SAM, IP, ESM, MPLS, and NPM Managers Support Matrix

VMware Smart Assurance 10.0

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Revision history

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Date	Comment
April 2019	First version of the document

Operating system requirements

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Service Assurance Manager, IP Manager, MPLS Manager, Server Manager, and Network Protocol Manager are supported on operating systems:

Operating system	Supported version	Notes
Red Hat Enterprise Linux (Native/Virtual*)	■ Red Hat Enterprise Linux 6.8, 6.9 and 6.10– 64 bit ■ Red Hat Enterprise Linux 7.4, 7.5 and 7.6– 64 bit	Veritas cluster is not supported on Linux platforms.
CentOS Linux (Native/Virtual*)	■ CentOS 6.8, 6.9 and 6.10– 64 bit ■ CentOS 7.4, 7.5 and 7.6– 64 bit	Veritas cluster is not supported on Linux platforms.

Oracle Linux (Native/Virtual*)	■ Oracle Linux 7.4, 7.5, and 7.6– 64 bit	
Docker	■ 17.05.0 - CE	Supported OS version for Docker: ■ Red Hat Enterprise Linux 7.4, 7.5, and 7.6– 64 bit or higher ■ CentOS 7.4, 7.5, and 7.6– 64 bit or higher

Note

- VMware Smart Assurance (VSA) 10.0 is supported on RHEL 6 and RHEL 7. VMware has tested and validated VSA 10.0 with RHEL version 6.8, 6.9 and 6.10 as well as with RHEL version 7.4, 7.5 and 7.6. Hence, VMware recommends the customer to use VSA 10.0 with the validated versions of RHEL 6 or RHEL 7. However, if the customer chooses to use a later minor version of RHEL 6/7 than version 6.9/7.4 and in the event of an unexpected defect or deprecated feature introduced in that later release of the RHEL 6/7 operating system, VMware will do its best to either provide a patch on VSA 10.0 or recommend customer to upgrade to a future release of VMware Smart Assurance as deemed necessary.
- *** =** Support for virtualized deployments may vary per hypervisor due to the nature of integration between OS and hypervisor.
- **VMWare:** best practices are offered on VMWare hypervisors for the above operating systems
- **All other hypervisors:** Smart Assurance may be deployed on other hypervisors but VMware does not support performance and interoperability issues between the OS layer and hypervisor. We do not have best practices for deploying on non-VMware hypervisors. Check with hypervisor vendor to address issues not reproducible on physical or VMWare deployed environments.
- Java SE runtime environment (JRE) 1.8 update 181 is used for 10.0 products on all supported platforms.

Operating system minimum required patches

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Operating system minimum patch versions that are required for the IP Manager, Service Assurance Manager, MPLS Manager, Server Manager, and Network Protocol Manager. If the installation program does not detect the minimum required patch versions, it will not proceed with the installation.

Operating system	Minimum required patch versions
Red Hat Enterprise Linux 6.8, 6.9, and 6.10 CentOS 6.8, 6.9, and 6.10	■ glibc-2.2.4-32.i686 ■ glibc-2.2.4-32.x86_64 ■ glibc-common-2.2.4-32 ■ compat-libstdc++-33-3.2.3-47.x86_64 ■ compat-libstdc++-33-3.2.3-47.3.i686 ■ redhat-lsb library Additionally, for Service Assurance Manager Console, On Red Hat Enterprise Linux 6.x / CentOS 6.x: ■ libstdc++-4.4.6-3.e16.i686 ■ libXi-1.3-3.e16.i686 ■ libXext-1.1-3.e16.i686 ■ libXtst-1.0.99.2-3.e16.i686 ■ libXrender-0.9.5-1.e16.i686 ■ compat-libstdc++-296-2.96-144.e16.i686 **Note** When installing on a 64-bit Linux platform, both 64-bit and 32-bit libraries are required.
Red Hat Enterprise Linux 6.8, 6.9, and 6.10 CentOS 7.4, 7.5, and 7.6	■ glibc-2.2.4-32.i686 ■ glibc-2.2.4-32.x86_64 ■ glibc-common-2.2.4-32 ■ compat-libstdc++-33-3.2.3-47.x86_64 ■ compat-libstdc++-33-3.2.3-47.3.i686 ■ redhat-lsb-4.1-24.e17.x86_64 Additionally, for Service Assurance Manager Console, On Red Hat Enterprise Linux 7 / CentOS 7: ■ libstdc++-4.4.6-3.e16.i686 ■ libXi-1.3-3.e16.i686 ■ libXext-1.1-3.e16.i686 ■ libXtst-1.0.99.2-3.e16.i686 ■ libXrender-0.9.5-1.e16.i686 **Note** When installing on a 64-bit Linux platform, both 64-bit and 32-bit libraries are required.

Browser requirements for Web Console and Business Dashboard

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The Smarts Global Console can also be deployed as either:

- Smarts Web Console

Or

- Smarts Business Dashboard

Note Tomcat Servlet Engine version 8.5.27 is installed as part of the Web Console/ Business Dashboard. The Tomcat Servlet Engine serves the files used by the web applications.

Users who display Business Dashboard viewlets in a web browser, or want to use the Web Console, require the following software:

Browser	Version	Notes
Google Chrome	68 or later	Refer to the release notes for the steps/workaround provided for launching in Google Chrome version till 44 and 45 or later
Internet Explorer	10.0 and 11.0	The browser must have JavaScript enabled.
Mozilla Firefox	48 or later	
Safari	12 or later	

JRE 1.8 update 181 web browser plug-in must be installed on the client workstation. If the JRE is not installed on the client workstation, then you will be prompted to install it when you launch the Web Console or Business Dashboard.

Note In SAM 10.0, Red Hat Enterprise Linux 6 and 7, CentOS 6, and 7 uses JRE 1.8 update 181.

Java Web Start requirements for Web Console

Java Web Start is optional and can be invoked when the Web Console is run.

Java Web Start must be installed and configured on the client machine:

- For Linux, contact your system administrator to install and configure Java Web Start

The VMware Smart Service Assurance Manager Dashboard Configuration Guide provides information about using the Web Console.

Interoperability

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VMware Smart Assurance Suite 10.0 products interoperate with the following products as mentioned in the below table:

	M&R 6.8.5	Smarts SP 9.6	Presentation SAM 10.0	Agg.SAM 10.0	SAM Cons 10.0	IP 10.0	ESM 10.0	NPM 10.0	MPLS 10.0	OTM 9.6	VoIP 9.6	NCM 9.6	DCF 1.0	K4M 1.0	SA UI 10.0
M&R 6.8.5		√	√	√	√	√	√	√	√	√	√	√			
Smarts SP 9.6, 9.5.1	√		√	√	√	√	√	√	√	√	√				
Smarts SP 9.5,9.4.2	x		√	√	√	√	√	√	√	√	√				
Presentation SAM 10.0	√	√		√	√	√	√	√	√	√	√	√	√		√
Presentation SAM 9.6, 9.5.1,9.5, 9.4.2	x	x		x	x	x	x	x	x	x	x	√	x		x
Agg.SAM 10.0	√	√	√		√	√	√	√	√	√	√	√	√		√
Agg.SAM 9.6, 9.5.1,9.5,9.4.2	√	√	√		√	x	x	x	x	x	x	√	√		√
SAM Cons 10.0	√	√	√	√		√	√	√	√	√	√				√
SAM Cons 9.6, 9.5.1,9.5,9.4.2			x	x		x	x	x	x	x	x				√
IP 10.0	√	√	√	√	√		√	√	√	√	√	√	√		√
IP 9.6, 9.5.1,9.5,9.4.2	√	√	√	√	√		√	√	√	√	√	√	x		√
ESM 10.0	√	√	√	√	√	√		√	√	√	√		√		√
ESM 9.6, 9.5.1,9.5, 9.4.2	√	√	√	√	√	√		√	√	√	√		x		√
NPM 10.0	√	√	√	√	√	√	√		√	√	√				√
NPM 9.6, 9.5.1,9.5, 9.4.2	√	√	√	√	√	√	√		√	√	√				√
MPLS 10.0	√	√	√	√	√	√	√	√		√	√				√
MPLS 9.6, 9.5.1,9.5,9.4.2	√	√	√	√	√	√	√	√		√	√				√
OTM 9.6	√	√	√	√	√	√	√	√	√		√				√
OTM 9.5.1,9.5,9.4.2	√	√	√	√	√	√	√	√	√		√				√
ACM 2.4	√	√	√	√	√	√	√	√	√	√	√				√
VoIP 9.6	√	√	√	√	√	√	√	√	√	√					√
VoIP 9.5.1,9.5,9.4.2	√	√	√	√	√	√	√	√	√	√					√
ASAM 3.3.x, 3.4	√	√	√	√	√	√	√	√	√	√	√				√
Mcast 8.1.5	√	√	√	√	√	√	√	√	√	√	√				√
SAM Adpt Suite 8.1.7	√	√	√	√	√	√	√	√	√	√	√				√
NCM 9.6, 9.5.1, 9.5, 9.4.2	√	√	√	√	√	√	√	√	√	√	√	x			√
DCF 1.0			√	√		√	√							√	√
K4M 1.0													√		√
SA UI 10.0			√	√	√	√	√	√	√	√	√	√	√	√	

Upgrade

- In place upgrades from 9.4.x, 9.5.x, and 9.6 to 10.0 is supported for Smarts.
- Migration from 9.4.x, 9.5.x and 9.6 to 10.0 is supported for Smarts.

Hardware requirements

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Minimum hardware requirements for CPUs, memory, and data disk space for the products. If you install more than one product on a system, the system must meet the total memory and disk space requirements for those products. CPU refers to the number of physical CPU cores and not the number of CPUs that are displayed when hyperthreading is activated.

Note When VMware Smart Assurance 10.0 is deployed in a bare metal (non-VMware) environment, do not use hyperthreading. When hyperthreading is enabled, the Smart Assurance software runs more slowly and performance is adversely affected.

This chapter includes the following topics:

- Smart Assurance Manager requirements
- IP Manager requirements
- VMware Smart Assurance Server Manager requirements
- MPLS/NPM Manager requirements
- DCF requirements
- K4M requirements
- Smart Assurance UI requirements
- Kafka requirements

Smart Assurance Manager requirements

System requirements for Smart Assurance Manager.

Hardware for several platform equipment tiers

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	8 GB **Note** The memory and CPU requirements will change based on the size of the topology.	40 GB
CentOS			40 GB

Note Refer to VMware Smart Assurance SAM Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning SAM deployment.

Disk space requirements for Service Assurance Manager Console

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	1	2 GB	8 GB
CentOS			8 GB

CPU, memory, data disk space requirements

Minimum requirements for CPUs, memory, and data disk space that is used by the software for writable files such as logs, repository files, and output files.

Smarts product	CPUs	Memory (RAM)	Disk space
Service Assurance Manager Adapter Platform	1	512 MB	2 GB each
Syslog Adapter	1	512 MB	2 GB each
SNMP Trap Adapter	1	512 MB	2 GB each
XML Adapter	1	512 MB	Depends on the size of the output file being exported; upto 200 MB. For example, the XML Adapter communicates with 5 Service Assurance Global Managers and each output file is 200 MB, then 1 gigabyte (GB) is required.

IP Manager requirements

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	8 GB **Note** The memory and CPU requirements will change based on the size of the topology.	40 GB
CentOS			40 GB

Note Refer to VMware Smart Assurance IP Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning IP deployment.

VMware Smart Assurance Server Manager requirements

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	8 GB **Note** The memory and CPU requirements will change based on the size of the topology.	40 GB
CentOS			40 GB

Note Refer to VMware Smart Assurance Server Manager Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning Server Manager deployment.

Server Manager supported managed devices and software

Feature	Devices and Software
VMware management	■ VMware vSphere 4.x ■ VMware vSphere 5 ■ VMware vSphere 5.5 ■ VMware vSphere 6.0 ■ VMware vSphere 6.5 ■ VMware ESX Cluster **Note** Ensure that the VM tools are installed on each managed VMware virtual machine, as described in VMware documentation.
Microsoft cluster management	■ Windows Server 2016 ■ Xeon (Microsoft cluster feature only)
Process monitoring	Any machine that is running an SNMP agent (native or otherwise) that supports HOST-RESOURCE-MIB.
Hardware and operating system monitoring	Devices that support the following systems on Windows 2008 and Linux: ■ Dell OpenManager ■ IBM Director ■ HP Systems Insight Manager Devices that support the following system on Windows: ■ WMI Devices that support the following system on Linux: ■ Sun Management Center
Load balancer F5 BIG-IP	F5 BIG-IP load balancer devices and software: ■ 6400 ■ 6800 ■ 8800 ■ 9.1.2 ■ 9.4.x ■ 10.x ■ 11.x ■ 12.x

Hyper V	■ As a child partition of Hyper-V in Windows 2008 ■ As a child partition of Hyper-V in RHEL AS 5
Citrix Xen Server	■ Citrix Xen Server 6.2
VMware NSX for vSphere	■ NSX 5.x ■ NSX 6.0 ■ NSX 6.4.4
VMware NSX-T for vSphere	NSX-T 2.3
VMware-OpenStack	OpenStack-5.1.0.0
VeloCloud	VeloCloud Orchestrator 3.1.0
OpenStack KVM	■ Kilo ■ Liberty ■ Mitaka ■ Newton ■ Note: Keystone versions v2 and v3 are supported.
ScaleIO	■ ScaleIO Version : 1.32, 2.0.0, 2.0.1 ■ ScaleIO Platfrom Version: ■ Linux (RHEL6/7, CentOS6/7, SUSE 12, Ubuntu14.04/16.04) ■ vSphere 5.5 and 6.0 version ■ PCS 1.0 version with ESX 6.0 version deployed. Brocade VDX Switch BR-VDX6740 used part of deployment of PCS.

MPLS/NPM Manager requirements

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	2	4 GB **Note** The memory and CPU requirements will change based on the size of the topology.	40 GB
CentOS			40 GB

DCF requirements

System requirements for Data Collector Framework.

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	8GB **Note** The memory and CPU requirements will change based on the size of the topology.	40 GB
CentOS			40 GB

Note Refer VMware Smart Assurance Server Manager Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning DCF deployment.

K4M requirements

System requirements for K4M.

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	16 GB **Note** The memory and CPU requirements will change based on the size of the topology.	600 GB
CentOS			600 GB

Note Refer VMware Smart Assurance Server Manager Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning K4M deployment.

Smart Assurance UI requirements

System requirements for Smart Assurance UI.

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	16 GB **Note** The memory and CPU requirements will change based on the size of the topology.	80 GB
CentOS			80 GB

Note Refer VMware Smart Assurance Server Manager Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning Smart Assurance UI deployment.

Kafka requirements

System requirements for Kafka.

Operating system	CPUs	Memory (RAM)	Disk space
Red Hat Enterprise Linux	4	16 GB **Note** The memory and CPU requirements will change based on the size of the topology.	120 GB
CentOS			120 GB

Note Refer VMware Smart Assurance Server Manager Version 10.0 Performance Benchmarking and Sizing Guidelines document for planning Kafka deployment.