



Netapp Interoperability Matrix

Storage Solution : CIFS Compatibility Matrix (Windows)

NetApp CIFS Storage System Interoperability for Microsoft Operating Systems

The NetApp Interoperability Matrix (IMT) defines the components and versions that have been qualified and which can be used to construct CIFS configurations that are supported end-to-end by NetApp. NetApp partners with Microsoft during their development and release cycles in order to support the interoperability at or within certain periods following the vendor's general availability. For support of configurations not included in the NetApp Interoperability Matrix, including pre-general-availability releases, or to obtain support for your particular configuration via the NetApp Product Variance Request (PVR) process, please contact your NetApp account team or partner. If you experience technical issues with NetApp storage systems in configurations not listed in the NetApp Interoperability Matrix, NetApp will diagnose and support the configuration in accordance with the NetApp support entitlement purchased. Descriptions of NetApp support services are set forth at <http://www.netapp.com/us/services-support/services/operations/services-descriptions.aspx> ; resolution may require changing the configuration to one currently listed in the matrices or working with your account team or partner through the PVR process.

NetApp storage systems are built on a common operating system infrastructure - Data ONTAP. Unless otherwise noted in the matrices, support by the Data ONTAP operating system is the criterion used to determine whether a system configuration is qualified in a particular environment rather than the particular hardware model of the system. All system models that run a qualified Data ONTAP version are equivalent for support purposes.

The purpose of this testing matrix is to support customer inquiries regarding CIFS client and server operating systems that have been tested by NetApp engineering.

Issues discovered during testing are provided for informational purposes. The information provided here is designed to assist NetApp customer who is researching what is known to work and what isn't, additional testing by customer may be required. This testing pertains to CIFS Protocol only.

Inter-op Policy:

ONTAP release(7-Mode and Cluster mode)

NetApp is committed to maintaining interoperability and compatibility with Microsoft Windows operating systems(Domain Controllers and Clients). The main goal of this testing is to fix critical known interoperability issues within reasonable commercial time frames.

Test Life Cycle for ONTAP release(7-Mode and Cluster Mode):

The Compatibility testing (regression) for the ONTAP release is completed before RC1. The result of testing is posted to IMT (InterOperability Matrix) at the same time as RC1 gets posted to NOW.

Windows Clients and DC Release (OS/SP)

NetApp will publish the results of the Microsoft Operating System or Service Pack testing within 30 days of the general availability of the OS/SP.

Testing is done with latest available 7G/7-Mode/Cluster Mode ONTAP GA or GD releases. Any issues that arise during testing will be published in the Notes section of the matrix in IMT. Issues that arise in the field will also be published in the Notes section in IMT.

The result of testing is posted to the IMT by the 30th day of the test cycle.

CIFS Storage System Interoperability QA Tests:

Functional regression testing will be done to verify that previously existing NetApp product functionality continues to operate as specified with the new Windows Operating System or Service Pack. Tests will be performed to verify that new functionality released also works according to the specifications provided by Microsoft.

End of Support

At its discretion, NetApp will continue to provide support for existing installations of vendor end-of-support configurations even after general support has ended from the applicable vendor. This support will be limited in accordance with the support model provided by the vendor in which an upgrade may be the only solution. Support of NetApp storage systems and software is provided according to NetApp's standard warranty and support lifecycle

Data ONTAP OS Release Support

When a Data ONTAP release is listed as supported, then all patch releases are supported as well.

However, if the IMT does list a patch release, then only that patch and later patch releases in that Major (8.2, 8.3) / Minor (8.2.1, 8.2.2, 8.3.1, 8.3.2) / maintenance release streams are supported. For example, in the FAS SAN Host solution area, ESX 5.5 support for SAN Clustered Data ONTAP 8.2 begins with Data ONTAP 8.2.3P3. Earlier patches of 8.2.3P1 (including 8.2.3 itself) and other minor releases of 8.2.1, 8.2.3 are not supported, but any later patches, such as 8.2.3P4 or later, have implied support. For other minor releases like 8.2.4+ these will need to be verified as supported via the IMT for the solution.

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FPOLICY

Partner vendors test and certify fpolicy solutions with NetApp. NetApp does not test or certify partner vendor fpolicy solutions. Please confirm with your vendor if your version and mode of ONTAP is supported.

Search Criteria

Solution

CIFS Compatibility Matrix (Windows);

Additional Criteria;

Domain Controller

Microsoft Windows Server 2016 DCE 64-bit, x64;

Microsoft Windows Server 2016 SE 64-bit, x64;

Client OS

Microsoft Windows 7 Ultimate (SP1 64-bit, x64);

Microsoft Windows 10 32-bit, x86;

Microsoft Windows 10 64-bit, x64;

Microsoft Windows 10 Education 32-bit, x86;

Microsoft Windows 10 Education 64-bit, x64;

Microsoft Windows 10 Enterprise 32-bit, x86;

Microsoft Windows 10 Enterprise 64-bit, x64;

Microsoft Windows 10 Home 32-bit, x86;

Microsoft Windows 10 Home 64-bit, x64;

Microsoft Windows 10 Pro 32-bit, x86;

Microsoft Windows 10 Pro 64-bit, x64;

Microsoft Windows 7 Enterprise (32-bit, x86);

Microsoft Windows 7 Home Premium (64-bit, x64);

Microsoft Windows 7 Home Premium (32-bit, x86);

Microsoft Windows 7 Enterprise (SP1 64-bit, x64);

Microsoft Windows 7 Enterprise (64-bit, x64);

Microsoft Windows 7 Enterprise (SP1 32-bit, x86);

Microsoft Windows 7 Professional (SP1 32-bit, x86);

Microsoft Windows 7 Professional (SP1 64-bit, x64);

Microsoft Windows 7 Ultimate (SP1 32-bit, x86);

CIFS Compatibility Matrix (Windows)

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20190505-214507261	Supported		Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.6

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20190117-230515999	Supported		Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.5

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20180703-024728374	Supported		Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1	Data ONTAP 8.2.5 7-Mode

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20180524-215428516	Supported	Info: 8435	Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.4

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20180211-230650420	Supported		Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0	[EOVS] Clustered Data ONTAP 8.2.4
20180211-230429280	Supported		Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0	[EOVS] Clustered Data ONTAP 8.3.2

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20180211-225721357	Supported		Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.0

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20171218-015139723	Supported	Info: 8435	Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.3

Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20170523-071103766	Supported	Info: 8435	Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32- bit, x86; Microsoft Windows 10 Home 64- bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Enterprise (32-bit, x86); Microsoft Windows 7 Enterprise (64-bit, x64); Microsoft Windows 7 Enterprise (SP1 32-bit, x86); Microsoft Windows 7 Enterprise (SP1 64-bit, x64); Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.2
20161121-034157938	Supported	Info: 8663	Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32- bit, x86; Microsoft Windows 10 Home 64- bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1	Data ONTAP 8.2.4 7-Mode; [EOVS] Data ONTAP 8.1.4 7- Mode

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Name	Status	Foot notes	Domain Controller (OS)	Client OS (OS)	Protocol	ONTAP OS (NETAPP OS)
20160831-045029787	Supported	Info: 8435,8559	Microsoft Windows Server 2016 DCE 64-bit, x64; Microsoft Windows Server 2016 SE 64-bit, x64	Microsoft Windows 10 32-bit, x86; Microsoft Windows 10 64-bit, x64; Microsoft Windows 10 Education 32-bit, x86; Microsoft Windows 10 Education 64-bit, x64; Microsoft Windows 10 Enterprise 32-bit, x86; Microsoft Windows 10 Enterprise 64-bit, x64; Microsoft Windows 10 Home 32-bit, x86; Microsoft Windows 10 Home 64-bit, x64; Microsoft Windows 10 Pro 32-bit, x86; Microsoft Windows 10 Pro 64-bit, x64; Microsoft Windows 7 Home Premium (32-bit, x86); Microsoft Windows 7 Home Premium (64-bit, x64); Microsoft Windows 7 Professional (SP1 32-bit, x86); Microsoft Windows 7 Professional (SP1 64-bit, x64); Microsoft Windows 7 Ultimate (SP1 32-bit, x86); Microsoft Windows 7 Ultimate (SP1 64-bit, x64)	SMB 1.0; SMB 2.0; SMB 2.1; SMB 3.0; SMB 3.1; SMB 3.1.1	ONTAP 9.1

Info

Note ID	Text
8435	<p>Protocol versions supported in Data ONTAP 7Mode:</p> <p>7.3.x - SMB1, SMB2 8.0.x - SMB1, SMB2 8.1.x - SMB1, SMB2, SMB2.1 8.2.x - SMB1, SMB2, SMB2.1 No SMB3 support in 7Mode.</p> <p>Protocol versions supported in Clustered ONTAP and ONTAP:</p> <p>8.0.x - SMB1 8.1.x - SMB1, SMB2 8.2.x - SMB1, SMB2, SMB3 8.3.x - SMB1, SMB2, SMB3</p> <p>ONTAP 9.0 - SMB1, SMB2, SMB3, SMB3.1, SMB3.1.1 ONTAP 9.1 - SMB1, SMB2, SMB2.1, SMB3, SMB3.1, SMB3.1.1</p>
8663	<p>WinServer 2016 tested with Domain/Forest Level Native Mode</p> <p>WinServer 2012 R2 tested with Domain Level Native Mode & Mixed Mode with Forest Functional Level 2003</p> <p>WinServer 2008 R2 tested with Domain Level Native Mode & Mixed Mode with Forest Functional Level 2003</p>
8559	<p>ONTAP 9.1 qualification completed with FlexGroup Support on RC2 release.</p> <p>Clients Protocol Versions Covered with FlexGroup for ONTAP 9.1:</p> <p>SMB 2.0 SMB 2.1 SMB 3.0 SMB 3.1 SMB 3.1.1</p> <p>Note: SMB1 is not supported with FlexGroup.</p>