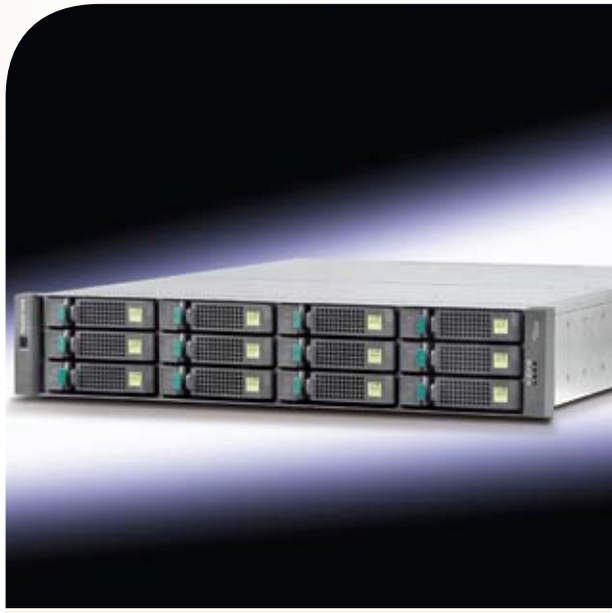
FibreCAT SX40

Storage Subsystem (SAS)

The FibreCAT SX40 SAS storage subsystem is a compact, reliable, well managed, and cost-effective storage capacity expansion option for PRIMERGY servers.



Flexible Expansion

When the internal hard drive storage capacity of your PRIMERGY server nears its limits, the external PRIMERGY SX40 storage subsystem easily extends its capacity to meet your growing business needs. This storage subsystem incorporates up to 12 SAS or S-ATA hard drives which offer a total maximum capacity of 9 TB in a compact 2U chassis.

Using a SAS RAID controller in the PRIMERGY server, the drives in the FibreCAT SX40 can be configured in to a wide variety of RAID array types. Additionally, up to 3 FibreCAT SX40 storage subsystems can be cascaded together via the second SAS x4 link, permitting expansion to a maximum of 27 TB of external hard drive capacity.

Anytime Availability

In the FibreCAT SX40 storage subsystem, the active components (hot-plug hard drives and hot-plug power supply modules) can be replaced while the server is running. The redundant hot-plug power supply units can be connected with phase redundancy via separate power lines. Optimum and secure cooling of the hard drives is ensured by 2 independent fans in each power supply unit.

The FibreCAT SX40 storage subsystem provides information on its operating status and the most important internal modules, as well as hard drives and power supplies via LED displays on the front panel.

Easy to Manage

The FibreCAT SX40 is designed to be easy to manage throughout its entire lifecycle. For easy RAID array setup and configuration, Fujitsu offers Server View RAID. This tool provides a uniform management interface for all PRIMERGY RAID solutions.

The FibreCAT SX40 storage subsystem has powerful remote monitoring capabilities that alert to any potential hardware issue. This information is fully integrated into the PRIMERGY Server View Suite—the PRIMERGY server management platform. Through the PRIMERGY Server View Suite the administrator can monitor a variety of aspects of the storage subsystem's health. Sensors monitor the temperature of the entire subsystem as well as subcomponents such as hard drives, power supply units, the integrated fans and the I/O module. Power status of redundant power supplies and cooling fans are also monitored. Most importantly, the S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) standard enables the hard drives to autonomously check their operating status and report potential errors in proactively. These powerful capabilities help you solve problems before they cause downtime.

Quality and Reliability

Fujitsu is a worldwide leader in the Intel, Linux, and UNIX® architecture servers with industry leading reliability and extensive availability features. The close integration between Fujitsu design, manufacturing, and service engineers creates some of the highest quality products in the server market. With global support capabilities, Fujitsu offers complete solutions that will allow us to meet all your present and future needs.

The features of this server speak for themselves:

- 12 hot-plug hard drive bays
- SAS or SATA configurations supported
- Up to 9 TB of storage per chassis
- Two redundant, hot-plug power supplies
- Front panel operating state LEDs
- ServerView Suite monitoring solution
- 2U form factor

FibreCAT SX40

Type		PRIMERGY FibreCAT Storage Subsystem

General Specifications

	Number of bays for hot-plug hard drives	12 x 3.5-inch
	SAS addresses for hard drives	Automatic assignment
	Host port	1 SAS SFF 8470 port on the standard SAS I/O module (expander)
	Max. number of power supply units	2 with full redundancy (hot-plug)
	Fans	2 redundant fans per power supply unit
Connection of Hard Drives	Connection (internal)	SAS x4, for up to 12 hot-plug SAS and/or SATA hard drives (planned)
	External SAS port (daisy chain)	Second SAS x4 port for cascading up to 3 FibreCAT SX40s
	Server controller (in PRIMERGY Servers)	RAID controller: LSI MegaRAID® SAS 4/4ports 256 MB
	RAID levels	0, 1, 5, 10 and 50
Hard Disk Drives (Cannot mix SAS and SATA drives)	Capacities in the SX40 disk frame	73 GB, 146 GB and 300 GB SAS
	Capacities in the SX40 disk frame	250 GB, 500 GB and 750 GB, 7,200 rpm S-ATA
	Access time	> 4 ms, depending on the HDD type
	Total capacity	Max. 9 TB per JBOD
1 GB corresponds to a billion bytes in relation to hard disk capacity; the available capacity may vary.		
System Management		RAID status signaling and monitoring of the internal operating parameters via SES and status LEDs on the subsystem
Options		- SAS hot-plug hard drives 73 / 146 / 300 GB, 10,000 rpm and 15,000 rpm - Cable lengths - 0,5 and 2m SAS
Electrical Ratings		Redundant Hot-Plug power supply modules standard (1+1)
	Output power	750 W /1+1 x each one 750W
	Power supply range	100V – 240V
	Rated frequency	50 – 60 Hz
	Rated current max	3A – 1,5A / 100V – 240V
	Rated current in basic configuration	1,9A – 1A / 100V – 240V
	Active power max	300W
	Apparent power max.	330VA
	Heat dissipation	1080kJ/h (1024btu/h)
Temperature / Noise / Dimensions / Weight	Operating temperature	50°F – 95°F (IEC 721-3-3 class 3K2)
	Noise emission According to ISO 9296	Idle* operating* (*ISO 7779)
	L_{Wad} (1B = 10dB)	6,4B 6,5B
	L_{pAm} (bystander position)	47dB 47dB
Dimensions	Overall dimensions (H x W x D)	3.46" x 18.90" x 22.91"
	Rack (H x W x D)	88 x 480 x 582 mm 3.46" x 18.90" x 22.91" (mounting depth 22.17")
	Weight	Approx. 66.14 lbs. (depending on the configuration)

Compliance with Norms and Standards

Product Safety	Global	IEC 60950
	Europe	EN 60950, EN30571
	USA	UL 60950, CSA 60950
	Canada	CSA 60950
	Saudi Arabia	SASO
Electromagnetic Compatibility	Europe	EN 55022 class A, EN 55024, EN 61000-3-3; EN 61000-2-3
	Japan	VCCI class A
	Australia / New Zealand	AS/NZ CISPR 22 class A
	USA / Canada	FCC CFR 47 class A / ICES 003 class A
Compliance	Europe (CE)	89/336/EWG (EMV); 72/23 EEC (LVD)
	North America	FCC class A
Approvals		
Product Safety	Global	CB
	Europe	CE
	Germany	GS
	USA / Canada	FCC / CULUS or CCSAUS
	Japan	VCCI
	Russia	Ghost
	Australia	C-Tick

There is general compliance with the safety requirements of all European countries and North America.
National approvals required in order to satisfy statutory regulations or for other reasons
can be applied for on request.

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