HP Network Automation Software Support Matrix

Software Version 9.00 / August 2010
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This document provides an overview of the system requirements and supported platforms for HP Network Automation, Version 9.00.

Installation Guide

Pre-installation requirements, as well as instructions for installing HP Network Automation, are documented in the *HP Network Automation 9.00 Upgrade and Installation Guide* provided in Adobe Acrobat (.pdf) format.

The document file is included on the product's installation media as: `installation_and_ugrade_guide.pdf`. After installation, the document can be found from the main menu by selecting `Help --> Documentation --> HP Network Automation 9.00 Upgrade and Installation Guide`.

To check for recent updates, or to verify that you are using the most recent edition of a document, go to: http://h20230.www2.hp.com/selfsolve/manuals.

HP Network Automation Supported Devices Matrix

To access the HP Network Automation Supported Devices Matrix, go to:

https://h20106.www2.hp.com/servlets/ProjectDocumentList?folderID=294&expandFolder=294&folderID=294.

Hardware and Software Requirements

Before installing HP Network Automation 9.00, make sure that your system meets the following minimum requirements.

Hardware Requirements

Intel Xeon or equivalent, 3.0+ GHz (Windows, Linux)
Dual UltraSparc IIIi+, 1.3 GHz (Solaris)

RAM, Swap/Disk Space, and Network Requirements

The values shown below are approximate and reflect levels tested by HP. If you have a particularly complex environment, you might want to provision more powerful hardware.

Application Server	
Memory	4 GB RAM
Swap Space	4 GB
Disk	40 GB, Fast SCSI
Network	100 Mbps Fast Ethernet, full duplex
Database Server	
Memory	4 GB RAM
Swap Space	4 GB
Disk	60 to 100 GB, Single Channel RAID, Fast SCSI
Network	100 Mbps Fast Ethernet, full duplex

Port Utilization

HP Network Automation communicates with devices using a combination of protocols and ports. If you use a given protocol, HP Network Automation requires access to the corresponding port. Specifically, if HP Network Automation communicates with devices protected by firewalls, these ports must be open, or you must use an alternative means of communication, such as a HP Network Automation Satellite server. Refer to "Appendix B, Troubleshooting," in the *HP Network Automation 9.00 Upgrade and Installation Guide* for information on allocating ports.

Operating Systems (NA Core and NA Satellite)

The following table specifies the application architecture available on the supported operating systems for NA Core and NA Satellite installations.

Operating System	Architecture	32-bit	64-bit[1]	Satellite
Windows Server 2008 R2 with SP1[2]	x86_64		X	
Windows Server 2008[3]	x86_64		X	
Windows Server 2003 with SP2	X86_32	X		
Solaris 10 SPARC[4, 5]	Sun4u, SUN4v		X	X
RedHat RH AS 4[6]	x86_32	X		X
RedHat RHEL Server 5	x86_64		X	X
SuSE Enterprise Linux Server 10[7]	x86_64		X	

Notes:

1. HP Network Automation 9.00 full installs are only supported on 64-bit architecture. You can upgrade from an existing 32-bit HP Network Automation platform to a 64-bit platform. If you are running on a RHEL 5 Server x64, it is required that you upgrade to 64-bit.

2. The fix for QCCR1B89971, delivered in NA 9.00.03 or later, requires Windows Server 2008 R2 SP1.

3. It is recommended that you use Windows Server 2008 R2.

4. Before installing HP Network Automation 9.00 on a Solaris 10 platform, you must reconfigure the Syslog server on Solaris 10 to not listen for remote Syslog messages.

5. A large amount of swap space is required because of how the *fork()* system call works on Solaris. When you fork a 24 GB process, Solaris allocates 24 GB in the swap file. This guarantees that if the new process needs to be swapped out, it can be. If the 24 GB is not available in swap, the *fork()* system call fails.

6. The last supported NA version on this platform is NA 7.60.x.

7. SuSE Enterprise Linux Server 9 supports Satellite environments.

Note: RSA device authentication is only available on Windows 2003, 32-bit.

Supported Databases

See the appropriate section for your environment:

- Databases for Standalone NA Core on page 6
- Databases for Multimaster Distributed System on page 7
- Databases for Horizontal Scalability on page 8

Databases for Standalone NA Core

When installing HP Network Automation 9.00, the database can be installed on any platform. The following table describes the supported databases for a standalone NA Core environment.

Standalone NA Core - Supported Databases

Database Version	Supported NA Versions	Notes
Oracle 10g R2 (10.2.0.1, 10.2.0.2, 10.2.0.3, or 10.2.0.4) Standard or Enterprise Edition	9.00 with or without patches	64-bit Oracle is supported.
Oracle 10g R2 (10.2.0.5) Standard or Enterprise Edition	9.00.03 or the latest consolidated patch	
Oracle 11g R1 (11.1.0.7) Standard or Enterprise Edition	9.00 with or without patches	
Oracle 11g R2 (11.2.0.1) Standard or Enterprise Edition	9.00.02 or the latest consolidated patch	
Microsoft SQL Server 2005 Standard or Enterprise Edition	9.00 with or without patches	64-bit Microsoft SQL Server is supported.
Microsoft SQL Server 2008 Standard or Enterprise Edition	9.00 with or without patches	
MySQL 5.0.58	9.00 with or without patches	The supported version of MySQL ships with NA.

Except for modest deployments without full enterprise scale and performance requirements, the application server and database server should be on

separate physical machines. In addition, the database server should be dedicated to HP Network Automation 9.00, rather than serving multiple applications.

Note: HP Network Automation does not support the use of Microsoft SQL Named Instances.

Databases for Multimaster Distributed System

The following table describes the supported databases for a Multimaster Distributed System environment.

Mulimaster Distributed System - Supported Databases

Database Version	Supported NA Versions	Limitations
Oracle 10g R2 (10.2.0.2 or 10.2.0.4) Enterprise Edition	9.00 with or without patches	No more than five HP Network Automation Cores can be configured together.
Oracle 10g R2 (10.2.0.5) Enterprise Edition	9.00.03 or the latest consolidated patch	
Oracle 11g R1 (11.1.0.7) Enterprise Edition	9.00 with or without patches	
Oracle 11g R2 (11.2.0.1) Enterprise Edition	9.00.02 or the latest consolidated patch	
Microsoft SQL Server Standard or Enterprise Edition 2005 (SP2 or higher)	9.00 with or without patches	No more than two HP Network Automation Cores can be configured together. The maximum number of managed devices should not exceed 6,500.
Microsoft SQL Server Standard or Enterprise Edition 2008	9.00 with or without patches	
MySQL	None	MySQL is not supported for Multimaster Distributed System environments.

Refer to the *HP Network Automation 9.00 Multimaster Distributed Systems on Oracle User's Guide* or the *HP Network Automation 9.00 Multimaster*

Distributed System on Microsoft SQL Server User's Guide for information on configuring a Multimaster Distributed System environment.

Databases for Horizontal Scalability

The following table describes the supported databases for a Horizontal Scalability environment.

Horizontal Scalability - Supported Databases

Database Version	Supported NA Versions	Limitations
Oracle 10g R2 (10.2.0.2 or 10.2.0.4) Standard or Enterprise Edition	9.00 with or without patches	No more than five HP Network Automation application servers can be configured together with a single database.
Oracle 11g R1 (11.1.0.7) Standard or Enterprise Edition	9.00 with or without patches	
Oracle 11g R2 (11.2.0.1) Standard or Enterprise Edition	9.00.02 or the latest consolidated patch	
Microsoft SQL Server Standard and Enterprise Edition 2005 (SP2 or higher)	9.00 with or without patches	No more than five HP Network Automation application servers can be configured together with a single database.
Microsoft SQL Server Standard and Enterprise Edition 2008	9.00 with or without patches	
MySQL	None	MySQL is not supported for Horizontal Scalability environments.

For information on configuring a Horizontal Scalability environment, refer to the *HP Network Automation 9.00 Horizontal Scalability User's Guide*.

Authentication

For NA user authentication into the NA user interface, NA has been validated with the following authentication components:

- Microsoft Active Directory on Windows Server 2008 with Domain and Forest function level: Windows 2000
- Cisco Secure Access Control System version 3.1 for TACACS and RADIUS
- Cisco Secure Access Control System version 5.1 for TACACS
- OpenLDAP version 2.4.23
- On the NA application server, RSA Authentication Manager version 6.1 with SecurID Software Tokens version 3.x and SoftID version 3.0.7 or 4.1 (needed for the Windows operating system only)
- Single sign-on from HP Server Automation (HP SA) 9.00
- Single sign-on from HP Operations Orchestration (HP OO) 9.00

For NA user authentication into the command-line interface (through telnet or SSH proxy), NA has been validated with the following authentication components:

- Microsoft Active Directory on Windows Server 2008 with Domain and Forest function level: Windows 2000
- Cisco Secure Access Control System version 3.1 for TACACS and RADIUS
- Cisco Secure Access Control System version 5.1 for TACACS
- OpenLDAP version 2.4.23

For device authentication from NA, NA has been validated with the following authentication components:

- Cisco Secure Access Control System version 3.1 for TACACS and RADIUS
- Cisco Secure Access Control System version 5.1 for TACACS

Note: RSA device authentication is available on Windows 2003, 32-bit only.

Satellite Configuration

Satellite configurations use HP Server Automation tunnels. Sharing Gateways between HP Server Automation (SA) and HP Network Automation (NA) is supported in SA 7.50 and NA 7.60.

If you are running a HP Network Automation (NA)/HP Server Automation (SA) Satellite co-residency environment, you will need two CPUs, 4 GB RAM, and 128 GB disk space. You can only manage 1,500 servers and 5,000 network nodes. Refer to the *HP Network Automation 9.00 Satellite User's Guide* for information on configuring a Satellite environment.

Cross Product Compatibility

The following table provides information on cross product compatibility.

HP Network Automation	HP Network Node Manager	HP Server Automation	HP Operation Orchestration	HP Live Network Connector[3]	HP BSA Essentials
9.00	8.1x, 9.00	7.8x, 9.00, 9.01	7.60, 9.00	3.0.1 or later	2.00
7.60 7.60.01 7.60.02	8.1x, 9.00[1]	7.8x	7.60	2.3.4 or later	2.00
7.504 7.50.0x5	7.5x 8.00.01 8.1x	7.50 7.8x	7.50 7.50.02[2] 7.60.01	2.3.4 or later	
7.2x	7.5x 8.00.01 8.1x	7.5	7.50 7.60.01	2.3.4 or later	

Notes:

1. HP Network Node Manager 9.00 requires HP Network Automation 7.60.02 or above.

2. HP Operation Orchestration 7.50 Content Flows do not work with HP Network Automation 7.60. HP Operation Orchestration 7.50.02 is required.

3. The Latest HP Live Network Connector is recommended.

4. Refer to the HP Server Automation documentation for the requirements to integrate HP Server Automation 7.8x with HP Network Automation 7.50x, 7.60x, and 9.00.

5. HP Network Node Manager integration with HP Network Automation 7.50x requires a separate patch (HP Network Automation 7.50.xx). To download NA patches, go to: http://support.openview.hp.com/ using your Passport credentials.

Virtual Environments

If you are running HP Network Automation 9.00 in a virtual environment, review the guidelines in the *HP Network Automation 9.00 Upgrade and Installation Guide*.

Keep in mind that HP Network Automation can be network intensive. As a result, if you have many virtual machines sharing a virtual switch and network interface card, you could experience unexpected behavior, including time-outs and failed tasks. In addition, each virtual environment is different and could function differently under loads with shared VM Guests. The HP Network Automation VMware Guest system requirements should, at a minimum, be double that of standalone server requirements.

Note: HP does not require customers to recreate and troubleshoot every product issue in a non-virtual environment. However, HP reserves the right to request that customers diagnose certain issues in a native, certified operating system environment without the virtual image. HP will only make this request when there is reason to believe that the virtual environment is a contributing factor to the issue.

Web Browsers

General Web Browser Requirements

- Any Window Popup Blockers must be disabled for the browser.

- Cookies must be enabled for the browser.

Supported Web Browsers

- Mozilla Firefox 3.x and higher

- Internet Explorer 7.x and higher

Note: Mozilla Firefox 4.0 and later are not supported.

Note: Third-party products mentioned in this documentation are manufactured by vendors independent of HP. HP makes no warranty, implied or otherwise, regarding the performance or reliability of these products. We provide third-party contact information to help you find technical support. However, third-party contact information is subject to change without notice and, therefore, HP can in no way guarantee the accuracy of this contact information.

Internationalization and Localization Support

HP Network Automation 9.00 can be installed on an operating system running under the following non-English locales or character sets:

- UTF-8

- GB2312 for Simplified Chinese

- Shift-JIS for Japanese

- EUC-KR for Korean

Note: To switch the locale of an English Win03 platform to Asian languages, the DBCS support must first be installed.

During HP Network Automation installation, you are prompted to select a Collation Type when configuring a new Microsoft SQL Server database. The goal is to facilitate the use of HP Network Automation, regardless of your native language, writing system, and cultural conventions.

Microsoft SQL Server collation dictates the character set that is stored in the database. For example, if you select a Chinese collation, you can only enter Chinese characters, not Japanese, Korean, and so on. Keep in mind, however, you can always enter Latin characters regardless of the collation type you select.

HP Network Automation 9.00 supports the following collections other than SQL_Latin1_ General_CP1_CI_AS:

- Chinese_PRC_CI_AS

- Japanese_CI_AS

- Korean_Wansung_CI_AS

When using HP Network Automation globalization support with Oracle, you must specify the appropriate database character set when creating a new Oracle database. In addition, if the language you select is double-byte encoded, for example Chinese, Korean, or Japanese, you might also want to set the NLS_LENGTH_SEMANTICS initialization parameter to "CHAR", so that your one DBCS character will be counted as "one" instead of "two".

Note: Please refer to your Oracle documentation for detailed information on setting parameters when creating a new Oracle database.

HP Network Automation 9.00 supports UTF-8 non-English Oracle locales. HP Network Automation 9.00 does not support any language other than English when MySQL is used as the back-end database.

As a result of the language you select, you can enter the following information into HP Network Automation in that language:

- Comment fields
- Description fields
- Custom data labels
- Most name and text fields, such as device location and vendor

You can search on single and multi-byte character sets, as long as the field being searched accepts them. You can also import and export configuration policies that contain single and multi-byte character sets.

For more information on collation, refer to your DBMS documentation.

Additional Applications

You will need access to the following applications:

Required

- Adobe® Flash Player 9.x and above for the browser.

Optional

- Adobe® Acrobat Reader™ version 4.0 or higher if you are viewing HP Network Automation documentation from the HP Network Automation server.
- Microsoft Excel 2000 or higher, if you are viewing Summary Reports from the HP Network Automation server.
- ActivePerl 5.8.x (for Windows)
- Perl 5.8.x (for Solaris and Linux)
- Perl Net::SSH::Expect module (for using the Connect module with SSH)

  Note: The HP Network Automation Convert-to-Perl script feature uses Perl.

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We appreciate your feedback!

If an email client is configured on this system, by default an email window opens when you click *here*.

If no email client is available, copy the information below to a new message in a web mail client, and then send this message to **ovdoc-nsm@hp.com**.

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