

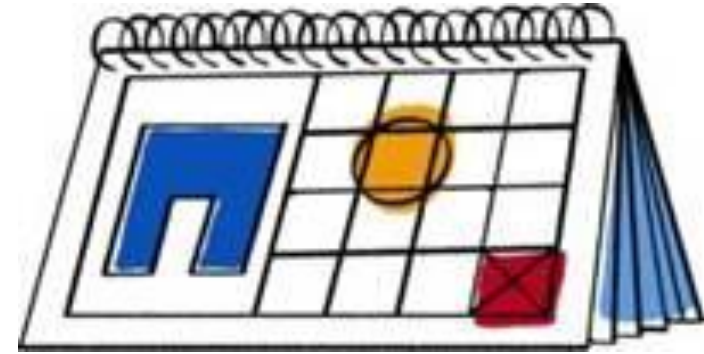


NetApp SMB v1.1.1 Migration Tool Overview

February 2018

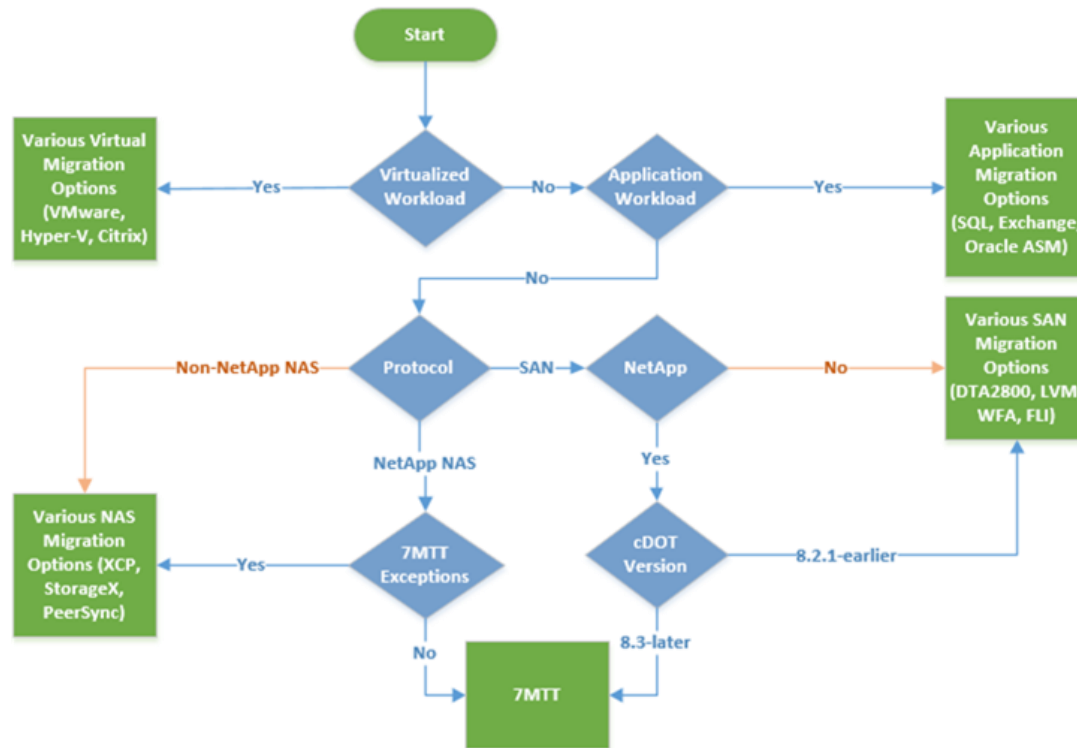
Agenda

- 1) Recommended Migration Tools
- 2) What Is NetApp XCP SMB Migration Tool?
- 3) Features
- 4) Licenses
- 5) NetApp XCP SMB Migration Tool Use Cases
- 6) NetApp XCP SMB Migration Tool Windows Host System Requirements
- 7) NetApp XCP SMB Migration Tool Benefits
- 8) Best Practices
- 9) Future Enhancements
- 10) Customer Successes
- 11) NetApp XCP SMB Migration Tool Available Resources



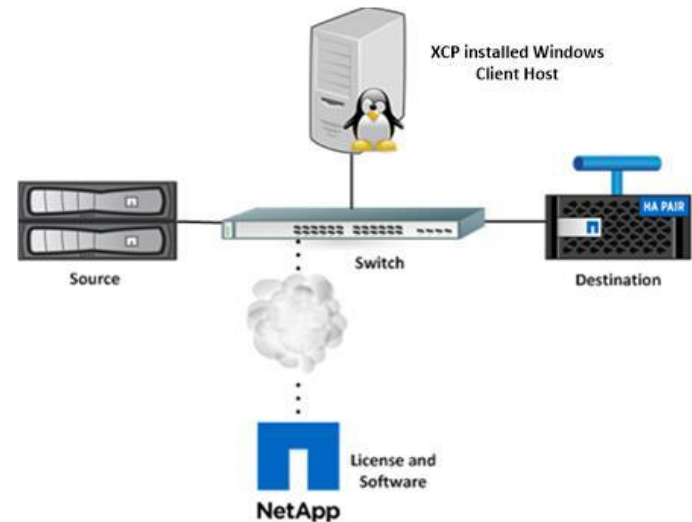
Recommended migration tools

The workflow demonstrates the positioning of XCP migration use case as part of the overall transition tools story, primarily as SMB only copy engine for 7MTT exception and third-party use cases.



What is XCP SMB Migration Tool?

- Host-based SMB copy engine developed by NetApp®
 - NetApp to NetApp transitions
 - Third-party to NetApp migrations
 - Command line interface
- Additional functionality
 - Three-level verification (stats, structure, and full data bit by bit)
 - Volume, subtree, and file-level assessment
 - Console reporting



Features

Core Engine

- Based on asynchronous and parallel computing

Granularity

- Process any parts of any file system (qtrees, subtrees)

Filters

- Even more granularity
- Set criteria for age, owner, size, access time, or any attribute

Scan

- Reads all files and directories found on a share

Sync

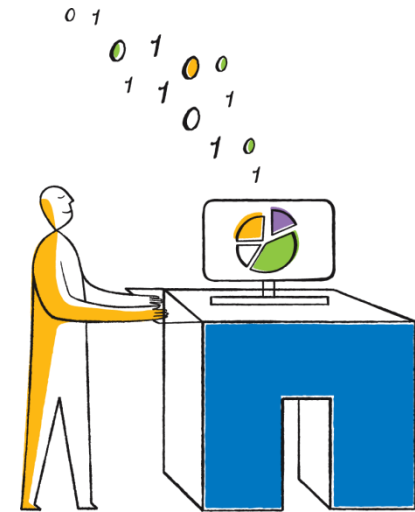
- Enables incremental syncs between the XCP source and target

Copy

- Recursively copies everything from source to destination

Verification

- Stats, structure, and full data comparisons make copies reliable



Integrated feature suite for file and data processing

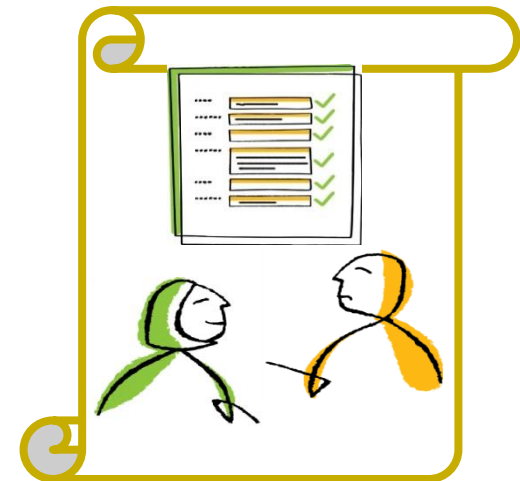
Licenses

- NetApp offers a free 90-day XCP renewable license
- You can obtain the license from <https://xcp.netapp.com>
- You can download the software from the [NetApp Support](#) site



NetApp XCP SMB Migration Tool Use Cases

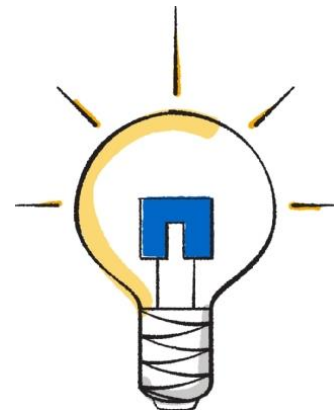
- Third-party storage to NetApp migrations
 - High-file-count environments (hundreds of millions of files)
 - Reduces cutover windows
 - Scoping
- 7MTT exceptions for transition
 - Qtree breakout without swing space requirement
 - n level copy granularity
 - 32-bit to 64-bit migration
 - Controller consolidation (n:n) and scripting
 - Any NetApp to NetApp transition
- File-level assessment
 - Dates (accessed/modified)/size/type/owner/permissions
 - Symbolic/hard link discovery



NetApp XCP SMB Migration Tool - Windows host system requirements

To support XCP SMB, each Windows client host requires:

- Windows 2008 R2 or above
- 64-bit Intel or AMD server, minimum 4 cores and 8GB RAM
- The Source storage system, XCP host, and the target ONTAP system must be part of same Active Directory domain
- 20MB of disk space for the XCP binary and at least 50MB of disk space for the logs that are stored in the C:\NetApp\XCP directory
- Microsoft Visual C++ 2017 redistributable must be installed on the XCP host. The download link is [here](#)
- User login requirement:
 - **XCP host system:** The user must have administrator privilege (user must be part of "BUILTIN\Administrators" group on the XCP SMB host system)
 - **Target storage system:** The user must have read and write access
 - **Source storage system:**
 - If the user is part of "Backup Operators" group in source storage system, the members of this group can read files while bypassing the security rules, regardless of any permissions that protect those files.
 - If the user is not part of "Backup Operators" group in source system, the user must have read access.
 - **Note:** Write permission is required in source storage system for supporting the XCP option "-preserve-atime".



NetApp XCP Migration Tool benefits

Multifunctional	▪ Search, analyze, filter, and report ▪ Scan, copy, verify files and data
Flexible	▪ Volume, subtree, and file granularity ▪ Wide variety of sources and NetApp storage targets
Software Only	▪ Easy to deploy and use ▪ No hardware, no drivers, no installation - XCP SMB is just one executable file
Innovative	▪ Asynchronous parallel I/O for all file system operations ▪ Substantially reduced time for searches, copies, verifications, and cutovers



Best Practices

- Expert skills required (Windows + storage)
- Training recommended (functionality + performance)
- Requires manual or scripted provisioning, planning, and job management
- If you can use NetApp SnapMirror® software, then use it and don't use XCP
- Network, host, and storage utilization must be monitored

- **Additional Considerations**

- Supported directly by NetApp
- Does not preserve storage efficiency savings
- Preserving/copying snapshots requires additional steps and scripting



Future Enhancements

- Manageability: GUI, scheduling, provisioning
- Transparent migration (XCP currently requires an outage window; differential sync is available today but transparent migration with flexible cutover is not)
- Change reports
- File and subdirectory level autotiering



NetApp XCP SMB Migration Tool - available resources

NetApp provides customers access to the NetApp XCP tool free of charge. Engineering support is presently offered, as described later, to the extent the necessary resources are reasonably available, as determined by NetApp, for so long as the tool is generally available for download through the NetApp Support site. This means that, although the XCP tool team has a vested interest in addressing issues and questions in a timely manner, there are no guaranteed response or resolution times or specific, associated service-level commitments.

The following are the additional details that better describe when and how NetApp provides support:

- Business hour support for this engineering-supported tool during business hours Central European Time (CET or UTC +1) Mondays–Fridays.
- Any questions/issues with XCP, contact the XCP support team directly via e-mail here: ng-xcp-support@netapp.com.

For additional information regarding XCP, refer to the NetApp XCP portal: <http://xcp.netapp.com>.





Thank you.