



# **NetApp XCP**

## **NetApp Solutions**

NetApp  
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# NetApp XCP

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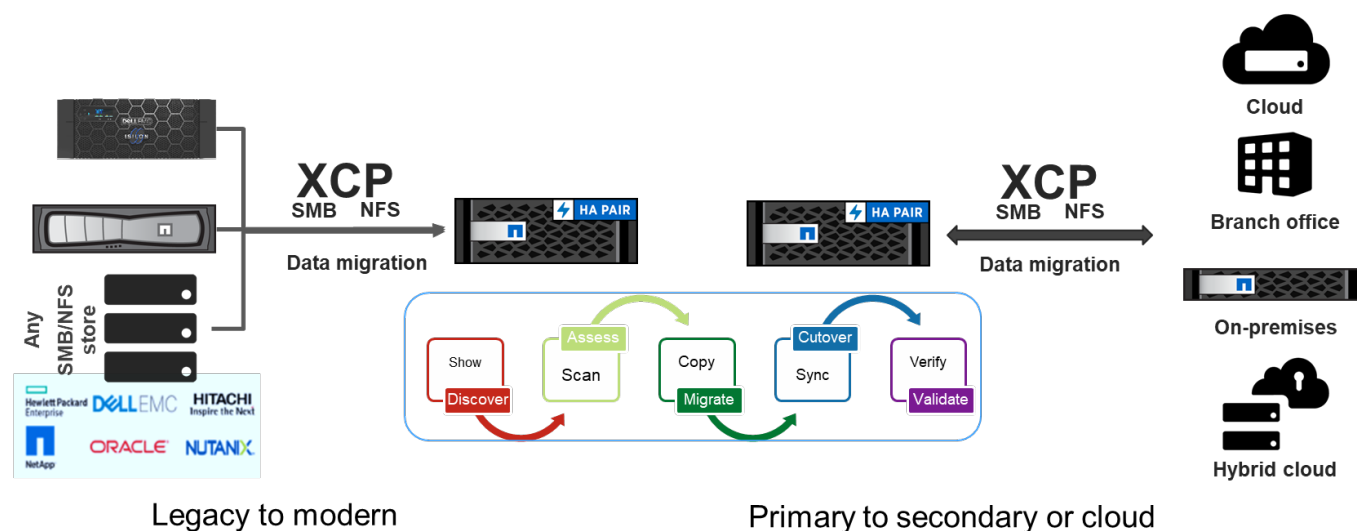
NetApp XCP transfers data by using multithreads and customizable features. It is designed for three major use cases: data move or migration, file-system analytics, and fast directory tree deletion.

## Data move or migration

NetApp XCP transfers data from any NAS to NetApp NAS. This process consists of four major operations: scan, copy, sync, and verify. There are some additional features that help the data monitoring and transfer:

- **Scan.** Provides a high-level layout of NAS data.
- **Copy.** Performs a baseline data transfer.
- **Sync.** Performs the incremental data transfer.
- **Verify.** Performs a thorough verification of the target.
- **Show (optional).** Discovers NAS shares.

The following figure illustrates XCP data migration and replication operations.



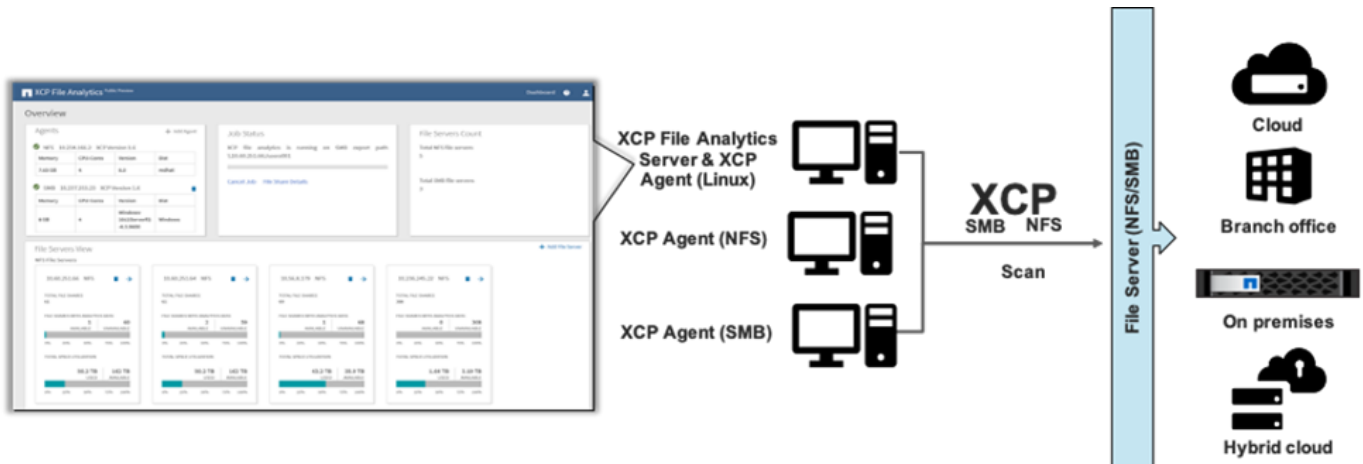
## File-system analytics

NetApp XCP natively enables you to identify, scrutinize, and analyze unstructured data to improve insights—a key requirement for enterprise customers who want to use those insights for better planning, to operationalize high-value digital assets, and for data governance through reporting and assessment.

Customers that deal with sensitive data can use NetApp XCP to answer typical operational questions, such as the following:

- Where is my data?
- How much data and what types of files do we have?
- What data is actively used and how much is dormant?

The following figure illustrates the NetApp XCP file analytics communication from the GUI.



## Delete

It can be very challenging for storage teams and Electronic Design Automation (EDA) workloads to clean up large directories, whether it's stale data or test data that needs to be cleaned to recover storage space. XCP provides a fast delete functionality that can delete a complete directory tree. The NetApp XCP Delete function removes files and folders from a given NAS path. You can leverage the match filters to delete a specific set of files and folders. For a large number of files and folders, you can use the Force option, which does not require a confirmation to delete.

## Live Source Migration support

Live Source Migration support included in XCP 1.7 allows migration from a data source that is in active use (read and write activity). XCP leaves out files that are being used during the migration job, such as copy and sync running, and skipped files information is captured in the xcp log.

This feature supports changes on the source but does not support changes on the destination. During migration, the destination should not be active. Live Source Migration support is only available for NFS migrations.



No special settings are required for Live Source Migrations.

## Prerequisites for XCP

Before you deploy NetApp XCP, the following prerequisites must be met:

1. Verify the NFS ports used by the NFS server by running the following command:

```
rpcinfo -p < NAS IP or on-prem nfs data LIF ip >
```

2. To access the location where you execute the XCP operations, such as on-premises or cloud instances (for example, Azure, AWS, or Google virtual machine [VM] instances), open the firewall ports for the NFS ports.
3. Verify that the NFS port is accessible from the XCP server by using the telnet command `<on-prem nfs data LIF ip or NAS IP > 2049`. The default port is 2049. If your environment has a different port,

use that IP.

4. For NFS, verify that the shares are accessible from the XCP server by using the `showmount -e < NAS IP >` command.
5. Increase the number of inodes on the destination volume to more than the file count (number of files) on the source files.
6. Download the XCP license from the [NetApp XCP License Portal](#).
  - a. You must have a NetApp account in [mysupport.netapp.com](https://mysupport.netapp.com) or you can register for free.
  - b. Download the license and have it ready.
7. Create one NFS share on-premises, for each Azure NetApp volume, or for the Cloud Volume Service (premium service level) in cloud for the XCP catalog.
8. Create an NAS volume and configure the share for the data destination.
9. For multiple XCP instances, you must have one or more servers or cloud instances to transfer the data from multiple source folders or files to the destination.
10. The `maxdir` size (default is 308MB) defines the maximum file count (approximately one million) in a single folder. Increase the `maxdir` size value to increase the file count. Increasing the value has an effect on additional CPU cycles.
11. In the cloud, NetApp recommends that you have ExpressRoute (Azure), Direct Connect (AWS), or Cloud Interconnect (GCP) between on-premises and cloud.

[Next: Migration workflow.](#)

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