

### PRODUCT DESCRIPTION/OVERVIEW

*SANworks*™ Network View by Compaq 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 represented in an intuitive topographical display. 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 based design allows remote SAN management from any Web browser. *SANworks* 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 Compaq 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 *SANworks* Open SAN Manager by Compaq and the *SANworks* Management Appliance by Compaq
- Scalable for future 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 *StorageWorks*™ array performance metrics
- Launch capability for all browser enabled device management tools
- Support for numerous Compaq and third party devices

### HARDWARE SUPPORT

*SANworks* 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.

- *SANworks* Management Appliance by Compaq
- *StorageWorks* Fibre Channel Storage Hub 12 by Compaq (with management option)
- *StorageWorks* Modular Data Router by Compaq
- Fibre Channel switches:

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### HARDWARE SUPPORT *(continued)*

Fibre Channel Switches	Part Numbers
<i>StorageWorks</i> Fibre Channel SAN Switch/8	158222-B21
<i>StorageWorks</i> Fibre Channel SAN Switch/16	158223-B21
<i>StorageWorks</i> Fibre Channel SAN Switch 2/16	240602-B21
<i>StorageWorks</i> Fibre Channel SAN Switch 8-EL	176219-B21
<i>StorageWorks</i> Fibre Channel SAN Switch 16-EL	212776-B21
<i>StorageWorks</i> SAN Switch Integrated/32	230616-B21
<i>StorageWorks</i> SAN Switch Integrated/64	230617-B21
<i>StorageWorks</i> Fibre Channel Arbitrated Loop Switch 8 (FC-AL)	177862-B21
Brocade SilkWorm Models 2400, 2800, 2050, 2250, 3800, or 6400	Contact Brocade for part number information
McData ED-5000 Director	Contact McData for part number information

- RAID Storage Systems:
  - *StorageWorks* RAID Array 4100
  - *StorageWorks* Modular SAN Array 1000
  - *StorageWorks* Modular Array 6000 Fibre Channel
  - *StorageWorks* RAID Array 8000 Fibre Channel/Enterprise Storage Array 12000 Fibre Channel
  - *StorageWorks* Modular Array 8000/Enterprise Modular Array 12000 Fibre Channel
  - *StorageWorks* Enterprise Modular Array 16000 Fibre Channel
  - 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)	<i>StorageWorks</i> 2GB, 64-Bit/66MHz PCI-to-Fibre Channel Host Bus Adapter for Windows® NT, Windows 2000 (MSA 1000 only)	245299-B21
Windows NT (Intel) & Windows 2000 (Intel)	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21
Windows NT (Intel) & Windows 2000 (Intel)	<i>StorageWorks</i> 32-Bit/33Mhz PCI-to-Fibre Channel Host Bus Adapter	380574-001
Windows NT (Compaq <i>ProLiant</i> ™) & Windows 2000 (Compaq <i>ProLiant</i> )	<i>StorageWorks</i> 64-Bit/66Mhz PCI-to-Fibre Channel Host Bus Adapter	120186-B21
Windows 2000 for Datacentre	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21
<i>Tru64</i> ™ UNIX (Alpha)	<i>StorageWorks</i> 2GB, 64-Bit/66MHz PCI-to-Fibre Channel Host Adapter for <i>Tru64</i> and OVMS (HSG80 only)	261329-B21
<i>Tru64</i> UNIX (Alpha)	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	168794-B21
<i>Tru64</i> UNIX (Alpha)	<i>StorageWorks</i> 32-Bit/33Mhz PCI-to-Fibre Channel Host Bus Adapter	380574-001
Solaris	<i>StorageWorks</i> 32-Bit PCI-to-Fibre Channel Host Bus Adapter for Solaris	380576-001
Solaris	<i>StorageWorks</i> 64-Bit Sbus-to-Fibre Channel Host Bus Adapter for Solaris	123503-001
<i>OpenVMS</i> ™ (Alpha)	<i>StorageWorks</i> 2GB, 64-Bit/66MHz PCI-to-Fibre Channel Host Adapter for <i>Tru64</i> and OVMS (HSG80 only)	261329-B21
<i>OpenVMS</i> (Alpha)	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001
<i>OpenVMS</i> (Alpha)	<i>StorageWorks</i> 33-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	168794-B21
HP-UX	<i>StorageWorks</i> 64-Bit/66MHz PCI-to-Fibre Channel Host Bus Adapter	218409-B21
AIX	<i>StorageWorks</i> 64-Bit/66MHz PCI-to-Fibre Channel Host Bus Adapter	197819-B21
NetWare (Intel)	<i>StorageWorks</i> 64-Bit/66Mhz PCI-to-Fibre Channel Host Bus Adapter	120186-B21

### SOFTWARE PREREQUISITES

- *SANworks* Management Appliance running Open SAN Manager (OSM) v1.0C
- Fibre Channel switches:
  - If using *StorageWorks* 1Gb Fibre Channel SAN Switches, firmware version 2.1.9m or 2.6
  - If using *StorageWorks* 2Gb Fibre Channel SAN Switches, firmware version 3.02
  - If using Brocade SilkWorm Models 2400, 2800, 2050, 2250, or 6400, firmware versions 2.1.9m, 2.2.1, 2.4.1f, or 2.6
  - If using Brocade SilkWorm Model 3800, firmware version 3.02
  - If using *StorageWorks* Fibre Channel Arbitrated Loop Switch 8 (FC-AL), firmware version 1.00-G03
  - If using McData ED-5000 Director, firmware version 1.2.02 pass 6
  - If using *StorageWorks* Fibre Channel Storage Hubs, firmware version 4.00-g06.
  - If using *StorageWorks* Modular Data Routers, firmware version 1187.
  - If using *StorageWorks* RAID Storage Systems, ACS version 8.5, 8.6-1.
  - If using EMC Symmetrix, those that support Sym API 4.2 & 4.3
- Browser Support: Client PC systems browsing to the *SANworks* 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

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

Server/Host Systems	OS Versions	Associated HBAs	HBA Part Number	HBA Firmware Versions	HBA Driver Versions
Windows 2000	SP2	<i>StorageWorks</i> 2GB, 64-Bit/66MHz PCI-to-Fibre Channel Host Adapter for Windows® NT, Windows 2000 (MSA 1000 only)	245299-B21	3.82a1 with boot BIOS 1.60a5	5-4.54a7
Windows 2000	SP2	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21	3.81a1	5-4.52a9
Windows 2000	SP2	<i>StorageWorks</i> 32-Bit/33Mhz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	5-4.52a9
Windows 2000 (Compaq ProLiant only)	SP2	<i>StorageWorks</i> 64-Bit/66Mhz PCI-to-Fibre Channel Host Bus Adapter	120186-B21	No Firmware	5.4.6.63
Windows NT	v4.0 SP6a	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21	3.81a1	4-4.52a9
Windows NT	v4.0 SP6a	<i>StorageWorks</i> 32-Bit/33Mhz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	4-4.52a9
Windows NT (Compaq ProLiant only)	v4.0 SP6a	<i>StorageWorks</i> 64-Bit/66Mhz PCI-to-Fibre Channel Host Bus Adapter	120186-B21	No Firmware	4.19.0.63
Windows 2000 for Datacentre	v2.0	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	176479-B21	3.81a1	5-4.52a9

### SOFTWARE PREREQUISITES *(continued)*

Server/Host Systems	OS Versions	Associated HBAs	HBA Part Number	HBA Firmware Versions	HBA Driver Versions
<i>Tru64</i> UNIX	v5.1 & v5.1A	<i>StorageWorks</i> 2GB, 64-Bit/66MHz PCI-to-Fibre Channel Host Adapter for <i>Tru64</i> and <i>OVMS</i> (HSG80 only)	261329-B21	3.81A4	1.32A
<i>Tru64</i> UNIX	v4.0F, v4.0G, v5.0a, v5.1, or v5.1a	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter for <i>Tru64</i>	168794-B21	3.81a4	1.29
<i>Tru64</i> UNIX	v4.0F, v4.0G, v5.0a, v5.1, or v5.1a	<i>StorageWorks</i> 32-Bit/33Mhz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	1.29
Solaris	v2.6, v7 or v8 (See Note 1)	<i>StorageWorks</i> 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)	<i>StorageWorks</i> 64-Bit Sbus-to-Fibre Channel Host Bus Adapter for Solaris	123503-001	13.3.7	2.5.9
<i>OpenVMS</i>	v7.3	<i>StorageWorks</i> 2GB, 64-Bit/66MHz PCI-to-Fibre Channel Host Adapter for <i>Tru64</i> and <i>OVMS</i> (HSG80 only)	261329-B21	3.81A4	Embedded in OS
<i>OpenVMS</i>	v7.3	<i>StorageWorks</i> 64-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	168794-B21	3.81a4	Embedded in OS
<i>OpenVMS</i>	v7.3	<i>StorageWorks</i> 33-Bit/33MHz PCI-to-Fibre Channel Host Bus Adapter	380574-001	3.20x7	Embedded in OS
HP-UX	v11.0	<i>StorageWorks</i> 64-Bit/66MHz PCI-to-Fibre Channel Host Bus Adapter for HP-UX	216409-B21	1.4	2.5.8
AIX	v4.3.2 & v4.3.3	<i>StorageWorks</i> 64-Bit/66MHz PCI-to-Fibre Channel Host Bus Adapter for AIX	197819-B21	2.01.19	1.5.11
NetWare	v4.2 & v5.1	<i>StorageWorks</i> 64-Bit/66Mhz PCI-to-Fibre Channel Host Bus Adapter	120186-B21	No Firmware	5.4.6.63

**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 the <http://access1.sun.com> Web site. 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

- *SANworks* Management Appliance

### DISTRIBUTION MEDIA

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

### DOCUMENTATION

The *SANworks* Network View documentation consists of the following:

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

### SOFTWARE LICENSING

*SANworks* Network View is licensed by the number of available Fibre Channel switch ports in the SAN being managed by the *SANworks* 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 Compaq's licensing terms and policies, contact your local Compaq office.

### SOFTWARE PRODUCT SERVICES

- Software Support (Stand-alone telephone support)
- Installation services

These software product services are sold under Compaq's *CarePAQ*<sup>™</sup> Services program.

- *CarePAQ* is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.
- *CarePAQ* is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required.
- *CarePAQ* services are prepaid.

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

English: <http://www.compaq.ca/English/service/cusserv/carepaq/carepaq.htm>

French: <http://www.compaq.ca/Francais/service/ccs/carepaqf/carepaqf.htm>

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:

English: <http://www.compaq.ca/English/service/cusserv/carepaq/carepaq.htm>

French: <http://www.compaq.ca/Francais/service/ccs/carepaqf/carepaqf.htm>

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

English: <http://www.compaq.ca/english/support/index.htm>

French: <http://www.compaq.ca/Francais/soutien/index.htm>

Maintenance releases, bug fixes and software patches will be available at no charge to customers on the Compaq support Web site at:

<http://www.compaq.com/support/sanworks/>

**NOTE:** This Web site is available in English only.

### SOFTWARE WARRANTY

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

### ORDER INFORMATION

<b>Part Numbers</b>	<b>Description</b>
235904-B23	<i>SANworks</i> Network View v2.0A, 64 Switch Port License, Media, and Documentation
235905-B23	<i>SANworks</i> Network View v2.0A, 128 Switch Port License, Media, and Documentation
236073-B23	<i>SANworks</i> Network View v2.0A, 256 Switch Port License, Media, and Documentation
236074-B23	<i>SANworks</i> Network View v2.0A, 512 Switch Port License, Media, and Documentation
261761-B22	<i>SANworks</i> Network View Upgrade License v2.0A, 64 Switch Port, Media, and Documentation
261762-B22	<i>SANworks</i> Network View Upgrade License v2.0A, 128 Switch Port, Media, and Documentation
261763-B22	<i>SANworks</i> Network View Upgrade License v2.0A, 256 Switch Port, Media, and Documentation
261764-B22	<i>SANworks</i> Network View Upgrade License v2.0A, 512 Switch Port, Media, and Documentation
265665-B21	<i>SANworks</i> SAN Management Bundle

### PHYSICAL DATA

The shipping dimensions are the same for all part numbers.

#### Shipping Dimensions

Height	9.25 in/234.95 mm
Width	8.25 in/209.6 mm
Depth	1.25 in/31.75 mm
Weight	3 lbs/1.36 kg

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