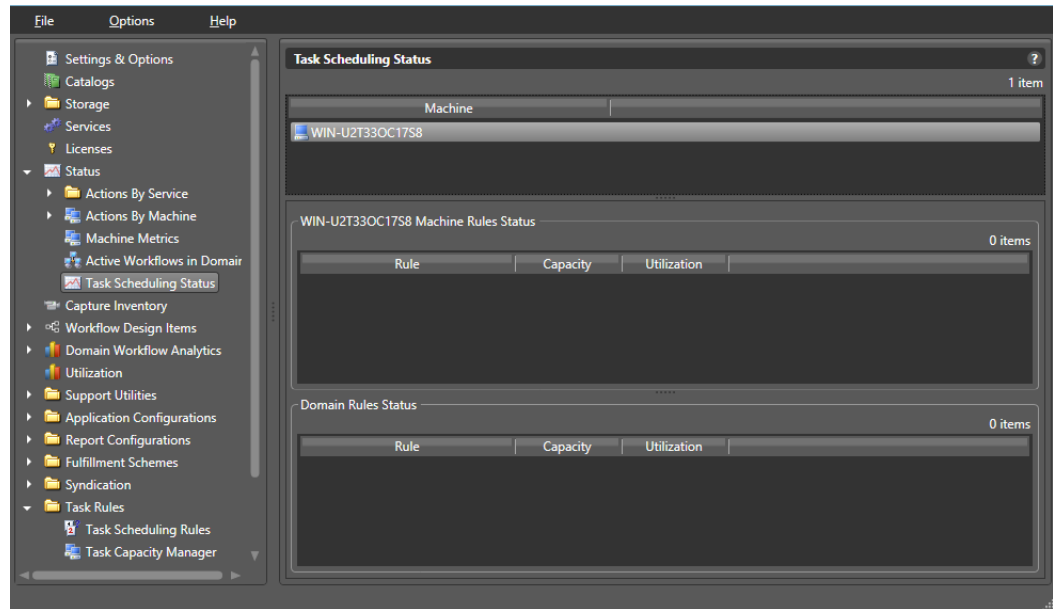
Examples of Task Scheduling

The following brief examples present scenarios where load balancing may be useful:

Example: The user sets the Transcode Service session limit to 6 and creates a new Rule called Transcode with a capacity of 100 associated with machine #1. The user then defines a Flip action and specifies a cost of 10. The user starts the workflow with this action and submits 10 jobs.

Because the session limit is explicitly set at 6, only 6 jobs execute despite the capacity of 100 specified in the rule and the fact that only 60 units of cost are used.

If the user stops the transcode service and changes the session limit to 12, restarts the workflow and re-submits 10 jobs, all 10 would execute (since the cost of each job is 10 and the machine has a capacity of 100). If the user submitted 2 additional jobs; these would queue (since the capacity of the machine is limited to 100 and there are 10 actions running (each with a cost of 10).

Example: The user installs Vantage and enables task based load balancing. By default, all Multiscreen and IPTV VOD transcodes have a System Resource cost of 25, and each machine has a capacity of 100. By default, only 4 transcoding jobs of any type will run on each machine.

Example: The user sets the System Resources cost of a Multiscreen action to 100 and the cost of another IPTV VOD action to 50. The capacity of each machine is the default (100). Now only one of the Multiscreen jobs, or two of the IPTV VOD jobs, can execute at a time.

Example: The user creates a machine-level rule called "FTP Sessions" and sets the machine capacity for "FTP Sessions" to 1. The user then adds "FTP Sessions" to a Transport action, and sets the cost to 1. This limits the number of FTP transfers from that machine to one at a time, which is useful for FTP sites that can only allow one connection from a machine at a time.

Example: The user creates a rule called "Omneon Sessions" and sets it as a global rule, with a capacity of 1. The user then adds the metric "Omneon Sessions" to a Transport action, and sets the cost to 1. This limits the number of Omneon connections to one at a time across the entire system.

Example: Four tasks are running on one machine, each with a cost of 20. The aggregate cost of those running actions is 80. When a new task arrives with a cost of 25, it will not execute because doing so would exceed the capacity of the machine (100). Any tasks that arrive after that action will be queued behind the action (unless one has a higher priority).

Example: A high priority task (cost 50) pauses two low priority tasks (cost 25 each, total 50) to execute.

Example: A high priority task (cost 50) cannot execute because ten tasks are running, each with a cost of 10, and the pause session limit is set to 3; the high priority task would have to pause too many tasks. In this situation, the high priority task will wait until two jobs complete (so that it can pause three).

Viewing Client Connections

Clicking the Client Connections selection in the Vantage Management Console left menu panel opens the Client Connections window. This window lists the currently open clients in the domain and their hosts and indicates the last time the list was updated for each client.

The delete button (⊠) lets you highlight clients and delete them from the list. Deleting a client only removes it from the list and does not close the client. Clicking a column sorts the list according to that column.
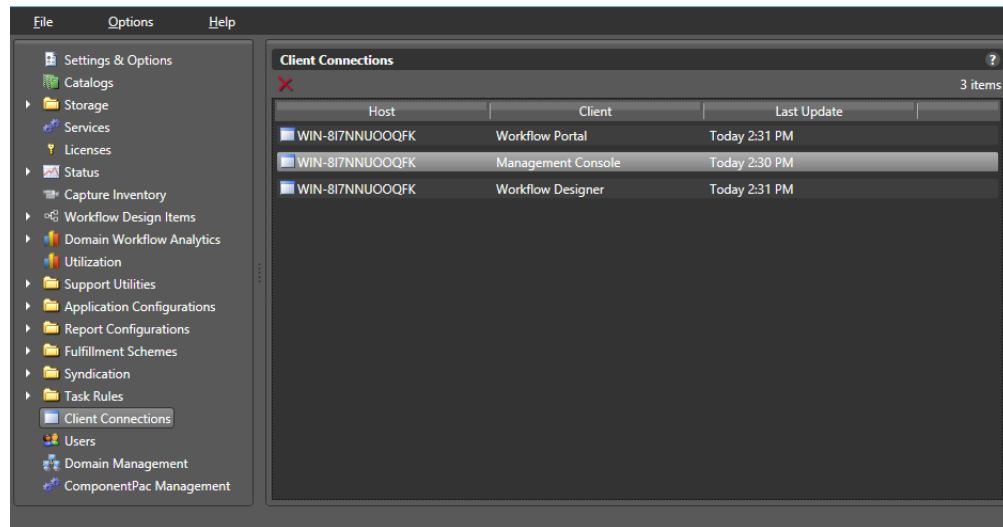
Managing Vantage Users

The user management feature determines which users have access to the following:

- Vantage Web Applications
- Vantage Workflow Portal configurations
- Workflow categories in the Vantage Workflow Designer client application
- Vantage Management Console

The Vantage administrator uses the Vantage Management Console to create, remove, and edit user profiles and Active Directory accounts. Vantage users are allowed to change their own passwords.

The following topics describe how to manage Vantage users:

- Enabling and Disabling User Administration
- Managing Users with Vantage Management Console
- Adding Users
- Setting Passwords
- Removing Users
- Importing and Exporting Users

Enabling and Disabling User Administration

User administration is disabled by default so a Vantage login is not required to use Vantage. If you enable user administration, Vantage users will be required to log in using a Vantage username and password that is assigned to them by the Vantage administrator or by using their Windows Active Directory login.

To enable or disable user management, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Settings and Options.

3. On the General tab in the details panel, check the *Enable user administration* check box to enable this feature, or clear the check box to disable this feature.

4. Also check Use Windows Active Directory for Users if you would like to allow users to use their Windows login for logging into Vantage.

5. See *Managing Users with Vantage Management Console* for details about adding user accounts if you enabled user administration.

Note: When you disable user management, users do not need to enter a user name and password to log in to Vantage Management Console, Vantage Workflow Designer, or the Vantage Workflow Portal client application. To access most Vantage Web Applications, users must enter a user name and password. The exception for Vantage Web Applications is Job Status Views. When public access is configured for Job Status Views, users do not need to enter a user name and password.

Managing Users with Vantage Management Console

To start user management in the Vantage Management Console, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the Settings & Options > General panel, check Enable user administration, which must be enabled in order to manage users. You can also select Use Windows Active Directory for Users to allow logging in using Windows accounts.

3. In the components panel, select Users.

Vantage displays the Users detail panel shown in this figure:
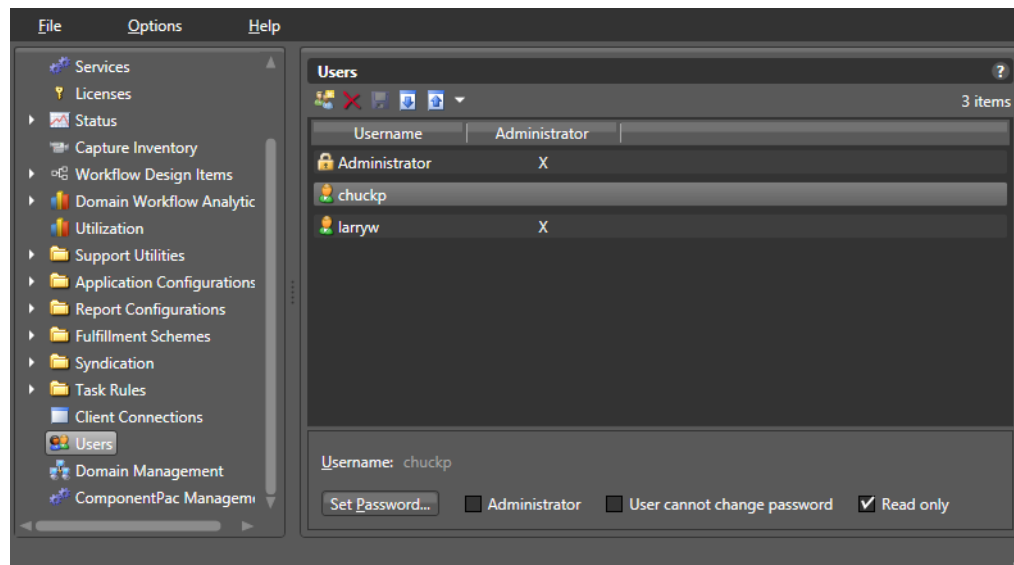
The default user account is for the administrator. The account's user name is "administrator" with no password. This account exists even if you do not add any users.

After you add users, you can select each user or Ctrl-select multiple users and assign or restrict privileges using the check boxes and Set Password button at the bottom of the window. Click Save after making changes. See the following topics for details.

Adding Users

The procedure to add users differs slightly depending on whether you use Windows Active Directory or not. This figure shows the two different Add User windows.
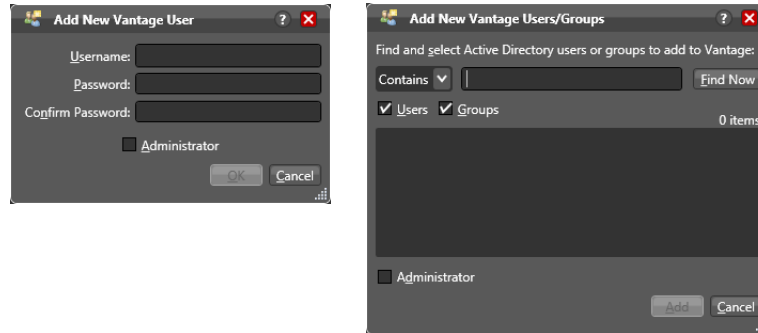
Adding Users Without Windows Active Directory

To add a new user without using Windows Active Directory, follow these steps:

1. Click the *New User* button 🖼 or right-click and select *New User*.

2. Enter the username and password (and confirm the password) in the dialog box.

3. Check the *Administrator* check box if you want the new user to be an administrator.

4. Click *OK* to add the user, and then click *Save* 🖫 to save your changes.

Adding Users With Windows Active Directory

The Vantage Active Directory feature allows you to create users and groups in Windows Active Directory and add them as users in Vantage. You can assign them a Vantage role either as regular users or administrators.

For example, if you add a group and choose to assign Administrator privileges to the group, each member of the group defined in Windows Active Directory will have Vantage administrator privileges. If you choose not to check the Administrator box when adding the group, users in that group are added as regular Vantage users without administrative privileges.

Note that individual user accounts take precedence over group accounts. For example, if user *johnk* is part of a group assigned as regular users, you can also add *johnk* as a separate user and set this account to be a Vantage Administrator. The separate account definition overrides the group settings for that user.

Also note that to use Active Directory, the machine must be logged on or joined to the Active Directory domain, and the administrator adding users must be an Active Directory user.

To add a new user or group using Windows Active Directory, follow these steps:

1. Click the *New User* button 🖼 or right-click in the empty user list and select *New User*.

2. Enter part or all of the user name in the blank field and click Find Now to search for and list users whose names match the text you entered.

The drop-down menu lets you select a filter for your search, and the Users and Groups check boxes allow searching for users, groups, or both (default).

3. Select a user in the displayed list.

4. Check the *Administrator* check box if you want the new user to be an administrator.

5. Click *Add* to add the user, and then click *Save* 🖫 to save your changes.

Setting Passwords

To set a user's password, select the user, and click the Set Password button (or right-click the user in the list and click Set Password). When the dialog box displays, enter (and confirm) the user's password. Click *OK* to close the dialog box, then click the Save button 🖫 to save your changes.

Setting Administrator or Read Only Access

Select the user or Ctrl-click to select multiple users and check the appropriate boxes at the bottom of the window to add or restrict privileges.

If you select the Administrator check box when adding the user or afterwards, the user has complete access to change any settings in the Vantage domain.

If the user is not an administrator, the *User cannot change password* checkbox is available. Check the box if you want to prevent the user from changing the password.

Non-administrators cannot access the Vantage Management Console unless you allow limited access by checking Read Only. Read Only allows users to see but not change these Vantage Management Console functions: Services, Licenses, Status, Domain Workflow Analytics, Utilization, and Support Utilities.

Click the Save button 🖫 to save your changes.

Removing Users

Users can be removed by selecting the user in the Users list and clicking the Delete button ✖ at the top of the User Management panel (or right-click the user and select Delete). When requesting the removal of a user, a dialog box will display asking you to confirm this action. You cannot undo the removal of a user, thus to restore a user you must add the user again as a new user.

Importing and Exporting Users

User lists can be imported and exported. To import a list of users, click the Import button 🔽, navigate to the XML file containing a list of users, and click the Open button. To export a list of users, click the Export button 🔼 (or right-click the list and select Export), enter an XML filename for the list of users, and click the Save button.

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Managing Domains

Managing a Vantage Domain includes backing up and restoring the domain database, shrinking the database, renaming a domain, and renaming a server.

■ Backing Up and Restoring the Vantage Domain Database

■ Understanding Domain Backup and Restore

■ Backing Up the Domain

■ Restoring the Domain

■ Shrinking a Full Database

■ Renaming a Vantage Domain

■ Renaming a Vantage Server

Backing Up and Restoring the Vantage Domain Database

The domain backup feature allows you to save archival copies of the Vantage domain database in a separate file. The domain restore feature allows you to replace your current Vantage domain database with the contents of a previously-backed up domain. The domain backup and restore features are primarily used for the following:

• Returning the database to a previously backed-up state.

• Preparation for database mirroring.

Note: The domain backup and restore features are not designed for use during Vantage upgrades. If you back up the database from a specific version of Vantage, that backup can only be restored to the same Vantage software version. During a Vantage upgrade, the Vantage installers manage any required database updates as described in *Upgrading from the Previous Version* in the *Vantage Domain Management Guide*.

The following topics describe domain backup and restore:

■ Understanding Domain Backup and Restore

■ Backing Up the Domain

■ Restoring the Domain

Understanding Domain Backup and Restore

During a domain backup, Vantage creates a single backup file that contains all workflows, all services, and all jobs registered in the domain. It is important to remember that the backup file contents reflect the domain contents as of the moment the backup file is created. To capture changes made after a backup, you must create another backup.

When you restore a domain, all services are stopped, the current database contents are irretrievably destroyed, and the backup file you specify is used to create the

replacement database. The services defined in the backup file are started and the Vantage domain database repopulates with the backup database values.

Because the restore feature irretrievably destroys the contents of the current database, Telestream recommends that you back up the current database before restoring a previous database. Backing up the current database captures all database changes made since the last backup, and it gives you a backup file that you can use to restore the current database if necessary.

Backing Up the Domain

To back up the Vantage domain database, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Domain Management.

Vantage displays the Domain Management details panel.
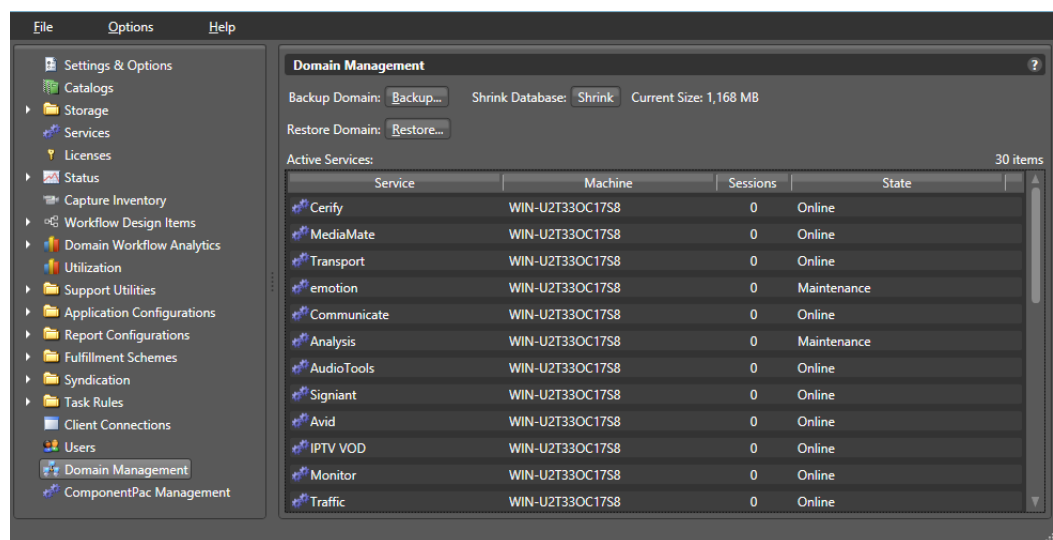
3. Verify that all services in the Active Services list are hosting 0 sessions.

Note: Although you can create a successful backup while services are executing workflow tasks, some job records may be lost. It is best to back up the domain when there is no activity in the domain.

4. Click the Backup... button.

5. In the *Save the domain* dialog, browse to the folder where you want to store the backup file, and click Save.

6. When the Backup Complete message appears, click OK.

Restoring the Domain

CAUTION: Telestream recommends that you restore a Vantage domain using the same machine that created the backup file. If you restore the domain from another machine, the services defined in the database must match the services installed on the other machine.

To restore a Vantage domain database, do the following:

1. Start the Vantage Management Console as described in *Starting the Vantage Management Console*.

2. In the components panel, select Domain Management.

Vantage displays the Domain Management details panel.

3. To provide the option to return to the current Vantage domain database later, back up the current domain database as described in *Backing Up the Domain*.

CAUTION: Always back up your current database before restoring it to an earlier backup. Restoring your Vantage domain database overwrites the entire contents of the current database with the contents of the backup file selected.

4. Verify that all services in the Active Services list are hosting 0 sessions.

Note: When you restore a domain, all services are stopped, and all information related to any jobs in progress is lost. The restored database contains only the domain information captured when the domain was backed up.

5. Click the Restore... button, read the information dialog that appears, and click OK.

6. In the *Load the domain* dialog, browse to the backup file you want to restore, select the backup file, and click Open.

7. When the Restore Complete message appears, click OK.

Shrinking a Full Database

If a Vantage installation using SQL Express nears the SQL Express database size limit, Vantage stops accepting jobs. Attempts to submit jobs manually launches a warning dialog indicating that the database is at or near capacity.

You may be able to resolve this issue using the Vantage Shrink Database feature, which applies the MS SQL DBCC SHRINKDATABASE command to the existing database to delete unused entries and reduce file size. The shrink process may take some time and may slow database performance, so it should be done only when the Vantage system is not busy.

Use this procedure to shrink the database:

1. Start the Vantage Management Console.

2. In the components panel, select Domain Management.

   Vantage displays the Domain Management details panel.

3. To protect against potential data loss, use the Backup... button to back up the current domain database as described in *Backing Up the Domain*.

4. Click the Shrink button to shrink the database.

   A dialog pops up to explain that the Shrink command may affect database perfor- mance and should be done only when Vantage is not busy.

   A Status message indicates progress.

   Current Size displays the database size next to the button, so you can see any changes immediately upon completion of the shrink command.

   Multiple presses of the button may shrink the database additionally each time.

Renaming a Vantage Domain

Each Vantage domain uses the name assigned to the Windows server that hosts the Vantage domain database. To rename a Vantage domain, you must complete the following tasks (which are described in more detail later in this topic):

- Remove all Vantage services from the Vantage domain.

- Rename the Windows server that hosts the Vantage domain database.

- Restart the renamed server and add all Vantage services to the renamed domain.

Note: If the Vantage domain database is a mirrored database, you *must* remove any Vantage licenses prior to renaming the Vantage domain. If you do not remove the licenses first, your licenses will become invalid after the rename is complete.

When you remove Vantage services from the domain, the Storage, Variable, and Qualification rule configuration for each service is lost. The rest of the Vantage domain configuration is retained. After the Vantage domain is renamed, all Vantage users and administrators will need to specify the new Vantage domain name when connecting to the domain with Vantage client or web applications.

Note: To complete this procedure, you must have permission in your Windows domain to rename the computer, or you must get assistance from your Windows domain administrator. Be sure to schedule the rename during a maintenance window, as renaming the Vantage domain interrupts all Vantage services in the domain and all Windows services on the server to be renamed.

Use the following procedure to rename a Vantage domain:

1. Start the Vantage Management Console, select the domain to manage, and log in as described in *Starting the Vantage Management Console*.

2. Select Services in the components panel.

3. Take note of any Storage, Variables, and/or Qualification Rules settings for each service.

   Write down any Storage, Variable, and/or Qualification Rule settings that you want to reconfigure after the Vantage domain is renamed.

4. Click a service in the Services details panel, and enter Ctrl-A to select all services.

5. Click the Remove Service button ✖ in the toolbar.

6. Click Start > Control Panel > System.

7. Click Change Settings in the right panel. The System Properties window opens.

8. Select the Computer Name tab and click Change.

9. Edit the computer name in the Computer Name text box and click OK.

10. If prompted to do so, enter a Windows user name and password for an account that has permission to rename this computer in the Windows domain.

Note: If you do not have the appropriate permissions, contact the administrator for your Windows domain.

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11. Restart the server.

12. Start the Vantage Management Console, select the new domain to manage, and log in.

13. Select Services in the components panel.

14. Click the Add Service button 🏵 in the toolbar.

15. When the Select Service dialog appears, click Machine to sort the services by machine name.

16. To add Vantage services for a specific machine, select the services you want and click OK.

17. If any Storage, Variables, and/or Qualification Rules settings were configured for services, add them now.

18. Send the new Vantage domain name to all Vantage users and administrators so they can reconnect to the Vantage domain.

Renaming a Vantage Server

To rename a Vantage server, you must complete the following tasks (which are described in more detail later in this topic):

- Remove all Vantage services for the server to be renamed from the Vantage domain.

- Rename the Windows server.

- Restart the renamed server and add all Vantage services on the renamed server to the Vantage domain.

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Note: Do not use this procedure to rename a server that hosts the Vantage domain database. Instead, see *Renaming a Vantage Domain*.

When you remove Vantage services from the domain, the Storage, Variable, and Qualification rule configuration for each service is lost. The rest of the server configuration is retained.

Note: To complete this procedure, you must have permission in your Windows domain to rename the computer, or you must get assistance from your Windows domain administrator. Be sure to schedule the rename during a maintenance window, as renaming the Vantage server interrupts all Vantage services and Windows services on the server to be renamed.

Use the following procedure to rename a Vantage server:

1. Start the Vantage Management Console, select the domain to manage, and log in as described in *Starting the Vantage Management Console*.

2. Select Services in the components panel.

3. Take note of any Storage, Variables, and/or Qualification Rules settings for the service node you want to rename.

    Write down any Storage, Variable, and/or Qualification Rule settings that you want to reconfigure after the Vantage domain is renamed.

4. Click a service in the Services details panel, and enter Ctrl-A to select all services. (NOTE: If renaming just a service node and not a domain database server, then only the service node's services need to be unassigned from the domain.)

5. Click the Remove Service button ✖ in the toolbar.

6. Click Start > Control Panel > System.

7. Click Change Settings in the right panel. The System Properties window opens.

8. Click Change System Properties in the right panel.

9. Select the Computer Name tab and click Change.

10. Edit the computer name in the Computer Name text box and click OK.

11. If prompted to do so, enter a Windows user name and password for an account that has permission to rename this computer in the Windows domain.

Note: If you do not have the appropriate permissions, contact the administrator for your Windows domain.

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12. Restart the server.

13. Start the Vantage Management Console, select the domain to manage, and log in.

14. Select Services in the components panel.

15. Click the Add Service button 🌟 in the toolbar.

16. When the Select Service dialog appears, click Machine to sort the services by machine name.

17. To add Vantage services for the renamed server, select the services you want and click OK.

18. If any Storage, Variables, and/or Qualification Rules settings were configured for services, add them now.

Managing ComponentPacs

This topic describes the ComponentPac Management user interface in the Vantage Management Console. For additional details, see the Upgrade chapter.

ComponentPacs have replaced the component patches previously distributed for updating transcoding-related actions. ComponentPacs are uniquely numbered and versioned software libraries that contain these actions:

Analyze

Capture

Chronicle

Compose

Conform

Flip 64

IPTV Flip

Multiscreen Flip

Tape Capture

Tempo

Timed Text Flip

These libraries are not installed or uninstalled using the Windows installer, but rather they are installed and managed separately from the Vantage framework. ComponentPacs are drop-in packages that you install into an existing Vantage Framework using the ComponentPac Management feature of the Vantage Management Console. Using the ComponentPac Management feature, you can install them from a central location of your choice or the default local cache. A central location accessible to all Vantage machines is required for a Vantage array or a Vantage domain having multiple client machines.

ComponentPac management provides secured version control for affected Vantage actions. ComponentPacs are managed and reconciled automatically on each node within a Vantage domain to ensure all nodes contain the same packages and versions. Each node is checked to ensure it has the correct packages installed, and if not, the correct packages are retrieved and installed from the central file location. Thus, if you move a node from one domain to another, the ComponentPac Management feature will reconcile the new node with the other nodes in the domain.

Please note that the Vantage *framework* is still installed and removed using a Windows-based installer from Telestream, and if a change is required within the Vantage framework, such as to non-transcoder service components, those updates are made using a Vantage patch or update pack, not a ComponentPac. Note also that the Flip, Identify, and Examine actions are not managed by the ComponentPac feature.

ComponentPac Management also includes features for managing which ComponentPacs are used by workflows and actions. You can upgrade ComponentPacs but continue to use old ComponentPacs for particular workflows and actions. You don't have to upgrade workflow and action functionality until you are ready. For details, see the *Vantage User Guide* topics on upgrading actions and workflows.

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Using the ComponentPac Management Panel

The following figure shows the ComponentPac Management panel in the Vantage Management Console. To access this panel, select ComponentPac Management in the left menu.
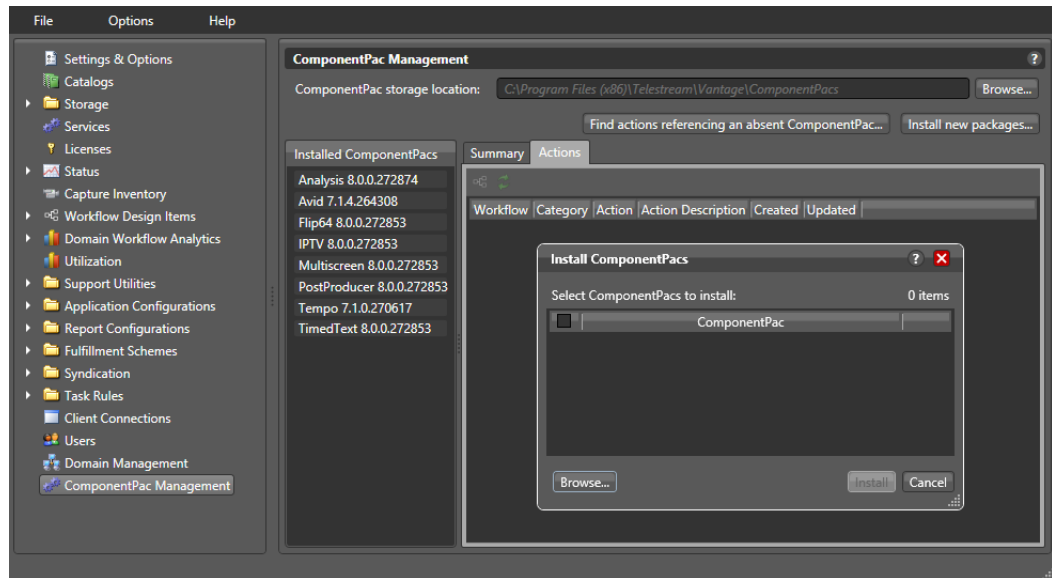
- The *ComponentPac storage location* field allows you to enter or browse to a central location where ComponentPacs will be stored. If not specified, the default location is C:\Program Files (x86)\Telestream\Vantage\ComponentPacs\.

- The *Install new package* button opens the *Install ComponentPacs* window, which enables you to select new downloaded ComponentPacs and install them by clicking the *Install* button.

- The *Installed ComponentPacs* list on the left side of the panel shows all installed ComponentPacs and allows you to select packages to manage.

- The *Summary* tab opens a panel that shows details about the package selected in the *Installed ComponentPacs* list.

- The *Actions* tab opens a panel listing workflows and actions that use the package selected in the *Installed ComponentPacs* list.

- Use the *Find actions referencing an absent ComponentPac* button to locate actions that need upgrading to use a new ComponentPac after a previous one has been removed.
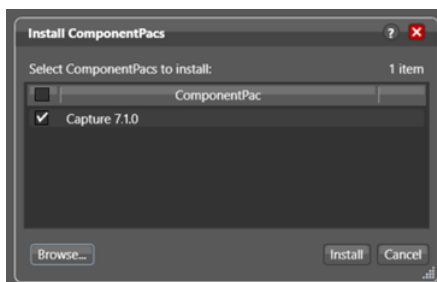
Installing ComponentPacs

Installing new ComponentPacs as explained below makes them available for use but does not affect existing jobs, actions, or workflows until you explicitly upgrade them.

1. Obtain the new ComponentPac from Telestream.net or Telestream Support and place it in a folder accessible by the Vantage Management Console.

2. Open the Vantage Management Console, and click ComponentPac Management in the left column. Installed ComponentPacs, if any, are listed in the Installed ComponentPacs list on the right.

3. In the right panel Storage Location field, enter or browse to specify a path to a central *ComponentPac storage location*. This is where new downloaded packages will be stored and installed from. If you do not specify a path, the default location is used: C:\Program Files (x86)\Telestream\Vantage\ComponentPacs\.

Note: For an all-in-one (single node) installation, the ComponentPac storage location can be a local path. For a multi-node installation (Vantage array), the ComponentPac storage location must be accessible to the Vantage services on all Vantage servers (via a UNC path or a SAN drive letter with appropriate permissions).

One convenient way to securely install ComponentPacs from a share is to use Vantage Authorization credentials. To do this, create a share for a single user which is a different login than the logins to Windows or Vantage. (Shares can be created for single or multiple users or groups, and the user can be the same or different from the Windows user login.) Then in the Vantage Management Console, go to Settings & Options > Authorization and add the credentials for the share user. Next, restart the services to recognize the new credentials, and then test share access. You can now use the share as your ComponentPac central storage location.

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4. Click the *Install new package* button.

5. Browse to the location where you downloaded the ComponentPac. Click on the ComponentPac file you want to install, and click Open. (Skip this step if the ComponentPac you are installing is already in the location specified in step 3.)

6. Check the desired ComponentPac in the *Install ComponentPacs* window, and click *Install* to install and register the package with the domain.

7. When installation finishes and the package appears in the Installed ComponentPacs list, restart all affected services on all nodes to deploy the pacs.

   ComponentPacs are unpacked and made ready for use when the Vantage services targeted by the ComponentPac are restarted. Unpacked pacs are stored in C:\Program Files (x86)\Telestream\Vantage\Components\ on each Vantage service node.

Notes:

1. New actions and workflows created in the Workflow Designer use the latest installed ComponentPac. However, existing actions and workflows must be selected and upgraded to use the latest ComponentPac. If they are not upgraded, they will continue to use the ComponentPac with which they were created. See the *Vantage User Guide* for detailed action and workflow upgrade instructions.

   Once an action is upgraded it can't be directly downgraded. However, you can restore workflows to their pre-upgraded state by importing the automatic backup copy that Vantage places in the C:\VantageWorkflowBackup directory (local to the Workflow Designer client). Beginning with Vantage 7.0 UP1, a log file describing the upgrades is also included in that directory.

   If you want to change the location of automatic ComponentPac backups, open the Vantage Management Console, select Settings and Options, and browse for a new *Location for workflow backups*.

2. In Vantage version 7.0, existing actions and workflows will use the latest installed ComponentPac if the ComponentPac used to create them is no longer present. You may need to recreate the action if the latest ComponentPac does not support the action's outdated settings. If the missing ComponentPac is reinstalled, the actions will resume use of that ComponentPac.

3. Starting with Vantage 7.0 Update Pack 1, workflows created with a previous version of Vantage (such as Vantage 6.3) will use the earliest ComponentPac installed. When you upgrade a workflow created with an older Vantage version to Vantage 7.0 or later, the actions will be tied to the latest ComponentPacs currently installed.

4. The Session Log available in the Workflow Designer Job Status or Domain Job Status panel lists which ComponentPac was used for a completed job.

5. If a Vantage service is unable to unpack a ComponentPac (such as when the Vantage service does not have the appropriate user credentials to access the file location of where the ComponentPac file resides), an entry is added to the service trace log to record the issue.

6. If you convert a single-node Vantage domain to a multi-node Vantage domain and if the installed ComponentPacs reside in a local path, the ComponentPacs must be copied or moved to a shared folder location and re-installed or re-registered.

7. Once workflows and actions have been upgraded to the latest ComponentPac they cannot be reverted back to previous versions.

8. Upgrading Vantage via an update pack, such as 7.0 UP1, may cause ComponentPac actions to be shown as eligible for upgrade even though a new ComponentPac has not been installed. This is normal behavior for update packs. You can upgrade the ComponentPac actions or not, as you prefer.

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9. Attempting to install a future ComponentPac that doesn't match the current Vantage version fails to install the ComponentPac and displays an error message: "ComponentPacs built for a future release of Vantage are not supported, and will not be installed."

Uninstalling ComponentPacs

To remove old ComponentPacs:

1. Open the Vantage Management Console, and click ComponentPac Management in the left column. Installed ComponentPacs are listed in the Installed ComponentPacs list on the right.

2. Click the package you plan to uninstall and check the Actions panel for affected workflows and actions.

   Export all workflows that reference the ComponentPac you want to uninstall (to back them up), and then delete the workflows in Vantage.

3. Click the Uninstall button in the ComponentPac Management window while the package to be removed is selected.

Note: The Uninstall button appears *only* when a package is not used by any actions.

4. After uninstallation completes, restart the affected Vantage services. If the Workflow Designer was open, close it and reopen to all the changes to take effect.

The selected old package is removed and no longer appears in the ComponentPac Management list.

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