



7-Mode Transition Tool Prechecks

Quick Reference

July 2016

1 Prechecks

Running prechecks is one of the critical activity of infrastructure assessment. You should run prechecks to identify any issues and plan corrective actions before you move production workloads to clustered Data ONTAP. Prechecks verify that the 7-Mode sources, clustered Data ONTAP® targets, and configurations are valid for your transition. Prechecks provide you information about whether a particular feature or setting is supported in clustered Data ONTAP, if a configuration needs any additional activity before or after transition, and if you can proceed with the transition.

This quick reference provides a summary of prechecks with additional references available and identifies additional activities that must be performed for a successful transition. After running prechecks it is recommended that you look through the associated knowledgebase articles for precheck warnings that are provided by the 7-Mode transition tool and proceed with the suggested prework or workarounds.

Note: The quick reference has identified a few important prechecks; however, this is not a comprehensive list. For more details about transition, refer to the [7-Mode Transition Tool](#) documentation, [TR-4052: Successfully Transitioning to Clustered Data ONTAP](#), and [NetApp Knowledgebase articles](#).

Precheck code	Type	Precheck summary and associated knowledgebase reference
10031	NFS	The netgroup entries in the etc/exports file might not have the @ prefix in 7-Mode storage systems if nfs.netgroup.strict option is disabled. However, netgroups must have the @ prefix in clustered data ONTAP, if not the members of those netgroups may lose access to NFS exports. KB reference: Add @ prefix for all the netgroup entries in the etc/exports file for transitioning to clustered Data ONTAP.
10041	NFS	DNS domains or sub-domains in the /etc/exports file can begin with a '.' (dot) prefix or no qualifier at all in 7-Mode storage system. However, DNS domains or sub-domains in the export rules must always begin with a '.' prefix in clustered Data ONTAP. KB reference: DNS domains or sub-domains in the export rules must always begin with a '.' prefix for transitioning to clustered Data ONTAP.
10052	NFS	7-Mode Transition Tool will transition only the persistent export rules to clustered Data ONTAP. In-Memory export rules will not be transitioned by the tool. Append the missing rules into the etc/exports file. KB reference: Persistent and in-memory export rules are not in sync, 7-Mode Transition Tool will transition only the persistent export rules to the target SVM.

Precheck code	Type	Precheck summary and associated knowledgebase reference
10061	NFS	Clustered Data ONTAP enforces NFS export permissions at the volume or qtree levels and it is not possible to apply export rules to paths at any other level of the filesystem (say directory below the qtree level). Look for the break out options. KB reference: Transition of paths other than volumes and qtree from 7-Mode to clustered Data ONTAP is not supported.
10071	NFS	Transition of export rules with negations is not supported by the 7-Mode Transition Tool {Volumes having NFS export rules with negations defined (rules that include "-")}. However, during the transition, 7-Mode Transition Tool will export the corresponding clustered Data ONTAP volumes to disabled client access for all the hosts. Look for guidance on re-defining the associated export rules. KB reference: Transition of volumes having NFS export rules with negation "-".
10072	NFS	Transition of export rules with negations is not supported by the 7-Mode Transition Tool. {Qtrees having export rules with negations defined (rules that include "-")}. The transitioned qtrees will inherit their parent volumes export policy. Look for guidance on re-defining the associated export rules. KB reference: Transition of qtree having NFS export rules with negation "-".
10101	NFS	7-Mode volumes are not exported for NFS client access, but sub-volume paths are. Clustered Data ONTAP requires export rules at both the parent volume and sub-volume path in order to provide an access to a sub-volume. Hence, 7-Mode Transition Tool will export the target SVM volumes to allow read-only access for all the NFS clients. Evaluate whether it is acceptable to allow read-only access to be granted to all hosts at the volume level or look for the break out options. KB reference: Volumes are not exported for NFS access but sub-volume paths are exported in 7-Mode.
10111	NFS	Qtree export rules enforcement is different between Data ONTAP running 7-Mode and clustered Data ONTAP when an NFS client has access to the qtree, while its parent volume does not allow access to the same NFS client. While planning, carefully analyze and identify all the NFS clients that have export defined at qtree level, but does not have export at parent level further plan for changes in the access or look for break out options. KB reference: How to transition 7-Mode volumes that have qtree level exports.

Precheck code	Type	Precheck summary and associated knowledgebase reference
10112	NFS	In the Data ONTAP 7-Mode storage system, when an NFS client accesses a qtree through the mount point of its parent volume, the qtree export rules are ignored and the export rules of its parent volume are in effect. However, in clustered Data ONTAP, qtree export rules are always enforced whether NFS client mounts to the qtree directly or it accesses the qtree through the mount point of its parent volume. Evaluate the impact of enforcing the NFS export policies and modify the same, if required. KB reference: How qtree client access through parent volume differ in Data ONTAP 7-Mode and clustered Data ONTAP.
10292	NFS	The Data ONTAP 7-Mode export rules using the -actual option (that is, name alias) is not supported in clustered Data ONTAP or any feature equivalent to the -actual option that is available in Data ONTAP 7-Mode will be ignored during transition. Look for possible workarounds for the said scenario. KB reference: Transition of exports path with aliases are not supported (in clustered Data ONTAP).
20032	CIFS	If the CIFS server is not running on the 7-Mode storage systems the 7-Mode Transition Tool will skip CIFS prechecks, and the transition of CIFS configurations from these 7-Mode systems. To enable the 7-Mode Transition Tool to perform CIFS prechecks and transition CIFS configurations, ensure that the CIFS service is running on the 7-Mode storage systems. KB reference: CIFS service must be running for CIFS configuration transition.
20064	CIFS	7-Mode Transition Tool does not support transition of 7-Mode volumes configured with Storage-Level Access Guard (SLAG). Manually configure the SLAG after transition to clustered Data ONTAP. KB reference: Setup SLAG on volumes and qtree post transition to clustered Data ONTAP.
20073	CIFS	7-Mode Transition Tool does not support transition of 7-Mode Qtrees configured with Storage-Level Access Guard (SLAG). Manually configure the SLAG after transition to clustered Data ONTAP. KB reference: Setup SLAG on volumes and qtree post transition to clustered Data ONTAP.

Precheck code	Type	Precheck summary and associated knowledgebase reference
20092	CIFS	NetBIOS aliases are not supported in clustered Data ONTAP 8.2.x and are supported from clustered Data ONTAP 8.3.x or later. Using a DNS name as well as a Service Principal Name record, provides an alternative to the use of NetBIOS aliases in clustered Data ONTAP 8.2.x. KB reference: NetBIOS aliases feature is not supported in clustered Data ONTAP 8.2.x.
20094	CIFS	The NetBIOS aliases configured with Data ONTAP 7-Mode systems cannot be transitioned to clustered Data ONTAP 8.3 and later using 7-Mode Transition Tool. NetBIOS alias support for clustered Data ONTAP is added in clustered Data ONTAP 8.3 and later and NetBIOS alias must be configured manually on the target SVMs. Look for how to set the NetBIOS alias in clustered Data ONTAP. KB reference: Manually set NetBIOS aliases for CIFS server on clustered Data ONTAP 8.3 or later.
20113	CIFS	If the widelink entries in the <code>/etc/symlink.translations</code> file is configured with qtrees. Such entries will not be transitioned because they are not supported in clustered Data ONTAP. KB reference: Widelink entries in the '/etc/symlink.translations' file are configured with qtrees. Such entries will not be transitioned because they are not supported in clustered Data ONTAP.
20152	CIFS	Virus scan is enabled on the Data ONTAP 7-Mode storage system. Clustered Data ONTAP 8.2.1 or later supports antivirus feature. File accessed over CIFS will not be scanned in clustered Data ONTAP 8.2. Look for the manual configuration of virus scan on the SVM. KB reference: Antivirus support in clustered Data ONTAP.
20412	CIFS	There might be Data ONTAP 7-Mode CIFS share names, which are in conflict with existing share names on the target SVM. In such cases, the 7-Mode Transition Tool will not create these shares in the clustered Data ONTAP system. Hence, after the transition is complete (through the 7-Mode Transition Tool), manually configure these CIFS shares on the target SVM. Also, configure the required ACLs for these shares and make necessary client-side remediation steps to accommodate the share name changes. KB reference: Manually create clustered Data ONTAP CIFS shares when there is share name conflict.

Precheck code	Type	Precheck summary and associated knowledgebase reference
20492	CIFS	If the maxusers attribute is set on 7-Mode CIFS shares, it is not transitioned since this attribute is not supported in clustered Data ONTAP 8.2.x. However, this feature is supported from clustered Data ONTAP 8.3.x or later and needs to be configured manually. KB reference: Set the maxusers equivalent attribute in clustered Data ONTAP 8.3 RC1, 8.3 and 8.3.1.
20493	CIFS	The maxusers attribute is set on the following Data ONTAP 7-Mode CIFS shares. However, the 7-Mode Transition Tool does not support transition of this attribute to clustered Data ONTAP. The maxusers has to be configured manually. KB reference: 7-Mode Transition Tool does not support transition of maxusers attribute to clustered Data ONTAP.
20504	CIFS	The 7-Mode Transition Tool does not support transition of Access Control List (ACL) at the level of CIFS shares for UNIX® users and groups. Manually create required share-level ACLs with NT-style permissions on the transitioned shares. KB reference: Share-level ACLs for UNIX users or groups.
20793	CIFS	LM authentication level setting '5' (option cifs.LMCompatibilityLevel) in the 7-Mode storage system disallows NTLM and accepts only Kerberos authentication from the clients. Post transition to clustered Data ONTAP, the default value setting of 1 would accept both NTLM and Kerberos authentication requests from the clients. This is supported from ONTAP 8.3 onwards and Kerberos only authentication can be achieved by manual setting. KB reference: How to modify LM authentication level on clustered Data ONTAP.
20877 & 20878	CIFS	For performing auditing on clustered Data ONTAP, ensure that the audit path provided belongs to clustered Data ONTAP volumes that are online and enabled for read-write operations. Verify the volume status and the path. KB reference: Audit path volume should be online and enabled for read-write operations.
20882, 20874, 20875 & 20885	CIFS	Need to provide valid audit log path for target SVMs. KB reference: How to configure CIFS auditing in clustered data ONTAP.

Precheck code	Type	Precheck summary and associated knowledgebase reference
20879	CIFS	The volume belongs to audit path and should be online and mounted for transition. Make sure the volume is online, mounted and enabled for read-write operations. KB reference: How to enable audit path in clustered Data ONTAP.
20883	CIFS	If auditing is configured, but not enabled or has been disabled on the target SVMs, transition of the Data ONTAP 7-Mode audit configuration will be skipped by the 7-Mode Transition Tool. To enable auditing on the SVM, the SVMs auditing configuration must already exist. After you complete setting up the auditing configuration, you must enable auditing on the SVM. KB reference: How to enable auditing on SVM in clustered Data ONTAP.
20952	CIFS	During transition, if the 7-Mode Transition Tool fails to fetch the password of a local user, it assigns default passwords to the effected user IDs. This might be because the password is blank, or does not comply with the clustered Data ONTAP standards. If required, post transition, modify the local user password. KB reference: How to transition CIFS local users with the default password.
22020	CIFS	7-Mode Transition Tool will ignore the cifs.restrict_anonymous option if the SVMs are configured with higher restriction level than the source 7-Mode storage systems. Evaluate the impact of ignoring the option and reconfigure the restriction level if required. KB reference: Restricting anonymous user access.
25052	CIFS	The cifs.restrict_anonymous option is enabled in the source 7-Mode storage systems but the feature is not supported in clustered Data ONTAP 8.2.1 or below. If migrating to ONTAP version 8.2.1 or below, evaluate the impact of not having the feature support. If required, upgrade to a supported ONTAP version (8.2.2 or above) and reconfigure the restriction level. KB reference: Restricting anonymous user access.
25054	CIFS	7-Mode Transition Tool will transition the cifs.restrict_anonymous option if the SVMs are configured with lower restriction level than the source 7-Mode storage systems. Evaluate the impact of restriction level change and if required, reconfigure the restriction level in the SVM. KB reference: Restricting anonymous user access.

Precheck code	Type	Precheck summary and associated knowledgebase reference
40022	NAMESERVICES	7-Mode transition tool will not transition the Name Service Switch configuration (/etc/nsswitch.conf) from 7-Mode storage systems if the tool failed to retrieve the /etc/nsswitch.conf configuration file. Manually configure the Name Service Switch configuration (/etc/nsswitch.conf) from the following 7-Mode storage systems. KB reference: How to manually transition the Name Service Switch configuration (/etc/nsswitch.conf file data) from 7-Mode storage system to target SVM.
40026	NAMESERVICES	Clustered Data ONTAP does not support host lookup over NIS/LDAP, hence transition of such configuration will be ignored by the 7-Mode Transition Tool. Lookout for alternate option to avoid post transition failure to resolve the host lookup configured over NIS/LDAP. KB reference: Transition of hosts database lookup configuration will be ignored if configured over NIS/LDAP.
40063 / 40064	NAMESERVICES	The value of the NIS servers option (nis.servers) in 7-Mode storage system is set or contains asterisk (*) which specifies that broadcast (for IPv4) and multicast (for IPv6) are used to bind to NIS server. However, broadcast for NIS servers is not supported in clustered Data ONTAP. Look for alternate option. KB reference: Transitioning of NIS binding configuration in Data ONTAP 7-Mode system containing asterisk (*) to clustered Data ONTAP.
40264	NAMESERVICES	The IP addresses mapped for the host entries as per the Data ONTAP 7-Mode /etc/hosts/ file are already configured on the target Storage Virtual Machine (SVM) with different host name. Therefore, to avoid IP conflict, the tool will ignore transition of these entries (all other valid entries will be transitioned). Evaluate the reason for mismatched entries and impact of changing host entries in the target SVM. KB reference: Rectify incorrect host name and IP address mapping post transition.
40293	NAMESERVICES	Clustered Data ONTAP supports only three name servers. Number of name servers specified together within Data ONTAP 7-Mode and SVM are more than three. Ignore transition of DNS configuration in the 7-Mode Transition Tool in this case and manually transition the DNS configurations. KB reference: Transitioning name servers if specified together within Data ONTAP 7-Mode and SVM are more than three.

Precheck code	Type	Precheck summary and associated knowledgebase reference
40311	Nameservices	7-Mode Transition Tool will replace the netgroup configuration if target SVM has netgroups already configured and transitioning netgroups (etc/netgroup file) from 7-Mode storage system. Skip the netgroup transition to retain the already configured netgroups in clustered Data ONTAP. KB reference: How to avoid replacing the netgroups by 7-Mode Transition Tool if the target SVM has netgroups already configured.
40361	NAMESERVICES	The LDAP name mapping between UNIX users and Windows® accounts is enabled on the Data ONTAP 7-Mode storage systems. However, transition of the LDAP name mapping configuration is not supported by the 7-Mode Transition Tool. Look for manual LDAP client configuration. KB reference: Transition of LDAP name mapping configuration is not supported.
40532	Nameservices	Clustered Data ONTAP does not support the 7-Mode option nis.netgroup.domain_search.enable and is enabled on the 7-Mode storage systems. This option causes the 7-Mode to consider all domains listed in the search directive of the etc/resolv.conf file while doing host name resolution for the members of netgroups. Use the alternate option to update all such entries with fully-qualified domain name. KB reference: How to transition unsupported 7-Mode option nis.netgroup.domain_search.enable to clustered Data ONTAP.
40614	NAMESERVICES	The 7-Mode Transition Tool does not transition NIS domain that exceeds more than 64 characters. It can be either reconfigured before transition or look for manual configuration steps post transition. KB reference: Transition of NIS domain name exceeding 64 characters.
40662	NAMESERVICES	7-Mode Transition Tool will not transition if the tool fails to verify the configuration. You may continue with transition after ignoring the transition of the DNS configuration by the 7-Mode Transition Tool and manually transition the configuration to the target SVM. KB reference: How to manually transition the DNS configuration (etc/resolv.conf file data) from 7-Mode storage systems.

Precheck code	Type	Precheck summary and associated knowledgebase reference
40664	NAMESERVICES	Valid entries from /etc/resolv.conf will be transferred and invalid entries will be ignored, DNS should get configured in the target clustered Data ONTAP system. In case the required entries are missing and DNS is not configured at the target SVM, the user has the option to modify DNS entry by simple commands. KB reference: Not transitioning unsupported entries of /etc/resolv.conf file to clustered Data ONTAP.
40682	NAMESERVICES	7-Mode Transition Tool will not transition the LDAP configuration if it is configured and enabled on target SVM. If the LDAP reconfiguration is required, then manually compare LDAP configurations from Data ONTAP 7-Mode source controllers and destination SVMs and change configurations as needed. KB reference: How to configure and enable LDAP on target SVM.
40683	NAMESERVICES	7-Mode Transition Tool will transition the LDAP configuration if it is configured and disabled on target SVM. Evaluate the impact of the 7-Mode Transition Tool creating a new LDAP client and enabling LDAP on the SVMs. If required, you can manually modify LDAP configuration after the transition. KB reference: How is LDAP configured and disabled on target SVM.
50102	SAN	The LUNs enabled for access using NAS protocol in 7-Mode storage system cannot be accessed using NAS protocols after transitioning to clustered Data ONTAP. Evaluate and implement the alternate option, accessing the LUN through iSCSI protocol. KB reference: How to transition LUNs enabled for access using NAS protocol.
50601	SAN	SnapDrive and SnapManager backup verification and restore operations of files will fail on 7-Mode Snapshot copies that are transitioned to clustered Data ONTAP. However, all SnapDrive and SnapManager backup verification and restore operations are supported on any newly created Snapshot copies in clustered Data ONTAP. KB reference: How to restore, backup verification of files on Snapshot copies transitioned to clustered Data ONTAP from 7-Mode by using SnapDrive and SnapManager.

Precheck code	Type	Precheck summary and associated knowledgebase reference
50602	SAN	SME deferred verification fails on 7-Mode Snapshot copies that are transitioned to clustered Data ONTAP. However, SME deferred verification operations are completely supported on any newly created Snapshot copies in clustered Data ONTAP. KB reference: How to restore, backup verification of files on Snapshot copies transitioned to clustered Data ONTAP from 7-Mode by using SnapDrive and SnapManager.
50611	SAN	To preserve the 7-Mode Single System Image (SSI) semantics, you must consolidate all the volumes having mapped LUNs along with its HA partner's volumes having LUNs configured for FC access into a single target SVM. KB reference: 7-Mode transition and consolidation of FC LUNs to maintain 7-Mode Single System Image (SSI) semantics.
50612	SAN	iSCSI tenancy semantics will break if the 7-Mode volumes hosts LUNs accessed over FC, iSCSI or both and consolidated along with the volumes with FC LUNs from its 7-Mode HA partner controller into a single SVM. Evaluate and consolidate the volumes appropriately. KB reference: 7-Mode Transition and Consolidation of FC LUNs to maintain 7-Mode Single System Image (SSI) semantics.
50613	SAN	Ensure that Single System Image (SSI) or iSCSI tenancy semantics are not broken if transitioning volume host LUNs that are not mapped for access and if they are mapped in future. KB reference: 7-Mode transition and consolidation of FC LUNs to maintain 7-Mode Single System Image (SSI) semantics.
60064	DPG	The 7-Mode Transition Tool (Copy Based Transition – CBT) will not transition the volume SnapMirror relationships if the secondary 7-Mode volumes are also acting as source of one or more volume SnapMirror relationships. Manually transition the relationship after transitioning the volumes as standalone volume. KB reference: How to transition cascaded SnapMirror relationships which is not transitioned by the tool.

Precheck code	Type	Precheck summary and associated knowledgebase reference
60065	DPG	The 7-Mode Transition Tool (Copy Based Transition – CBT) will not transition the volume SnapMirror relationships if the primary 7-Mode volumes are also acting as destination of one or more volume SnapMirror relationships. Manually transition the relationship after transitioning the volumes as standalone volume. KB reference: How to transition cascaded SnapMirror relationships which is not transitioned by the tool.
90282	Volume	The FlexClone volumes are transitioned as separate FlexVol volumes to the target SVM and the transitioned FlexClone volume will not share any common blocks with its parent. The FlexClone hierarchy and storage efficiency are lost in this process. Evaluate and plan for disk space requirement when FlexClone volumes becoming FlexVol volumes due to transition. KB reference: Transition of FlexClone volumes are not supported but transitioned as separate FlexVol volumes to the target SVM by 7MTT (CBT).
90603	WAFL	Transition of 7-Mode volumes with 32-bit Snapshot copies is not supported by the 7-Mode Transition Tool because 32-bit volumes are not supported in clustered Data ONTAP 8.3 or later. May have 32-bit Snapshot copies in 7-Mode storage system if the volumes were upgraded to 64-bit. Delete or age out the 32-bit Snapshot copies. KB reference: Transition of 32-bit Snapshot copies of upgraded 64-bit volumes are not supported in clustered Data ONTAP 8.3.
94101	SNMP	7-Mode Transition Tool does not support the transition of SNMP configuration to clustered Data ONTAP. Manually configure the SNMP in clustered Data ONATP. KB reference: How to transition SNMP configuration from a Data ONTAP 7-Mode system to clustered Data ONTAP 8.3.

Version History

Version	Date	Name	Document version history
1.0	February 2016	Anil G Joshey Lazer	Initial version aligned with 7MTT 2.3 release
2.0	July 2016	Joshey Lazer	Updated the content with 7MTT 3.0 aligned Precheck KB messages

Refer to the [Interoperability Matrix Tool \(IMT\)](#) on the NetApp Support site to validate that the exact product and feature versions described in this document are supported for your specific environment. The NetApp IMT defines the product components and versions that can be used to construct configurations that are supported by NetApp. Specific results depend on each customer's installation in accordance with published specifications.

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