Support Matrix

EMC® Smarts® SAM, IP, ESM, MPLS, NPM, OTM, and VoIP Managers 9.4.2 Support Matrix

Version 9.4.2.0
302-003-122
REV 01

Abstract

Smarts 9.4.2 Suite can be installed in a typical or a fully distributed, multi-machine production environment. The hardware and software prerequisites for each of these deployments are provided in this document.

September, 2016

EMC²

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Revision history

Date	Comment
September 2016	First version of the document

Operating system requirements

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

Operating system	Supported version	Notes
Red Hat Enterprise Linux (Native/Virtual*)	• Red Hat Enterprise Linux 5.10 and 5.11– 64 bit • Red Hat Enterprise Linux 6.6, 6.7 and 6.8– 64 bit • Red Hat Enterprise Linux 7.0, 7.1 and 7.2– 64 bit	Veritas cluster is not supported on Linux platforms.
CentOS Linux (Native/Virtual*)	• CentOS 6.6, 6.7 and 6.8– 64 bit • CentOS 7.0, 7.1 and 7.2– 64 bit	Veritas cluster is not supported on Linux platforms.
Microsoft Windows 2012 R2 SE and EE (Native/Virtual*)	• Microsoft Windows Server 2012 R2– 64 bit Additionally, for SAM Console: • Microsoft Windows Vista – 32 /64 bit • Microsoft Windows 7 – 32/64 bit	

Note:

*** =** 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:** SA Suite may be deployed on other hypervisors but EMC 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) 8 update 91 is used for 9.4.2 products on all supported platforms.

Operating system recommended patches

Operating system patches that are required for the IP Manager, Service Assurance Manager, MPLS Manager, Server Manager, Network Protocol Manager, Optical Transport Manager and VoIP Availability Manager. If the installation program does not detect the required patches, it will stop or may not function predictably.

Operating system	Required patch
Red Hat Enterprise Linux 5.10 and 5.11	• glibc-2.2.4-32.i386 • glibc-2.2.4-32.x86_64 • glibc-common-2.2.4-32 • compat-libstdc++-33-3.2.3-61.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 5.x: • libstdc++ 4.1.2-44.i386 • libXi-1.0.1-3.1.i386 • libXext-1.0.1-2.1.i386 • libXtst-1.0.1-3.1.i386 • libXrender- 0.9.1-3.1.i386 • compat-libstdc++-296-2.96-138.i386 Note: When installing on a 64-bit Linux platform, both 64-bit and 32-bit libraries are required.
Red Hat Enterprise Linux 6.6, 6.7 and 6.8 CentOS 6.6, 6.7 and 6.8	• glibc-2.2.4-32.i686 • glibc-2.2.4-32.x86_64 • glibc-common-2.2.4-32 • compat-libstdc++-33-3.2.3-61.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.i686 • libstdc++-4.4.6-3.i686 • libXi-1.3-3.i686 • libXext-1.1-3.i686 • libXtst-1.0.99.2-3.i686 • libXrender-0.9.5-1.i686 • compat-libstdc++-296-2.96-144.i686 Note: When installing on a 64-bit Linux platform, both 64-bit and 32-bit libraries are required.
Red Hat Enterprise Linux 7.0, 7.1 and 7.2 CentOS 7.0, 7.1 and 7.2	• glibc-2.2.4-32.i686 • glibc-2.2.4-32.x86_64 • glibc-common-2.2.4-32 • compat-libstdc++-33-3.2.3-61.x86_64 • compat-libstdc++-33-3.2.3-47.3.i686 • redhat-lsb-4.1-24.x86_64 Additionally, for Service Assurance Manager Console, On Red Hat Enterprise Linux 7 / CentOS 7: • libstdc++-4.4.6-3.i686 • libXi-1.3-3.i686 • libXext-1.1-3.i686 • libXtst-1.0.99.2-3.i686 • libXrender-0.9.5-1.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

The EMC Smarts Global Console can also be deployed as either:

- EMC Smarts Web Console

Or

- EMC Smarts Business Dashboard

Note: Tomcat Servlet Engine version 8.0.23 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	37 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	For Windows, the browser must have JavaScript enabled.
Mozilla Firefox	32 or later	

JRE 8 update 91 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 9.4.2, Red Hat Enterprise Linux 5, 6 and 7, CentOS 6 and 7, Windows Server 2012 use JRE 1.8 update 91.

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
- For a Windows client, after you launch the web console, depending on the browser, use an automatic installer.

The *EMC Smarts Service Assurance Manager Dashboard Configuration Guide* provides information about using the Web Console.

Interoperability

Smarts Service Assurance Suite 9.4.2.0 products interoperate with the following products as mentioned in the below table.

	M&R 6.7	Smarts SP 9.4.2	Presentation SAM 9.4.2	Agg.SAM 9.4.2	SAM Cons 9.4.2	IP 9.4.2	ESM 9.4.2	NPM 9.4.2	MPLS 9.4.2	OTM 9.4.2	VoIP 9.4.2	NCM 9.4.2
M&R 6.7		√	√	√	√	√	√	√	√	√	√	√
M&R 6.6.1		√	√	√	√	√	√	√	√	√	√	√
M&R 6.5.4 or higher		x	√	√	√	√	√	√	√	√	√	√
Smarts SP 9.4.1, 9.4.2	√		√	√	√	√	√	√	√	√	√	√
Smarts SP 9.4	x		√	√	√	√	√	√	√	√	√	√
Presentation SAM 9.4.2	√	√		√	√	√	√	√	√	√	√	√
Presentation SAM 9.4.1,9.4,9.3	x	x		x	√	x	x	x	x	x	x	√
Agg.SAM 9.4.1, 9.4.2	√	√	√		√	√	√	√	√	√	√	√
Agg.SAM 9.4,9.3	√	√	√		√	x	x	x	x	x	x	√
SAM Cons 9.4.1, 9.4.2	√	√	√	√		√	√	√	√	√	√	√
SAM Cons 9.4, 9.3	√	√	x	x		x	x	x	x	x	x	√
IP 9.4.1,9.4.2	√	√	√	√	√		√	√	√	√	√	√
IP 9.4,9.3	√	√	√	√	√		√	√	√	√	√	√
ESM 9.4.1,9.4.2	√	√	√	√	√	√		√	√	√	√	√
ESM 9.4,9.3	√	√	√	√	√	√		√	√	√	√	√
NPM 9.4.1, 9.4.2	√	√	√	√	√	√	√		√	√	√	√
NPM 9.4,9.3	√	√	√	√	√	√	√		√	√	√	√
MPLS 9.4.1, 9.4.2	√	√	√	√	√	√	√	√		√	√	√
MPLS 9.4,9.3	√	√	√	√	√	√	√	√		√	√	√
OTM 9.4.1, 9.4.2	√	√	√	√	√	√	√	√	√		√	√
OTM 9.4	√	√	√	√	√	√	√	√	√		√	√

Upgrade

- In place upgrades from 9.3.0.x to 9.4.2 will be supported for Smarts.
- Migration from 9.3.0.x to 9.4.2 will be supported for Smarts.

Hardware requirements

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 Service Assurance Suite 9.4.2 is deployed in a bare metal (non-VMware) environment, do not use hyperthreading. When hyperthreading is enabled, the Service Assurance Suite software runs more slowly and performance is adversely affected.

Service Assurance Manager requirements

System requirements for Service Assurance Manager.

Hardware for several platform equipment tiers

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

Note: Refer to EMC Smarts SAM Version 9.4.2 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
Microsoft Windows Server			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.

EMC Smarts product	CPUs	Memory (RAM)	Disk space
EMC Smarts 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	40 GB
CentOS		The memory requirements will change based on the size of the topology.	40 GB
Microsoft Windows Server			40 GB

Note: Refer to EMC Smarts IP Version 9.4.2 Performance Benchmarking and Sizing Guidelines document for planning IP deployment.

EMC Server Manager requirements

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

Note: Refer to EMC Smarts ESM Version 9.4.2 Performance Benchmarking and Sizing Guidelines document for planning ESM 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 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 2008 • 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
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
OpenStack KVM	• Kilo • Mitaka

	Note: Keystone versions v2 and v3 are supported.

MPLS/NPM/VOIP/OTM Manager requirements

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

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Published September, 2016

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