IBM Aspera Console User Guide 3.4.1

All Platforms

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Contents

Introduction

Console is a web-based application which allows users to centrally manage, monitor and control Aspera servers (nodes) and transfers. Console offers the following features:

| Feature	Description
Transfer monitoring and control	View transfers, pause / resume / cancel, change transfer rates.
Transfer Initiation	Initiate and schedule transfer jobs remotely.
Node Configuration	An administrator can configure all nodes directly from Console such for options such as bandwidth, priority, and encryption.
Email Notification	Notify users of transfer events with customizable messages.
Reporting	Create detail and summary reports of transfer activity.
Role-based access control	Manage what transfers are visible and controllable to Console users with security groups.

Console Nodes

Aspera servers can be added to Console as managed nodes or unmanaged nodes.

Managed nodes can be configured and their transfer activity managed from the Console UI through an SSH connection. The transfer activity of managed nodes is logged to the Console database. For nodes that run an Aspera server application version 3.4.6 or newer ("regular" nodes), Console makes REST calls to the Node API to pull transfer details into console as well as to start and control transfers. For nodes than run older versions of Aspera server applications ("legacy" nodes), Console processes data that gets pushed to the database by the node. Console also communicates with legacy nodes via SOAP calls to start and control transfers and to check for cases where nodes failed to log the end of a transfer.

Unmanged nodes are not under control of Console. These can be used as transfer destinations, but only transfer activity with managed nodes is reported to Console.

The following figure shows the relationship between Console, two managed nodes (Node 1 and Node 2) and an unmanaged node. All transfer activity on the managed nodes, such as Transfer 1, can be monitored and controlled. In contrast, Console is only aware of transfers that are between the unmanaged node and a managed node (for example, Transfer 2 between Node 1 and the unmanaged node).
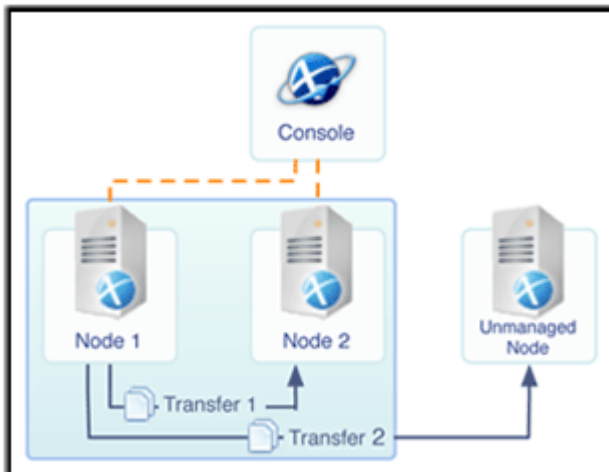
Console Endpoints

An endpoint is an individual user account on a node (managed or unmanaged) that can perform Aspera transfers without requiring the user to enter credentials in the Console UI. You can have one or multiple endpoints on a node depending on your business needs. The following figure shows a simple endpoint arrangement. Node 1 has two endpoints, Endpoint A (asp1@node1) and Endpoint B (asp2@node1), and Node 2 and Node 3 have one endpoint each (Endpoint C and Endpoint D, respectively). A Console user can run transfers between endpoints from the Consoel UI. For example, Transfer 1 between Endpoint A and Endpoint D, and Transfer 2 between Endpoint B and Endpoint C. Both transfers originate from Node 1, but from different Endpoints and have different destination Endpoints.
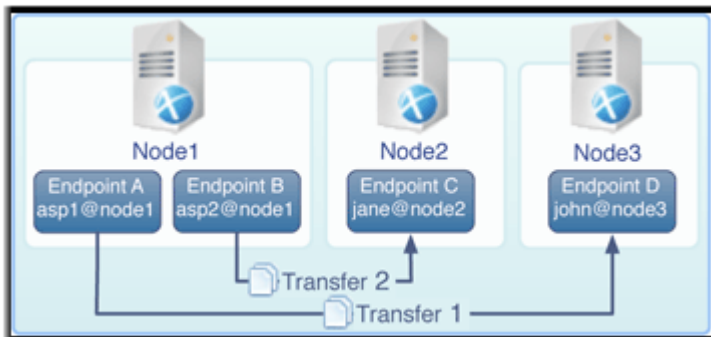
# Logging Into Console for the First Time

1. Console emails you when an administrator creates your account. Check your inbox for an email titled "Aspera Console: Account Creation". Click the link in the email.
2. Enter the username and password from the email and click **Login**. At this point, Console prompts you to change your password.

   Verify the old password. Then, enter and confirm a new password. Click **Change Password** to save your new password and login.

Once you have logged in for the first time, you can access Console by entering its address followed by **/aspera/console** in your web browser and entering your login credentials in the specified fields (for example, https://*IP_address*/aspera/console).

Configuring Email Notifications

Individual users can manage personal email notifications from their Preferences menu.

1. Open the Preferences page and select **Email Notifications**.
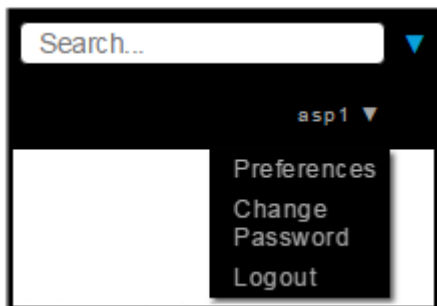
2. Select email templates for notifications that are triggered by the following events: transfer start, transfer success, or transfer error.

Note: New email templates are created by administrators. Contact your administrator to modify your email templates.

3. Select or clear global email notifications. By default, Console notifies you for transfers that you start when those transfers start, succeed, or fail.

4. For each specific transfer path listed, select or clear notifications for transfer path. These notifications are disabled by default.

5. Click **Update**.

The Console Dashboard

The Dashboard provides a quick overview of all transfer activities and the statuses of nodes for which you have monitoring permissions. It gives continuous updates and helps identify transfer and node problems.

Go to **Dashboard**. The Dashboard contains the following six panels:

Current Transfers

Current Transfers lists up to ten ongoing transfers on all monitored nodes. To view all active transfers, click the **Current Transfers** header.

Scheduled Transfers

Scheduled Transfers lists up to ten scheduled transfers on all monitored nodes. To view all scheduled transfers, click the **Scheduled Transfers** header.

Recent Transfers

Recent Transfers lists up to ten recent transfers on all managed nodes. To view all recent transfers, click the **Recent Transfers** header.

Recent Transfers

NAME	CONTACT	ENDED	TRANSFERRED
Test Transfer	admin (console)	10:35am	32.9 MB
NAB Demo Transfers	user01 (console)	10:34am	8 MB
SLES to Fedora	admin (console)	10:32am	10.7 MB
100MB	root (ssh)	10:30am	100 MB

Problem Transfers

Problem Transfers lists up to ten transfers with errors on all managed nodes. To view all transfers with errors, click the **Problem Transfers** header.

Problem Transfers

TRANSFER	CONTACT	TIME	STATUS
SLES to Fedora #3	admin (console)	10:42am	User aborted session
test transfer 3	admin (console)	10:42am	Cancelled while waiting in queue
From New York to London	admin (console)	10:38am	User aborted session

Map

The map shows the status of all your monitored nodes and shows the transfers between them. If a node fails, the icon becomes red in the map, and the node and the problem are listed in the table below the map.

■ Map
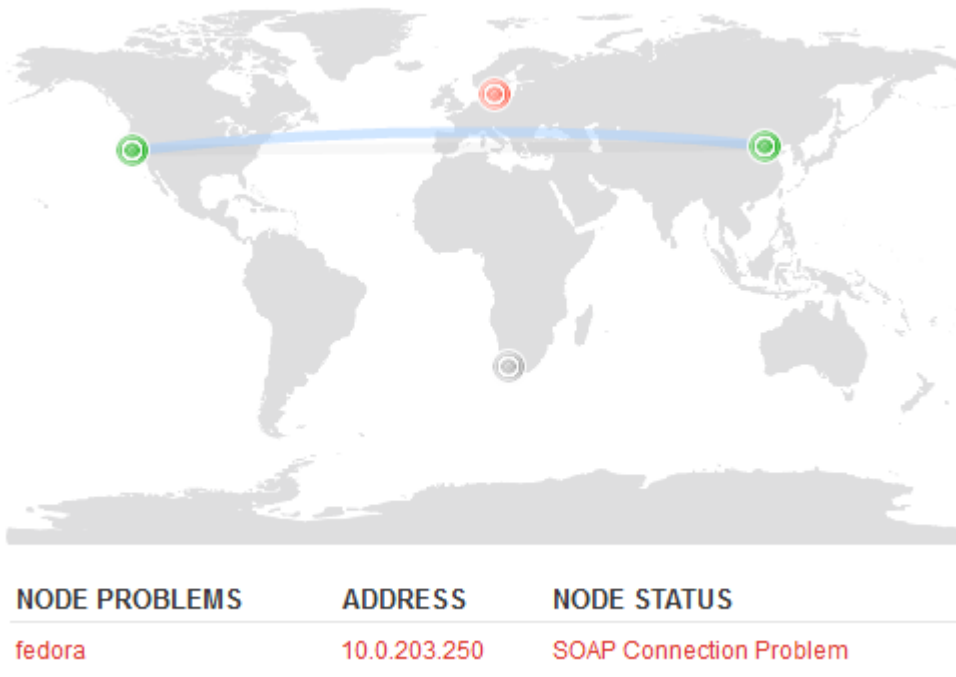
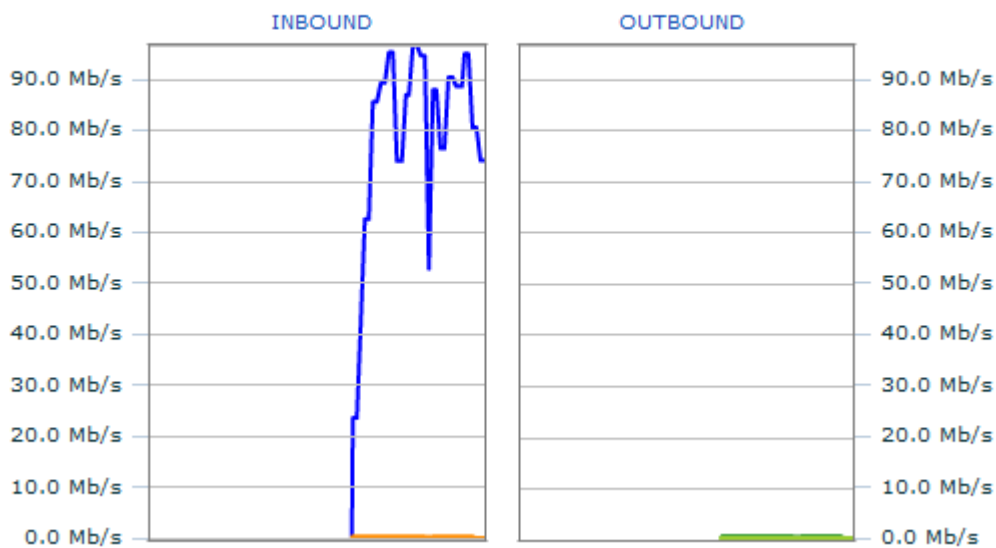| NODE PROBLEMS	ADDRESS	NODE STATUS
fedora	10.0.203.250	SOAP Connection Problem

Note: You can choose to hide or display the map and bandwidth chart by clicking the blue arrow (▶) next to the map.

Bandwidth

The Bandwidth chart shows bandwidth usage of your monitored nodes. If you select one or more nodes on the map, the chart shows the cumulative bandwidth of the selected nodes.
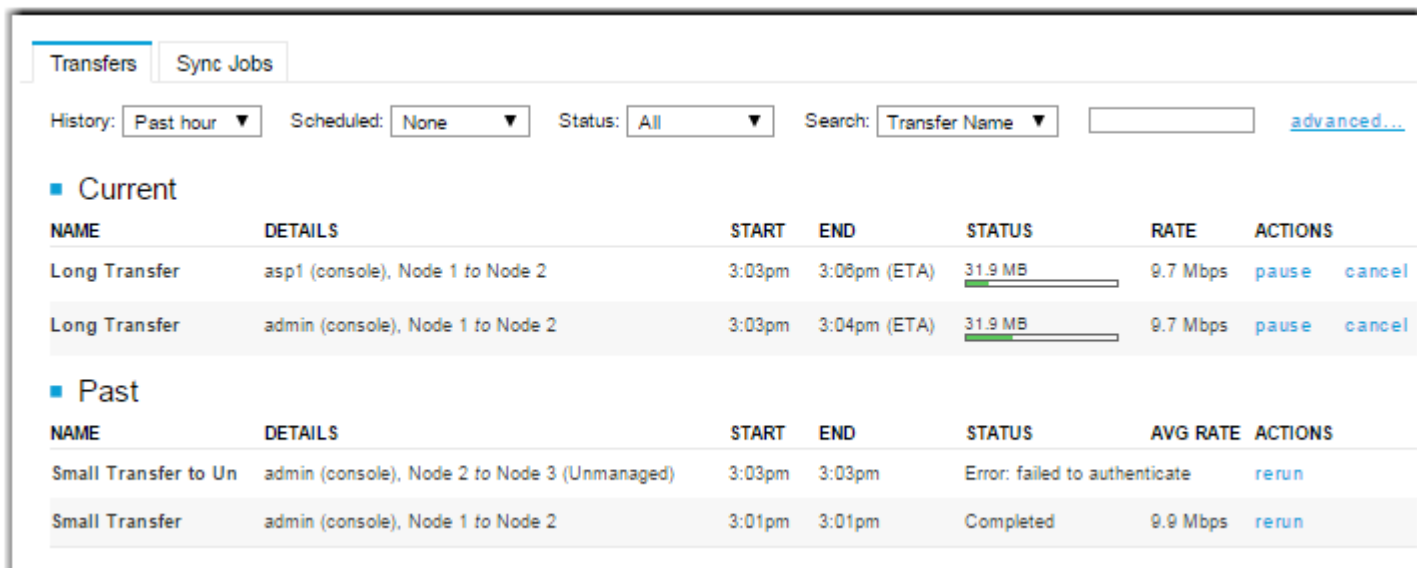
■ Bandwidth

Note: You can choose to hide or display the map and bandwidth chart by clicking the blue arrow (▶) next to the map.

The Activity Overview

The Activity Overview page lists all transfers on all managed nodes. View the Activity Overview page by going to **Activity**. You can narrow down the list with the filter and advance into a transfer's session detail page. The Activity Overview screen displays the following information:

Item	Description
NAME	The transfer's name.
DETAILS	The transfer initiator, source, and destination.
START	This transfer's start time.
END	The estimated time of arrival, or the transfer completion time.
STATUS	Current status of this transfer.
AVG RATE	The transfer rate of the active transfer, or the average rate of a past transfer.
ACTIONS	Show all available actions. For example, **pause** and **cancel** for a running transfer or **rerun** for a past transfer.

The Current panel lists all currently active transfers, including running and queued transfers. The Past panel shows previous transfers, including those that were completed, canceled, or those that generated errors.

The filter options on the top can be used to narrow down the list.

Item	Description
History	Select the time frame to display the started transfers.
Scheduled	Select the time frame to display the scheduled transfers.
Status	Select a specific transfer status to display.

Item	Description
Search	Search for keywords in transfer sessions.

You can also perform an advanced search by clicking on the **advanced** link. For more information on searching, see

Transfer Details

Overview
Details about a particular transfer can be accessed by clicking on a transfer shown in listings of past, current, and scheduled transfers. These lists can be found in three locations:

- The **Activity Overview** page
- The Console **Dashboard**
- The Managed Node Detail page (the specific node from **Nodes** in the Console menu)

Ongoing Transfers
For an ongoing transfer, the Session Detail page provides the transfer monitor that displays current transfer status. You can control the transfer through the options shown at the top of the graph.

Important: The failed files counter may count "directories" if the network failed at some point or the user cancelled the transfer.

Finished or Failed Transfers

For a finished or failed transfer, the Session Detail page provides detailed information about the transfer's state, endpoints, and statistics.

The Session Files panel lists all files being transferred in this session. Click on a file to review its information. You can use the search box to show only specific files or groups of files.

Note: When searching for files, "*" is not a wildcard. Any string you enter is treated as a "search within". In other words, the string "foo" will match "123foo", "foo456", and "123foo456".

Multiple-Session Transfer
A multiple-session transfer is a smart transfer with more than one destination. In the Activity Overview page, clicking on a multiple-session transfer reveals all sessions in the transfer. To drill down to the particulars of each session, click the **Session Detail** button to open its Session Detail page.

Monitoring Nodes

You can monitor the node status and manage the transfers on a node. Navigating to **Nodes** from the Console menu will bring you to the list of managed nodes. To view a list of unmanaged nodes, click the **List Unmanaged Nodes** button. To monitor a node, click on the node.

Monitor Transfers on a Node
On the Node Detail page, the transfer chart shows all inbound and outbound transfers on this node. To control a transfer session, select a session from the graph, and use the control options above the graph to control it.
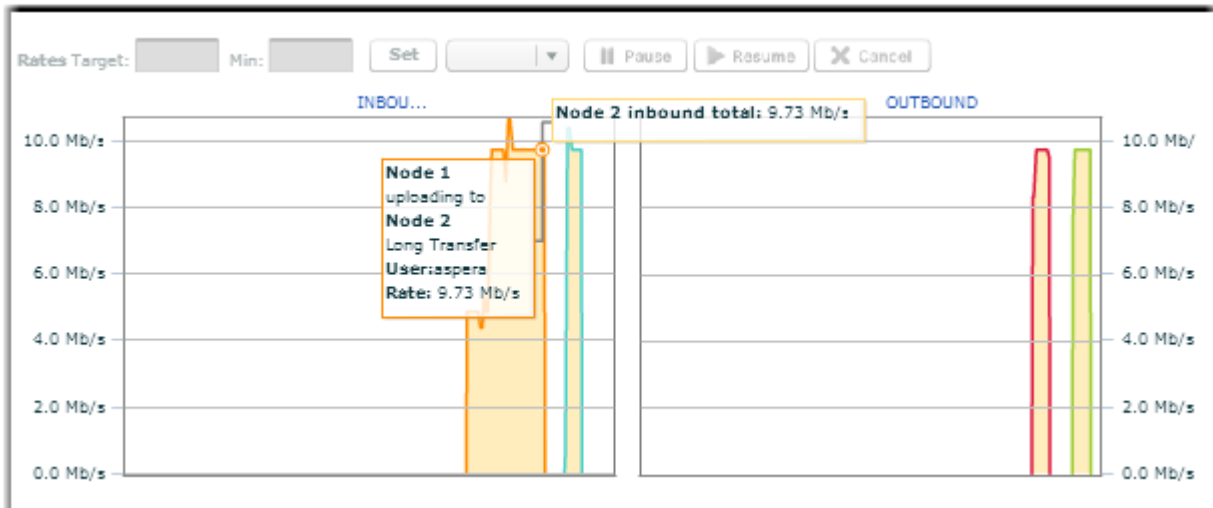
The table lists all sessions on this node. Use **Pause** and **Cancel** to control an ongoing session.

Search for a Transfer

You can search for a transfer from any page in Console by using the search bar in the top right corner of the page. If you want to refine your search, you can access the Advanced Search dialog by selecting the blue drop-down arrow next to the search bar.

Console will search all transfers within the last 24 hours for transfers that match the search criteria.

For more information about the advanced search form, see Advanced Search on page 17.

Starting a Simple Transfer

Console can be used to initiate transfers between nodes when the Console user has the permission to start transfers. Console provides two types of transfer methods: simple transfers and smart transfers. Simple transfers are one-time transfer sessions that require entering all transfer information. Smart transfers are reusable templates with saved transfer settings.

1. Go to **Transfer**.

   Note: If you do not see the **Transfer** tab, you may not have transfer permissions enabled for your account. For more information, contact your administrator.

2. Click **Simple Transfer**.
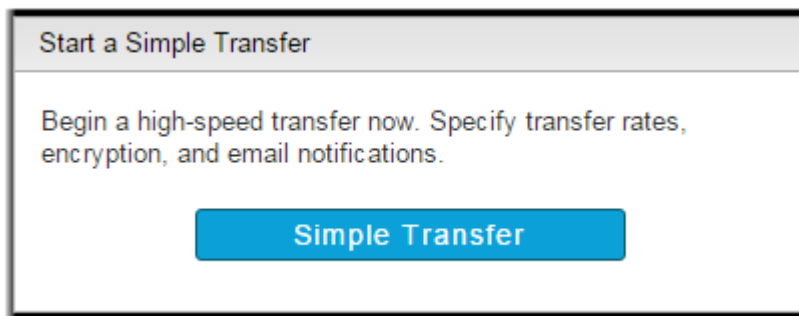
Note: If you do not see the **Simple Transfer** button, you may not have permissions start simple transfers. For more information, contact your administrator.

3. Enter the transfer name and optional comments. The name and comments can be helpful if you want to search for this transfer later.

4. Optional: Add new tags or modify existing tags.

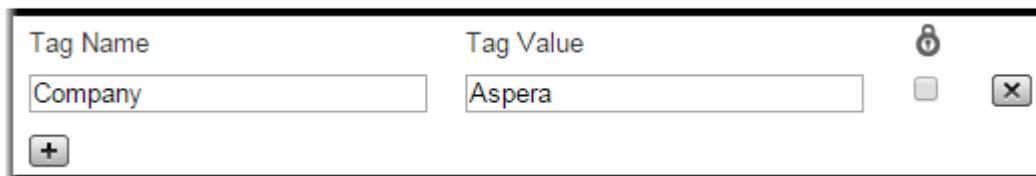   Click the ⊞ button to add a new tag. Enter the tag name and the tag value. Click the ⊠ button to delete an existing tag. Select the 🔒 button to prevent a user from changing or deleting the locked tag when starting this transfer.

5. In the **Source** section, click the **Connect** drop-down menu and select the source node, cluster, or saved endpoint.

   • Node: A node is listed as the node name (by default, its IP address) and IP address. Select the **Endpoint type** from the drop-down menu and enter your credentials or select your SSH key.
   • Cluster: A cluster is listed as the domain name. Select the **Endpoint type** from the drop-down menu and enter your credentials.
   • Endpoint: A saved endpoint is listed as *login@address* and is associated with login credentials for the username or access key. Selecting a saved endpoint does not prompt you for credentials.
   • Any: Choosing **Any** allows the user to create a new endpoint instead of choosing from the list.

6. Select content to transfer by clicking **Browse**, selecting the content, and clicking **Add**.

   Note: When browsing the node, you can narrow your search by applying a filter. When specifying a filter, the asterisk (*) is not a wildcard. Any string you enter as a filter is treated as a "search within". In other words, the string "foo" matches "123foo", "foo456", and "123foo456".

   By default, the parent folders of the selected files and folders are not transferred. If a source item is a file, then *only* the file is transferred. If a source item is a folder, then the folder and its entire contents are transferred. For example, if the source path is `aspera/tmp/sent_files`, the only folder that will be transferred to the destination is the `sent_files` folder. Neither `/aspera` nor `/tmp` appear at the destination location.

   To transfer only the contents of a selected folder, select **Specify base for source path(s)** and enter the filepath to the folder. For example, if the source folder is `aspera/tmp/sent_files` and you specify that same path as the base for source paths, the contents of `/sent_files` is transferred to the destination directory as separate items that are not contained in a `/sent_files` folder.

7. In the **Destination** section, click the **Connect** drop-down menu and select the source node, cluster, or saved endpoint.

   • Node: A node is listed as the node name (by default, its IP address) and IP address. Select the **Endpoint type** from the drop-down menu and enter your credentials or select your SSH key.
   • Cluster: A cluster is listed as the domain name. Select the **Endpoint type** from the drop-down menu and enter your credentials.

- Endpoint: A saved endpoint is listed as *login@address* and is associated with login credentials for the username or access key. Selecting a saved endpoint does not prompt you for credentials.
- Any: Choosing **Any** allows the user to create a new endpoint instead of choosing from the list.

8. Click **Browse**, select the destination directory, and click **Add**.
9. Optional: Configure settings in the **More Options** section.

   Click the toggle arrow next to each section to view settings.

Section	Description
Connection	Configure *fasp* settings.
Transfer	Configure transfer rates and policies.
Security	Encrypt the transfer.
File Handling	Configure source file attributes, archive source files after transfer, and set filters for source files.
Notifications	Configure email notification options.
Advanced	Configure transfer initiator, *fasp* MTU, and read and write block sizes on source and destination nodes.
Transfer Time	Schedule your transfer to run **Now** or **Later**. If you choose **Later**, click the 🗓 button and choose the date and time you want the transfer to run.

For information on these options, see Simple Transfer Options on page 15.

10. Click **Transfer** to start the transfer (or **Schedule** if you set a transfer time).

   Note: You can cancel scheduled simple transfers by going to **Activity > Transfers**. Click the **Scheduled** drop-down menu and select **All**. In the row for the transfer, click **Cancel**.
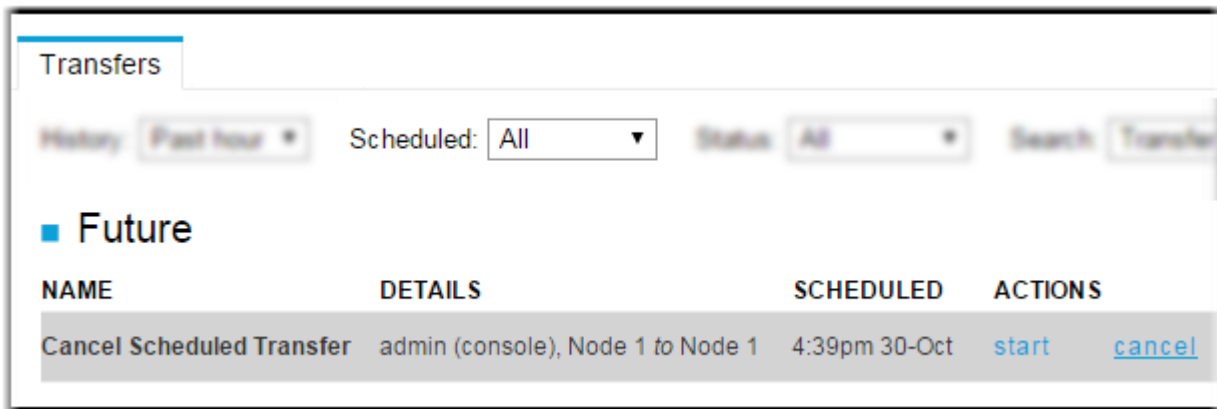
Starting a Smart Transfer

Console can be used to initiate transfers between nodes when the Console user has the permission to start transfers. Console provides two types of transfer methods: simple transfers and smart transfers. Simple transfers are one-time transfer sessions that require entering all transfer information. Smart transfers are reusable templates with saved transfer settings.

1. Go to **Transfer** to see all the smart transfers you have permission to access.

   Note: If you do not see the **Transfer** tab, you may not have transfer permissions enabled for your account. For more information, contact your administrator.

2. Find the smart transfer listed under Saved Smart Transfers and click **Start**.

   Note: If you do not see the Saved Smart Transfers section, you may not have permission to start smart transfers or you may not have shared access to any smart transfers. For more information, contact your administrator.

3. Optional: Modify the **Transfer Name** and leave a comment describing the transfer.

4. Optional: Add new tags or modify existing tags.

   Click the ![+] button to add a new tag. Enter the tag name and the tag value. Click the ![×] button to delete an existing tag. Locked tags are greyed out and cannot be modified.

5. Optional: Configure email notification options.

   Expand the Notifications section. Add or delete email addresses and configure notifications for existing email addresses.

6. Optional: Schedule the transfer to run **Now** or **Later**.

   If you choose **Later**, click the ![calendar] button and choose the date and time you want the transfer to run.

7. Click **Start**.

Running a Report

Console requires you to finalize the report's run settings before running a report.

1. You can initiate finalizing and running a report in the following ways:

   • Go to **Reports > Run a Report**. Select a built-in or custom report from the list.
   • Go to **Reports** and click the **rerun** link from the Actions column for a recently run report.

   You are redirected to the New Report page.

2. Name the report.

3. Run the report now or schedule it to run later.

   • Select **Run Now**: Run this report immediately.
   • Select **Run Later**: Schedule a report by setting the run date. You may also select **Repeat** to schedule a repeating report.

4. Define the report period.

Option	Description
Report on	Select a pre-defined time period from the drop-down list. • last hour • last 24 hours • last week • month to date • last month • custom
Start date	Select the start date of this report. You must select **custom** in the drop-down menu to modify this field.
End date	Select the end date of this report. You must select **custom** in the drop-down menu modify this field.
Time zone	Select the time zone for this report.

5. Enter values for your custom SQL variables under **Report Parameters**. If there are no values, no custom variables were specified for this report.

6. Optional: Enter an email address and click the **Add** button to email a recipient a copy of this report.

After adding an email address, select whether the report is sent as an XLSX or a CSV file.

7. Optional: Choose additional file formats (XLSX and CSV). These files can be downloaded after the report has been generated.

8. Click **Run Report** after finalizing your settings.

Your generated report is listed on the Scheduled and Recently Run Reports page. When viewing your report, you have the following options:

• To run the report again, click **Rerun**.
• If you chose to export your report in CSV or XLSX, click the respective button to download the files.

Appendix

Simple Transfer Options

The following tables provide information on additional configurable settings that are available when creating simple transfers.

Connection

Fasp Port (UDP)	Specify the UDP port for FASP file transfers.
Fasp proxy	Enable transferring through a FASP proxy server, and specify the proxy host address, port, username, and password. This feature enables the source node to bypass restrictions to the destination node for this specific transfer by using a proxy.

Security

Content protection	Check the option to enable the content protection that encrypts the files on destination, using the entered password.
Transport encryption	Select aes-128 to transfer with this encryption method.

Transfer

Target rate	Specify the transfer target rate.
Minimum rate	Set the transfer minimum rate
Bandwidth policy	Choose a transfer policy among fixed/high/fair/low.
Retry policy	Check the option to enable the retry policy, as well as specify the number of attempts and the duration.

Notifications

Email address	To send status notifications for transfer events (start, success, or error), enter an email address and click Add. When the email address appears in the table, specify which email template to use for each transfer event.

File Handling

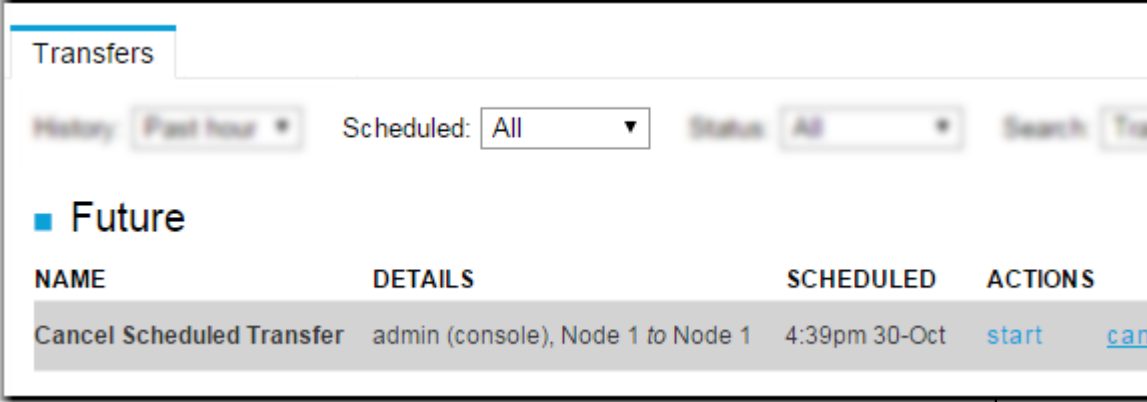|	
Timestamp Filtering	Select this option to exclude files modified in the designated number of seconds.

Resume policy	Specify a resume policy and the overwrite rule when the file exists on the destination.
File attributes	Check the option to preserve the file permissions on the destination.
Symlinks	Specify how to deal with symbolic links: follow, copy, copy and force, or skip. Leave this option blank if the source is on Windows. For all others, leaving it blank is the same as choosing "follow".
Source Archiving	Move source files to a designated directory after completing a transfer. The transfer's session details page will display the archive directory's filepath as the After transfer path. For more information on session details, see Transfer Details on page 9. **Note:** The After transfer path will only be visible in the session details of the Console that initiated the transfer. Another Console monitoring the same managed nodes will not have access to the After transfer path. **Note:** Rerunning the transfer may generate a "No such file or directory" error since the source files were moved to the archive directory.
Delete empty source subdirectories	This option becomes available if you selected Source Archiving. Select this option to delete any subdirectory that is emptied by the source archiving. **Note:** Console does not delete the top-most directory in the source path.
Source Deletion	Check the option to delete the transferred files from the source computer.
Exclude filter	Enter file-name pattern Console uses to determine what files to exclude from the transfer. You can use the following two symbols in the pattern: • `*`: Matchers zero to many characters in a string. For example, the `*.tmp` pattern matches `.tmp` and `abcde.tmp`. • `?`: Matches any one character except a `/` or `.` when preceded immediately by a `/` character. For example, the `t?p` pattern matches `tmp`, but not `temp`; and the `?exe` pattern matches `file.exe` but not `.exe.file`, because the filepath would be `/.exe.file`.
Include filter	Enter file-name pattern Console uses to determine what files to include in the transfer. Only files matching the filter are transferred. You can use the following two symbols in the pattern: • `*`: Matchers zero to many characters in a string. For example, the `*.tmp` pattern matches `.tmp` and `abcde.tmp`. • `?`: Matches any one character except a `/` or `.` when preceded immediately by a `/` character. For example, the `t?p` pattern matches `tmp`, but not `temp`; and the `?exe` pattern matches `file.exe` but not `.exe.file`.

Advanced

Initiator	Check this option to initiate transfers from the destination node (if possible). Console normally initiates transfers from the source node unless the source is an unmanaged node.
ascp version	Select the option to use `ascp4` for this transfer. The initiating node must have `ascp4` available. **Note:** Both nodes need to be running the same version of HST Server to use `ascp4`. Also, the `apply_local_docroot` parameter in `aspera.conf` is not currently supported. **Note:** `ascp4` is only available for HST Server 3.8 and later.

fasp datagram size (MTU)	Select the option and enter the datagram size in bytes.
Read block size	Check the option and enter the read block size in bytes.
Write block size	Check the option and enter the write block size in bytes.

Transfer Time

Transfer	Specify when to submit the transfer.
	Note: You can cancel scheduled simple transfers by going to **Activity > Transfers**. Click the **Scheduled** drop-down menu and select **All**. In the row for the transfer, click **Cancel**.

Advanced Search

You can search for a transfer from any page in Console by using the search bar in the top right corner of the page. If you want to refine your search, you can access the Advanced Search dialog by selecting the blue drop-down arrow next to the search bar.

Filter	Description
Transfer Name	Include transfers with this name
Contact	Include transfers initiated by this user.
SSH User	Include transfers involving this SSH user.
Session ID	Include transfers with this unique session ID
File Name Start	Include transfers with files that start with this string.
Source Path	Include transfers with files that originated from this location.
Destination Path	Include transfers with files transferred to this location.
Node	Include transfers involving this selected node or this node IP address.
From	Include transfers started from this date and onwards.
To	Include transfers from this date and onwards.
Status	Include transfers with the current state designated:

Filter	Description
	• Active • Completed • Cancelled • Error
Results	The number of results you want Console to display.