



## HP's *Everything Box* for Storage Consolidation — The StorageWorks XP24000

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### Management Summary

HP recently announced that the *StorageWorks XP24000*, the newest version of its high-end storage array, will begin shipping in July 2007. **This system is significantly faster, greener (i.e., power efficient), more scalable, and more cost-effective than its predecessor, the XP 12000.**<sup>1</sup>

In fact, the XP24000 is massive by any standard. It scales to very large capacities internally while incorporating hundreds of times more capacity from external storage into its virtualization schema. Aggregate performance and robustness are also high. These characteristics allow the XP24000 to function as a pool of storage that can be shared securely by hundreds, potentially thousands, of servers over a SAN. It supports both open systems and mainframe environments.

This system is for enterprises with large storage requirements. Read on for details about what makes the XP24000 HP's most capable storage solution to date.

### StorageWorks XP24000 Advancements

The StorageWorks XP24000 offers several noteworthy advancements.

#### *Faster Performance*

The XP24000 delivers an increase in maximum aggregate performance of 40% over its predecessor. Its internal “engine”, a crossbar switch, has faster processors and 4 Gigabit/second end-to-end connections. This additional performance accommodates more servers without sacrificing application performance. Furthermore, ports connecting to external storage are 2.5 times faster, allowing it to incorporate more external storage into its virtualization umbrella.

#### *Greater External Storage Scalability*

The XP24000 increases the amount of supported external storage to 247 petabytes (PB), up from 32 PB previously. As mentioned, it can virtualize external, third-party storage to create a very large, yet coherent pool for servers to access. Connecting external storage to the XP24000 actually raises its functionality by participating in advanced data management services, such as point-in-time copying, replication, and SAN connectivity. Enterprises can put “old” storage to use in second tier applica

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<sup>1</sup> See **The Clipper Group Navigator** entitled *HP StorageWorks XP12000 Takes Consolidation and Tiered Storage to Another Level*, dated September 17, 2004, and available at <http://www.clipper.com/research/TCG2004078.pdf>.

tions, thereby extending its capabilities and useful life. A virtualization umbrella also simplifies overall management of a storage infrastructure.

### ***Thin Provisioning***

The XP24000 offers thin provisioning, which allocates capacity dynamically as application servers write to it allowing storage capacity to be used more efficiently. Over-provisioning is a big problem in enterprise storage. Database and application administrators tend to request more capacity than they need so applications have room to grow and do not experience downtime from running out of space. However, this buffer is idle capacity. Each time a volume is copied, replicated, or backed up, this idle space is propagated and magnified. The result is a lot of unused disk capacity that consumes electricity, cooling, and floor space on spinning disks. **Over-provisioning is neither economical nor environmentally friendly.**

**Thin provisioning mitigates this problem.** The servers “think” they have big chunks of reserved capacity, but the system is actually allocating from a common pool as needed. It is “just in time” storage. This approach streamlines volumes, saves money, and reduces the environmental footprint – a message that resonates these days.

### ***StorageWorks XP Array Manager***

To provide a stronger set of baseline capabilities for storage administration for the XP24000, HP has bundled several management tools and offers them at a lower price in *XP Array Manager*:

- LUN Configuration and Security Manager XP
- Performance Control XP
- XP Data Shredder
- RAID Manager XP
- XP Disk/Cache Partition

### ***Streamlined Pricing***

HP has switched to a pricing structure for the XP24000 based on *bands* instead of *tiers* for capacity-based offerings. The difference is that bands do not require as many

line items on a quote, simplifying the ordering process.

HP also simplified and reduced pricing for attaching external storage to the XP-24000. Products licensed on raw capacity no longer count as external storage. This should encourage the use of the XP24000 as a virtualization platform.

### **Conclusion**

The StorageWorks XP24000 is HP’s *everything box* for storage consolidation on a SAN. With a performance boost, support for vastly more external storage, and better economics and environmental impact from thin provisioning, HP has a storage array that can fulfill a wide variety of requirements. If your enterprise needs high-end storage, have a close look at the capabilities of the XP24000.



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