

2U Rackmount YA-08SAEU4/F4
8 bays RAID Subsystem



2U Rackmount YA-12SAEU4/F4
12 bays RAID Subsystem

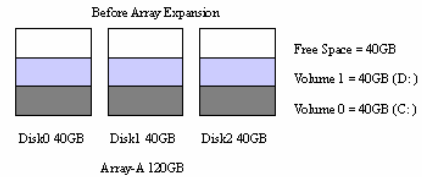


3U Rackmount YA-16SAEU4/F4
16 bays RAID Subsystem

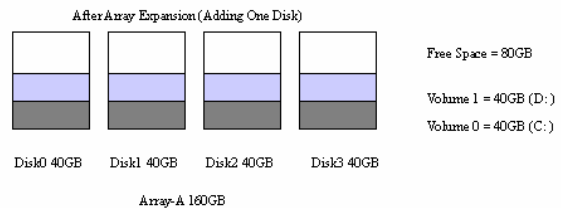


Online Capacity Expansion

Online Capacity Expansion makes it possible to add one or more physical drive to a volume set, while the server is in operation, eliminating the need to store and restore after reconfiguring the raid set. When disks are added to a raid set, unused capacity is added to the end of the raid set. Data on the existing volume sets residing on that raid set is redistributed evenly across all the disks. A contiguous block of unused capacity is made available on the raid set. The unused capacity can create additional volume set. The expansion process is illustrated as following figure



The RAID subsystem controller redistributes the original volume set over the original and newly added disks, using the same fault-tolerance configuration. The unused capacity on the expand raid set can then be used to create an additional volume sets, with a different fault tolerance setting if user need to change.



Enhance Features:

Instant Availability/Background Initialization

RAID 0 and RAID 1 volume set can be used immediately after the creation. But the RAID 3, 5 and 6 volume sets must be initialized to generate the parity. In the Normal Initialization, the initialization proceeds as a background task, the volume set is fully accessible for system reads and writes. The operating system can instantly access to the newly created arrays without requiring a reboot and waiting the initialization complete. Furthermore, the RAID volume set is also protected against a single disk failure while initialing. In Fast Initialization, the initialization proceeds must be completed before the volume set ready for system accesses.

Array Roaming

The RAID subsystem stores configuration information both in NVRAM and on the disk drives it can protect the configuration settings in the case of a disk drive or controller failure. Array roaming allows the administrators the ability to move a completely raid set to another system without losing RAID configuration and data on that raid set. If a server fails to work, the raid set disk drives can be moved to another server and inserted in any order.

Online RAID Level and Stripe Size Migration

User can migrate both the RAID level and stripe size of an existing volume set, while the server is online and the volume set is in use. Online RAID level/stripe size migration can prove helpful during performance tuning activities as well as in the event those additional physical disks are added to the RAID subsystem. Before the invention of RAID level and stripe size migration, changing the RAID level and stripe size of a RAID system meant backing up all data in the disk array, re-creating disk array configuration with new RAID level and stripe size, and then restoring data back into RAID system. For example, in a system using two drives in RAID level 1, you could add capacity and retain fault tolerance by adding one drive. With the addition of third disk, you have the option of adding this disk to your existing RAID logical drive and migrating from RAID level 1 to 5. The result would be parity fault tolerance and double the available capacity without taking the system off.

RAID 6

A RAID 6 array is essentially an extension of a RAID 5 array with a second independent distributed parity scheme. Data and parity are striped on a block level across multiple array members, just like in RAID 5, and a second set of parity is calculated and written across all the drives. As larger disk arrays are considered, it is desirable to use stronger codes that can tolerate

multiple disk failure. When a disk fails in a parity protected disk array, recovering the contents of the failed disk requires successfully reading the contents of all no-failed disks. RAID 6 provides an extremely high fault tolerance, and can sustain two simultaneous drive failures without downtime or data loss. This is a perfect solution when data is mission-critical.

SNMP

Yotta A RAID subsystem firmware-embedded Simple Network Management Protocol (SNMP). An SNMP-based management application (also known as an SNMP manager) can monitor the disk array. An example of An SNMP management application is Hewlett-Packard’s Open View. The firmware-embedded SNMP agent can be used to augment the RAID controller if you are already running an SNMP management application at your site.

MPIO

Multipathing solutions are designed to provide failover through the use of redundant physical path components—adapters, cables, and switches—between the server and storage device under Microsoft environments.

Specifications

	YA-08SAEU4/F4	YA-12SAEU4/F4	YA-16SAEU4/F4
RAID Engine	Intel Xscale i80321 CPU 400Mhz		
Controller #	1		
RAID Levels	0,1,0+1,3,5,6,and JBOD		
Cache Support (Write back)	Up to 1GB of DDR 266 DRAM		
System Type	Rack mountable 2U	Rack mountable 3U	
Host Interface	(Dual Ultra 320 SCSI Channels) or (Dual 4Gb Fiber Channels)		
Disk Interface	SATA II		
Host Transfer Rate	320MB/sec or 4Gb FC		
Disk Channel	8 of SATAII (3Gb)	12 of SATAII (3Gb)	16 of SATAII (3Gb)
LCD Display	2 Lines by 16 characters		
Hot Swap and redundant	Power Supply, Hard Disk, Fan		
Hot Spare	Yes		
Battery Back-Up Module	Optional, Supporting 72 hours battery back-up time		
LAN	Web browser-based RAID manager via build in 10/100 Ethernet port		
Array Management Support	Yes		
Automatic Bad-Sector & Error Recovery	Yes		
Automatic Drive Rebuilds	Yes		
Alarm buzzer and E-mail Notificatio	Yes		
Online Array Roaming	Yes		
Online RAID level Migration	Yes		
Online Capacity Eapansion and RAID Level Migration simultaneously	Yes		
Remote Terminal Configuration	LCD control panel, RS-232 or 10/100 Ethernet		
Operating Systems	OS independent and transparent		
Power Supply	Redundant by Dual 375W.	Redundant by Dual 460W.	
Electrical	AC Voltage 100-240 VAC/AC Frequency 50-60Hz		
Temperature	Operating Temperature : 10 to 35 degree C.		
Relative Humidity	20% to 80% non-condensing		
Dimensions (mm)	446.4(W) x 2U(H) x 478(D)		446.4 (W) x 3U(H) x 465 (D)