

Hitachi Content Platform Anywhere Enterprise

v7.6

Edge Filer Migration Guide

This document describes how to migrate data to HCP Anywhere Enterprise Edge Filer.

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Preface

About this document

Hitachi Vantara provides a tool to migrate content to a Hitachi Content Platform Anywhere Enterprise Edge Filer. This guide describes how to use the HCP Anywhere Enterprise Migrate tool that is included with HCP Anywhere Enterprise Edge Filers to discover the shares on an external file server and then migrate the shares required in the HCP Anywhere Enterprise Edge Filer.

Hitachi Content Platform Anywhere Enterprise Cache Assist integration in macOS Finder includes the following:

- · Icon overlays.
- Ensuring that files and folders are available locally on your computer.
- Preview files that are not stub files.

Document conventions

This document uses the following typographic convention:

Convention	Description
Bold	 Indicates text in a window, including window titles, menus, menu options, buttons, fields, and labels. Example: Click OK. Indicates emphasized words in list items.
Italic	Indicates a document title or emphasized words in text.
Monospace	Indicates text that is displayed on screen or entered by the user. Example: pairdisplay -g oradb

Intended audience

This document is intended for HCP Anywhere Enterprise users from a macOS PC.

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Log in and select Product Downloads to access the most current downloads, including updates that may have been made after the release of the product.

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Chapter 1. Migrating a File Server

With HCP Anywhere Enterprise Migrate, you can migrate a file server to the HCP Anywhere Enterprise Edge Filer. After the migration has been completed, end users who are familiar with a given folder structure and shares, as well as a given permission scheme, continue to see the same folder structure, shares, and permission scheme. This enables the migration from a current file system to the HCP Anywhere Enterprise Edge Filer without the need to apply any structural changes such as flattening the folder structure or simplifying the permission scheme.

You can from the following migrate file servers:

- Azure StorSimple
- HCP Gateway
- Hitachi Data Ingestor
- Isilon OneFS
- · Microsoft Azure Files
- Nasuni Edge Appliance
- NetApp ONTAP
- NetAPP StorageGRID 9 (SMB)
- NetAPP StorageGRID 11 (SMB)
- Panzura Freedom Filer
- Windows Server

Another option, Other, is available to attempt to migrate from a file server that is not listed.

In addition you can discover all the shares on the current edge filer by specifying the source as **This Edge Filer**.

Access to files and folders after the migration is through SMB provided by the HCP Anywhere Enterprise Edge Filer so that users continue to access the files and folders in the same way as with the old system.

You can migrate more storage than is physically available on the HCP Anywhere Enterprise Edge Filer, and the user has access to the global namespace, even when this is much larger than the storage available on the HCP Anywhere Enterprise Edge Filer.

Note: You can migrate a single file server to the HCP Anywhere Enterprise Edge Filer as a single cloud folder. After the migration, the cloud folder will start with the C: path as it represents a single server with all the shares/nested shares.

You can migrate files that are defined as WORM compliant. The files are migrated with the source compliance settings including the time remaining that they are WORM compliant.

Note: To migrate WORM compliant files, you have to prepare the prepare the HCP Anywhere Enterprise Portal before starting the migration.

Migrating a file server to a HCP Anywhere Enterprise Edge Filer can be performed while the current file server remains in production.

Migrating a File Server

Run from Edge File Server ist Potentia . Nigrating from Create Migration Job Shares? For WORM: Mark Worn Yes Migration, Include/ Exclude Run Discovery pattern (if nclude/Exclu there is Policy? one), migration destination Exclude Patterr (HCP Gateway Sync Cloud Folder fron Portal to Edge Filer Performed in background Migrate during the Share to migration Edge Filer oes Clou Folder for WORM Exist o Sync to Portal? Portal Yes 2. Rerun the migration to copy any delta

The flow when performing a migration is as follows:

Before migrating the file server to the HCP Anywhere Enterprise Edge Filer, the HCP Anywhere Enterprise Edge Filer must be connected to the HCP Anywhere Enterprise Portal. After finishing the initial setup, make sure that syncing between the HCP Anywhere Enterprise Edge Filer and HCP Anywhere Enterprise Portal is not suspended.

Migrating a single file server to the HCP Anywhere Enterprise Edge Filer as a single cloud folder involves the following procedures:

- <u>Discovering Shares</u> Optionally, survey the current file server to discover which shares to migrate.
- Migrating Shares Migrate shares to the HCP Anywhere Enterprise Edge Filer.

changes

After the migration, the cloud folder will start with the C: path as it represents a single server with all the shares/nested shares as cloud folders under this cloud folder. You can change the cloud folder under which all the shares are migrated as part of the migration job specification.

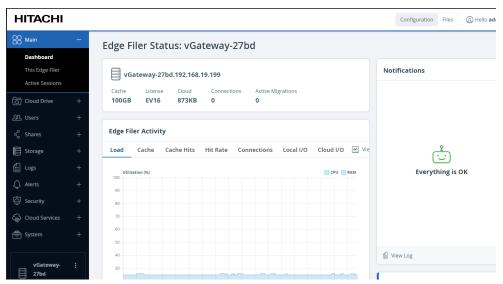
Note: Special characters in share names, % < > * ? | / \ + = ; : " ,, are not supported by HCP Anywhere Enterprise Migrate. When such characters are used, the share contents are not migrated. This condition is reported, and the job is *completed with errors*. Share names that are over 80 characters in length and include the % [] characters will not be accessible from Windows clients and should also not be used in share names.

Chapter 2. Discovering Shares

Optionally, survey the current file server to discover which shares to migrate.

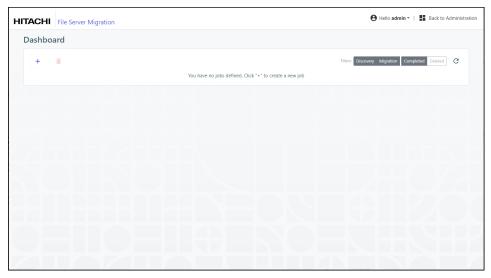
To discover the shares to migrate:

1. In the Configuration view, select Main > Dashboard in the navigation pane. The Dashboard page is displayed.



2. Click File Server Migration.

The File Server Migration page is displayed.



3. Click + to create a new job.

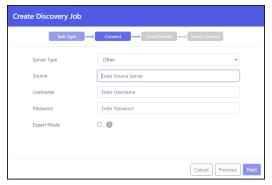
The Create Discovery Job wizard is displayed showing the Task Type step.



The default job is a **Discovery** job. This job analyzes the file server that is being replaced to identify what data should be migrated.

4. Click Next.

The **Connect** step is displayed.



- **5.** Select the server type to connect to from the drop-down box. You can connect to one of the following:
 - Azure StorSimple
 - HCP Gateway
 - · Hitachi Data Ingestor
 - Isilon OneFS
 - Microsoft Azure Files
 - Nasuni Edge Appliance
 - NetApp ONTAP
 - NetAPP StorageGRID 9 (SMB)
 - NetAPP StorageGRID 11 (SMB)
 - Panzura Freedom Filer
 - Windows Server

Another option, **Other**, is available to attempt to migrate from a file server that is not listed. In addition, you can discover all the shares on the current edge filer by specifying the source as **This Edge Filer**. When **This Edge Filer** is selected, no other **Connect** parameters are displayed.



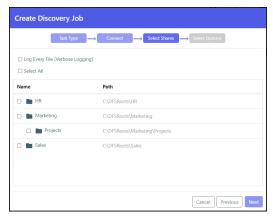
6. For all server types except **This Edge Filer**, enter the IP address or DNS name for the source file server and an administrator user name and password to access this server.

Discovering Shares

Note: The administrator used must have access to the files to migrate.

- 7. For **Microsoft Azure Files**, the shares cannot be presented and have to be added manually. Select **Expert Mode** to enable specifying the shares in the next step.
- 8. Click Next.

The **Select Shares** step is displayed.



The shares on the file server are displayed, and you can select the shares that you want to migrate to the HCP Anywhere Enterprise Edge Filer.

Note: When **Expert Mode** was selected, the following window is displayed where you enter the shares to migrate.



9. Select the shares to migrate and click Next.



- **10.** Optionally, provide a different name for the job and any specific notes about the job.
- 11. Click Create.

The discovery job runs and the results are displayed in the Dashboard.

The Dashboard After a Discovery Run

After analyzing the file server, the job completes and you get a report as well as a full analysis of each share in the filer server that you selected.



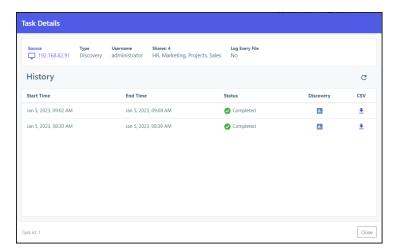
Log files and discovery file lists generated by the migration are compressed if they are greater than 100MB.

Click the icon to edit the discovery job name and notes.



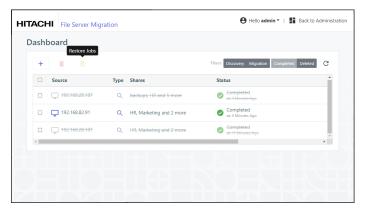
- Click the report icon to display the discovery report.
- Click the 1 icon to display the list of every time this job was run and rerun with the results of each run.

The **Task Details** can also be accessed by clicking **Details** in the <u>The Discovery Report</u>.



Click the ▶ icon to rerun the discovery.
 The discovery job reruns.

• Optionally, in the dashboard, you can select a job and click the icon to delete the job. After deleting a job, you can display all the jobs, including the deleted jobs, by clicking the **Deleted** filter in the dashboard.

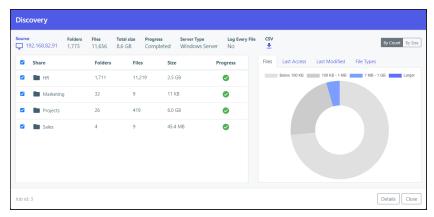


You can restore deleted jobs by selecting the deleted jobs to restore and clicking the 🗖 icon.

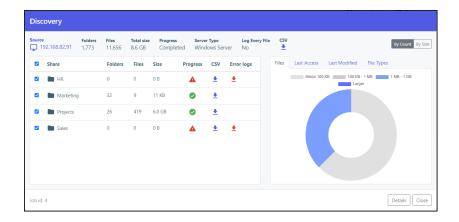
The Discovery Report

Clicking the III icon displays the discovery report.

A report when Log Every File (Verbose Logging) was not checked.



A report when Log Every File (Verbose Logging) was checked.



At the top of the report the sum of the information for the migrated shares is displayed. Optionally,

click the icon to download the discovery report as a .csv file.

The first pane in the discovery report shows the list of shares with details of each share:

- The number of folders in the selected shares.
- The number of files in the selected shares.
- · The size of the selected shares.
- The status of the migration for the selected shares.
- If **Log Every File (Verbose Logging)** was checked, optionally for each share, click the icon to download the discovery report for the share as a .csv file.
- Any errors in the discovery job are written to a separate log, under /errorlog. Each share with an error has a separate log file. Clicking the ☐ icon downloads the log file as a .csv file.

The second pane in the discovery report has tabs showing the following:

- Files A pie chart with the sizes of the files in the selected shares.
- Last Access A bar chart showing when the files in the selected shares were last accessed.
- Last Modified A bar chart showing when the files in the selected shares were last modified.
- **File Types** The list of the file types in the selected shares. You can display this information either **By Count**, for example, the number of each file type, or **By Size**, for example, the size of each file type.
- Click **Details** to display the list of every time this job was run and rerun with the results of each
- Click Close to return to the Dashboard.

Chapter 3. Migrating Shares

Migrate shares to the HCP Anywhere Enterprise Edge Filer.

Preparing the HCP Anywhere Enterprise Portal to Migrate WORM Compliant Shares

When migrating a WORM compliant share, there must be a WORM Compliant Cloud Folder on the HCP Anywhere Enterprise Portal for the files to be synced from the HCP Anywhere Enterprise Edge Filer. This cloud folder must, therefore, be created before the migration is performed. Use the retention settings from the source file system when defining the WORM Compliance settings for the cloud folder. For details about creating a WORM Compliant cloud folder, see the section Folder (WORM) Compliance: HCP Anywhere Enterprise Vault in the Managing Folders and Folder Groups chapter in the Hitachi Content Platform Anywhere Enterprise Portal Team Administration Guide.

The cloud folder is then specified in the migration job as the destination for the WORM compliant share from the source file system. You define a separate WORM compliant cloud folder for every WORM compliant share on the source file system and run the migration for each share, one share at a time.

When migrating a WORM compliant share together with non-WORM compliant shares, you have to run a migration job that migrates the WORM compliant share and a separate migration job that migrates the non-WORM complaint shares.

Note: If you are migrating from Hitachi Content Platform Gateway (HCP Gateway), in the HCP Gateway Policy page note any include and exclude policies that you will specify when setting up the migration job.

Commands to Run Before and After the Migration

Before starting a migration of a WORM compliant share you must run the following command on the HCP Anywhere Enterprise Portal: calculateRetentionFromCreationTime portals/cportal_name>/cloudDrives/Users/<owner_name>/<cloudfolder_name>
BACK DATE BIT

where:

portal_name – The name of the team portal where the WORM compliant cloud folder is defined.

owner_name – The name of the team portal admin user who owns the WORM compliant cloud folder.

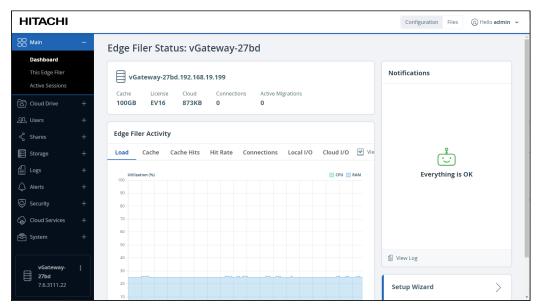
cloudfolder_name - The name of the WORM compliant cloud folder.

After the migration of the WORM compliant share completes, you must run the following command on the HCP Anywhere Enterprise Portal: calculateRetentionFromCreationTime

Migration Procedure

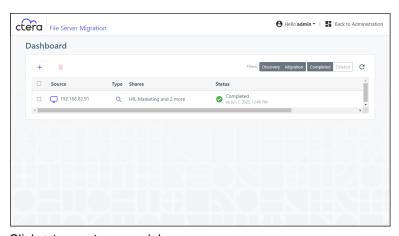
To migrate shares to the HCP Anywhere Enterprise Edge Filer:

1. In the Configuration view, select Main > Dashboard in the navigation pane. The Dashboard page is displayed.



2. Click File Server Migration.

The File Server Migration page is displayed.



3. Click + to create a new job.

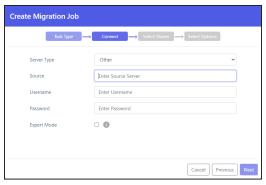
The Create Discovery Job wizard is displayed, showing the Task Type step.



The default job is a discovery job.

- 4. Click the Migration job to change the job to migrate a file server.
- 5. Click Next.

The **Connect** step is displayed.



- **6.** Select the server type to connect to from the drop-down box. You can connect to one of the following:
 - Azure StorSimple
 - HCP Gateway
 - · Hitachi Data Ingestor
 - Isilon OneFS
 - Microsoft Azure Files
 - Nasuni Edge Appliance
 - NetApp ONTAP
 - NetAPP StorageGRID 9 (SMB)
 - NetAPP StorageGRID 11 (SMB)
 - Panzura Freedom Filer
 - Windows Server

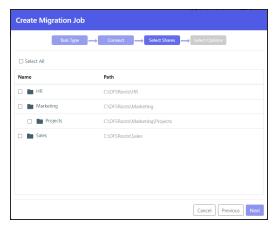
Another option, **Other**, is available to attempt to migrate from a file server that is not listed.

7. Enter the IP address or DNS name for the source file server and an administrator user name and password to access the filer server.

Note: The administrator used must have access to the files to migrate.

- **8.** For **Microsoft Azure Files**, the shares cannot be presented and have to be added manually. Select **Expert Mode** to enable specifying the shares in the next step.
- 9. Click Next.

The **Select Shares** step is displayed.



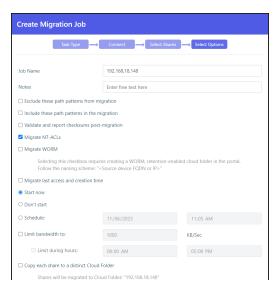
When migrating WORM compliant shares, select the relevant shares. You also check **Migrate WORM**.

Note: When **Expert Mode** was selected, a window is displayed where you enter the shares to migrate.



10. Select the shares to migrate and click Next.

The Select Options step is displayed.



- **11.** Optionally, provide a different name for the job and any specific notes about the job.
- **12.** You can specify patterns that you do not want to migrate, or that you do want to migrate, separating each pattern with a colon (:). You can include the asterisk (*) as a wildcard in the

pattern. To specify the pattern, check the relevant box.

- Exclude these path patterns from the migration (use the colon character (':') as a separator)
- Include these path patterns in the migration (use the colon character (':') as a separator)



Note: Using the option to migrate specific folders can cause a migration to fail, depending on the size of the folders being migrated and the amount of RAM available to the HCP Anywhere Enterprise Edge Filer.

To migrate WORM compliant folders in a share instead of all the folders in the share:

- If you are migrating from HCP Gateway, specify the shares to include and the shares to
 exclude that you noted in the HCP Gateway policy page. You also check Migrate WORM.
- **13.** Check **Validate and report checksums post-migration** to include an MD5 hash checksum for every file being migrated to verify that the migration was successful when the hash is compared with the checksum of the file in the source file server.

Note: The checksum validation is performed after all the files are migrated. Depending on the number of files to check, the validation can take some time. You should not allow users to access the migrated files until the actual migration job finishes, after the validation completes, in case there is a checksum discrepancy for one or more of the migrated files that needs resolving.

- **14.** Check **Migrate NT-ACLs** to migrate the data from the file server with the ACLs.
- **15.** Check **Migrate WORM** to migrate WORM data from the file server.
 - Note: When Migrate WORM is checked, Migrate NT-ACLs must also be checked.
- **16.** Check **Migrate last access and creation time** to include in the migration the last access time and the creation time for each item being migrated.

Note: When Migrate WORM is checked, Migrate last access and creation time is checked by default and cannot be unchecked. These times are used to calculate the remaining retention period for each file in the share. If the retention time was changed in the source file system, this is not reflected in the destination and the migration calculated the remaining retention for all the files in the share based on the last retention defined for the source file server and used in the definition of the WORM compliant cloud folder on the HCP Anywhere Enterprise Portal.

- 17. You can specify when to start the migration:
 - Start now to start the migration immediately.
 - Don't start to save the job configuration for later use.
 - Schedule to schedule the date and time to start the migration.
- **18.** You can throttle the bandwidth used for the migration with the time range to apply this throttling so as not to adversely impact ongoing work by bandwidth and time.
- **19.** Check **Copy each share to a distinct Cloud Folder** if you want to specify that each share is migrated to a distinct cloud folder.

Note: When migrating WORM compliant shares, **Migrate WORM** is checked, specify the name of the cloud folder that was defined as WORM compliant on the HCP Anywhere Enterprise Portal as the destination.

The cloud folder where the cloud folders are migrated is displayed under the **Copy each share** to a distinct Cloud Folder checkbox.

When Copy each share to a distinct Cloud Folder is checked:

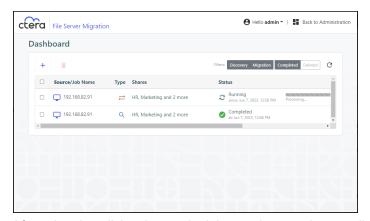
- Jobs that were created in a previous version will continue to migrate into the cloud folder root directory.
- New jobs will create a redundant directory with the name of the source share into the cloud folder root directory, and migrate into it instead.

When Copy each share to a distinct Cloud Folder is not checked:

• Depending on the source exposing the data, either the full path in the original server is recreated and no files are migrated into the cloud folder root, or the share name is used under the cloud folder root as was the case in previous versions.

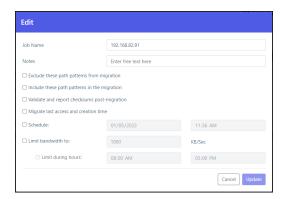
20. Click Create.

During the migration, the progress bar in the **Dashboard** shows the percentage completed and what is currently being processed.

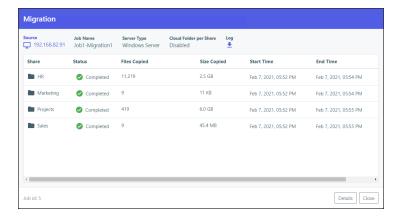


After migrating all the shares, the job completes and an email alert is sent with the job summary.

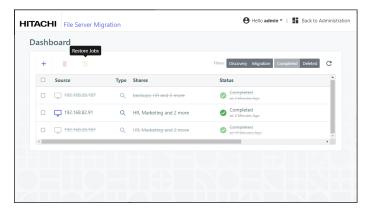
21. Click the icon to edit the migration job name, notes, include and exclude paths, migration checksum, whether to migrate access and creation times, schedule and throttling.



22. Click the icon to display the migration report.



- 23. Optionally, click the 🛂 icon to download the migration log file to a .log text file.
- **24.** Click the to display the list of every time this job was run with the results of each run, including the start and end times for the job, the number of files migrated and the total size of the migration, access to the report and the ability to download the log, which provides information about the migration and any errors that occurred during the migration.
- **25.** Optionally, in the dashboard, you can select a job and click the icon to delete the job. After deleting a job, you can display all the jobs including the deleted jobs by clicking the **Deleted** filter in the dashboard.



You can restore deleted jobs by selecting the deleted jobs to restore and clicking the icon.

The share structure from the source is recreated on the HCP Anywhere Enterprise Edge Filer, including nested shares and their permissions. If there are any recoverable errors during the copy process, retry the migration for the failed shares.

Note: Only ACLs are migrated with the files. Extended attributes are not migrated. In the HCP Anywhere Enterprise Edge Filer, the shares are defined with Windows ACL Emulation Mode.

Direct all the users to the HCP Anywhere Enterprise Edge Filer.

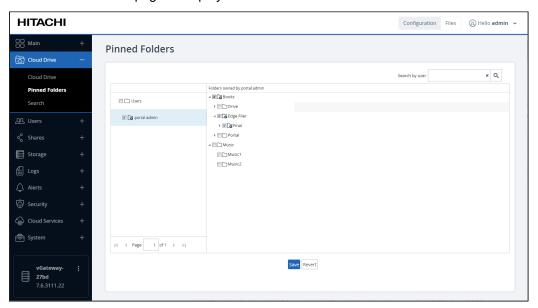
Users can now access and work on the HCP Anywhere Enterprise Edge Filer.

Completing a Migration and Performing a Delta Migration

After completing the migration, there may well be a number of new or changed files on the original file server that require migrating. Complete the migration process using the following procedure.

To complete a migration:

- 1. During off-peak hours, disconnect the filer server.
- 2. In the HCP Anywhere Enterprise Edge Filer user interface, pin the folders that you want to remain local to the HCP Anywhere Enterprise Edge Filer.
 - a) In the Configuration view, select Cloud Drive > Pinned Folders in the navigation pane. The Pinned Folders page is displayed.



The **Pinned Folders** area is separated into a users pane and folders pane, with paging in the users pane. This makes it easier to page through the users and select the folders to pin.

b) Select a user to display the folders owned by the user and then select the folders that you want pinned for this user, so that the folder content is always available on the HCP Anywhere Enterprise Edge Filer.

In addition, you can use the search field to jump to a specific user.

Note: You can select a a user to select all the folders and subfolders owned by the user. You can also select a higher level folder to select all the subfolders under it and then uncheck specific folders to unpin them. If you check a cloud folder, all the subfolders under the cloud folder are pinned, and any folders added later under the cloud folder will be pinned automatically.

c) Click Save.

The checked folders are pinned.

- 3. In the Configuration view's Main > Dashboard page, click File Server Migration.
 - The **File Server Migration** page is displayed, showing the discover and migration jobs previously run.
- **4.** Select the migration job to rerun and click the ▶ icon.

The migration job reruns, migrating the deltas from the last migration.

Migrating Shares









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