



## Netapp Interoperability Matrix

Storage Solution : ONTAP Select

Search Criteria

<p>Solution; ONTAP Select</p> <p>ONTAP Select Storage Type Local DAS w/RAID Controller ; Local DAS w/RAID Controller for Standard ; Local DAS w/RAID Controller for Premium ;</p>
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## ONTAP Select

Name	Status	Foot notes	ONTAP Select Platform	ONTAP Deploy Installer	Browser	ONTAP OS (NETAPP OS)	Hypervisor (OS)	Protocol	ONTAP Select Server Instance	ONTAP Select Storage Type
20170511-103600581	Supported	Info: 8525,8577,8578,8579,8580,8617,8714,8766,8768 Alerts: 8522,8523,8524,8694,8704,8711,8713,8743,8767	ONTAP Select Premium (FDvM300 single node); ONTAP Select Premium (FDvM300 multi-node)	ONTAP Select Deploy Utility 2.4	Mozilla Firefox 52.0; Mozilla Firefox 51.0; Mozilla Firefox 50.0; Microsoft Internet Explorer 11.0; Google Chrome 57.0; Google Chrome 56.0; Google Chrome 55; Google Chrome 54	ONTAP 9.2	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 6.0; VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }; Medium Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=72 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=10 or higher }	Local DAS w/RAID Controller for Premium {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Premium)=4-24 SSD or 8-24 HDD (NL-SAS, SATA, 10K RPM SAS), hybrid configurations not supported }
20170511-100509339	Supported	Info: 8617,8525,8577,8578,8579,8580,8714,8766,8768 Alerts: 8522,8523,8524,8694,8704,8711,8713,8743,8767	ONTAP Select Standard (FDvM300 single node); ONTAP Select Standard (FDvM300 multi-node)	ONTAP Select Deploy Utility 2.4	Mozilla Firefox 51.0; Mozilla Firefox 50.0; Microsoft Internet Explorer 11.0; Google Chrome 57.0; Google Chrome 56.0; Google Chrome 55; Google Chrome 54	ONTAP 9.2	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 6.0; VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }	Local DAS w/RAID Controller for Standard {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Standard)=8-24 HDD (NL-SAS, SATA, 10K RPM SAS) }
20170329-102837942	Supported	Info: 8525,8577,8578,8579,8580,8714,8617,8766,8768 Alerts: 8522,8523,8524,8694,8704,8711,8712,8713,8743	ONTAP Select Standard (FDvM300 single node); ONTAP Select Standard (FDvM300 multi-node)	ONTAP Select Deploy Utility 2.3	Mozilla Firefox (not version specific); Microsoft Internet Explorer 11.0; Google Chrome (not version specific)	ONTAP 9.1	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 6.0; VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }	Local DAS w/RAID Controller for Standard {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Standard)=8-24 HDD (NL-SAS, SATA, 10K RPM SAS) }
20170329-102503356	Supported	Info: 8617,8768,8525,8577,8578,8579,8580,8714,8766 Alerts: 8523,8524,8694,8704,8711,8712,8713,8743,8522	ONTAP Select Premium (FDvM300 single node); ONTAP Select Premium (FDvM300 multi-node)	ONTAP Select Deploy Utility 2.3	Mozilla Firefox (not version specific); Microsoft Internet Explorer 11.0; Google Chrome (not version specific)	ONTAP 9.1	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 6.0; VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }; Medium Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=72 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=10 or higher }	Local DAS w/RAID Controller for Premium {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Premium)=4-24 SSD or 8-24 HDD (NL-SAS, SATA, 10K RPM SAS), hybrid configurations not supported }

Name	Status	Foot notes	ONTAP Select Platform	ONTAP Deploy Installer	Browser	ONTAP OS (NETAPP OS)	Hypervisor (OS)	Protocol	ONTAP Select Server Instance	ONTAP Select Storage Type
20170228-112326854	Supported	Info: 8525,8577,8578,8579,8580 Alerts: 8522,8523,8524,8694,8704,8743	ONTAP Select Standard (FDvM300)	ONTAP Select Deploy Utility 2.2.2	Mozilla Firefox (not version specific); Microsoft Internet Explorer 11.0; Google Chrome (not version specific)	ONTAP 9.1; ONTAP 9.0	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }	Local DAS w/RAID Controller {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Premium)=4-24 SSD disk drive, Disk Drive (Standard)=8-24 10K RPM SAS disk drive }
20170228-112249068	Supported	Info: 8525,8577,8578,8579,8580 Alerts: 8522,8523,8524,8694,8704,8743	ONTAP Select Premium (FDvM300)	ONTAP Select Deploy Utility 2.2.2	Mozilla Firefox (not version specific); Microsoft Internet Explorer 11.0; Google Chrome (not version specific)	ONTAP 9.1	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }; Medium Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=72 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=10 or higher }	Local DAS w/RAID Controller {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Premium)=4-24 SSD disk drive, Disk Drive (Standard)=8-24 10K RPM SAS disk drive }
20161222-152437333	Supported	Info: 8525,8577,8578,8579,8580,8617 Alerts: 8522,8523,8524,8694,8704,8743	ONTAP Select Premium (FDvM300)	ONTAP Select Deploy Utility 2.2.1; ONTAP Select Deploy Utility 2.2	Mozilla Firefox (not version specific); Microsoft Internet Explorer 11.0; Google Chrome (not version specific)	ONTAP 9.1	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }; Medium Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=72 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=10 or higher }	Local DAS w/RAID Controller {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Premium)=4-24 SSD disk drive, Disk Drive (Standard)=8-24 10K RPM SAS disk drive }
20161222-152310195	Supported	Info: 8525,8577,8578,8579,8580 Alerts: 8522,8523,8524,8694,8704,8743	ONTAP Select Standard (FDvM300)	ONTAP Select Deploy Utility 2.2.1; ONTAP Select Deploy Utility 2.2	Mozilla Firefox (not version specific); Microsoft Internet Explorer 11.0; Google Chrome (not version specific)	ONTAP 9.1; ONTAP 9.0	VMware ESXi 6.0 (Update 2); VMware ESXi 6.0 (Update 1); VMware ESXi 5.5 (Update 3)	iSCSI; NFS; CIFS	Small Instance Type {CPU=Intel CPU E5-26xx v3 (Haswell) or higher, Memory=24 GB of memory or greater, Ethernet Ports=See note 8766, Physical Cores=6 or higher }	Local DAS w/RAID Controller {Throughput=12 GBs, Cache=512 MB internal battery-backed or flash (SuperCAP), Disk Drive (Premium)=4-24 SSD disk drive, Disk Drive (Standard)=8-24 10K RPM SAS disk drive }

## Alerts

Note ID	Text
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8694	NetApp strongly recommends for customers to use or upgrade to ONTAP Deploy 2.2.2 or higher. For more details, see security advisory CVE-2017-5995 located at <a href="https://kb.netapp.com/support/s/article/ka51A00000007HrQAI/NTAP-20170228-0001?language=en_US">https://kb.netapp.com/support/s/article/ka51A00000007HrQAI/NTAP-20170228-0001?language=en_US</a>
8711	ONTAP Select vNAS supports all iSCSI/NAS (NFSv3)/FC/FCoE arrays in the VMWare Storage/SAN Compatibility Guide. External array support is limited by the ESXi version supported by ONTAP Select. Vvol data stores are not supported for ONTAP Select vNAS using external array. The supported releases of ESXi can be found in the ONTAP Select IMT. Note, ONTAP Select vNAS capability is only supported for single node ONTAP Select configurations.
8743	To identify the supported Host OS versions, go to the corresponding storage solution at the NetApp Interoperability Matrix Tool for the specified product. If the Host OS version using iSCSI, NFS & CIFS protocols is supported with ONTAP, then the same version is also supported with ONTAP Select.
8712	For vSAN and External array storage: - Only single node ONTAP Select is supported with these configurations. - VMware HA, vMotion, DRS are supported starting with Select 9.2 and Deploy 2.4. - All the hardware, software and feature requirements are per VMware Compatibility Guide (HCL), No exceptions  For vSAN, both hybrid and All-Flash configurations are supported. The minimum number of ESXi hosts required in a vSAN cluster is defined by the vSAN version being used.
8713	Hardware platforms from the following vendors are supported: Cisco, Dell, HP, Fujitsu, Lenovo, and Supermicro. Users can choose any platform for their physical hypervisor host, as long as it meets the minimum hardware requirements.
8522	To deploy ONTAP Select, your environment must have one of the following vSphere licenses:  ONTAP Select 9.0 and 9.1 * VMware Enterprise * VMware Enterprise Plus  ONTAP Select 9.2 and higher * Any vSphere license
8523	Refer to product release notes for feature information and known issues. Refer to the Installation and Cluster Deployment Guide for additional system requirements and best practices. This is located at <a href="http://mysupport.netapp.com/ontapselect/resources">http://mysupport.netapp.com/ontapselect/resources</a>
8524	ONTAP Select supports the following NetApp client software:  - OnCommand System Manager - OnCommand Unified Manager (OCUM) - OnCommand Performance Manager (OPM) - OnCommand Workflow Automation (WFA) - SnapCenter Server and Plugins - SnapDrive for Windows - SnapDrive for UNIX - SnapManager for Microsoft SQL Server - SnapManager for SharePoint - SnapManager for Exchange - SnapManager for SAP - SnapManager for Oracle - Virtual Storage Console for VMware vSphere  To identify the supported versions of the client software, go to the corresponding storage solution for each product listed above and review the list of supported clustered ONTAP versions. If the client software supports a version of clustered Data ONTAP, then that version of the client software is supported with ONTAP Select.  Use of SnapCenter, SnapManager or SnapDrive with ONTAP Select requires server-based licenses. Storage system licensing of SnapManager or SnapDrive (ie. SnapManager suite license) is not currently supported with Data ONTAP Select.  Any other NetApp client software is not supported with ONTAP Select at this time.
8767	Deploy Utility 2.4 is not recommended to deploy Select 9.1 nodes. For Select 9.1 deployments, use Deploy Utility 2.3.
8704	ONTAP Select Deploy utility is not currently localized and only supports English.

Note ID	Text
8577	ONTAP Select supports the use of both Standard and Distributed vSwitch configurations. You must configure a virtual switch on each of the ONTAP Select hosts. Refer to the Product Architecture and Best Practices document (TR-4517) for details on how to configure vSwitch
8578	<p>For deployments with DAS:</p> <ul style="list-style-type: none"> <li>- RAID controller should be configured in writeback mode</li> <li>- Enable failback mode to write through, if supported</li> <li>- Enable always read ahead policy, if supported</li> </ul> <p>Local disks behind the RAID controller should be configured as follows:</p> <ul style="list-style-type: none"> <li>- 10K SAS, and SSD drives can be configured as a single RAID group</li> <li>- For SATA/NL-SAS drives, RAID groups should have 8 to 12 drives each and one spare. Spare can be per RAID group or global.</li> <li>- Disable the local drive cache for RAID group, which is fundamental to preserving data integrity.</li> </ul> <p>LUN configuration must be performed based on the following guidelines:</p> <ul style="list-style-type: none"> <li>- If the RAID group exceeds the maximum ESXi LUN size of 64TB, you should configure multiple equal-sized LUNs consuming all the available storage within the RAID group.</li> <li>- Otherwise, you should configure one LUN consuming all available storage within the RAID group.</li> </ul>
8579	<p>ONTAP Select Licensing:</p> <p>Each Select node is required to have a capacity license that is larger than or equal to their datastore size. Capacity licenses for all Select offerings are flexible in size and go up to 100TB in 1TB increments. The minimum capacity licenses are:</p> <ul style="list-style-type: none"> <li>- Single node - 2TB</li> <li>- Multi node - 3TB</li> </ul> <p>Minimum capacity requirements stem from datastore requirements.</p> <p>ONTAP Select Datastore requirements:</p> <ul style="list-style-type: none"> <li>- For multi-node clusters, each host must have a datastore that is at least [2 TB plus 266GB] bytes. The extra 266 GB of storage space is used by various ONTAP Select internal processes and so is required overhead. Single node clusters require 1.3TB minimum.</li> </ul>
8580	<p>ONTAP Deploy utility host server requirements:</p> <p>You should make sure that the host where ONTAP Deploy utility is deployed meets the following requirements:</p> <ul style="list-style-type: none"> <li>* ESXi Server: Hardware and software must be 64-bit. Must adhere to the same supported versions as defined for an ONTAP Select.</li> <li>* Virtual CPUs: 2</li> <li>* Virtual memory: 4 GB</li> <li>* Storage: 40 GB</li> </ul>
8617	<p>The premium offering enhances the standard offering by providing support for SSD drives and a larger virtual machine configuration. To support these capacity offerings for a purchased license, you must select the appropriate hypervisor instances type when you configure each host using the ONTAP Select Deploy utility. The following information compares the instance types and their respective requirements:</p> <ul style="list-style-type: none"> <li>* Small instance: 4 vCPU, 16 GB vMemory</li> <li>* Large instance: 8 vCPU, 64 GB vMemory</li> </ul>
8714	The Internet Browser support listed applies specifically to the ONTAP Deploy GUI utility.
8525	For ESXi 5.5 Update 3, it needs to be build 3116895 or greater. For ESXi 6.0 GA, it needs to be build 2494585 or greater.

## Netapp Interoperability Matrix

8766	<p>Platform Requirements - Ethernet ports per node</p> <p>Single Node Deployments - 2x1GbE (minimum)</p> <p>2-node Deployments - 4x1GbE (minimum) - 2x10GbE (Recommended)</p> <p>4-node Deployments - 2x10GbE (minimum) - 4x10GbE (recommended)</p>
8768	<p>Deployment Options</p> <p>ONTAP Deploy Utility 2.4 / ONTAP Select 9.2 - Single Node - 2-node HA (DAS only) - 4-node HA (DAS only)</p> <p>ONTAP Deploy Utility 2.3 / ONTAP Select 9.1 - Single Node - 4-node HA (DAS only)</p> <p>ONTAP Deploy Utility 2.2 / ONTAP Select 9.1 and older - Single Node (DAS only) - 4-node HA (DAS only)</p>