

HP StorageWorks Enterprise Virtual Array EVA4000, EVA6000, and EVA8000 family



Powerfully simple

HP StorageWorks EVA4000/6000/8000

The high performance HP Enterprise Virtual Array (EVA) family is designed for departmental and enterprise-class, open-systems environments where IT challenges must be met head on. EVA's array-based virtualization enables a variety of business benefits over traditional array product offerings. These benefits include capacity pooling of tiered storage using high performance disk as well as high capacity/low cost disk, simplified management by

automating and aggregating tasks so you have fewer steps and fewer things to manage and worry about, optimized performance with automatic load balancing, dynamic LUN expansion for capacity when you need it, and simplified configuration that has no equal. The EVA, with its unique virtualization capability, optimizes storage capacity utilization like no other array and offers customers the best maximum investment value in its class.



HP StorageWorks EVA and StorageWorks Software

The value of EVA automation and aggregation—fewer steps, fewer things to manage and fewer things to worry about.

- **Simplified LUN creation:** Enter the name and pick the host, disk group, size, RAID level and controller—a few mouse clicks and you're done.
- **Simplified tiered storage:** The user can direct application data to the appropriate storage media based on its perceived business value, thus minimizing costs and maximizing the use of storage resources.
- **Optimized and automatic load balancing:** Add disks and assign to a disk group. All LUNs in the data group are then automatically striped across the new disks—capacity upgrades are easier and hot spots are automatically eliminated.
- **Managing replication:** The industry's first truly integrated, and simplest to use, remote and local replication GUI allows resources to be used more effectively.
- **Intelligent and easy RAID-5 set up:** Create a RAID-5 LUN. The EVA automatically creates multiple 4+1 RAID sets across the RAID group. Saves time and reduces opportunities for human error.
- **Capacity on demand:** Adding physical disks online has never been easier. Automatically added into chosen disk group. Disks available for data writing almost immediately.
- **Instantly available Snapshots:** For immediate application availability. Three types of snap: Vsnap, Business Copy EVA Snapclones, Cross VRAID Snapshot and Snapclone. With virtual snap (Vsnap) change space doesn't have to be pre-allocated—space is automatically allocated as needed.
- **Dynamic LUN expansion:** LUNs dynamically expandable from 1 GB up to 2 TB (note: not all OSs support this feature).
- **Active hot sparing:** Spare-disk capacity automatically spread across all disks. No idle disks and faster rebuilds after a failed disk.

Summary

- The EVA's virtualization business benefits are state-of-the-art, but they do not require customers to "cross the chasm" and learn a new storage paradigm.
- The EVA is far easier to manage. It automates and aggregates array management processes better than traditional array product offerings—the ones that are repetitive, time consuming or have the potential for human error, so you don't have to worry about storage.
- It aggregates LUNs, disk groups and RAID groups so customers have fewer things to manage.

- The EVA has a single integrated operating system.
- The EVAs provide redundant Fibre Channel (FC) paths from both controllers to all FC disk drives, which many competitors do not do. In addition, the EVA6000s and EVA8000s (except the 2C2D configuration) have backend switches between the controllers and drive enclosures, which improves serviceability.
- The EVA offers Fibre Attached Technology Adapted (FATA) drives as a low-cost storage solution for nearline/near-online applications such as data reference, data archive, and staging fast backups/restores.
- The EVA doesn't have a controller backplane, which is a possible single point of failure for many other arrays.
- It frees up valuable system administrators to work on projects rather than on managing storage or troubleshooting human errors.
- It truly reduces complexity in the data center.

Why HP?

HP is the world leader in non-outsourced network storage services with 65,000 service professionals in 160 countries. Included among these are 5,000 storage specialists and 4,500 Cisco specialists.

HP Support for mission-critical environments—From the new Foundation Service Solution—the base level of service included with each EVA—to Critical Service—maximum support for mission critical environments—HP offers a full spectrum of complimentary HP StorageWorks EVA hardware and software product services.

Industry expertise—The HP solution is based on cost-effective industry-standard technology that can be easily integrated and that scales up with the potential to support millions of users. HP provides comprehensive, end-to-end solutions including hardware, software and services.

Open standards—The HP solution is very modular and is built on open standards. This allows for a high degree of customization to fit your specific needs and requirements.

HP Financial Services—HP Financial Services offers a complete array of leasing and financial life cycle management services around the world. Contact your HP Financial Services representative at 1-888-215-8868 or visit us online at: www.hp.com/hpfinancialservices

For more information

To learn more about HP StorageWorks EVA please contact your HP representative, or visit: <http://www.hp.com/go/storage>



EVA4000



EVA6000



EVA8000

	EVA3000/5000	EVA4000/6000/8000
Cache/cont pair	2 GB / 2 GB	2 GB / 2 GB / 4 GB
Host ports, #/cont pair	4 / 4	4 / 4 / 8
Host ports/speed	2 / 2	2 / 2 / 2
Device ports, # /cont pair	4 / 8	4 / 4 / 8
Device ports/speed	2 / 2	2 / 2 / 2
Back-end switches	no / yes	no / yes / yes
Disk drives	72 GB, 146 GB and 300 GB 10K RPM drives; 72 GB and 146 GB 15K RPM drives; 250 GB FATA drive	72 GB, 146 GB and 300 GB 10K RPM drives; 72 GB and 146 GB 15K RPM drives; 250 GB FATA drive
3-1/2" FC device (shelf/#disks)	3U / 14	3U / 14
FC bulk drives (shelf/#disks)	3U / 14	3U / 14
Device shelves, #	1-4 / 2-18	1-4 / 4-8 / 2-18
SS # disks, min-max	8-56 / 8-240	8-56 / 16-112 / 8-240
Max useable data capacity	16.8 / 35 TB	16.8 TB / 33.6 / 72.0 TB
Read bandwidth	340 / 525 MB/s	360 / 650 / 1300 MB/s
Write bandwidth	145 / 160 MB/s	290 / 500 / 600 MB/s

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