



hp storage

hp virtual array 7410



key features and benefits

- **available:** provides high-availability support with hot-swappable, redundant components
- **compatible:** integrates into your management environment with hp array management software
- **efficient:** provides simultaneous heterogeneous disk array sharing for cost-effective management
- **expandable:** allows online storage capacity upgrades with mixed-capacity disk drives
- **connectable:** has four host ports, enabling larger numbers of host and SAN connections
- **manageable:** offers cost-effective remote management capabilities
- **predictable:** spreads data across all available spindles to boost performance, minimize "hot spots"
- **reliable:** delivers greater reliability with RAID 5 double parity and end-to-end data integrity

high-performance, low-cost virtual disk array

The HP StorageWorks Virtual Array 7410 is a low-cost, high-capacity, high-performance, multi-port 2 Gbps Fibre Channel virtual disk array that delivers up to 99.995% uptime. An ideal choice for environments requiring heterogeneous operating systems, the va7410 allows you to mix and match disk drives and add capacity instantly. HP's hot-swap technology reduces planned downtime, and our virtual array architecture simplifies management and administration of the array.

The va7410 has four host ports to enable simplified and more extensive server and storage area network (SAN) connectivity. These ports support either 1 Gb or 2 Gb Fibre Channel devices. With four back-end disk ports and faster array controllers, the va7410 is capable of up to 34,000 cached I/Os per second and up to 330 MBps sequential throughput.

hp va7410



simplicity

technical specifications

native capacity	7.7 TB
external I/O ports	Four 2 Gb or 1 Gb Fibre Channel ports
sustained performance	330 MBps read
memory cache	Up to 2 GB mirrored cache per controller
RAID levels	RAID 1+0 and RAID 5DP (double parity)
maximum disks per array	105
available disk mechanisms	36 GB, 10K rpm; 36 GB, 15K rpm; 73 GB, 10K rpm
compatible operating systems	HP-UX, Windows NT®, Windows® 2000, Linux, Solaris, AIX, HP MPE/iX (secondary release), NetWare (secondary release)
current (maximum)	6.85 A @ 100 Vac; 2.98 A @ 200 Vac (current rating is with two inputs [power cords])
power consumption	670 W
power supply	100 to 240 Vac auto-ranging, 50 to 60 Hz
compatible network management tools	HP OpenView Network Node Manager, HP Tootools, CA Unicenter, IBM Tivoli
dimensions (h x w x d)	5.0 x 17.6 x 26.0 in (12.8 x 44.8 x 66.0 cm)
weight	92.3 lb (41.8 kg) minimum; 103.5 lb (46.9 kg) maximum
temperature range	41 to 95°F (5 to 35°C) (operating) -40 to 158°F (-40 to 70°C) (storage)
humidity range	10 to 80% @ 82°F (28°C) (wet bulb) (operating) 10 to 90% @ 82°F (28°C) (wet bulb) (storage)
acoustic power emissions	8.0 B(A)

hp va7410



availability

product numbers

product number	product name	description
A6267A	Virtual Array 7410	Field-rackable va7410 dual controller, 1024 MB cache
A6267AZ	Virtual Array 7410	Factory-racked va7410 dual controller, 1024 MB cache
A6267AE	Virtual Array 7410	Field-rackable va7410 dual controller, 1024 MB cache; ships non-integrated only
A6268A	Virtual Array 7410	Field-rackable va7410 dual controller, 2048 MB cache
A6268AZ	Virtual Array 7410	Factory-racked va7410 dual controller, 2048 MB cache
A6268AE	Virtual Array 7410	Field-rackable va7410 dual controller, 2048 MB cache; ships non-integrated only
A6183A	VA enclosure	Field-rackable VA family base enclosure
A6183AZ	VA enclosure	Factory-racked VA family base enclosure
A6183AE	VA enclosure	Field-rackable va7410 family base enclosure; ships non-integrated only
A6187B	1024 MB cache for Virtual Array 7410	1024 MB cache (single DIMM)
A6218A	Virtual Array 7410 virtual array processor	va7410 virtual array processor
A6250A	Disk System 2405	ds2405 with dual 2 GBps link control cards, field rackable
A6250AZ	Disk System 2405	ds2405 with dual 2 GBps link control cards, factory racked
A6250AE	Disk System 2405	ds2405 with dual 2 GBps link control cards, ships non-integrated only; order cables separately
C7524A	2m Fibre Channel LC/LC duplex 50/125 M/M	FC cable for ds2405 (must order two per ds2405)
A6192A	36 GB 10K rpm Fibre Channel disk drive	36 GB 10K rpm Fibre Channel disk drive
A6193A	36 GB 15K rpm Fibre Channel disk drive	36 GB 15K rpm Fibre Channel disk drive
A6194A	73 GB 10K rpm Fibre Channel disk drive	73 GB 10K rpm Fibre Channel disk drive



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compatibility

additional information

what's in the box

Array enclosure, two power supplies, two fans, power cords, printed manuals, software CD, manuals on CD, the number and type of disk drives that the customer has chosen, disk slot filler panels

For those customers requiring capacities in excess of 1.1 TB, the solution includes the HP StorageWorks Disk System 2405

accessories

For enterprise products:

Note: the following cables are for use between the ds2405 and va7410 enclosures or between va7410 enclosures and server or SAN components.

Fiber optic cable, LC to LC, M/M, 2m C7524A; fiber optic cable, LC to LC, M/M, 16m (52 ft) C7525A; fiber optic cable, LC to LC, M/M, 50m C7526A; fiber optic cable, LC to LC, M/M, 200m C7527A; fiber optic coupler, SC to SC, F/F C7534A; fiber optic adapter kit (C7529A + C7534A), LC to SC, M/F 2m (79 in) C7540A

safety

IEC 60950 (1991) 2nd Edition, 1992-A1, 1993-A2, 1995-A3, 1996-A4; CSA C22.2 No. 950-95; UL 1950-95

warranty features – hp service and support

2-year, on-site, limited warranty from HP or authorized resellers; same-business-day response during standard business hours and Command View SDM phone-in assistance

warranty and support options

Warranty

- 2-year, 8 x 5, same-day, 4-hour on-site response with Command View SDM phone-in assistance (PIA)

Hardware and mission critical support/warranty upgrade offerings

- 1-, 2-, or 3-year, 4-hour on-site response, 24 x 7 phone-in assistance
- Storage critical support (SCS for VA):
 - 1-, 2-, 3-, 4-, or 5-year, assigned account team, on-site, 6-hour call-to-repair, 6 hours ASE consulting, storage map maintenance
- Business continuity support (BCS):
 - Services that include assigned account team, operational assessment, change management assistance, system monitoring, and preventive assistance with the High Availability Observatory (HAO)

Software support offerings

- 1-, 2-, or 3-year, 8 x 5, same-day support with phone-in assistance
- 1-, 2-, or 3-year, 24 x 7, same-day support with phone-in assistance

for more information

For more information on HP StorageWorks virtual arrays, contact any of our worldwide sales offices or visit our Web site at: www.hp.com/go/diskarrays