ES-8200 iSCSI/SAS(SATA) RAID

RAID systems are indispensable when high storage capacity and availability is required.
EUROstor offers a variety of different products to match specific customer needs.
ES-8200 RAID systems support SAS disks as well as SATA disks, and can even be equipped with both disk types at the same time. Thus applications such as databases that need fast storage with high i/o rates can run on RAID sets based on 15.000 rpm SAS drives, whereas applications that need high capacity for archiving, backup to disk etc. will run on lower cost SATA disks.

SAS disks offer the same performance and quality as Fibre Channel or parallel SCSI disks – in fact there is no difference at all except for the interface module. The advantage over the latter is that they use the same backplane as SATA disks, which allows mixing SAS and SATA even in the same enclosure. Dual controller systems come with MUX boards in all SATA canisters.

But also if only SATA disks shall be used in the RAID system, the internal SAS technology is a big advantage: ES-8200 RAID systems are expandable. JBODs can be attached to a SAS expansion port, thus offering more capacity. And capacity is what is needed in most archiving or backup applications.

ES-8200 systems can also be expanded at a later time. Then, either an additional new RAID set can be created on the JBOD or existing RAID sets can be expanded, offering the new capacity in additional volumes.

Like all EUROstor RAID systems, ES-8200 iSCSI/SAS RAIDs can be managed over a password protected web interface.

EUROstor RAID systems can be used with all leading Windows, Linux and Unix operating systems. They don't require any additional software or API.

Systems with iSCSI Interface need a standard iSCSI initiator on the host side, which is either an iSCSI host adapter or just an initiator software and part of most of today's operating system releases.

ES-8200 iSCSI:

- 12/16 SAS or SATA-II disks – up to 32 TB per unit with 2 TB SATA disks
- SAS: up to 600 GB per disk
- RISC processor on ASIC400 Infortrend controller
- single or dual (redundant active/active) controller
- OS independent
- 512 MB Cache (optional up to 2 GByte) per controller
- Battery backup with dual controller, otherwise optional
- 2-8 x 1 Gbit iSCSI host interface (optional 2-4 x 10Gbit)
- SAS expansion ports for a total of 64 disks (single ctr.) or 48 disks (dual ctr.)
- RAID Level 0, 1, 0+1, 3, 5, 6, 10, 30, 50, 60
- logical drives with different RAID levels
- local and global hot spare disks
- redundant PSU and fans
- monitoring of fan rotation, temperature and voltage
- RAIDwatch management via web browser (Ethernet port)

Service:

- 3 years warranty (1 year on BBUs
- free support (telephone or email)
- optional: 3 years Advance Exchange Service
- optional: 3 years On Site Service
- optional: On Site Installation

EUROstor GmbH • Hornbergstr. 39 • D-70794 Filderstadt • Tel.:+49 (0)711 70 70 91 70 • Fax: +49 (0)711 70 70 91 60

Product	ES-8212SX-1GQ	ES-8216SX-1GQ	ES-8212RX-1GQ	ES-8216RX-1GQ
Controller	**single**		**dual redundant active/active**	
Disks	12	16	12	16
Expandable (through SAS) to	60	80	48	64
Host Interface	2 x 1 Gbit Ethernet	4 x 1 Gbit Ethernet optional 2 x 10Gbit	8 x 1 Gbit Ethernet optional 4 x 10Gbit	
Cache	standard 512 MB cache (optional up to 2 GB)			
Internal Bus	Infortrend ASIC400 technology			
RAID Level	0, 1 (0+1), 3, 5, 6, 10, 30, 50, 60, NRAID			
RAID 6 Support	yes			
RAID Features	• Multiple Array configuration • hot-spare drives (local or global) • automatic replacement of hot-spare drives and background rebuild • online capacity expansion • intelligent drive handling • Disk Cloning • all RAID configuration saved on the disks			
Rackmount	2 U	3 U	2 U	3 U
Disk Interface	SAS and SATA-II over backplane			
Battery Backup for Cache	included		optional	
RAID Management	• Web-Browser based RAID Manager (embedded RAIDwatch), 10/100 Mbit Ethernet Port • RAID Manager also over serial RS-232 port and LCD display			
Monitoring / Notification	• Monitoring over web browser based RAID Manager • system status over LCD, LED and beeper • email notification / SNMP			
Operating System	transparent			
PSU	2x 530 Watt with PFC, redundant			
Temperature	Operating: 0 – 40°C (max. 35° with BBU)			

EUROstor GmbH • Hornbergstr. 39 • D-70794 Filderstadt • Tel.:+49 (0)711 70 70 91 70 • Fax: +49 (0)711 70 70 91 60