Support Matrix

EMC® Smarts® SAM, IP, ESM, MPLS, NPM, OTM, and VoIP Managers 9.4 Support Matrix

Version 9.4.0.0
302-001-488
REV 01

Abstract

Smarts 9.4 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.

January, 2015

EMC²

Table of Contents

Table of Contents 2
Revision history 3
Operating system requirements 3
Note: 3
Operating system recommended patches 4
Browser requirements for Web Console and Business Dashboard 6
Java Web Start requirements for Web Console 6
Interoperability 7
Hardware requirements 7
Service Assurance Manager requirements 8
Hardware for several platform equipment tiers 8
Disk space requirements for Service Assurance Manager console 8
CPU, memory, data disk space requirements 8
IP Manager requirements 9
EMC Server Manager requirements 9
Server Manager supported managed devices and software 9
MPLS/NPM/VOIP/OTM Manager requirements 11

Revision history

Date	Comment
January 2015	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 5.9 or later – 64 bit • Red Hat Enterprise Linux 6.4 or later – 64 bit • Red Hat Enterprise Linux 7.0 or later– 64 bit	Veritas cluster is not supported on Linux platforms.
CentOS Linux (Native/Virtual*)	• CentOS 6.4 or later– 64 bit • CentOS 7.0 or later– 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:** SAS 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 25 is used for 9.4 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 5.9. or later	• 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: • libstdc++ 4.1.2-44.el5.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 6.4 or later CentOS 6.4 or later	• 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 / CentOS 6: • libstdc++-4.4.6-3.el6.i686 • libstdc++-4.4.6-3.el6.i686 • libXi-1.3-3.el6.i686 • libXext-1.1-3.el6.i686 • libXtst-1.0.99.2-3.el6.i686 • libXrender-0.9.5-1.el6.i686 • compat-libstdc++-296-2.96-144.el6.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 or later CentOS 7.0 or later	• 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.el7.x86_64 Additionally, for Service Assurance Manager Console, On Red Hat Enterprise Linux 7 / CentOS 7: • libstdc++-4.4.6-3.el6.i686 • libstdc++-4.4.6-3.el6.i686 • libXi-1.3-3.el6.i686 • libXext-1.1-3.el6.i686 • libXtst-1.0.99.2-3.el6.i686 • libXrender-0.9.5-1.el6.i686 • compat-libstdc++-296-2.96-144.el6.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 8.0.9 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	
Internet Explorer	10.0 and 11.0	For Windows, the browser must have JavaScript enabled.
Mozilla Firefox	32 or later	
Apple Safari	5.1.7 or later	

JRE 8 update 25 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, Red Hat Enterprise Linux 5, 6 and 7, CentOS 6 and 7, Windows Server 2012 use JRE 1.8 update 25.

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

Service Assurance Suite 9.4.0.0 products interoperate with:

Product	Version
IP	9.1, 9.2.x,9.3
SAM	9.1, 9.2.x,9.3
ACM	2.4.x
ESM	9.1, 9.2.x, 9.3
OTM XD	5.1.x
NPM	9.2.x, 9.3
MCAST	8.1.4
MPLS	9.1, 9.2.x, 9.3
VOIP Availability Manager	9.2.x, 9.3
ASAM	3.2.x
SAM Adapters	8.1.4
NCM	9.1, 9.2.x, 9.3
EMC M&R (framework for New UI)	6.4u1 or higher, 6.5u1 or higher

Note:

- For Smarts New UI support, recommended SAM Server version is 9.3 or later.
- For Smarts New UI support for Configuration Manager, recommended IP version is 9.4.
- Failover for UI Services is supported in SAM 9.4 and M&R 6.5u1 or higher.
- Failover on Windows is supported in 9.4 version.

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.x 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 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 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 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 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 Note: For more information, refer to EMC Smarts ESM 9.4 documentation
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

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

Copyright © 2015 EMC Corporation. All Rights Reserved.

Published January, 2015

EMC believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

The information in this publication is provided “as is.” EMC Corporation makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

For the most up-to-date listing of EMC product names, see EMC Corporation Trademarks on EMC.com.