



All the SANs That Fit

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If your company is investigating Storage Area Networks (SANs), you have several options. Some storage vendors offer complete SAN systems. For example, both the StorageWorks product set from Compaq Computer Corp. and the Enterprise Storage Network (ESN) from EMC Corp. include every product you

need to deploy a SAN, including hubs and switches. Other vendors provide SANs that include just the hard disk drive (HDD) enclosure with a specialized operating system. You must then add other SAN components such as bridges, switches, hubs, and host bus adapters (HBAs).

To help you decide which kind of SAN to purchase for your company, this article includes a selection of both types of products. (See "SAN-Which?") If you choose a vendor that focuses on the SAN itself (without the SAN components such as switches and hubs), this article also includes a small selection of Fibre Channel devices that support NetWare. (See "For Those Who SAN" on p. 44.)

Of course, before you make any decision about selecting a SAN for your company, you will want to read this month's cover story, "Take a Byte Out of Your Storage Problems" on p. 6.

SAN-Which?				
Company Name	Product	Supported Platforms	Capacity	Price (U.S. Dollars)
AVI Systems Inc. www.avistor.com 1-510-535-0308	AVIstor F Series (storage sub-systems to full SAN architecture)	Operating system independent with Fibre Channel and/or SCSI connectivity (FC HBAs, hubs, switches)	20 GB to 12 TB per redundant controller	From under \$30,000
Compaq Computer Corp. www.compaq.com 1-800- 282-6672	StorageWorks SAN entry-level product set based on the Compaq RA4100 SAN system	NetWare; Windows 2000, NT, and Datacenter; SUN Solaris; Tru64 UNIX; Open VMS; Linux; SGI Irix	Scales from GB to PB	Prices begin at \$50,000 for a product set for a six server SAN. This product set includes three RA4100 storage enclosures, 12 36 GB drives, six HBAs, and a hub.
EMC Corp. www.emc.com 508-435-1000	CLARiiON FC5700	CLARiiON FC5700 supports all major platforms, including NetWare.	180 GB to 3.6 TB	Prices begin at \$48,000
	Symmetrix 3630	Symmetrix systems support all major platforms, including NetWare.	144 GB to 1.158 TB	Prices begin at \$395,000
	Symmetrix 8430		288 GB to 8.577 TB	Prices begin at \$596,000
	Symmetrix 8730		288 GB to 34 TB	Prices begin at \$925,000
Fujitsu Technology Solutions Inc. www.fujitsu-technology.com	GSS 4900	NetWare, Windows 2000 and NT, Solaris, HP-UX, IBM AIX, Linux	100 GB to 64 TB	Prices begin at \$82,500
Hitachi Data Systems www.hds.com	Freedom Storage Thunder 9900 Series	NetWare, Windows 2000 and NT, Linux, UNIX, IBM S/390	90 GB to 37 TB	Prices begin at \$40,000
	Freedom Storage Thunder 9200 Series	NetWare, Windows 2000 and NT, Linux, UNIX	72 GB to 7.2 TB	Prices begin at \$18,000
XIOtech Corp. www.xiootech.com	MAGNITUDE	NetWare, Windows 2000 and NT, UnixWare, HP-UX, Linux, Solaris, MacOS, IBM AIX, SGI Irix	18 GB to 11.5 TB (However, XIOtech does not recommend SAN solutions for less than 200 GB.)	Prices begin at \$60,000

For Those Who SAN			
Company	Product	Description	Additional Information
Antares Microsystems www.antares.com 1-800-726-7287	P-0036	PCI Dual Gigabit Interface Converter (GBIC) Fibre Channel host adapter	Supports 126 LUNs per target storage device. Also supports hot swappable GBIC with failover.
Brocade Communications Systems Inc. www.brocade.com 1-408-487-8000	Silkworm 2800	16-port Fibre Channel switch	Supports arbitrated loop and switched fabric. Includes tools for web-based management and zoning.
Compaq Computer Corp. www.compaq.com/storage	SAN Switch 8	8-port Fibre Channel switch	Switches support switched fabric, zoning, cascading, and Quick-Loop emulation.
	SAN Switch 16	16-port Fibre Channel switch	
ConnectCom Solutions www.connectcom.net 1-408-383-9400	CSB-FC2000	2GB, 64-bit- 66 MHz Fibre Channel PCI HBA	
Dell Computer Corp. www.dell.com 1-800-999-3355	PowerVault 56F	16-port Fibre Channel switch	Switches support switched fabric, zoning, and cascading.
	PowerVault 51F 8-port Switch	8-port Fibre Channel switch	
	PowerVault 35F	Fibre Channel/SCSI Bridge (for SAN backup)	Bridge supports arbitrated loop and switched fabric topologies.
Gadzoox Networks Inc. www.gadzoox.com 1-888-423-3222 or 1-408-360-4950	Capellix 3000	DB-9, Dual-SC, GBIC, or small form factor connector Fibre Channel switches	Switches support arbitrated loop and switched fabric. Switches also support NDS eDirectory.
	Capellix 3000 HA		
INRANGE Technologies Corp. www.inrange.com 1-800-222-0187 1-856-234-7900	INRANGE FC/9000 Fibre Channel Director	24 to 128-port Fibre Channel director	Each port delivers 1.062 GBps over distances up to 100 km. Supports arbitrated loop and switched fabric. Also supports both hardware and software zoning.
QLogic Corp. www.qlogic.com 1-800-342-7379	SANblade QLA2300 Series	64-bit PCI to 2GB Fibre Channel HBAs	Supports arbitrated loop, switched fabric, server clusters, LUN mapping and LUN masking.
	SANbox Director	32 to 256-port Fibre Channel director	Supports arbitrated loop, switched fabric, and zoning.
Vixel Corp. www.vixel.com 1-425-806-5509	Vixel 7100 Fabric Switch	8-port Fibre Channel switch	Switches support GBIC connectors, arbitrated loop, switched fabric, and zoning.
	Vixel 7200 Fabric Switch	16-port Fibre Channel switch	
	Vixel 2100 Zoning Managed Hub	8-port Fibre Channel hub	Hub supports up to four arbitrated loops and zoning.