Netapp Interoperability Matrix

Storage Solution : SnapManager for Oracle (SMO)

NetApp® FC, FCoE, iSCSI and NAS (NFS) Storage System Interoperability

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NetApp provides complimentary host utilities for FC/FCoE, iSCSI, and NFS storage systems that ensure proper integration with host operating system, I/O stack and host hardware components, and use of the NetApp host utilities is required for generally supported configurations within the NetApp Interoperability Matrix. The applicable host utilities are specified in the rows and notes of the host operating system interoperability matrices.

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Additional requirements for blade server configurations:

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Be sure your specific combination of exact blade server model and storage adapter are supported by their respective vendors. The NetApp IMT does not list every possible configuration limitation between the server and storage adapter vendors.

Non-disruptive Upgrade

Non-disruptive upgrade of Data ONTAP and other system-level components is supported for SAN and NFS environments.
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Major NDU is supported from Data ONTAP 7.1.2 and later to Data ONTAP 7.2.3 and later for Data ONTAP 7.2.x target releases.
Major NDU is supported from Data ONTAP 7.2.3 and later to Data ONTAP 7.3 GA and later for Data ONTAP 7.3.x target releases.
NDU Documentation - For complete information about non-disruptive upgrade, see the Data ONTAP Upgrade Guide for either Data ONTAP 7.2.5.1 or 7.3, available on NOW at http://now.netapp.com/NOW/knowledge/docs/ontap/rel7251/ and http://now.netapp.com/NOW/knowledge/docs/ontap/rel73/

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NetApp Upgrade Advisor - an online tool available on the NOW (NetApp on the Web) site for all systems with a valid support contract that are configured to send AutoSupport messages. When you submit your system identification and target release, the Upgrade Advisor compares AutoSupport data about your system to known requirements and limitations of the target release and generates an upgrade plan (and optionally a back-out plan) with recommended preparation and execution procedures. The Upgrade Advisor not only dramatically simplifies the process of qualifying your environment for a successful upgrade; the automated mechanism significantly reduces the potential for human error. In conjunction with the Upgrade Advisor, NetApp best practice for NDU strongly recommends review of the Data ONTAP Upgrade Guide and Release Notes. For more information, see AutoSupport home on NOW at http://now.netapp.com/NOW/asuphome/

Oracle
For Oracle information, please see https://support.oracle.com/CSP/ui/flash.html

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Storage Solution : Storage Area Network (SAN)

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Major NDU is supported from Data ONTAP 7.2.3 and later to Data ONTAP 7.3 GA and later for Data ONTAP 7.3.x target releases.

NDU Documentation - For complete information about non-disruptive upgrade, see the Data ONTAP Upgrade Guide for either Data ONTAP 7.2.5.1 or 7.3, available on NOW at http://now.netapp.com/NOW/knowledge/docs/ontap/rel7251/ and http://now.netapp.com/NOW/knowledge/docs/ontap/rel73/

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Shared SAN Host Support for Heterogeneous Storage Support

NetApp supports shared SAN host configurations in which host servers are attached to both NetApp and non-NetApp storage systems, as defined hereafter. All components in the configuration must be supported by the individual storage system vendors. NetApp best practices to limit interoperability issues and facilitate diagnosis are that each vendor's storage system be connected through a separate HBA and that each vendor's target port be configured in its own zone (single-initiator zoning), and, when creating host-based volume containers, volumes and stripes do not span vendor storage systems.

For configurations not addressed below, please contact your account team or partner regarding the potential for a PVR.

Native Host OS Multipath - Accessing NetApp and third-party storage systems from a single host in which the host is using native OS multipath is supported with Data ONTAP 7.3 and later and with SSI controller failover mode, as long as the NetApp configuration requirements are met, as specified in the NetApp Host Utilities documents.

Symantec Veritas Storage Foundation DMP Multipath - Accessing NetApp and third-party storage systems from a single host is supported, as long as the configuration uses the NetApp Array Support Libraries for the applicable host operating environment and NetApp configuration requirements are met, as specified in the NetApp Host Utilities.

(PVR-Required) Native Host OS Multipath (NetApp) and EMC PowerPath (CLARiiON) - Accessing NetApp storage systems via native OS multipathing and EMC CLARiiON storage systems via EMC PowerPath from a single host is supported via PVR. For configurations not listed, please contact your account team or partner regarding the potential for a PVR.

Windows: EMC CLARiiON w/PowerPath 4.5+, or EMC Symmetrix w/PowerPath 5.3+ and connected to NetApp FAS via Data ONTAP DSM 3.3.1 for Windows MPIO and later.

Solaris: EMC CLARiiON and Symmetrix w/ PowerPath 5+ and connected to NetApp FAS via SUN Traffic Manager (MPxIO)

AIX: EMC CLARiiON and Symmetrix w/ PowerPath 5+ and connected to NetApp FAS via AIX MPIO

EFI boot support

EFI (Extensible Firmware Interface), or UEFI (Unified Extensible Firmware Interface), is a replacement for the older server BIOS firmware. UEFI-based servers can SAN boot from a LUN on a NetApp storage system. The steps for configuring the new UEFI boot are different, but the concepts are the same as booting a system with server BIOS. See your server and storage adapter documentation for specific configuration steps.

SAN boot using standard EFI or UEFI boot is supported only for hosts running HP-UX 11iv2, HP-UX 11iv3, and later. Check the specific configuration in IMT to be sure SAN booting is supported.

For all other host operating systems, SAN boot is supported only using the UEFI Legacy Option (BootBIOS).

Oracle

For Oracle information, please see https://support.oracle.com/CSP/ui/flash.html

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Third-party Virtualization Appliance Support - IBM Storage Virtualization Controller (SVC)

NetApp supports IBM's support of FAS storage systems with SVC. In the event of configuration support situations, NetApp will diagnose basic storage hardware operations and IBM support owns overall connectivity and configuration management and support for SVC deployments. SVC configurations require a NetApp PVR for support, which provides an escalation process to IBM support and/or IBM SVC engineering. IBM maintains supported configurations for IBM N series and FAS storage systems at http://www-01.ibm.com/support/docview.wss?uid=ssg1S1003277&rs=555#_IBM_N_Series

Ethernet Switch Support

NetApp supports all traditional (non-Data Center Bridging) 10GbE switches with iSCSI and NAS without specific model reference in the IMT.

NetApp supports enhanced (Data Center Bridging capable) 10GbE switches with iSCSI and NAS without specific model reference. For FCoE configurations, supported 10GbE switches are listed by specific model reference.

Ethernet Host NIC, TCP/IP Offload (TOE) Adapter, Host Bus Adapter (HBA), and Converged Network Adapter (CNA) Model Support

Standard rack and tower servers (listed by CPU architecture and OS)
• NetApp supports Fibre Channel HBAs by specific model and driver reference in the IMT for listed configurations on standard rack and tower servers.
• NetApp supports the FCoE functionality of CNAs by specific model and driver reference in the IMT for listed configurations on standard rack and tower servers.
• NetApp supports the iSCSI offload functionality of CNAs by specific model and driver reference in the IMT for listed configurations on standard rack and tower servers.
• NetApp supports 1GbE and 10GbE iSCSI offload adapters by specific model and driver reference in the IMT for listed configurations on standard rack and tower servers.
• NetApp supports all 1GbE and 10GbE NICs (network interface cards), 10GbE CNAs, and built-in Ethernet adapters on the server motherboards for software iSCSI and NAS configurations on standard rack and tower configurations. Specific NIC or adapter models are not listed. The rest of the configuration must be listed in the IMT.
• NetApp supports all 1GbE and 10GbE TCP/IP offload (TOE) adapters for software iSCSI and NAS configurations on standard rack and tower configurations. Specific TOE models are not listed. The rest of the configuration must be listed in the IMT.

NetApp supports third-party HBA models that are based on original equipment manufacturer models from Brocade, Emulex and QLogic. The HBA must be used with NetApp-qualified driver and firmware levels and within configurations outlined in the IMT. For example, to use a QLogic HBA with an IBM model number, find the equivalent QLogic model and use the QLogic HBA model to find supported configurations in the IMT. This applies only to standard rack and tower servers. For blade server configurations, see below.

You can find mappings from the third-party HBA model number to the vendor part number at these locations:
QLogic
http://www.qlogic.com/Products/adapters/Pages/FibreChannelAdapters.aspx (click the Show link for your adapter series, then open the OEM-Branded Adapters link)

Emulex
http://www.emulex.com/products/fibre-channel-hbas.html

Blade servers (listed by specific blade server models)
• NetApp specifically lists supported mezzanine cards and integrated adapters for blade server configurations within the IMT. You must use the drivers and firmware required by the blade vendor, as listed in the IMT. Drivers, firmware and BootBIOS must be downloaded from the blade vendor's web site or from a location specified by the blade vendor.
• You must use the exact mezzanine card or integrated adapter listed in the IMT for FC, FCoE, and iSCSI offload configurations. Do not attempt to map a model number from one manufacturer to another.
• NetApp supports all 1GbE and 10GbE NICs (network interface cards), 10GbE CNAs, and built-in Ethernet adapters on the server motherboards for software iSCSI and NAS blade server configurations. Specific NIC or adapter models are not listed. The rest of the blade server configuration must be listed in the IMT.
• NetApp supports all 1GbE and 10GbE TCP/IP offload (TOE) adapters for software iSCSI and NAS blade server configurations. Specific NIC or adapter models are not listed. The rest of the blade server configuration must be listed in the IMT.

Third-party Certifications with NetApp Storage Systems

Beyond qualification by NetApp and listing in the NetApp Interoperability Matrix, NetApp participates in the certification activities of ecosystem parties, as listed below. For additional certifications not listed herein, please work with your account team or partner through the PVR process.

Microsoft

Windows Server Catalog
Microsoft Cluster Server

VMware
Hardware Compatibility List

Cisco
Cisco Partner Network

Oracle
Storage Compatibility Program
Solaris Ready
Cluster Open Storage

Symantec (Veritas)
Hardware Compatibility List

IBM
PowerVM (VIO Server)
SAN Volume Controller

Hewlett Packard
HP BladeSystem SAN Checkmark
HP-UX Mass Storage Solutions Interoperability Program

Brocade
Brocade Partner Network

Virtualization
Microsoft Windows virtualization support is represented in IMT through the Host OS components: Microsoft Windows Server 2008 Hyper-V, Microsoft Windows Server 2008 Hyper-V SP2, Microsoft Windows Server 2008 Hyper-V R2, and Microsoft Windows Server 2008 Hyper-V R2 SP1

This provides support for both the combined download Microsoft® Hyper-V™ Server 2008 the dedicated stand-alone product, which contains only the Windows Hypervisor, Windows Server driver model and virtualization components, as well as support for Microsoft Windows Server 2008 Hyper-V which is the Windows Server running the Hyper-V as a role. Note that Microsoft Windows Server 2008 Hyper-V does not run on Standard Edition.

Storage Solution : SnapDrive For Unix (SDU)

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Copyright

NetApp Interoperability Matrix

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Storage Area Network (SAN)

Name	Status	Foot notes	Protocol	Host Utilities	Host OS	Host Platform	Software Initiator	Host HBA	Host Volume Manager	Host Multipath	Host File System	Host Clustering	Host Feature	ONTAP OS	CFmode	Guest OS
20110915-041848073	Supported	Alerts: 5626,5627	FC	NetApp FCP Linux Host Utilities 5.3; NetApp FCP Linux Host Utilities 6.0	RHEL Server 5.7 32-bit; RHEL Server 5.7 64-bit	HP BladeSystem BL460c (Intel); HP BladeSystem BL465c (AMD); HP BladeSystem BL490c (Intel); HP BladeSystem BL495c (AMD); HP BladeSystem BL680c (Intel); HP BladeSystem BL685c (AMD)	Not Applicable	QLogic SANblade QMH2562 {Bus=PCI-E, Driver=8.03.07.03.05.07-k(Inbox), Firmware=5.03.16(With Driver), Ports=Dual Port, Protocol=FC, Rate=8Gb, Spec=QLogic QMH2562 8Gb Fibre Channel HBA for c-Class BladeSystem }	Red Hat RHEL CLVM2; Red Hat RHEL LVM2	Red Hat RHEL Device Mapper (DM-MP)	Red Hat RHEL FS GFS; Red Hat RHEL FS ext3	Red Hat Cluster Suite	QLogic SAN Boot Yes (BIOS 2.15)	NetApp Data ONTAP 7.3.6; NetApp Data ONTAP 8.0.1 7-Mode; NetApp Data ONTAP 8.0.2 7-Mode; NetApp Data ONTAP 8.0.3 7-Mode; NetApp Data ONTAP 8.1 7-Mode	NetApp cfmode SSI	Not Applicable

SnapDrive For Unix (SDU)

Name	Status	Foot notes	Protocol	SnapDrive	Host OS	ONTAP OS	Operations Manager	OnCommand Core Package	Host Volume Manager	Host Multipath	Host File System	Host Clustering	Host Feature	Host Utilities
20111015-010359645	Supported	Info: 1089,3314,5196,5197,5341,5805 Alerts: 5013,5127,5195,5715	FC	SnapDrive for Unix 5.0 (Linux x64 AMD64); SnapDrive for Unix 5.0 (Linux x64 EM64T); SnapDrive for Unix 5.0 (Linux x86 IA32)	RHEL Server 5.7 32-bit; RHEL Server 5.7 64-bit	NetApp Data ONTAP 7.3.6; NetApp Data ONTAP 7.3.7; NetApp Data ONTAP 8.0.1 7-Mode; NetApp Data ONTAP 8.0.2 7-Mode; NetApp Data ONTAP 8.0.3 7-Mode; NetApp Data ONTAP 8.1 7-Mode	Operations Manager with DataFabric Manager Server 4.0; Operations Manager with DataFabric Manager Server 4.0.1; Operations Manager with DataFabric Manager Server 4.0.2	OnCommand Core Package 5.0	Red Hat RHEL LVM2	Red Hat RHEL Device Mapper (DM-MP)	Red Hat RHEL FS ext3	Not Supported		NetApp FCP Linux Host Utilities 5.3; NetApp FCP Linux Host Utilities 6.0

SnapManager for Oracle (SMO)

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Name	Status	Foot notes	Protocol	SnapManager	SnapDrive	Host OS	Host-Application	ONTAP OS	Host Multipath	Host Feature	Host Clustering	Operations Manager	Protection Manager	OnCommand Core Package	Browser
20111020-122449279	Supported	Info: 644,646,2001,2002,2242,2663,3094,3095,3315,5038, 5157,5161,5256,5258,5260,5701,5803,5805,5806 Alerts: 2661,5009,5155,5264,5331,5435,5447,5625,5628,5629,5804,5813,5814	FC	NetApp SnapManager for Oracle 3.2 Linux AMD64; NetApp SnapManager for Oracle 3.2 Linux EM64T; NetApp SnapManager for Oracle 3.2 Linux x86	SnapDrive for Unix 5.0 (Linux x64 AMD64); SnapDrive for Unix 5.0 (Linux x64 EM64T); SnapDrive for Unix 5.0 (Linux x86 IA32)	RHEL Server 5.7 32-bit; RHEL Server 5.7 64-bit	Oracle 10g R2 (10.2.0.4); Oracle 10g R2 (10.2.0.5); Oracle 11g R1 (11.1.0.7); Oracle 11g R2 (11.2.0.1); Oracle 11g R2 (11.2.0.2); Oracle 11g R2 (11.2.0.3)	NetApp Data ONTAP 7.3.6; NetApp Data ONTAP 7.3.7; NetApp Data ONTAP 8.0.1 7-Mode; NetApp Data ONTAP 8.0.2 7-Mode; NetApp Data ONTAP 8.0.3 7-Mode; NetApp Data ONTAP 8.1 7-Mode	Red Hat RHEL Device Mapper (DM-MP)	Not Applicable	Oracle Clusterware	Operations Manager with DataFabric Manager Server 4.0; Operations Manager with DataFabric Manager Server 4.0.1; Operations Manager with DataFabric Manager Server 4.0.2	Protection Manager with DataFabric Manager Server 4.0; Protection Manager with DataFabric Manager Server 4.0.1; Protection Manager with DataFabric Manager Server 4.0.2	OnCommand Core Package 5.0	Mozilla Firefox 3.6.13

Alerts

Note ID	Text
5155	SnapManager for Oracle does not support user_friendly_names and aliasing in linux multipathing environment.
5009	SnapManager for Oracle supports the ability to create RDM directly inside the Guest Virtual Machine for FC Protocol. This ability is supported on Linux (RHEL 5u6, 5u5, 5u4, 4u9, 4u8 and 4u7) and Solaris 10u6 Guest Operating Systems running on VMware ESX and ESXi 3.5 (update 4 and 5), ESX and ESXi 4.0 (Update1, Update2 and Update3), ESX and ESXi 4.1 and ESXi 5.0 with vCenter version 4.0, 4.1 and 5.0 along with SMVI version 3.0,3.0.1 and VSC version 2.0,2.0.1,2.1 and 2.1.1 Limitations : With SMVI 3.0 and VSC 2.0, we cannot use long LUN names (which exceeds 128 characters). This limitation comes with VMware that leads to failure of RDM LUN creation.
5813	SnapManager for Oracle and SAP requires the following Oracle patches for managing an Oracle 11.2.0.3 Database: Patch 13366202 is required for all Unix operating systems. Patch 13413167 is required for Windows 32 bit operating systems. Patch 13555974 is required for Windows 64 bit operating systems. Since Oracle patch 13366202 is not yet available from Oracle on Solaris x86_64 and HP-UX PA-RISC, SnapManager does not support managing an Oracle 11.2.0.3 Database on Solaris x86_64 and HP-UX PA-RISC platforms.
5628	SnapManager supports Oracle version 11.2.0.2 with patchsets 11.2.0.2.2, 11.2.0.2.3, 11.2.0.2.4 and 11.2.0.2.5 only.
2661	SnapManager for Oracle can backup(offline only), clone, but not restore, physical standby databases created using Oracle Data Guard. This applies to Oracle 10.2.0.4, 11.1.0.7, 11.2.0.1 and 11.2.0.2. 10.2.0.5 Support for physical standby databases: --- SnapManager 3.1P1 for Oracle does not support Oracle Data Guard for Oracle 10.2.0.5 physical standby databases. See Burt 496325. However, this BURT is fixed in SnapManager 3.2 for Oracle release. Support for Active Data Guard: -- SnapManager for Oracle DOES NOT support Oracle Active Data Guard.

Note ID	Text
5435	SnapManager 3.1P1 for Oracle supports managing Oracle 9i (9.2.0.8), 10gR2 (10.2.0.4), 10gR2 (10.2.0.5), 11gR1 (11.1.0.7), 11gR2 (11.2.0.1) and 11gR2 (11.2.0.2) databases on the same host running 64 bit Solaris (SPARC and x86_64) or 32/64 bit Linux (RHEL, SuSE and OEL) or Windows (2003 and 2008). SnapManager 3.2 for Oracle supports managing Oracle 10gR2 (10.2.0.4), 10gR2 (10.2.0.5), 11gR1 (11.1.0.7), 11gR2 (11.2.0.1) and 11gR2 (11.2.0.2) databases on the same host running 64 bit Solaris (SPARC and x86_64) or 32/64 bit Linux (RHEL, SuSE and OEL) or Windows (2003 and 2008).
5331	If you plan to setup Oracle 9i (9.2.0.8), 10gR2 (10.2.0.4) or (10.2.0.5), 11gR1 (11.1.0.7) and 11gR2 (11.2.0.1) or (11.2.0.2) databases on the same host using an Oracle 11gR2 grid infrastructure, then to avoid srvctl issues, ensure that you install the Oracle patches or perform necessary workaround suggested in the following Oracle Metalink: https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=948456.1 Starting with SnapManager 3.2 for Oracle/SAP, Oracle 9i (9.2.0.8) is no longer supported.
5627	Please refer LHU release notes and public BURTs for known issues.
5715	SnapDrive for UNIX and SnapManager for Oracle/SAP support Data ONTAP 8.1 operating in either 7-Mode or Cluster-Mode only if using Data ONTAP 8.1 RC3. If you are using SnapManager for Oracle/SAP and or SnapDrive for Unix, do not upgrade to or install Data ONTAP 8.1 RC1or RC2. Refer BURT 545532 for more details.
5447	SnapManager 3.1P1 and 3.2 for Oracle and SnapManager 3.1P1 and 3.2 for SAP software are available only in 64-bit versions for AIX, HP-UX, and Solaris platforms. On these platforms SnapManager supports only 64-bit Oracle databases. For Windows and Linux platforms, both 32-bit and 64-bit versions of SnapManager 3.1P1 and 3.2 for Oracle and SnapManager 3.1P1 and 3.2 for SAP are available. Although, both 32-bit and 64-bit Oracle versions are supported by SnapManager on Windows and Linux platforms, a 32-bit host should only be running 32-bit versions of Oracle databases and 32-bit version of SnapManager 3.1P1 or 3.2. Similarly a 64-bit Windows or Linux host should only be running 64-bit versions of Oracle databases and 64-bit version of SnapManager 3.1P1 or 3.2. Please use the NetApp Interoperability Matrix Tool (IMT) to confirm that you are running a configuration supported by SnapManager 3.1P1 and 3.2.
5626	Supported kernel version is 2.6.18-274.3.1.el5
5629	SnapManager for Oracle and SAP does not support Oracle Real Application Clusters One Node (Oracle RAC One Node) on Oracle 11gR2 databases.
5013	Refer https://kb.netapp.com/support/index?page=content&id=3011226 for partitioning schemes supported by SnapDrive for UNIX
5264	Refer the KB Article https://kb.netapp.com/support/index?page=content&id=3011226 for partitioning schemes supported by SnapManager for Oracle when ASM is used in RHEL, OEL and SUSE environments.
5804	SnapDrive for UNIX and SnapManager for Oracle/SAP do not support Veritas Mirrored logical volumes and disk groups with Mirrored plexes.
5127	SnapDrive for UNIX do not support user_friendly_names and aliasing in linux multipathing environment
5195	SnapDrive for UNIX does not support more than 1024 LUN paths or device files per Linux host. This limit has been extended to 4096 in SDU 4.1.1D17 and SDU 4.2P1
5814	SnapManager for Oracle and SAP do not support managing an Oracle ASM 11.2.0.3 Database on NFS. Refer to BURT 574023 for more details.
5625	Oracle patches #11666137 and #11785938 are required when using SnapManager for Oracle with Oracle version 11.2.0.2 and ASM.

Info

Note ID	Text
5806	SnapDrive for UNIX and SnapManager for Oracle/SAP do not support co-existence of veritas and Native stacks.
5803	SnapManager supports symbolic links on NFS only for non-ASM environments.
644	Please refer to the SnapDrive for Unix storage solution in the IMT for components not covered in the SnapManager storage solution.
5196	SnapDrive for UNIX do not support CLVM (Cluster Logical Volume Manager)
5258	SnapManager for Oracle does not support more than 1024 LUN paths or device files per Linux host. This limit has been extended to 4096 in SDU 4.1.1D17 and SDU 4.2P1.
3095	SnapManager for Oracle Repository is supported on Oracle Express, Standard, and Enterprise Editions.
3315	SnapManager for Oracle is supported on Linux (RHEL, OEL and SLES) Guest Operating Systems running on VMware ESX 3.0.2, ESX 3.5 and ESX 4.0 (all Updates for each of them), using NFS and iSCSI SW initiator.
5197	SnapDrive for UNIX supports only native, software iSCSI initiators
2001	Oracle 10gR2 (10.2.0.4 or 10.2.0.5) is required for any managed instance of Oracle 10g including the SMO Repository. Oracle 10G R2 with patchset 10.2.0.4 or 10.2.0.5 is required for deploying RAC.
3094	The SnapManager Repository is supported on Oracle Express, Standard, Standard ONE and Enterprise Editions. However, only Oracle Standard, Standard ONE and Enterprise Editions databases can be managed by SMO.
1089	SDU (SDU 4.0 onwards) is dependent on Operations Manager for RBAC (Role Based Access Control) support. SDU (SDU 4.1 onwards) is also dependent on Protection Manager for Datasets support.
5341	Snapdrive for Unix is supported on RHEL5U4 guests on any RHEL 5U4 KVM hypervisor for iSCSI and NFS configurations only. Snapdrive for Unix is supported on RHEL5U4, 5U5 and 5U6 guests on any RHEL 5U5 and 5U6 KVM hypervisors for iSCSI and NFS configurations only. Snapdrive for Unix is supported on RHEL5U5 and 5U6 guests on any RHEL 6 and 6U1 KVM hypervisor for iSCSI and NFS configurations only.
3314	SnapDrive for Unix is supported on Linux (RHEL, OEL and SLES) Guest Operating Systems running on VMware ESX 3.0.2, ESX 3.5 and ESX 4.0 (all Updates for each of them), using NFS and iSCSI SW initiator.
2663	SnapManager 3.0.1 for Oracle or later supports Oracle VM on an Oracle standalone NFS and iSCSI environment.
5038	SnapManager for Oracle does not support raw logical volumes with Veritas Volume Manager.
5157	SnapManager for Oracle support for VCS is only in Active-Passive mode.

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Note ID	Text
2002	For Oracle 10gR2 with patchset 10.2.0.4 plus Oracle patches 4693355 and 7330611 is required for deploying ASM on NFS in SnapManager for Oracle. For Oracle 11gR1 with patchset 11.1.0.7 plus Oracle patch 7330611 is required for deploying ASM on NFS for SnapManager for Oracle. Patches can be downloaded from https://metalink.oracle.com
2242	SnapManager is dependent on Operations Manager for RBAC (Role Based Access Control) support and on Protection Manager for Datasets support.
5805	SnapDrive for UNIX and SnapManager for Oracle/SAP do not support co-existence of iSCSI and FC transport protocols.
646	SnapManager for Oracle works for all NetApp storage systems, V-Series, and NearStore platforms supported by Data ONTAP 7G.
5256	SnapManager for Oracle does not support CLVM (Cluster Logical Volume Manager)
5701	SnapManager 3.2 for Oracle/SAP GUI requires SUN JRE version 1.6.0. JRE updates required platform-wise are outlined below: Linux (AMD64) Linux (x86) Solaris (SPARC) Solaris (x86_64) AIX (ppc64) HP-UX (PA-RISC) HP-UX (IA64) Windows (x86) Windows (x86_64)
5161	SnapManager for Oracle does not support ALUA in Veritas environments.
5260	SnapManager for Oracle supports ALUA on RHEL 5U1 and later with ONTAP 7.3.0 and later