

DATA SHEET

## UltraStor™ ES3160P4

High-availability & Active-active  
Enterprise 8 GbE iSCSI RAID Storage Solution



### Fault Tolerance RAID Storage

The UltraStor™ ES3160P4 is equipped with Active-Active Dual RAID controllers for maximum data protection and data high-availability. Featuring 4x GbE iSCSI per controller, users can attach ES3160P4 to multiple servers to ensure data accessibility with high-performance and full iSCSI bandwidth. In addition to the ES3160P4's dual RAID controllers and I/O modules, the dual redundant power supplies and cooling modules are also hot-swappable and can be replaced easily on the field, providing the ultimate redundancy and reliability for mission critical and data intensive applications to meet the most demanding storage needs.

### Enterprise Class Storage Solution

Enhance Technology is devoted to deliver the highest quality storage solutions by offering SATA/SAS hard disks populated and fully tested in an intensive environment on every ES3160P4 product, meaning that you can easily integrate the system into your IT infrastructure right out of the box. The preferred service plan ensures peace-of-mind for customers with support and service options such as 1-Year Free Advance Parts Replacement Program on top of the standard 3-Year depot repair warranty.

### Expand as You Grow

Utilizing sixteen (16) hot-swappable disk trays, the ES3160P4 can host up to 32TB of capacity. However, the storage capabilities don't stop there. Unlike many storage systems, the ES3160 P4 can easily grow far beyond the "limitations" of its drive capacity. Each ES3160P4 system can also be expanded with additional RAID protected data storage of up to 128TB (Raw) with 3 x ES3160JS SAS interface JBOD storage systems.

### Professional Management

Managing an ES3160P4 storage system is easy. With its cross platform user friendly GUI management, it's easy to configure and administer the ES3160P4. Its web-based GUI interface helps manage, monitor and control the system via a standard web browser anywhere at anytime. It also can be setup to receive real-time system failure notification in Email with no additional software is needed.



### Energy-Efficient

The ES3160P4 equips with 80-Plus 500W dual redundant power supply to keep your workloads and critical applications running without hardware failure interruption and ensure system reliability and data availability. With the Energy-efficient power supply, the ES3160P4 becomes an environmental friendly storage system that helps user to reduce utility and cooling cost due to excess heat generated by the power supply.



# Specifications

<b>Model</b>	<b>UltraStor ES3160P4</b>
<b>SKUs</b>	ES3160P4-D
<b>Capacity</b>	Pre-Configured UltraStor ES Drive Packs: - 4x1TB 7.2K SATA Enterprise HDDs - 4x2TB 7.2K SATA Enterprise HDDs - 4x2TB 7.2K SAS HDDs - 4x300G 15K SAS HDDs - 4x450G 15K SAS HDDs - 4x600G 15K SAS HDDs
<b>Host Interfaces</b>	4-port GbE iSCSI + 1-port SAS expansion per controller
<b>Form Factor</b>	3U low profile 19" Rackmount
<b>RAID</b>	0,1,0+1,3,5,6,10,30,50,60; Up to 1024 logical volumes in the system ; Up to 32 Physical Disks can be included in one RAID group; Up to 512 Snap Shot; Rollback mechanism ; Microsoft VSS compliant ; Global and dedicated hot spare disks ; Supports multiple RAID array and volumes; Online volume expansion; Online disk roaming; Flexible RAID group (RG) ownership management;
<b>Controller</b>	4 x GbE iSCSI ports per controller; 1 x SAS Expansion port per controller; 2GB DDRII 533 DIMM; Up to 4G per controller; Serial console management and UPS; Dedicated Ethernet port For WebGUI management; LCM management panel; Battery Backup Unit (Optional)
<b>Storage Expansion</b>	Multiple SAS JBOD expansion supported;
<b>Hot-swappability</b>	16 Hot-swappable drive trays; Dual hot-swappable power supplies; Three hot-swappable fan modules;
<b>Management</b>	Management UI via: Serial console, SSH telnet, or HTTP Web UI; Event notification via: Email, SNMP trap, Browser, Syslog; Online system firmware upgrade mechanism; iSNS & DHCP support; CHAP authentication mechanism support;
<b>Supported OS</b>	Windows Server 2000 / 2003 / 2008, Windows XP / Vista / 7; Mac OSX; Linux
<b>Physical &amp; Environment</b>	Operating Temperature 10°C ~ 35°C; Non-Operating Temperature -10°C ~ 50°C; Relative Humidity 5% to 95% non-condensing
<b>Power &amp; Cooling</b>	Dual redundant 500W 80 PLUS power supply; AC Input: 100-240V 8~5A 47/63 Hz; PSU failure indicate sensor; 3 x hot-swappable high-speed SMART fans;
<b>Dimension (H x W x D)</b>	5.25" x 19" x 21.5"
<b>Weight (w/o disks)</b>	65 Lbs
<b>Safety Regulations</b>	CE, FCC
<b>Warranty</b>	- 3-Year Standard Warranty - 1-Year ARP (Advance Parts Replacement) - 2-Year Standard Warranty Upgrade (Option) - 2-Year ARP Upgrade (Option)

## Package Included:

- ES3160P4 3U 16-Bay redundant controller storage system
- Up to 4 pre-configured drive packs (Each drive pack includes 4 HDDs)
- Rack mounting brackets
- User manual CD
- Accessory box
- Two (2) US standard power cord
- Estimate Package Weight (w/ Drive Installed): 76 ~ 100 Lbs
- Package Dimension (H x W x D): 12" x 28" x 32"

## Accessories:

### Spare Drives:

- 1TB SATA Spare Drive Pack w/ Tray (ES3160-HDDSK1TE)
- 2TB SATA Spare Drive Pack w/ Tray (ES3160-HDDSK2TE)
- 2TB SAS Spare Drive Pack w/ Tray (ES3160-HDDSK1TS)
- 300GB SAS Spare Drive Pack w/ Tray (ES3160-HDDSK300GS)
- 450GB SAS Spare Drive Pack w/ Tray (ES3160-HDDSK450GS)
- 600GB SAS Spare Drive Pack w/ Tray (ES3160-HDDSK600GS)

### Spare Controller Kit:

- ES3160P4 Controller (ES3160CC-P4)

### Power Supply:

- Hot-swappable 500W 80+ PSU Module (PS1500G/ES)
- Hot-swappable 600W 80+ PSU Module (PS1600G)

### Battery Back Unit:

- Battery Backup Unit for ES3160 (ES3160-BBU)

### Spare Fan:

- Hot-swappable Cooling Fan Module (ES3160-FAN)

## Distributed by:

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