PRODUCT DESCRIPTION/OVERVIEW

HP SANworks Network View is a SAN management application providing a consolidation point for storage network visualization, monitoring and configuration. SAN devices, their Fibre Channel interconnects, and associated status are automatically discovered and displayed in an intuitive topographical network map. SAN device management is made easy by double clicking on a device icon. System performance bottlenecks are identified for proactive resolution and planning. A JAVA applet based design allows remote SAN management from any web browser. Network View is easily installed on the Management Appliance and because it is an appliance application; host operating system integration is not a necessity.

CUSTOMER BENEFITS

- Consolidation and integration point for managing all storage networked devices
- Reduced IT resource needs through consolidation
- Remote access from any network or internet connected PC
- At-a-glance visualization of storage fabric and associated status
- Proactive SAN availability monitoring
- Proactive SAN and storage array performance monitoring for system bottleneck resolution
- Management and monitoring of numerous HP and third party devices
- Operating system agnostic without the need for a server-client-agent setup
- Easy installation and setup
- Integration into network management tools through the Management Appliance
- Scalable for future storage network growth

SOFTWARE FEATURES/FUNCTIONALITY

- Automated in-band and out-of-band device discovery
- Graphical SAN topology mapping of all Fibre Channel connected devices and their interconnects
- Graphical status display
- Automated SAN availability monitoring and notification via e-mail and text pager when faults arise
- SNMP trap forwarding
- Custom notification set up
- Performance monitoring and graphical trending of numerous switch and HP StorageWorks RAID arrays, Modular arrays, Enterprise Virtual arrays, performance metrics
- Launch capability for all browser enabled device management tools
- Support for numerous HP and third party devices

HARDWARE SUPPORT

Network View supports the following hardware devices running the software, firmware, or driver versions listed in the software pre-requisite section. Support is defined as capability for device discovery and monitoring.

- Management Appliance
- HP StorageWorks Fibre Channel Storage Hub 12 (with management option)
- HP StorageWorks Modular Data Router
- HP StorageWorks Network Storage Router Model M2402

HARDWARE SUPPORT *(continued)*

- Fibre Channel switches:

Fibre Channel Switches	Part Numbers
HP StorageWorks Fibre Channel SAN Switch/8	158222-B21
HP StorageWorks Fibre Channel SAN Switch/16	158223-B21
HP StorageWorks Fibre Channel SAN Switch 2/16	240602-B21
HP StorageWorks Fibre Channel SAN Switch 8-EL	176219-B21
HP StorageWorks Fibre Channel SAN Switch 16-EL	212776-B21
HP StorageWorks Fibre Channel SAN Switch 2/8-EL	258707-B21
HP StorageWorks Fibre Channel SAN Switch 2/16-EL	283056-B21
HP StorageWorks SAN Switch Integrated/32	230616-B21
HP StorageWorks SAN Switch Integrated/64	230617-B21
HP StorageWorks Core Switch 2/64	254508-B21
HP StorageWorks Fibre Channel Arbitrated Loop Switch 8 (FC-AL)	177862-B21
Brocade SilkWorm Models 2400, 2800, 2050, 2250, 3800, 6400, 0r 12000	Contact Brocade for part number information
HP StorageWorks director 2/64	286809-b21
HP StorageWorks edge switch 2/16	286811-B21
HP StorageWorks edge switch 2/32	286810-B21
McData ED-5000 or 6064 Director	Contact McData for part number information
McData 3216 Fabric Switch	Contact McData for part number information
McData 3232 Fabric Switch	Contact McData for part number information
HP StorageWorks Modular Storage Array Fabric Switch 6	218232-B21

- RAID Storage Systems:
  - HP StorageWorks RAID Array 4100
  - HP StorageWorks Modular Array 6000 Fibre Channel
  - HP StorageWorks RAID Array 8000 Fibre Channel
  - HP StorageWorks Modular Array 8000/Enterprise Modular Array 12000 Fibre Channel
  - HP StorageWorks Enterprise Storage Array 12000 Fibre Channel
  - HP StorageWorks Enterprise Modular Array 16000 Fibre Channel
  - HP StorageWorks Enterprise Virtual Array
  - HP StorageWorks Modular SAN Array 1000
  - EMC Symmetrix systems using the Sym API 4.2 or 4.3
- Server/host systems and associated Host Bus Adapters (HBAs): for discovery and monitoring purpose

Server/Host Systems	Associated HBAs	Part Numbers
Windows® NT® (Intel®) & Windows 2000 (Intel)	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter for Windows/NT, Windows 2000 (msa1000 only)	245299-B21
Windows NT (Intel) & Windows 2000 (Intel)	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21
Windows NT (Intel) & Windows 2000 (Intel)	HP StorageWorks 32-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001
Windows NT (ProLiant) and Windows 2000 (ProLiant)	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	120186-B21
Windows 2000 for Datacenter	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21
Tru64 UNIX® (Alpha)	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Adapter for Tru64 UNIX and HP OpenVMS (HSG80 only)	261329-B21
Tru64 UNIX (Alpha)	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	168794-B21
Tru64 UNIX (Alpha)	HP StorageWorks 32-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001
Solaris™	HP StorageWorks 32-bit PCI-to-Fibre Channel Host Bus Adapter for Solaris	380576-001
Solaris	HP StorageWorks 64-bit SBus-to-Fibre Channel Host Bus Adapter for Solaris	123503-001
OpenVMS (Alpha)	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Adapter for Tru64 UNIX and OpenVMS (HSG80 only)	261329-B21
OpenVMS (Alpha)	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001
OpenVMS (Alpha)	HP StorageWorks 32-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	168794-B21
HP-UX	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	218409-B21
AIX	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	197819-B21
NetWare® (Intel)	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	120186-B21

SOFTWARE PREREQUISITES

- Management Appliance running Open SAN Manager (OSM) version 1.0C
- Fibre Channel Switches and Routers:
    - If using HP StorageWorks 1 Gb Fibre Channel SAN Switches, firmware version 2.1.9m or 2.6
    - If using HP StorageWorks 2 Gb Fibre Channel SAN Switches, firmware version 3.02f
    - If using HP StorageWorks Core Switch 2/64, firmware 4.0c
    - If using Brocade SilkWorm Models 2400, 2800, 2050, 2250, or 6400, firmware versions 2.1.9m, 2.2.1, 2.4.1f, or 2.6c
    - If using Brocade SilkWorm Model 3800, firmware version 3.02f
    - If using Brocade 12000, firmware version 4.0c
    - If using HP StorageWorks Fibre Channel Arbitrated Loop Switch 8 (FC-AL), firmware version 1.00-G03
    - If using HP StorageWorks director 2/64, firmware version 2.0
    - If using HP Storage edge switches, firmware version 2.0
    - If using McData ED-5000 Director, firmware version 1.2.02 pass 6
    - If using McData 6064 Director, firmware version 2.0 EFCM v6.0
    - If using McData 3216 or 3232 Fabric Switch, firmware version 2.0
    - If using HP StorageWorks Fibre Channel Storage Hubs, firmware version 4.00-g06
    - If using HP StorageWorks Modular Data Routers, firmware version 1187
    - If using HP StorageWorks Network Storage Router Model M2402, firmware version 4.02aw
    - If using HP StorageWorks Modular Storage Array Fabric Switch 6, firmware version 101G06
- RAID Storage Systems:
    - If using HP StorageWorks Enterprise Virtual Array
        - VCS version 2.0
        - OSM version 1.0C SP2
    - If using HP StorageWorks RAID Storage Systems
        - ACS version 8.6-1 or 8.7
        - OSM version 1.0C SP4
    - If using HP StorageWorks RAID Array 4100
        - Sub-system firmware J51
        - Controller firmware 2.6
    - If using HP StorageWorks Modular SAN Array 1000
        - Sub-system firmware 1.78
        - Controller firmware 1.14
    - If using EMC Symmetrix, those that support Sym API 4.2 & 4.3
- Browser Support: Client PC systems browsing to the Management Appliance require the following OS/browser versions:

Client Systems	Browser	Browser Version
Windows 2000	Internet Explorer	v5.01 & v5.5
Windows 2000	Netscape	v4.79
Windows NT v4.0	Internet Explorer	v5.5
Windows NT v4.0	Netscape	v4.79
Solaris	Netscape	v4.78
Tru64 UNIX	Netscape	v4.78

SOFTWARE PREREQUISITES *(continued)*

Host Agent Support: Network View requires host agent installation for Fibre Channel HBA (host bus adapter) discovery and monitoring purpose only. The following table lists supported host operating systems and HBA firmware versions. Installable agents are provided with the Network View CD.

Server/Host Systems	OS Versions	Associated HBAs	HBA Part Number	HBA Firmware Versions	HBA Driver Versions
Windows 2000	SP2	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Adapter for Windows/NT, Windows 2000 (msa1000 only)	245299-B21	3.82a1 with boot BIOS 1.60a5	5-4.81a9
Windows 2000	SP2	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21	3.82a1	5-4.81a9
Windows 2000	SP2	HP StorageWorks 32-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	5-4.52a9
Windows 2000 (ProLiant only)	SP2	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	120186-B21	No Firmware	5.4.6.63
Windows NT	v4.0 SP6a	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Adapter for Windows/NT, Windows 2000 (msa1000 only)	245299-B21	3.82a1	4-4.81a9
Windows NT	v4.0 SP6a	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21	3.82a1	4-4.81a9
Windows NT	v4.0 SP6a	HP StorageWorks 32-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	4-4.52a9
Windows NT (ProLiant only)	v4.0 SP6a	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	120186-B21	No Firmware	4.19.0.63
Windows 2000 for Datacenter	v2.0	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21	3.81a1	5-4.52a9
Tru64 UNIX	v5.1, v5.1A	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Adapter for Tru64 UNIX and OpenVMS (HSG80 only)	261329-B21	3.81A4	1.32A
Tru64 UNIX	v4.0F, v4.0G, v5.0a, v5.1, v5.1a	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter for Tru64	168794-B21	3.81a4	1.29
Tru64 UNIX	v4.0F, v4.0G, v5.0a, v5.1, v5.1a	HP StorageWorks 32-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	1.29
Solaris	v2.6, v7 or v8 (See Note 1)	HP StorageWorks 32-bit PCI-to-Fibre Channel Host Bus Adapter for Solaris	380576-001	3.03	2.5.9
Solaris	v2.6, v7 or v8 (See Note 1)	HP StorageWorks 64-bit SBus-to-Fibre Channel Host Bus Adapter for Solaris	123503-001	13.3.7	2.5.9
OpenVMS	v7.3, 7.3-1	HP StorageWorks 2 Gb, 64-bit/66 MHz PCI-to-Fibre Channel Host Adapter for Tru64 UNIX and OpenVMS (HSG80 only)	261329-B21	3.81A4	Embedded in OS
OpenVMS	v7.3, 7.3-1	HP StorageWorks 64-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	168794-B21	3.81a4	Embedded in OS
OpenVMS	v7.3, 7.3-1	HP StorageWorks 33-bit/33 MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	Embedded in OS
HP-UX	v11.0	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter for HP-UX	216409-B21	1.4	2.5.8
AIX	v4.3.2, v4.3.3	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter for AIX	197819-B21	2.01.19	1.5.14.14, 1.5.15.1
NetWare	v4.2, v5.1, v6.0	HP StorageWorks 64-bit/66 MHz PCI-to-Fibre Channel Host Bus Adapter	120186-B21	No Firmware	CPQFC.HAM 2.52

Note 1:

The following patches need to be installed for the Solaris operating system:

Solaris v2.6: 105181-23, 105210-33, 105284-37, 105568-21, 105591-09, 105633-49, 105669-10, 106040-15, 106125-10, 106841-01, 106842-09, 107733-09, 108091-03.

Solaris v7: 106980-10, 107636-03, 106541-11, 107544-03, 109104-01, 106950-09, 106327-08, 106300-09, 107081-20.

Solaris v8: 108940-07.

The order of patch installation is dictated by the patch dependencies as documented by Sun™ Microsystems for each patch. Patches can be obtained from http://access1.sun.com. However, patch 109104 –* is no longer available from access1. This is because Sun has rolled the functionality of 109104 into the latest kernel patch (106541-16). If a patch is not found or not up to the latest revision, a warning message is displayed. In the case of the 109104 patch, the warning message can be safely ignored if 106541-16 or greater is installed.

HARDWARE PREREQUISITES

- Management Appliance

DISTRIBUTION MEDIA

This product is distributed on an individual product CD-ROM.

DOCUMENTATION

The Network View documentation consists of the following:

- Installation Guide
- Releases Notes
- Quickspecs
- User's Guide
- Online Help

SOFTWARE LICENSING

The Network View is licensed by the number of available Fibre Channel switch ports in the SAN being managed by the Network View product. The licenses are sold in increments of 64, 128, 256, and 512 Fibre Channel switch ports. Licenses are additive allowing license combinations that more closely match the number of available Fibre Channel switch ports in the SAN. Switch port amount can be applied to numerous fabrics.

Upgrade licenses are for version 1.0 to version 2.0A upgrades only and cannot be used for switch port upgrades.

Switch port licenses are additive.

This software is furnished only under a license. For more information about HP licensing terms and policies, contact your local HP office.

SOFTWARE PRODUCT SERVICES

- Software Support (Stand-alone software advisory and remedial software telephone support)
- Software product subscription (New version license rights, and Media and documentation distribution service)
- Installation services

These software product services are sold under HP CarePaq Services program and via customized service contracts.

- CarePaq for software provides telephone support and License Right to new license version to provide all updates.
- CarePaq for software is available for sale at any time and, as opposed to hardware CarePaq's, the commencement date will be the purchase date. Proof of purchase may be required.
- CarePaq services are prepaid services for easy budgeting.

For additional information on Software Product Services and CarePaq, as well as orderable part numbers, please refer to the URL listed below: Software Product Services.

For additional CarePaq (hardware & software and installation support) information for European and other countries, as well as orderable part numbers, please refer to the URL listed below and select the country of your choice CarePaqs.

If you have specific questions about availability or how to obtain services contact your local HP representative. Contact information for your local area can be found at Support.

Maintenance releases, bug fixes and software patches will be available at no charge to customers on the HP support website at SANworks Support.

SOFTWARE WARRANTY

HP warrants that the Software will perform substantially as described in the documentation accompanying the Software for a period of ninety (90) days from delivery.

An upgrade to the 90 days software conformance to warranty of Network View to (1 or 3) full year of 9 hours by 5 days (or 24x7) software advisory and remedial software telephone support, new version license rights, and media and documentation distribution service is available as CarePaq service.

ORDER INFORMATION

Part Numbers	Description
235904-B24	Network View v2.0B, 64 Switch Port License, Media, and Documentation
235905-B24	Network View v2.0B, 128 Switch Port License, Media, and Documentation
236073-B24	Network View v2.0B, 256 Switch Port License, Media, and Documentation
236074-B24	Network View v2.0B, 512 Switch Port License, Media, and Documentation
261761-B23	Network View Upgrade License v2.0B, 64 Switch Port, Media, and Documentation
261762-B23	Network View Upgrade License v2.0B, 128 Switch Port, Media, and Documentation
261763-B23	Network View Upgrade License v2.0B, 256 Switch Port, Media, and Documentation
261764-B23	Network View Upgrade License v2.0B, 512 Switch Port, Media, and Documentation
265665-B22	SAN Management Bundle
283051-B21	Non-Disruptive HSG80
283052-B21	Enterprise Disaster Tolerant

PHYSICAL DATA

The shipping dimensions are the same for all part numbers.

Shipping Dimensions

Height	9.25 in/23.5 cm
Width	8.25 in/20.96 cm
Depth	1.25 in/3.18 cm
Weight	3 lb/1.36 kg