QuickSpecs

Overview

HP 3PAR Software Products

HP 3PAR Software offerings include both the operating system and additional software products that run on the HP 3PAR Storage System and on Microsoft Windows®, Linux, or UNIX® hosts.

HP 3PAR Operating System Software
The HP 3PAR Operating System Software (HP 3PAR OS) comes installed on the HP 3PAR Storage System. The HP 3PAR OS includes a collection of advanced internal virtualization capabilities to increase storage efficiency and reduce administration time.

Additional HP 3PAR Software
Additional HP 3PAR Software Additional software products available for HP 3PAR Storage Systems offer enhanced capabilities including thin storage technologies, secure partitioning for virtual private arrays, and virtual and remote copy capabilities.

HP 3PAR Host Software
Host-based software products from HP 3PAR enable the next-generation HP 3PAR platform to address the needs of specific application environments, multipathing, and historical performance and capacity management.

HP 3PAR StoreServ Software Suites
HP 3PAR StoreServ 7000, 7450 and 10000 Storage also provide the opportunity to purchase software bundled into a series of suites designed to be affordable and simple to purchase. Select software titles can also be purchased separately, as indicated below.

What's New
- HP 3PAR Adaptive Flash Cache for HP 3PAR 7200/7400/10400/10800
- HP 3PAR Peer Persistence support extended to Microsoft Windows Servers and Microsoft Windows Hyper-V.

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Operating System Software
(also available as HP 3PAR Operating System Suite on HP 3PAR StoreServ 7000 and 10000 Storage)

Overview

The software foundation of 3PAR® Utility Storage is the HP 3PAR Operating System, which utilizes advanced internal virtualization capabilities to increase administrative efficiency, system utilization, and storage performance.

The HP 3PAR OS includes the following functionality and features:

- HP 3PAR Persistent Ports
- HP 3PAR Web Services API
- HP 3PAR OS Administration Tools
- HP 3PAR Rapid Provisioning
- HP 3PAR Autonomic Groups
- HP 3PAR Scheduler
- HP 3PAR Persistent Cache
- HP 3PAR RAID MP (Multi-Parity)
- HP 3PAR Full Copy
- HP 3PAR Access Guard
- HP 3PAR Thin Copy Reclamation
- HP 3PAR LDAP Support
- HP 3PAR Adaptive Flash Cache

Models

HP 3PAR Inform F200/4x146GB 15K Magazine LTU	TE166B
HP 3PAR Inform F200/4x1TB Nearline Magazine LTU	TE172B
HP 3PAR Inform F200/4x300GB 15K Magazine LTU	TE168B
HP 3PAR Inform F200/4x400GB 10K Magazine LTU	TE170B
HP 3PAR Inform F200/4x450GB 15K Magazine LTU	TE224B
HP 3PAR InForm F200/4x50GB Solid State Drive Magazine LTU	TE281B
HP 3PAR Inform F200/4x600GB 15K Magazine LTU	TE309B
HP 3PAR Inform Suite F200/4x2TB Nearline Magazine LTU	TE368B
HP 3PAR InForm F200/4x100GB SSD Magazine LTU	TE751B
HP 3PAR InForm F200/4x200GB SSD Magazine LTU	TE779B
HP 3PAR InForm F200/4x300GB 15K SAS Magazine LTU	BC523A
HP 3PAR InForm F200/4x450GB 10K SAS Magazine LTU	BC524A
HP 3PAR InForm F200/4x900GB 10K SAS Magazine LTU	BC525A
HP 3PAR InForm F200/4x2TB SAS Magazine LTU	BC526A
HP 3PAR Inform F400/4x146GB 15K Magazine LTU	TE167B
HP 3PAR Inform F400/4x1TB Nearline Magazine LTU	TE173B
HP 3PAR Inform F400/4x300GB 15K Magazine LTU	TE169B
HP 3PAR Inform F400/4x400GB 10K Magazine LTU	TE171B
HP 3PAR Inform F400/4x450GB 15K Magazine LTU	TE225B

Product Specifications - HP 3PAR OS Host Software

HP 3PAR InForm F400/4x50GB Solid State Drive Magazine LTU	TE282B
HP 3PAR Inform F400/4x600GB 15K Magazine LTU	TE310B
HP 3PAR Inform Suite F400/4x2TB Nearline Magazine LTU	TE369B
HP 3PAR InForm F400/4x100GB SSD Magazine LTU	TE752B
HP 3PAR InForm F400/4x200GB SSD Magazine LTU	TE780B
HP 3PAR InForm F400/4x300GB 15K SAS Magazine LTU	BC527A
HP 3PAR InForm F400/4x450GB 10K SAS Magazine LTU	BC528A
HP 3PAR InForm F400/4x900GB 10K SAS Magazine LTU	BC529A
HP 3PAR InForm F400/4x2TB SAS Magazine LTU	BC530A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights

HP 3PAR Access Guard

Access Guard is an HP 3PAR OS feature that delivers user-configurable volume security at logical and physical levels by enabling you to secure hosts and ports to specific virtual volumes.

HP 3PAR Autonomic Groups

HP 3PAR Autonomic Groups is an HP 3PAR OS software feature that brings a new provisioning paradigm to clustered and virtual server environments by building on the same innovation featured by HP 3PAR Rapid Provisioning.

Autonomic Groups is designed to reduce room for human error by eliminating manual repetition of tedious commands, thereby making the provisioning process more reliable. This software feature also simplifies reporting by enabling users to pull boot and data disk utilization statistics from different clusters with just a single command.

In addition, when used together with HP 3PAR Virtual Domains, Autonomic Groups allows multiple independent virtual domains to be grouped as a single logical entity to simplify storage administration while maintaining the integrity of individual virtual domains. For example, backing up an autonomic domain group actually backs up all virtual domains in the group to a single backup server while still maintaining the security and isolation associated with each individual domain.

HP 3PAR Full Copy

Full Copy is an HP 3PAR OS feature that allows you to create point-in-time clones with independent service level parameters. Full Copy offers online operations so that the destination clone can be immediately exported, rapid resynchronizations and thin provisioning-awareness.

HP 3PAR Persistent Ports

HP 3PAR Persistent Ports is a Tier 1 resiliency feature that allows for non-disruptive online software upgrades on HP 3PAR StoreServ Storage systems without relying on multipathing software. This feature, available on all HP 3PAR StoreServ models, brings increased Tier 1 resiliency, across the StoreServ product line including the midrange platform by ensuring that host paths remain online throughout the software upgrade process. The use of standard NPIV (N_Port ID Virtualization)

Product Specifications - HP 3PAR OS Host Software

technology as defined by the Technical Committee T11 in the Fibre Channel -Link Services (FC-LS) specification enables a single host-facing StoreServ port to assume the identity of additional pre-designated partner ports, thus enabling transparent switchover of host path connections. Persistent Port Technology is also designed to work with iSCSI and FcoE connectivity.

Starting from HP 3PAR OS 3.1.3 Persistent Ports also autonomically fails over a front-end controller node port that experiences physical connection loss from a cable pull or a failed switch; this unique capability, for now is available for FC connectivity only.

HP 3PAR Autonomic Rebalance

HP 3PAR Autonomic Rebalance provides the ability to analyze how volumes on the HP 3PAR Storage System are using physical disk space and makes intelligent, autonomic adjustments to ensure optimal volume distribution when new hardware is added to the system. The best practice is to run the Autonomic Rebalance (Also known as tunesys) after new hardware is added to the system.

HP 3PAR Web Services API

HP 3PAR Web Services API delivers a programming interface for implementing durable automation of storage management tasks with HP 3PAR StoreServ Storage systems. Web Services API provides a well-defined application programming interface that customers can use for incorporating the storage infrastructure into their platform for end-to-end automation of their service delivery and management. The Web Services API implementation is based on RESTful Web API service using HTTPS, principles of REST, and data structures represented with JSON (JavaScript Object Notation). The server recognizes HTTP versions 1.0 and 1.1.

HP 3PAR OS Administration Tools

The HP 3PAR Operating System offers industry-leading ease of use through a simple, unified InForm Management Console and an extremely powerful, scriptable InForm Command Line Interface (CLI). Manage your entire utility storage deployment from a single window, including remote replication to disaster recovery sites. The latest version of the InForm Management Console is fully integrated with signature HP 3PAR applications such as HP 3PAR Thin Provisioning, Virtual Copy, Dynamic Optimization, Virtual Domains, and Remote Copy-so everything you need to optimize your storage environment is right at your fingertips. The 3PAR Remote CLI gives you powerful customization capabilities that are simple to configure, eliminating the need for extra tools and consulting. Open administration support is provided via SNMP and the Storage Management Initiative Specification (SMI-S).

HP 3PAR LDAP

Support Native support for lightweight directory access protocol (LDAP) within the HP 3PAR OS delivers centralized user authentication and authorization using a standard protocol for managing access to IT resources. With support for LDAP, you can now integrate HP 3PAR Utility StoreServ Storage with standard, open enterprise directory services. The result is simplified security administration with centralized access control and identity management.

HP 3PAR Persistent Cache

HP 3PAR Persistent Cache is a resiliency feature built into the HP 3PAR OS that allows "always on"

Product Specifications - HP 3PAR OS Host Software

application and virtual server environments to gracefully handle an unplanned controller failure. Persistent Cache eliminates the substantial performance penalties associated with traditional arrays and "write-through" mode so that 3PAR StoreServ Storage Servers can maintain required service levels even in the event of a cache or controller node failure. HP 3PAR Persistent Cache leverages the clustered HP 3PAR Architecture with its unique Mesh-Active design to preserve write-caching by rapidly re-mirroring cache to the other nodes in the cluster in the event of a failure. Persistent Cache is supported on all quad-node and larger HP 3PAR arrays, including StoreServ 7400 and the InServ F400-making 3PAR HP the only vendor to incorporate this industry-leading service level protection capability into midrange as well as high-end arrays.

HP 3PAR RAID MP (Multi-Parity)

HP 3PAR RAID MP (Multi-Parity) introduces Fast RAID 6 technology backed by the accelerated performance and Rapid RAID Rebuild capabilities of the 3PAR ASIC. 3PAR RAID MP is supported on all HP 3PAR StoreServ models and delivers extra RAID protection that prevents data loss as a result of double disk failures. RAID MP delivers this enhanced protection while maintaining performance levels within 15% of RAID 10 and with capacity overheads comparable to popular RAID 5 modes. For this reason, 3PAR RAID MP is ideal for large disk drive configurations-for example, Serial ATA (SATA) drives above 1 TB in capacity.

HP 3PAR Rapid Provisioning

The HP 3PAR OS eliminates array planning by delivering instant, application-tailored provisioning through the fine-grained virtualization of lower-level components. Provisioning is managed intelligently and autonomically. Massively parallel and fine-grained striping of data across internal resources assures high and predictable service levels for all workload types. Service conditions remain high and predictable as the use of the system grows or in the event of a component failure while traditional storage planning, change management, and array-specific professional services are eliminated.

HP 3PAR Scheduler

HP 3PAR Scheduler also helps automate storage management, reduce administration time, and decrease the chance of administrative error. Scheduler does this by giving users full control over creation and deletion of virtual copy snapshots-a process that is now completely automated with HP 3PAR Utility StoreServ Storage. When used in conjunction with Autonomic Groups, HP 3PAR Scheduler automates virtual copy snapshots across multiple boot and data volumes with full write consistency across all these different volumes.

HP 3PAR Thin Copy Reclamation

An industry first, Thin Copy Reclamation keeps your storage as lean and efficient as possible by reclaiming unused space resulting from deleted virtual copy snapshots and remote copy volumes. Thin Copy Reclamation is built on a virtualization mapping engine for space reclamation called HP 3PAR Thin Engine, which is included as part of the HP 3PAR OS.

HP 3PAR Adaptive Flash Cache

Product Specifications - HP 3PAR OS Host Software

Adaptive Flash Cache provides read cache extension by leveraging HP 3PAR first in class virtualization technologies. This functionality allows dedicating a portion of SSDs capacity as an augmentation of the HP 3PAR Array primary cache, reducing application response time for read-intensive I/O workloads. It also improves performance when periodically reading data from a slower tier of HDDs.

Additional 3PAR Software

HP 3PAR OS Additional Software includes the following:

- Thin Suite *
- Virtual Copy
- Remote Copy
- Peer Persistence
- Adaptive Optimization
- Dynamic Optimization
- Priority Optimization
- System Tuner
- Virtual Domains
- Virtual Lock
- Peer Motion
- Online Import
- System Reporter

*These titles are available as part of the HP 3PAR OS Suite on HP 3PAR StoreServ 7000 and 10000 Storage

HP 3PAR Thin Suite

Overview

HP 3PAR Thin Suite is the most comprehensive thin software suite available. With the Thin Suite, virtual and cloud data centers can:

- **Start Thin:** HP 3PAR Thin Provisioning is the most comprehensive thin provisioning software solution available. Since its introduction in 2002, 3PAR Thin Provisioning has become widely considered the gold standard in thin provisioning. It leverages HP 3PAR's dedicate-on-write capabilities to make organizations more efficient and more green, allowing them to purchase only the disk capacity they actually need and only as they actually need it.
- **Get Thin:** With HP 3PAR Thin Conversion, a technology refresh no longer requires a terabyte-for-terabyte replacement, but instead offers the opportunity to eliminate up to 75% of your legacy capacity, simply and rapidly. This savings alone can save up to 60% on the cost of a technology refresh. HP 3PAR Thin Conversion software makes this possible by leveraging the zero-detection capabilities within the HP 3PAR ASIC and Thin Engine - HP 3PAR's unique virtualization mapping engine for space reclamation - to power the simple and rapid conversion of inefficient, "fat" volumes on legacy arrays to more efficient, higher-utilization "thin" volumes on any HP 3PAR Storage System featuring Thin Built In™.
- **Stay Thin:** With 3PAR Thin Persistence, customers can now leverage next-generation space reclamation technology to minimize storage TCO and maintain environmental responsibility targets they have worked so hard to achieve.

Product Specifications - HP 3PAR OS Host Software

The Thin Suite includes the following software:

- Thin Provisioning
- Thin Conversion
- Thin Persistence
- Thin Copy Reclamation
- Thin Deduplication
- Thin Clones

The Thin Suite is offered on all HP 3PAR Storage Systems.

Models HP 3PAR Thin Software Suite 1TB LTU TE923A
NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Thin Provisioning Software

Overview **Start Thin**. HP 3PAR Thin Provisioning is the most comprehensive thin provisioning software solution available. Since its introduction in 2002, HP 3PAR Thin Provisioning has become widely considered the gold standard in thin provisioning. It leverages HP 3PAR's dedicate-on-write capabilities to make organizations more efficient and more green, allowing them to purchase only the disk capacity they actually need and only as they actually need it.

With Thin Provisioning, there is no more up-front capacity allocation. No more dedicating resources for each application. No more paying to house, power, and cool disks that might not be needed for months or years to come, or may never be needed at all.

Models HP 3PAR Thin Provisioning 1TB LTU TE082B
NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights
- HP 3PAR Thin Provisioning is completely automated
- HP 3PAR uses a reservationless, dedicate-on-write approach to thin provisioning that draws and configures capacity in fine-grained increments from a single free space reservoir without pre-dedication of any kind.
- HP 3PAR Thin Provisioning uses an allocation unit size of just 16 KB, so you don't have to worry about small writes consuming megabytes or even gigabytes of capacity.
- HP 3PAR is the only vendor to feature the clustered HP 3PAR Architecture, which uniquely supports thin provisioning by providing massive scalability within a single system so additional capacity can be easily added to fulfill earlier over allocations.
- HP PAR is the only vendor with arrays built from the ground up to support thin provisioning by eliminating the diminished performance and functional limitations that plague bolt-on thin solutions.

HP 3PAR Thin Conversion Software

Overview With HP 3PAR Thin Conversion, a technology refresh no longer requires a terabyte-for-terabyte replacement, but instead offers the opportunity to eliminate up to 75% of your legacy capacity, simply and rapidly. This savings alone can save you up to 60% on the cost of a technology refresh.

With HP 3PAR Thin Conversion, you can quickly shrink your storage footprint, reduce storage TCO, and

Product Specifications - HP 3PAR OS Host Software

meet your Green IT targets. HP 3PAR Thin Conversion software makes this possible by leveraging the zero-detection capabilities within the 3PAR ASIC and Thin Engine- HP 3PAR's unique virtualization mapping engine for space reclamation-to power the simple and rapid conversion of inefficient, "fat" volumes on legacy arrays to more efficient, higher-utilization "thin" volumes on any InServ Storage Server featuring Thin Built In™. Getting thin has never been so easy.

The zero-detection capability built into the HP 3PAR ASIC combined with Thin Conversion software can effectively and rapidly "thin" a heterogeneous datacenter to one-quarter of its original size-or less-while preserving service levels and without impacting production workloads. This means that now a technology is not only more affordable, but it reduces up-front capital costs as well as ongoing operational and environmental costs associated with powering, cooling, and housing your storage-and without requiring special host software or professional services.

Models	HP 3PAR Thin Conversion 1TB LTU	TE248B

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights

- Immediately eliminating storage capacity inefficiencies and permanently reducing disk expenditures
- Reducing SAN ports and storage software fees (physical TB licensing)
- Reducing power, cooling, and floor space costs by eliminating unnecessary drives in the conversion from fat to thin volumes
- Avoiding complex services often required for fat-to-thin volume conversion
- Reducing related storage, system, and DB administrator workloads
- Permitting more application deployments more affordably
- Delivering quicker payback by dramatically compressing the volume migration timeline from months to hours

HP 3PAR Thin Persistence Software

Overview
With the introduction of HP 3PAR Thin Provisioning software in 2002, 3PAR revolutionized data storage by giving customers the ability to meet Green IT goals, reduce capacity purchases, decrease administration time, and address the significant problem of allocated but unused capacity head-on. With HP 3PAR Thin Persistence, HP 3PAR StoreServ Storage customers can now leverage next generation space reclamation technology to minimize storage TCO and maintain environmental responsibility targets they have worked so hard to achieve.

Models	HP 3PAR Thin Persistence 1TB LTU	TE249B

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights

- Eliminating storage capacity inefficiencies resulting from deleted files, when combined with Operating Systems that supports UNMAP (requires also Thin Conversion license).
- Deferring disk expenditures necessary to accommodate new data growth
- Reducing SAN ports and storage software fees (physical TB licensing)
- Reducing power, cooling, and floor space costs by eliminating unnecessary capacity
- Providing a simple, quick, and efficient mechanism for "thinning" volumes
- Permitting more application deployments and data growth with fewer capacity assets
- Speeding reclamation of space in minutes versus days or weeks

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Thin Deduplication Software

Overview   HP 3PAR StoreServ Storage systems employ purpose-built HP 3PAR ASICs at the heart of each controller node that feature efficient, silicon-based mechanisms to drive inline deduplication. This unique implementation relies on built-in hardware capability to assign a unique hash to any incoming write request and leverages the HP 3PAR Thin Provisioning metadata lookup table for fast hash comparisons.

When new I/O requests come in, the signatures of the incoming data are compared to the signatures of the data already stored in the array. When a match is found, the software flags the data for deduplication. The software also leverages the controller node ASICs to perform a bit-to-bit comparison that eliminates the possibility of hash collision. The CPU-intensive job of calculating signatures of incoming data and read verify is offloaded to the hardware assist engines, freeing up processor cycles to deliver advanced data services and service IO requests. This inline deduplication process carries multiple benefits, including increasing capacity efficiency, protecting flash performance, and extending flash media lifespan. Other storage architectures lack the processing power to simultaneously drive inline deduplication and the high performance levels demanded by flash-based media while also offering advanced data services (replication, QoS, federation)

Models   HP 3PAR StoreServ 7000 Series, 7450 Series, 10000 Series

HP 3PAR Thin Clones Software

Overview   HP 3PAR Thin Clones software acts as an extension of Thin Deduplication on HP 3PAR StoreServ 7450 for server virtualization environments, providing host-assisted deduplication that produces non-duplicative VM clones for Microsoft Hyper-V and VMware ESXi. These VM clones are created instantly by leveraging copy offload for VMware VAAI (vStorage APIs for Array Integration) and Hyper ODX (Offloaded Data Transfer) without increasing capacity consumption on the HP 3PAR StoreServ Storage system. Thin Clones software leverages Thin Deduplication technology to update the metadata table without copying data and then relies on its deduplication engine to reduce capacity footprint as new write request come in.

Models   HP 3PAR StoreServ 7000 Series, 7450 Series, 10000 Series

HP 3PAR Virtual Copy Software

Overview   Built on thin copy technology, HP 3PAR Virtual Copy is a reservationless, non-duplicative, copy-on-write software product that allows you to protect and share data from any application, affordably. Snapshots are available on demand, instantly, in read-only and/or read-write form. With Virtual Copy, snapshots are reservationless because capacity is never reserved up-front and non-duplicative since changed data is never duplicated within the snapshot tree.

Coupled with consistency groups and support for hundreds of snapshots per base volume, Virtual Copy efficiency delivers affordable, CDP-like rapid application recovery from multiple points in time. With a single command, you can revert a base volume to any selected snapshot-without impacting other snapshots in the tree. And when you delete a snapshot, this never affects peer snapshots.

Virtual Copy also integrates with HP 3PAR Autonomic Groups and HP 3PAR Scheduler-both features which are built into the HP 3PAR Operating System-to automate the creation and deletion of virtual copy snapshots while giving users fine-grained control over the process. When used in conjunction with Autonomic Groups, Scheduler automates the creation of virtual copy snapshots across multiple

Product Specifications - HP 3PAR OS Host Software

boot and data volumes with full write consistency across all these different volumes. In combining these software capabilities, storage management is automated to reduce administration time and decrease the chance of human error.

Models		
	HP 3PAR Virtual Copy F200/4x2TB Nearline Magazine LTU	TE384B
	HP 3PAR Virtual Copy F200/4x450GB 15K Magazine LTU	TE240B
	HP 3PAR Virtual Copy F200/4x50GB Solid State Drive Magazine LTU	TE297B
	HP 3PAR Virtual Copy F200/4x600GB 15K Magazine LTU	TE325B
	HP 3PAR Virtual Copy F400/4x2TB Nearline Magazine LTU	TE385B
	HP 3PAR Virtual Copy F400/4x450GB 15K Magazine LTU	TE241B
	HP 3PAR Virtual Copy F400/4x50GB Solid State Drive Magazine LTU	TE298B
	HP 3PAR Virtual Copy F400/4x600GB 15K Magazine LTU	TE326B
	HP 3PAR Virtual Copy F200/4x100GB SSD Magazine LTU	TE767B
	HP 3PAR Virtual Copy F400/4x100GB SSD Magazine LTU	TE768B
	HP 3PAR Virtual Copy F200/4x200GB SSD Magazine LTU	TE795B
	HP 3PAR Virtual Copy F400/4x200GB SSD Magazine LTU	TE796B
	HP 3PAR Virtual Copy F200/4x146GB 15K Magazine LTU	TE190B
	HP 3PAR Virtual Copy F200/4x1TB Nearline Magazine LTU	TE196B
	HP 3PAR Virtual Copy F200/4x300GB 15K Magazine LTU	TE192B
	HP 3PAR Virtual Copy F200/4x400GB 10K Magazine LTU	TE194B
	HP 3PAR Virtual Copy F400/4x146GB 15K Magazine LTU	TE191B
	HP 3PAR Virtual Copy F400/4x1TB Nearline Magazine LTU	TE197B
	HP 3PAR Virtual Copy F400/4x300GB 15K Magazine LTU	TE193B
	HP 3PAR Virtual Copy F400/4x400GB 10K Magazine LTU	TE195B
	HP 3PAR Virtual Copy Software 90-day Evaluation LTU	TE080B
	HP 3PAR Virtual Copy F200/4x300GB 15K SAS Magazine LTU	BC619A
	HP 3PAR Virtual Copy F200/4x450GB 10K SAS Magazine LTU	BC620A
	HP 3PAR Virtual Copy F200/4x900GB 10K SAS Magazine LTU	BC621A
	HP 3PAR Virtual Copy F200/4x2TB SAS Magazine LTU	BC622A
	HP 3PAR Virtual Copy F400/4x300GB 15K SAS Magazine LTU	BC623A
	HP 3PAR Virtual Copy F400/4x450GB 10K SAS Magazine LTU	BC624A
	HP 3PAR Virtual Copy F400/4x900GB 10K SAS Magazine LTU	BC625A
	HP 3PAR Virtual Copy F400/4x2TB SAS Magazine LTU	BC626A
	HP 3PAR 10400 Virtual Copy Software Base LTU	BD199A
	HP 3PAR 10400 Virtual Copy Software Magazine LTU	BD210A
	HP 3PAR 10800 Virtual Copy Software Base LTU	BD221A
	HP 3PAR 10800 Virtual Copy Software Magazine LTU	BD232A
	HP 3PAR 10400 Virtual Copy Software 1TB Provisioned LTU	BD186A
	HP 3PAR 10800 Virtual Copy Software 1TB Provisioned LTU	BD187A
	HP 3PAR 7200 Virtual Copy Software Base LTU	BC753A
	HP 3PAR 7200 Virtual Copy Software Drive LTU	BC754A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR 7400 Virtual Copy Software Base LTU	BC781A
HP 3PAR 7400 Virtual Copy Software Drive LTU	BC782A
HP 3PAR 7440c Virtual Copy Base LTU	BD386A
HP 3PAR 7440c Virtual Copy Drive LTU	BD387A
HP 3PAR 7450 Virtual Copy Software Base LTU	BC896A
HP 3PAR 7450 Virtual Copy Software Drive LTU	BC897A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order. (except for BD186A and BD187A)

Product Highlights

- Snapshots available instantly, in read-only and/or read-write form.
- Developer-controlled mySnapshot functionality securely replaces/refreshes selected snapshots to speed development without burdening storage administrators.
- Support for consistency groups assures data integrity across volumes.
- Reservationless snapshots. Fine-grained capacity consumed only for changed data.
- Thin copy-on-writes. Changed data is never duplicated within a snapshot tree.
- Snapshots of snapshots for fast, flexible sharing of data sets without the need for additional base volumes.
- Revert to any snapshot with a single command, at any time.
- 256 read/write and 500 read-only snapshots per virtual volume. Affordable CDP-like rapid application recovery from multiple points in time.
- Thin copy-on-write technology and massive parallelism mean little to no performance impact.
- Freely delete snapshots without affecting peer snapshots.

HP 3PAR Remote Copy Software

Overview

HP 3PAR Remote Copy is a unique replication technology that allows you to protect and share data from any application more simply, efficiently, and affordably. Remote Copy dramatically reduces the cost of remote data replication and DR on several fronts by leveraging HP 3PAR's unique thin copy technologies, enabling the use of both mid-range and high-end arrays, and eliminating the need for professional services. In addition, HP 3PAR is the first storage vendor to offer autonomic DR configuration that enables you to set up and test your entire DR deployment-including multi-site replication using both mid-range and high-end arrays-in just minutes, from a single window.

Models

HP 3PAR Remote Copy 90-day Evaluation LTU	TE081B
HP 3PAR Remote Copy F200/4x2TB Nearline Magazine LTU	TE376B
HP 3PAR Remote Copy F200/4x50GB Solid State Disk Magazine LTU	TE289B
HP 3PAR Remote Copy F400/4x2TB Nearline Magazine LTU	TE377B
HP 3PAR Remote Copy F400/4x50GB Solid State Disk Magazine LTU	TE290B
HP 3PAR Remote Copy F200/4x100GB SSD Magazine LTU	TE759B
HP 3PAR Remote Copy F400/4x100GB SSD Magazine LTU	TE760B
HP 3PAR Remote Copy F200/4x200GB SSD Magazine LTU	TE787B
HP 3PAR Remote Copy F400/4x200GB SSD Magazine LTU	TE788B
HP 3PAR Remote Copy F200/4x146GB 15K Magazine LTU	TE174B
HP 3PAR Remote Copy F200/4x1TB Nearline Magazine LTU	TE180B

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Remote Copy F200/4x300GB 15K Magazine LTU	TE176B
HP 3PAR Remote Copy F200/4x400GB 10K Magazine LTU	TE178B
HP 3PAR Remote Copy F200/4x450GB 15K Magazine LTU	TE232B
HP 3PAR Remote Copy F200/4x600GB 15K Magazine LTU	TE317B
HP 3PAR Remote Copy F400/4x146GB 15K Magazine LTU	TE175B
HP 3PAR Remote Copy F400/4x1TB Nearline Magazine LTU	TE181B
HP 3PAR Remote Copy F400/4x300GB 15K Magazine LTU	TE177B
HP 3PAR Remote Copy F400/4x400GB 10K Magazine LTU	TE179B
HP 3PAR Remote Copy F400/4x450GB 15K Magazine LTU	TE233B
HP 3PAR Remote Copy F400/4x600GB 15K Magazine LTU	TE318B
HP 3PAR Remote Copy F200/4x300GB 15K SAS Magazine LTU	BC579A
HP 3PAR Remote Copy F200/4x450GB 10K SAS Magazine LTU	BC580A
HP 3PAR Remote Copy F200/4x900GB 10K SAS Magazine LTU	BC581A
HP 3PAR Remote Copy F200/4x2TB SAS Magazine LTU	BC582A
HP 3PAR Remote Copy F400/4x300GB 15K SAS Magazine LTU	BC583A
HP 3PAR Remote Copy F400/4x450GB 10K SAS Magazine LTU	BC584A
HP 3PAR Remote Copy F400/4x900GB 10K SAS Magazine LTU	BC585A
HP 3PAR Remote Copy F400/4x2TB SAS Magazine LTU	BC586A
HP 3PAR 10400 Remote Copy Software Base LTU	BD200A
HP 3PAR 10400 Remote Copy Software Magazine LTU	BD211A
HP 3PAR 10800 Remote Copy Software Base LTU	BD222A
HP 3PAR 10800 Remote Copy Software Magazine LTU	BD233A
HP 3PAR 10400 Remote Copy Software 1TB Provisioned LTU	BD184A
HP 3PAR 10800 Remote Copy Software 1TB Provisioned LTU	BD185A
HP 3PAR 7200 Remote Copy Software Base LTU	BC755A
HP 3PAR 7200 Remote Copy Software Drive LTU	BC756A
HP 3PAR 7400 Remote Copy Software Base LTU	BC783A
HP 3PAR 7400 Remote Copy Software Drive LTU	BC784A
HP 3PAR 7440c Remote Copy Base LTU	BD388A
HP 3PAR 7440c Remote Copy Drive LTU	BD389A
HP 3PAR 7450 Remote Copy Software Base LTU	BC894A
HP 3PAR 7450 Remote Copy Software Drive LTU	BC895A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights

- **Autonomic Configuration**: With the HP 3PAR ® Management Console, even multi-site DR can be set up and tested in just minutes, and from a single window. Built-in, autonomic configuration capabilities unique to 3PAR Remote Copy enable DR to automatically and intelligently configure itself. With just a few clicks, you can set up and test remote replication with HP 3PAR StoreServ, or a combination of arrays at multiple sites.
- **Multi-Protocol Support**: With Native IP as well as Fibre Channel (FC) support, 3PAR Remote

Product Specifications - HP 3PAR OS Host Software

Copy delivers out-of-the-box connectivity over your IP network, enabling you to replicate data more cost-effectively by leveraging your existing infrastructure. Achieve robust DR without the expensive converters and management of a separate, special-purpose infrastructure.

- **Host-Independent Replication**: HP 3PAR Remote Copy is a host-independent, array-based data mirroring solution that boosts performance by offloading host servers of replication tasks. HP 3PAR Virtual Volumes (VVs) are mirrored from one HP 3PAR array to another over variable distances using the mode of operation that best fits your needs.
- **Flexible, Modular Architecture**: HP 3PAR Remote Copy is supported on all StoreServ arrays (both high-end and mid-range), all of which are scalable to meet your precise requirements. This flexibility gives you the ability to implement right-sized systems that meet the unique needs of each location. No more purchasing and managing high-end arrays even in DR configurations where smaller mid-range arrays could suffice. HP 3PAR Remote Copy also allows you to configure remote mirrors with different RAID properties from their source volumes so you can more precisely tailor protection levels and cost.
- **Balanced Performance**: HP 3PAR Remote Copy's line-trunking capability simplifies data transmission by making the most efficient use of all configured network links. Data transfers are autonomically balanced across all links, thus avoiding bottlenecks. Line-trunking also increases availability by automatically rebalancing the load in case of a link failure.
- **Long Distance Replication with Zero Data Loss**: HP 3PAR Remote Copy offers a unique Synchronous Long Distance mode that allows you to meet low RTOs and zero-data loss RPOs with complete distance flexibility while saving on hardware
- **Thin Provisioning Awareness**: HP 3PAR Remote Copy is "thin provisioning-aware", so target volumes provide the same cost and ease-of-use benefits as thin source volumes. With the combination of HP 3PAR Thin Provisioning and HP 3PAR Remote Copy, both primary and remote sites can share in the benefits of allocating volumes just once while consuming only necessary physical capacity. The result is unprecedented efficiency in data replication.

HP 3PAR Peer Persistence

Overview HP 3PAR Peer Persistence software allows companies to federate their 3PAR StoreServ Storage systems across geographically separated data centers. This inter-site federation of storage allows customers to use their data centers more effectively by allowing them to move applications from one site to another as per their business need, and more importantly, without any application downtime. Peer Persistence leverages the robust high availability solutions already available on HP 3PAR StoreServ systems, and extends it even further by enabling a peer relationship between two 3PAR StoreServ Storage systems located at geographically separated sites. Peer Persistence enables failover/failback between two sites/data centers to be transparent to hosts and without any disruption to applications running on them. Peer Persistence is deployed with Remote Copy without the need for any additional hardware or appliance

Models

HP 3PAR Peer Persistence Software F200/4x146GB LFF 15K FC Magazine LTU	BC831A
HP 3PAR Peer Persistence Software F400/4x146GB LFF 15K FC Magazine LTU	BC832A
HP 3PAR Peer Persistence Software F200/4x300GB 15K Magazine LTU	BC833A
HP 3PAR Peer Persistence Software F400/4x300GB 15K Magazine LTU	BC834A
HP 3PAR Peer Persistence Software F200/4x400GB LFF 10K FC Magazine LTU	BC835A
HP 3PAR Peer Persistence Software F400/4x400GB LFF 10K FC Magazine LTU	BC836A
HP 3PAR Peer Persistence Software F200/4x1TB NL Magazine LTU	BC837A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Peer Persistence Software F400/4x1TB NL Magazine LTU	BC838A
HP 3PAR Peer Persistence Software F200/4x450GB LFF 15K FC Magazine LTU	BC839A
HP 3PAR Peer Persistence Software F400/4x450GB LFF 15K FC Magazine LTU	BC840A
HP 3PAR Peer Persistence Software F200/4x50GB LFF SSD Magazine LTU	BC841A
HP 3PAR Peer Persistence Software F400/4x50GB LFF SSD Magazine LTU	BC842A
HP 3PAR Peer Persistence Software F200/4x600GB 15K Magazine LTU	BC843A
HP 3PAR Peer Persistence Software F400/4x600GB 15K Magazine LTU	BC844A
HP 3PAR Peer Persistence Software F200/4x2TB NL Magazine LTU	BC845A
HP 3PAR Peer Persistence Software F400/4x2TB NL Magazine LTU	BC846A
HP 3PAR Peer Persistence Software F200/4x100GB SSD Magazine LTU	BC847A
HP 3PAR Peer Persistence Software F400/4x100GB SSD Magazine LTU	BC848A
HP 3PAR Peer Persistence Software F200/4x200GB SSD Magazine LTU	BC849A
HP 3PAR Peer Persistence Software F400/4x200GB SSD Magazine LTU	BC850A
HP 3PAR Peer Persistence Software F200 4x300GB SFF 15K SAS Magazine LTU	BC806A
HP 3PAR Peer Persistence Software F200 4x450GB SFF 15K SAS Magazine LTU	BC807A
HP 3PAR Peer Persistence Software F200 4x900GB SFF 15K SAS Magazine LTU	BC808A
HP 3PAR Peer Persistence Software F200 4x2TB LFF 7.2K SAS Magazine LTU	BC809A
HP 3PAR Peer Persistence Software F400 4x300GB SFF 15K SAS Magazine LTU	BC810A
HP 3PAR Peer Persistence Software F400 4x450GB SFF 15K SAS Magazine LTU	BC811A
HP 3PAR Peer Persistence Software F400 4x900GB SFF 15K SAS Magazine LTU	BC812A
HP 3PAR Peer Persistence Software F400 4x2TB LFF 7.2K SAS Magazine LTU	BC813A
HP 3PAR 10400 Peer Persistence Software Base LTU	BD204A
HP 3PAR 10400 Peer Persistence Software Magazine LTU	BD215A
HP 3PAR 10800 Peer Persistence Software Base LTU	BD226A
HP 3PAR 10800 Peer Persistence Software Magazine LTU	BD237A
HP 3PAR 10800 Peer Persistence Software 1TB Provisioned LTU	BD189A
HP 3PAR 7200 Peer Persistence Software Base LTU	BC800A
HP 3PAR 7200 Peer Persistence Software Drive LTU	BC801A
HP 3PAR 7400 Peer Persistence Software Base LTU	BC802A
HP 3PAR 7400 Peer Persistence Software Drive LTU	BC803A
HP 3PAR 7440c Peer Persistence Base LTU	BD400A
HP 3PAR 7440c Peer Persistence Drive LTU	BD401A
HP 3PAR 7450 Peer Persistence Software Base LTU	BC898A
HP 3PAR 7450 Peer Persistence Software Drive LTU	BC899A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Adaptive Optimization

Overview   HP 3PAR Adaptive Optimization Software gives enterprise and cloud datacenters the ability to

Product Specifications - HP 3PAR OS Host Software

optimize service levels autonomically, on a large scale, and for a lower total cost than any other solution available today.

Adaptive Optimization takes a fine-grained approach to autonomic storage tiering that optimizes service levels by pairing data at the sub-volume level with the most cost-efficient resource capable of meeting its particular service level requirement. Policy-driven, granular data movement takes place autonomically, on an ongoing basis-so the right Quality of Service (QoS) is delivered to the right data at the right time, at all times.

Adaptive Optimization is also included in the Optimization Suite on HP 3PAR StoreServ 10000 Storage Systems and in the Data Optimization Software Suite v2 on HP 3PAR StoreServ 7000 and 7450 Storage.

Models		
	HP 3PAR Adaptive Optimization F200/4x1TB Nearline Magazine LTU	TE352B
	HP 3PAR Adaptive Optimization F200/4x50GB Solid State Drive Magazine LTU	TE360B
	HP 3PAR Adaptive Optimization F400/4x1TB Nearline Magazine LTU	TE353B
	HP 3PAR Adaptive Optimization F400/4x50GB Solid State Drive Magazine LTU	TE361B
	HP 3PAR Adaptive Optimization F200/4x100GB SSD LTU	TE807B
	HP 3PAR Adaptive Optimization F400/4x100GB SSD LTU	TE808B
	HP 3PAR Adaptive Optimization F200/4x200GB SSD LTU	TE811B
	HP 3PAR Adaptive Optimization F400/4x200GB SSD LTU	TE812B
	HP 3PAR Adaptive Optimization 90-day Evaluation LTU	TE337B
	HP 3PAR Adaptive Optimization F200/4x146GB 15K Magazine LTU	TE340B
	HP 3PAR Adaptive Optimization F200/4x300GB 15K Magazine LTU	TE344B
	HP 3PAR Adaptive Optimization F200/4x400GB 10K Magazine LTU	TE348B
	HP 3PAR Adaptive Optimization F200/4x450GB 15K Magazine LTU	TE356B
	HP 3PAR Adaptive Optimization F200/4x600GB 15K Magazine LTU	TE364B
	HP 3PAR Adaptive Optimization F400/4x146GB 15K Magazine LTU	TE341B
	HP 3PAR Adaptive Optimization F400/4x300GB 15K Magazine LTU	TE345B
	HP 3PAR Adaptive Optimization F400/4x400GB 10K Magazine LTU	TE349B
	HP 3PAR Adaptive Optimization F400/4x450GB 15K Magazine LTU	TE357B
	HP 3PAR Adaptive Optimization F400/4x600GB 15K Magazine LTU	TE365B
	HP 3PAR Adaptive Optimization F200/4x300GB 15K SAS Magazine LTU	BC475A
	HP 3PAR Adaptive Optimization F200/4x450GB 10K SAS Magazine LTU	BC476A
	HP 3PAR Adaptive Optimization F200/4x900GB 10K SAS Magazine LTU	BC477A
	HP 3PAR Adaptive Optimization F200/4x2TB SAS Magazine LTU	BC478A
	HP 3PAR Adaptive Optimization F400/4x300GB 15K SAS Magazine LTU	BC479A
	HP 3PAR Adaptive Optimization F400/4x450GB 10K SAS Magazine LTU	BC480A
	HP 3PAR Adaptive Optimization F400/4x900GB 10K SAS Magazine LTU	BC481A
	HP 3PAR Adaptive Optimization F400/4x2TB SAS Magazine LTU	BC482A
	HP 3PAR 10400 Adaptive Optimization Software Base LTU	BD197A
	HP 3PAR 10400 Adaptive Optimization Software Magazine LTU	BD208A
	HP 3PAR 10800 Adaptive Optimization Software Base LTU	BD219A
	HP 3PAR 10800 Adaptive Optimization Software Magazine LTU	BD230A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR 7200 Adaptive Optimization Software Base LTU	BC759A
HP 3PAR 7200 Adaptive Optimization Software Drive LTU	BC760A
HP 3PAR 7400 Adaptive Optimization Software Base LTU	BC787A
HP 3PAR 7400 Adaptive Optimization Software Drive LTU	BC788A
HP 3PAR 7440c Adaptive Optimization Base LTU	BD392A
HP 3PAR 7440c Adaptive Optimization Drive LTU	BD393A
HP 3PAR 7450 Adaptive Optimization Software Base LTU	BC902A
HP 3PAR 7450 Adaptive Optimization Software Drive LTU	BC903A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights

- **Reduce Cost by**:
  - Delivering sub-volume level, bi-directional data optimization.
  - Enabling broad deployments with application-specific controls.
- **Gain Agility by**:
  - Offering application prioritization modes with QoS gradients.
  - Autonomically delivering policy-driven data optimization.
- **Minimize Risk by**:
  - Leveraging a proven, fine-grained data movement engine.
  - Controlling data movement timing.

HP 3PAR Dynamic Optimization

Overview

HP 3PAR Dynamic Optimization is an autonomic storage tiering tool that give your organization the ability to react quickly to changing application and infrastructure requirements. Used together, these unique 3PAR utilities alleviate the problem of costly and time-consuming quality of service (QoS) level optimization-even in the largest and most demanding environments.

Dynamic Optimization is also included in the Optimization Suite on HP 3PAR StoreServ 10000 Storage Systems and in the Data Optimization Software Suite v2 on HP 3PAR StoreServ 7000 and 7450 Storage.

Model

HP 3PAR Dynamic Optimization F200/4x146GB 15K Magazine LTU	TE198B
HP 3PAR Dynamic Optimization F200/4x1TB 10K Magazine LTU	TE204B
HP 3PAR Dynamic Optimization F200/4x2TB Nearline Magazine LTU	TE372B
HP 3PAR Dynamic Optimization F200/4x300GB 15K Magazine LTU	TE200B
HP 3PAR Dynamic Optimization F200/4x400GB 10K Magazine LTU	TE202B
HP 3PAR Dynamic Optimization F200/4x450GB 15K Magazine LTU	TE228B
HP 3PAR Dynamic Optimization F200/4x50GB Solid State Drive Magazine LTU	TE285B
HP 3PAR Dynamic Optimization F200/4x600GB 15K Magazine LTU	TE313B
HP 3PAR Dynamic Optimization F400/4x146GB 15K Magazine LTU	TE199B
HP 3PAR Dynamic Optimization F400/4x1TB 10K Magazine LTU	TE205B
HP 3PAR Dynamic Optimization F400/4x2TB Nearline Magazine LTU	TE373B
HP 3PAR Dynamic Optimization F400/4x300GB 15K Magazine LTU	TE201B

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Dynamic Optimization F400/4x400GB 10K Magazine LTU	TE203B
HP 3PAR Dynamic Optimization F400/4x450GB 15K Magazine LTU	TE229B
HP 3PAR Dynamic Optimization F400/4x50GB Solid State Drive Magazine LTU	TE286B
HP 3PAR Dynamic Optimization F400/4x600GB 15K Magazine LTU	TE314B
HP 3PAR Dynamic Optimization F200/4x100GB SSD Magazine LTU	TE755B
HP 3PAR Dynamic Optimization F400/4x100GB SSD Magazine LTU	TE756B
HP 3PAR Dynamic Optimization F200/4x200GB SSD Magazine LTU	TE783B
HP 3PAR Dynamic Optimization F400/4x200GB SSD Magazine LTU	TE784B
HP 3PAR Dynamic Optimization 90-day Evaluation LTU	TE092B
HP 3PAR Dynamic Optimization 90-day Evaluation LTU	TE092B
HP 3PAR Dynamic Optimization F200/4x300GB 15K SAS Magazine LTU	BC499A
HP 3PAR Dynamic Optimization F200/4x450GB 10K SAS Magazine LTU	BC500A
HP 3PAR Dynamic Optimization F200/4x900GB 10K SAS Magazine LTU	BC501A
HP 3PAR Dynamic Optimization F200/4x2TB SAS Magazine LTU	BC502A
HP 3PAR Dynamic Optimization F400/4x300GB 15K SAS Magazine LTU	BC503A
HP 3PAR Dynamic Optimization F400/4x450GB 10K SAS Magazine LTU	BC504A
HP 3PAR Dynamic Optimization F400/4x900GB 10K SAS Magazine LTU	BC505A
HP 3PAR Dynamic Optimization F400/4x2TB SAS Magazine LTU	BC506A
HP 3PAR 10400 Dynamic Optimization Software Base LTU	BD198A
HP 3PAR 10400 Dynamic Optimization Software Magazine LTU	BD209A
HP 3PAR 10800 Dynamic Optimization Software Base LTU	BD220A
HP 3PAR 10800 Dynamic Optimization Software Magazine LTU	BD231A
HP 3PAR 7200 Dynamic Optimization Software Base LTU	BC757A
HP 3PAR 7200 Dynamic Optimization Software Drive LTU	BC758A
HP 3PAR 7400 Dynamic Optimization Software Base LTU	BC785A
HP 3PAR 7400 Dynamic Optimization Software Drive LTU	BC786A
HP 3PAR 7440c Dynamic Optimization Base LTU	BD390A
HP 3PAR 7440c Dynamic Optimization Drive LTU	BD391A
HP 3PAR 7450 Dynamic Optimization Software Base LTU	BC904A
HP 3PAR 7450 Dynamic Optimization Software Drive LTU	BC905A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights   **Dynamic Optimization**:

- Autonomically applies the right storage resources to the right volume at the right time without scheduling, planning, or impacting application performance.
- Eliminates the cost of over-provisioning to accommodate usage spikes and manual migration of data to lower-cost storage resources.
- Enables service level change orders on demand.
- Aligns appropriate storage resources as needed with the changing value of data.
- Autonomically, intelligently and non-disruptively rebalances entire system with a single

Product Specifications - HP 3PAR OS Host Software

button.
- Allows for large-scale performance optimizations after adding new resources to the system or moving a large number of volumes between tiers.

HP 3PAR System Tuner

Overview

Because maintaining good balance is critical to high and predictable performance levels, the HP 3PAR Operating System autonomically distributes volumes widely and evenly across all available StoreServ Storage Systems. 3PAR System Tuner builds on this already well-balanced system to ensure optimal performance over time-even as your system grows and you bring new applications online.

With System Tuner, your StoreServ arrays remain at their peak performance, no matter what. System Tuner autonomically detects and eliminates hotspots and bottlenecks without disruption to applications, impact to service levels, and changes to pre-existing service level characteristics such as RAID type. Your storage performance remains optimized over time, and you don't even have to think about it.

System Tuner is included in the Optimization Suite on HP 3PAR StoreServ 10000 Storage Systems and in the new HP 3PAR OS Suite. It is offered as a standalone software feature on HP 3PAR T and F-Class Storage Systems.

Models

HP 3PAR System Tuner F200/4x146GB 15K Magazine LTU	TE182B
HP 3PAR System Tuner F200/4x1TB Nearline Magazine LTU	TE188B
HP 3PAR System Tuner F200/4x2TB Nearline Magazine LTU	TE380B
HP 3PAR System Tuner F200/4x300GB 15K Magazine LTU	TE184B
HP 3PAR System Tuner F200/4x400GB 10K Magazine LTU	TE186B
HP 3PAR System Tuner F200/4x450GB 15K Magazine LTU	TE236B
HP 3PAR System Tuner F200/4x50GB Solid State Drive Magazine LTU	TE293B
HP 3PAR System Tuner F200/4x600GB 15K Magazine LTU	TE321B
HP 3PAR System Tuner F400/4x146GB 15K Magazine LTU	TE183B
HP 3PAR System Tuner F400/4x1TB Nearline Magazine LTU	TE189B
HP 3PAR System Tuner F400/4x2TB Nearline Magazine LTU	TE381B
HP 3PAR System Tuner F400/4x300GB 15K Magazine LTU	TE185B
HP 3PAR System Tuner F400/4x400GB 10K Magazine LTU	TE187B
HP 3PAR System Tuner F400/4x450GB 15K Magazine LTU	TE237B
HP 3PAR System Tuner F400/4x50GB Solid State Drive Magazine LTU	TE294B
HP 3PAR System Tuner F400/4x600GB 15K Magazine LTU	TE322B
HP 3PAR System Tuner F200/4x100GB SSD Magazine LTU	TE763B
HP 3PAR System Tuner F400/4x100GB SSD Magazine LTU	TE764B
HP 3PAR System Tuner F200/4x200GB SSD Magazine LTU	TE791B
HP 3PAR System Tuner F400/4x200GB SSD Magazine LTU	TE792B
HP 3PAR System Tuner 90-day Evaluation LTU	TE084B
HP 3PAR System Tuner F200/4x300GB 15K SAS Magazine LTU	BC603A
HP 3PAR System Tuner F200/4x450GB 10K SAS Magazine LTU	BC604A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR System Tuner F200/4x900GB 10K SAS Magazine LTU	BC605A
HP 3PAR System Tuner F200/4x2TB SAS Magazine LTU	BC606A
HP 3PAR System Tuner F400/4x300GB 15K SAS Magazine LTU	BC607A
HP 3PAR System Tuner F400/4x450GB 10K SAS Magazine LTU	BC608A
HP 3PAR System Tuner F400/4x900GB 10K SAS Magazine LTU	BC609A
HP 3PAR System Tuner F400/4x2TB SAS Magazine LTU	BC610A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Virtual Domains

Overview   HP 3PAR Virtual Domains is virtual machine software that delivers secure access and robust storage services for different applications and user groups, also known as virtual private arrays. By providing secure, administrative segregation of users and hosts within a consolidated, massively parallel HP 3PAR StoreServ, Virtual Domains allows individual user groups and applications to affordably achieve greater storage service levels (performance, availability, and functionality) than previously possible.

HP 3PAR Virtual Domains is ideal for enterprises or service providers looking to leverage the benefits of consolidation and deploy a purpose-built infrastructure for their private or public cloud.

Models	
HP 3PAR Virtual Domains F200/4x146GB 15K Magazine LTU	TE206B
HP 3PAR Virtual Domains F200/4x1TB 10K Magazine LTU	TE212B
HP 3PAR Virtual Domains F200/4x2TB Nearline Magazine LTU	TE388B
HP 3PAR Virtual Domains F200/4x300GB 15K Magazine LTU	TE208B
HP 3PAR Virtual Domains F200/4x400GB 10K Magazine LTU	TE210B
HP 3PAR Virtual Domains F200/4x450GB 15K Magazine LTU	TE244B
HP 3PAR Virtual Domains F200/4x50GB Solid State Drive Magazine LTU	TE301B
HP 3PAR Virtual Domains F200/4x600GB 15K Magazine LTU	TE329B
HP 3PAR Virtual Domains F400/4x146GB 15K Magazine LTU	TE207B
HP 3PAR Virtual Domains F400/4x1TB 10K Magazine LTU	TE213B
HP 3PAR Virtual Domains F400/4x2TB Nearline Magazine LTU	TE389B
HP 3PAR Virtual Domains F400/4x300GB 15K Magazine LTU	TE209B
HP 3PAR Virtual Domains F400/4x400GB 10K Magazine LTU	TE211B
HP 3PAR Virtual Domains F400/4x450GB 15K Magazine LTU	TE245B
HP 3PAR Virtual Domains F400/4x50GB Solid State Drive Magazine LTU	TE302B
HP 3PAR Virtual Domains F400/4x600GB 15K Magazine LTU	TE330B
HP 3PAR Virtual Domain F200/4x100GB SSD Magazine LTU	TE771B
HP 3PAR Virtual Domain F400/4x100GB SSD Magazine LTU	TE772B
HP 3PAR Virtual Domain F200/4x200GB SSD Magazine LTU	TE799B
HP 3PAR Virtual Domain F400/4x200GB SSD Magazine LTU	TE800B
HP 3PAR Virtual Domains 90-day Evaluation LTU	TE094B
HP 3PAR Virtual Domains 90-day Evaluation LTU	TE094B
HP 3PAR Virtual Domain F200/4x300GB 15K SAS Magazine LTU	BC643A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Virtual Domain F200/4x450GB 10K SAS Magazine LTU	BC644A
HP 3PAR Virtual Domain F200/4x900GB 10K SAS Magazine LTU	BC645A
HP 3PAR Virtual Domain F200/4x2TB SAS Magazine LTU	BC646A
HP 3PAR Virtual Domain F400/4x300GB 15K SAS Magazine LTU	BC647A
HP 3PAR Virtual Domain F400/4x450GB 10K SAS Magazine LTU	BC648A
HP 3PAR Virtual Domain F400/4x900GB 10K SAS Magazine LTU	BC649A
HP 3PAR Virtual Domain F400/4x2TB SAS Magazine LTU	BC650A
HP 3PAR 10400 Virtual Domain Software Base LTU	BD202A
HP 3PAR 10400 Virtual Domain Software Magazine LTU	BD213A
HP 3PAR 10800 Virtual Domain Software Base LTU	BD224A
HP 3PAR 10800 Virtual Domain Software Magazine LTU	BD235A
HP 3PAR 7200 Virtual Domains Software Base LTU	BC763A
HP 3PAR 7200 Virtual Domains Software Drive LTU	BC764A
HP 3PAR 7400 Virtual Domains Software Base LTU	BC791A
HP 3PAR 7400 Virtual Domains Software Drive LTU	BC792A
HP 3PAR 7440c Virtual Domains Base LTU	BD396A
HP 3PAR 7440c Virtual Domains Drive LTU	BD397A
HP 3PAR 7450 Virtual Domain Software Base LTU	BC910A
HP 3PAR 7450 Virtual Domain Software Drive LTU	BC911A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Product Highlights

- Provides secure, isolated storage (virtual private arrays) to multiple applications, departments, and customers
- Delivers the robust service levels available from a wide-striped, massively parallel array without sacrificing security
- Retains the economic benefits of a virtualized storage infrastructure and storage consolidation
- Enables users or departments to securely and independently administer their own individual virtual private arrays
- Integrates fully with all HP 3PAR OS software products and features including 3PAR Remote Copy, System Reporter, LDAP support, and Autonomic Groups

HP 3PAR Virtual Lock Software

Overview

The need for secure data retention is a fact of doing business in the information age. HP 3PAR Virtual Lock gives you an efficient and cost-effective way to comply with internal governance and provides a foundation for performing electronic discovery (eDiscovery).

HP 3PAR Virtual Lock prevents deletion of virtual volumes (including thin volumes created with HP 3PAR Thin Provisioning software) and volume copies (such as those created with HP 3PAR Virtual Copy or HP 3PAR Full Copy software) for a specified period of time. Applying a user-configurable retention period, Virtual Lock secures volumes and copies so they cannot be deleted, even by a HP 3PAR Store

Product Specifications - HP 3PAR OS Host Software

Serv user with the highest level privileges.

When coupled with reservationless, non-duplicative, read-only virtual copies (snapshots), Virtual Lock enables you to retain frozen, point-in-time copies of your data to assist internal data retention and simplify compliance with internal governance procedures.

Models		
	HP 3PAR Virtual Lock F200/4x146GB 15K Magazine LTU	TE261B
	HP 3PAR Virtual Lock F200/4x1TB Nearline Magazine LTU	TE273B
	HP 3PAR Virtual Lock F200/4x2TB Nearline Magazine LTU	TE392B
	HP 3PAR Virtual Lock F200/4x300GB 15K Magazine LTU	TE265B
	HP 3PAR Virtual Lock F200/4x400GB 10K Magazine LTU	TE269B
	HP 3PAR Virtual Lock F200/4x450GB 15K Magazine LTU	TE277B
	HP 3PAR Virtual Lock F200/4x50GB Solid State Drive Magazine LTU	TE305B
	HP 3PAR Virtual Lock F200/4x600GB 15K Magazine LTU	TE333B
	HP 3PAR Virtual Lock F400/4x146GB 15K Magazine LTU	TE262B
	HP 3PAR Virtual Lock F400/4x1TB Nearline Magazine LTU	TE274B
	HP 3PAR Virtual Lock F400/4x2TB Nearline Magazine LTU	TE393B
	HP 3PAR Virtual Lock F400/4x300GB 15K Magazine LTU	TE266B
	HP 3PAR Virtual Lock F400/4x400GB 10K Magazine LTU	TE270B
	HP 3PAR Virtual Lock F400/4x450GB 15K Magazine LTU	TE278B
	HP 3PAR Virtual Lock F400/4x50GB Solid State Drive Magazine LTU	TE306B
	HP 3PAR Virtual Lock F400/4x600GB 15K Magazine LTU	TE334B
	HP 3PAR Virtual Lock F200/4x100GB SSD Magazine LTU	TE775B
	HP 3PAR Virtual Lock F400/4x100GB SSD Magazine LTU	TE776B
	HP 3PAR Virtual Lock F200/4x200GB SSD Magazine LTU	TE803B
	HP 3PAR Virtual Lock F400/4x200GB SSD Magazine LTU	TE804B
	HP 3PAR Virtual Lock 90-day Evaluation LTU	TE258B
	HP 3PAR Virtual Lock F200/4x300GB 15K SAS Magazine LTU	BC667A
	HP 3PAR Virtual Lock F200/4x450GB 10K SAS Magazine LTU	BC668A
	HP 3PAR Virtual Lock F200/4x900GB 10K SAS Magazine LTU	BC669A
	HP 3PAR Virtual Lock F200/4x2TB SAS Magazine LTU	BC670A
	HP 3PAR Virtual Lock F400/4x300GB 15K SAS Magazine LTU	BC671A
	HP 3PAR Virtual Lock F400/4x450GB 10K SAS Magazine LTU	BC672A
	HP 3PAR Virtual Lock F400/4x900GB 10K SAS Magazine LTU	BC673A
	HP 3PAR Virtual Lock F400/4x2TB SAS Magazine LTU	BC674A
	HP 3PAR 10400 Virtual Lock Software Base LTU	BD203A
	HP 3PAR 10400 Virtual Lock Software Magazine LTU	BD214A
	HP 3PAR 10800 Virtual Lock Software Base LTU	BD225A
	HP 3PAR 10800 Virtual Lock Software Magazine LTU	BD236A
	HP 3PAR 7200 Virtual Lock Software Base LTU	BC765A
	HP 3PAR 7200 Virtual Lock Software Drive LTU	BC766A
	HP 3PAR 7400 Virtual Lock Software Base LTU	BC793A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR 7400 Virtual Lock Software Drive LTU	BC794A
HP 3PAR 7440c Virtual Lock Base LTU	BD398A
HP 3PAR 7440c Virtual Lock Drive LTU	BD399A
HP 3PAR 7450 Virtual Lock Software Base LTU	BC912A
HP 3PAR 7450 Virtual Lock Software Drive LTU	BC913A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Peer Motion

Overview
HP 3PAR Peer Motion Software is the first non-disruptive, do-it-yourself data migration tool for enterprise Storage Area Networks. With Peer Motion, HP 3PAR StoreServ Storage System customers can load balance I/O workloads across systems at will, perform technology refresh seamlessly, cost-optimize asset lifecycle management, and lower technology refresh capital expenditure. Unlike traditional block migration approaches, Peer Motion enables customers to migrate storage volumes between any HP 3PAR StoreServ Storage Systems online, non-disruptively, and without complex planning or dependency on extra tools. Peer Motion leverages HP 3PAR Thin Built In™ technology to power the simple and rapid conversion of inefficient, "fat" volumes on source arrays to more efficient, higher-utilization "thin" volumes on the destination HP 3PAR StoreServ Storage System. To ensure a simple and fool-proof data migration and data mobility for workload balancing experience, orchestration of all stages of data mobility is available via either 3PAR Management Console or 3PAR Peer Motion CLI, which is an easy to use, scriptable command line interface tool.

Models

HP 3PAR Peer Motion F200/4x100GB SSD Magazine LTU	TE855B
HP 3PAR Peer Motion F200/4x1TB 7.2K Magazine LTU	TE856B
HP 3PAR Peer Motion F200/4x200GB SSD Magazine LTU	TE857B
HP 3PAR Peer Motion F200/4x2TB 7.2K Magazine LTU	TE858B
HP 3PAR Peer Motion F200/4x300GB 15K Magazine LTU	TE859B
HP 3PAR Peer Motion F200/4x400GB 10K Magazine LTU	TE860B
HP 3PAR Peer Motion F200/4x450GB 15K Magazine LTU	TE861B
HP 3PAR Peer Motion F200/4x50GB SSD Magazine LTU	TE862B
HP 3PAR Peer Motion F200/4x600GB 15K Magazine LTU	TE863B
HP 3PAR Peer Motion F400/4x100GB SSD Magazine LTU	TE864B
HP 3PAR Peer Motion F400/4x1TB 7.2K Magazine LTU	TE865B
HP 3PAR Peer Motion F400/4x200GB SSD Magazine LTU	TE866B
HP 3PAR Peer Motion F400/4x2TB 7.2K Magazine LTU	TE867B
HP 3PAR Peer Motion F400/4x300GB 15K Magazine LTU	TE868B
HP 3PAR Peer Motion F400/4x400GB 10K Magazine LTU	TE869B
HP 3PAR Peer Motion F400/4x450GB 15K Magazine LTU	TE870B
HP 3PAR Peer Motion F400/4x50GB SSD Magazine LTU	TE871B
HP 3PAR Peer Motion F400/4x600GB 15K Magazine LTU	TE872B
HP 3PAR Peer Motion F200/4x450GB 10K SAS Magazine LTU	BC556A
HP 3PAR Peer Motion F200/4x450GB 10K SAS Magazine LTU	BC556A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Peer Motion F200/4x900GB 10K SAS Magazine LTU	BC557A
HP 3PAR Peer Motion F200/4x2TB SAS Magazine LTU	BC558A
HP 3PAR Peer Motion F400/4x300GB 15K SAS Magazine LTU	BC559A
HP 3PAR Peer Motion F400/4x900GB 10K SAS Magazine LTU	BC561A
HP 3PAR Peer Motion F400/4x2TB SAS Magazine LTU	BC562A
HP 3PAR 10400 Peer Motion Software Base LTU	BD201A
HP 3PAR 10400 Peer Motion Software Magazine LTU	BD212A
HP 3PAR 10800 Peer Motion Software Base LTU	BD223A
HP 3PAR 10800 Peer Motion Software Magazine LTU	BD234A
HP 3PAR 7200 Peer Motion Software Base LTU	BC761A
HP 3PAR 7200 Peer Motion Software Drive LTU	BC762A
HP 3PAR 7400 Peer Motion Software Base LTU	BC789A
HP 3PAR 7400 Peer Motion Software Drive LTU	BC790A
HP 3PAR 7440c Peer Motion Base LTU	BD394A
HP 3PAR 7440c Peer Motion Drive LTU	BD395A
HP 3PAR 7450 Peer Motion Software Base LTU	BC906A
HP 3PAR 7450 Peer Motion Software Drive LTU	BC907A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Online Import Software

Overview   HP 3PAR Online Import Software is the first do-it-yourself data migration tool for enterprise Storage Area Networks. Unlike traditional block migration approaches, Online Import Software enables customers to migrate storage volumes from either HP EVA Storage, EMC CX4 or EMC VNX Storage to HP 3PAR StoreServ Storage systems online and without complex planning or dependency on extra tools.

Models

HP 3PAR 7200 Online Import Software 180 day LTU	BD191A
HP 3PAR 7400 Online Import Software 180 day LTU	BD192A
HP 3PAR 7440c Online Import 180-day LTU	BD407A
HP 3PAR 7450 Online Import Software 180 day LTU	BD195A
HP 3PAR 10400 Online Import Software 180 day LTU	BD194A
HP 3PAR 10800 Online Import Software 180 day LTU	BD193A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Priority Optimization

Overview   HP 3PAR Priority Optimization Software enables service levels for applications and workloads as business requirements dictate. HP 3PAR Priority Optimization enables customer to provision storage performance as they can provision storage capacity; this allows them to create SLAs to protect mission critical applications in enterprise environments by assigning a minimum goal for I/O per second, bandwidth and latency so performance for that specific tenant or application is assured. Or assign

Product Specifications - HP 3PAR OS Host Software

performance max limits on workloads with lower service level requirements. Provide high priority applications with all the resources they need to meet service levels. Enable certainty and predictability for all applications and tenants. Configure service level objectives-I/O per Seconds limit and I/O Bandwidth limit, on a Virtual Volume Set (VVset) or between different Virtual Domains. A Virtual Volume Set may contain a single volume or multiple volumes. A Virtual Volume may also belong to multiple Virtual Volume Sets allowing user to create hierarchical rules. All host I/O on the VVset is monitored and measured against the Service Level objective. HP 3PAR Priority Optimization control is implemented within the HP 3PAR StoreServ Storage System and can be modified in real time. No host agents are required. Further, no physical partitioning of resources within the storage array is required.

Models		
	HP 3PAR Priority Optimization Software 90-Day Evaluation LTU	BC992A
	HP 3PAR Priority Optimization Software F200/4x300GB 15K Magazine LTU	BC995A
	HP 3PAR Priority Optimization Software F400/4x300GB 15K Magazine LTU	BC996A
	HP 3PAR Priority Optimization Software F200/4x1TB NL Magazine LTU	BC999A
	HP 3PAR Priority Optimization Software F400/4x1TB NL Magazine LTU	BD100A
	HP 3PAR Priority Optimization Software F200/4x600GB 15K Magazine LTU	BD105A
	HP 3PAR Priority Optimization Software F400/4x600GB 15K Magazine LTU	BD106A
	HP 3PAR Priority Optimization Software F200/4x2TB NL Magazine LTU	BD107A
	HP 3PAR Priority Optimization Software F400/4x2TB NL Magazine LTU	BD108A
	HP 3PAR Priority Optimization Software F200/4x100GB SSD Magazine LTU	BD109A
	HP 3PAR Priority Optimization Software F400/4x100GB SSD Magazine LTU	BD110A
	HP 3PAR Priority Optimization Software F200/4x200GB SSD Magazine LTU	BD111A
	HP 3PAR Priority Optimization Software F400/4x200GB SSD Magazine LTU	BD112A
	HP 3PAR Priority Optimization Software F200/4x146GB Magazine LTU	BC993A
	HP 3PAR Priority Optimization Software F400/4x146GB Magazine LTU	BC994A
	HP 3PAR Priority Optimization Software F200/4x400GB Magazine LTU	BC997A
	HP 3PAR Priority Optimization Software F400/4x400GB Magazine LTU	BC998A
	HP 3PAR Priority Optimization Software F200/4x450GB Magazine LTU	BD101A
	HP 3PAR Priority Optimization Software F400/4x450GB Magazine LTU	BD102A
	HP 3PAR Priority Optimization Software F200/4x50GB SSD Magazine LTU	BD103A
	HP 3PAR Priority Optimization Software F400/4x50GB SSD Magazine LTU	BD104A
	HP 3PAR Priority Optimization Software F200 4x300GB SFF 15K SAS Magazine LTU	BD147A
	HP 3PAR Priority Optimization Software F200 4x450GB SFF 15K SAS Magazine LTU	BD148A
	HP 3PAR Priority Optimization Software F200 4x900GB SFF 15K SAS Magazine LTU	BD149A
	HP 3PAR Priority Optimization Software F200 4x2TB LFF 7.2K SAS Magazine LTU	BD150A
	HP 3PAR Priority Optimization Software F400 4x300GB SFF 15K SAS Magazine LTU	BD151A
	HP 3PAR Priority Optimization Software F400 4x450GB SFF 15K SAS Magazine LTU	BD152A
	HP 3PAR Priority Optimization Software F400 4x900GB SFF 15K SAS Magazine LTU	BD153A
	HP 3PAR Priority Optimization Software F400 4x2TB LFF 7.2K SAS Magazine LTU	BD154A
	HP 3PAR Priority Optimization Software T400/4x300GB 15K SFF SAS Magazine LTU	BD163A
	HP 3PAR Priority Optimization Software T400/4x450GB 10K SFF SAS Magazine LTU	BD164A
	HP 3PAR 10400 Priority Optimization Software Base LTU	BD206A

Product Specifications - HP 3PAR OS Host Software

HP 3PAR 10400 Priority Optimization Software Magazine LTU	BD217A
HP 3PAR 10800 Priority Optimization Software Base LTU	BD228A
HP 3PAR 10800 Priority Optimization Software Magazine LTU	BD239A
HP 3PAR 7200 Priority Optimization Software Base LTU	BC986A
HP 3PAR 7200 Priority Optimization Software Drive LTU	BC987A
HP 3PAR 7400 Priority Optimization Software Base LTU	BC988A
HP 3PAR 7400 Priority Optimization Software Drive LTU	BC989A
HP 3PAR 7440c Priority Optimization Base LTU	BD402A
HP 3PAR 7440c Priority Optimization Drive LTU	BD403A
HP 3PAR 7450 Priority Optimization Software Base LTU	BC990A
HP 3PAR 7450 Priority Optimization Software Drive LTU	BC991A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Host Software

Overview

The following host-based software products from HP 3PAR® address the needs of specific application environments through solutions like application-aware backup and recovery capabilities, plug-ins for virtualization management, multipathing and historical performance and capacity management.

HP 3PAR Recovery Manager for VMware vSphere: 3PAR Recovery Manager for VMware vSphere allows VMware administrators to create hundreds of VM-aware snapshots and initiate rapid online recovery directly from within the VMware vCenter™ Server virtualization management console.

HP 3PAR Recovery Manager for Microsoft Exchange: 3PAR Recovery Manager for Exchange is an extension to 3PAR Virtual Copy that intelligently creates and manages snapshots that can be used to quickly restore Exchange instances or databases (or non-disruptively back them up to tape) for near-continuous data protection.

HP 3PAR Recovery Manager for Oracle: 3PAR Recovery Manager for Oracle is an extension to 3PAR Virtual Copy that intelligently creates, manages, and presents time-consistent snapshot images of Oracle® databases for rapid application recovery, near-continuous data protection, data sharing, and non-disruptive backup.

HP 3PAR Recovery Manager for Microsoft SQL Server: 3PAR Recovery Manager for Microsoft SQL Server is another extension to 3PAR Virtual Copy that eases costs and administration by providing rapid, affordable online recovery of Microsoft® SQL Server databases from multiple, highly granular point-in-time snapshots. Quickly recover a database to a known point in time, speeding up a variety of operations including rapid recovery of the production SQL server.

HP 3PAR Plug-In for VMware vCenter: The 3PAR Plug-In for VMware vCenter gives VMware administrators enhanced visibility into storage resources and precise insight into how individual virtual machines are mapped to datastores and individual storage volumes. When used in conjunction with 3PAR Recovery Manager for VMware vSphere, this plug-in gives administrators the power of seamless, rapid online recovery from within the vCenter Server virtualization management console.

Product Specifications - HP 3PAR OS Host Software

Models		
	HP 3PAR Recovery Manager Microsoft Exchange F200 LTU	TE216B
	HP 3PAR Recovery Manager Microsoft Exchange F400 LTU	TE217B
	HP 3PAR Recovery Manager Microsoft Exchange 90-day Evaluation LTU	TE086B
	HP 3PAR Recovery Manager Microsoft Exchange T400 LTU	TE098B
	HP 3PAR Recovery Manager Microsoft Exchange T800 LTU	TE099B
	HP 3PAR Recovery Manager Microsoft Exchange 90-day Evaluation LTU	TE086A
	HP 3PAR Recovery Manager MS SQL F200 LTU	TE218B
	HP 3PAR Recovery Manager MS SQL F400 LTU	TE219B
	HP 3PAR Recovery Manager Oracle 90-day Evaluation LTU	TE085B
	HP 3PAR Recovery Manager MS SQL T400 LTU	TE100B
	HP 3PAR Recovery Manager MS SQL T800 LTU	TE101B
	HP 3PAR Recovery Manager Oracle 90-day Evaluation LTU	TE085A
	HP 3PAR Recovery Manager Oracle F200 LTU	TE214B
	HP 3PAR Recovery Manager Oracle F400 LTU	TE215B
	HP 3PAR Recovery Manager Microsoft SQL 90-day Evaluation LTU	TE093B
	HP 3PAR Recovery Manager Oracle T400 LTU	TE096B
	HP 3PAR Recovery Manager Oracle T800 LTU	TE097B
	HP 3PAR Recovery Manager Microsoft SQL 90-day Evaluation LTU	TE093B
	HP 3PAR Recovery Manager vSphere F200 LTU	TE254B
	HP 3PAR Recovery Manager vSphere F400 LTU	TE255B
	HP 3PAR Recovery Manager vSphere 90-day Evaluation LTU	TE253A
	HP 3PAR Recovery Manager vSphere T400 LTU	TE256B
	HP 3PAR Recovery Manager vSphere T800 LTU	TE257B
	HP 3PAR Recovery Manager vSphere 90-day Evaluation LTU	TE253A
	HP 3PAR Recovery Manager Software for Microsoft Hyper-V F200 Media LTU	BD180A
	HP 3PAR Recovery Manager Software for Microsoft Hyper-V F400 Media LTU	BD181A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR System Reporter: System Reporter is a historical performance and capacity management tool for storage reporting, monitoring, and troubleshooting.

HP 3PAR Host Explorer: Running as an agent on the server, 3PAR Host Explorer automates host discovery and collection of detailed host configuration information critical to speeding provisioning and simplifying maintenance. Host Explorer automatically and securely communicates host information such as Fibre Channel Worldwide Name (WWN) and host multipath data to the InServ to reduce manual administration.

HP 3PAR Multipath I/O for IBM AIX: 3PAR MPIO for IBM AIX provides multipathing for IBM®AIX® hosts featuring multiple active/active paths, load balancing, and automatic failover and recovery.

Product Specifications - HP 3PAR OS Host Software

HP 3PAR Multipath I/O for Microsoft Windows 2003: 3PAR MPIO for Microsoft Windows 2003 provides multipathing for Microsoft Windows® hosts featuring multiple active/active paths, load balancing, and automatic failover and recovery.

Models		
	HP 3PAR System Reporter Evaluation LTU	TE089B
	HP 3PAR System Reporter T400 LTU	TE104B
	HP 3PAR System Reporter T800 LTU	TE105B
	HP 3PAR System Reporter F200 LTU	TE220B
	HP 3PAR System Reporter F400 LTU	TE221B
	HP 3PAR Host Explorer Software Media Kit	TE250B
	HP 3PAR MPIO for Microsoft Windows Evaluation LTU	TE090B
	HP 3PAR MPIO for Microsoft Windows Software	TE083B
	HP 3PAR MPIO for IBM AIX Evaluation LTU	TE091B
	HP 3PAR MPIO for IBM AIX Media Kit	TE088B

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Cluster Extension Software: HP 3PAR Cluster Extension Software offers rapid automated protection against application downtime from fault, failure, or site disaster. CLX integrates with the Windows OS clustering software and HP 3PAR Remote Copy to automate failover and failback between sites. For more information see http://h18006.www1.hp.com/storage/software/ces/index.html

Models		
	HP 3PAR Cluster Extension Windows LTU	TC355A
	HP 3PAR Cluster Extension Software Windows Array Media LTU	BC885B
	HP P6000 to 3PAR Cluster Extension Windows Node Upgrade LTU	BC887A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.
 Please note that the current HP 3PAR CLX for Windows Array LTU/e-LTU will only support HP 3PAR CLX for Windows v4.0 and above

HP 3PAR Policy Server
HP 3PAR Policy Server works to implement customer-configurable remote service access policies. Installed on a customer-provided host, Policy Server provides the customer with ultimate flexibility and control to allow or deny outbound communication or remote service connections to and from an HP 3PAR StoreServ Storage system. Policy Server also serves as the centralized point for collecting and storing audit logs of all diagnostic data transfers and authorized remote service connections to and from all configured HP 3PAR Storage systems.

HP 3PAR Policy Server provides the following benefits:

- The customer has complete control over policy administration.
- A centralized policy administration for all HP 3PAR Storage systems is provided.
- A centralized audit log to facilitate security audits is provided.

Product Specifications - HP 3PAR OS Host Software

Models   HP 3PAR Policy Manager Software TE400B

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

Technical Specifications

HP 3PAR StoreServ Software Suites

The HP 3PAR StoreServ Storage family including the HP 3PAR StoreServ 7000, 7450 and 10000 Storage now provide the opportunity for you to purchase software bundled into a series of suites designed to be affordable and simple to purchase. Select software titles can also be purchased separately, as indicated below.

HP 3PAR Operating System Software Suite

Overview HP 3PAR Operating System Software Suite is the foundation software of HP 3PAR StoreServ Storage, combining advanced virtualization capabilities with simple storage management, high efficiency, and world class performance. The included comprehensive thin provisioning capabilities allow your storage to start thin, get thin and stay thin. System Tuner and Autonomic Rebalance help maintain high performance over time. Migrating your existing data from HP EVA and 3PAR systems to HP 3PAR StoreServ Storage is easy with the included 180 day Online Import license. HP 3PAR SmartStart Software, included in the suite for HP 3PAR StoreServ 7000 and 7450, guides you through the configuration of the service processor, StoreServ Storage and the application hosts - making storage setup virtually effortless. HP 3PAR Operating System Software Suite is a required purchase.

The Operating System Suite includes the following functionality and features:

- HP 3PAR Operating System Software
- HP 3PAR Thin Provisioning
- HP 3PAR Thin Deduplication
- HP 3PAR Thin Conversion
- HP 3PAR Thin Persistence
- HP 3PAR Thin Copy Reclamation
- HP 3PAR Autonomic Rebalance
- HP 3PAR System Tuner
- HP 3PAR Management Console
- EVA to 3PAR Online Import
- HP 3PAR Host Explorer
- HP 3PAR SmartStart (not included in HP 3PAR StoreServ 10000)
- HP 3PAR Virtual Service Processor (not included in HP 3PAR StoreServ 10000)
- HP 3PAR Multipath Software for Windows 2003

For more information see http://h18006.www1.hp.com/storage/software/3par7000/oss/index.html

Models

HP 3PAR 10400 Operating System Software Suite Base LTU	BD240B
HP 3PAR 10400 Operating System Software Suite Magazine LTU	BD241A
HP 3PAR 10800 Operating System Software Suite Base LTU	BD252B
HP 3PAR 10800 Operating System Software Suite Magazine LTU	BD253A
HP 3PAR 7200 Operating System Software Suite Base LTU	BC745B
HP 3PAR 7200 Operating System Software Suite Drive LTU	BC746A
HP 3PAR 7400 Operating System Software Suite Base LTU	BC773B
HP 3PAR 7400 Operating System Software Suite Drive LTU	BC774A
HP 3PAR 7440c Operating System Suite Base LTU	BD374A
HP 3PAR 7440c Operating System Suite Drive LTU	BD381A
HP 3PAR 7450 Operating System Software Suite Base LTU	BC890B

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HP 3PAR 7450 Operating System Software Suite Drive LTU   BC891A

NOTE: Included as part of the system, 180 day Online Import license

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Optimization Suite

Overview HP 3PAR Optimization Suite gives enterprise and cloud datacenters the ability to optimize service levels autonomically, on a large scale, and for a lower total cost than any other solution available today. The Optimization Suite includes the following functionality and features:

- Adaptive Optimization
- Dynamic Optimization
- System Tuner

The Optimization Suite is offered on HP 3PAR StoreServ 10000 Storage Systems.

Models   HP 3PAR 10400 Optimization Software Suite Base LTU   BD276A

HP 3PAR 10400 Optimization Software Suite Magazine LTU   BD277A

HP 3PAR 10800 Optimization Software Suite Base LTU   BD278A

HP 3PAR 10800 Optimization Software Suite Magazine LTU   BD279A

NOTE: Insert AE at the end of a part number for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Data Optimization Software Suite

Overview The HP 3PAR Data Optimization Software Suite makes sure that data is on the right storage asset at the right time. This suite rebalances, redistributes and refreshes storage non-disruptively with features that provide autonomic storage tiering and dynamic data mobility, reducing cost and increasing agility. Adaptive Optimization provides highly reliable, non-disruptive, cost-optimized storage tiering at the sub-volume level to deliver the right QoS to the right data at the right time on a large scale and Dynamic Optimization delivers it at the volume level. Peer Motion software enables seamless technology refresh and cost-optimized asset lifecycle management, and lowers technology refresh capital expenditure.

As per 10/31 the HP 3PAR Data Optimization Software Suite is end of life and replaced by HP 3PAR Data Optimization Software Suite v2.

The Data Optimization Suite bundles the following products:

- HP 3PAR Adaptive Optimization
- HP 3PAR Dynamic Optimization
- HP 3PAR Peer Motion

For more information see http://h18006.www1.hp.com/storage/software/3par7000/dos/index.html

HP 3PAR 7200 Data Optimization Software Suite Drive LTU   BC750A

HP 3PAR 7400 Data Optimization Software Suite Drive LTU   BC778A

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be

Technical Specifications

HP 3PAR Data Optimization Software Suite v2

Overview The HP 3PAR Data Optimization Software Suite v2 combines capabilities that provide autonomic storage tiering and dynamic data mobility with assured quality of service. Adaptive Optimization provides highly reliable, non-disruptive, cost-optimized storage tiering at the sub-volume level to deliver the right QoS to the right data at the right time on a large scale and Dynamic Optimization delivers it at the volume level. Peer Motion software enables seamless technology refresh and cost-optimized asset lifecycle management, and lowers technology refresh capital expenditure. Priority Optimization software allows customers to ensure quality of service on HP 3PAR StoreServ Storage Systems. With Priority Optimization, customers can protect their tenants and environments from unpredictable burst of I/O and maintain predictable SLA for multiple tenants. The Data Optimization Suite v2 bundles the following products:

The Data Optimization Suite v2 bundles the following products:

- HP 3PAR Adaptive Optimization
- HP 3PAR Dynamic Optimization
- HP 3PAR Priority Optimization
- HP 3PAR Peer Motion

The Data Optimization Software Suite is offered on HP 3PAR StoreServ 7000, 7450 and 10000 Storage Systems

Models		
HP 3PAR 10400 Data Optimization Software Suite v2 Base LTU		BD264A
HP 3PAR 10400 Data Optimization Software Suite v2 Magazine LTU		BD265A
HP 3PAR 10800 Data Optimization Software Suite v2 Base LTU		BD266A
HP 3PAR 10800 Data Optimization Software Suite v2 Magazine LTU		BD267A
HP 3PAR 7200 Data Optimization Software Suite V2 Base LTU		BD268A
HP 3PAR 7200 Data Optimization Software Suite V2 Drive LTU		BD269A
HP 3PAR 7400 Data Optimization Software Suite V2 Base LTU		BD270A
HP 3PAR 7400 Data Optimization Software Suite V2 Drive LTU		BD271A
HP 3PAR 7440c Data Optimization Suite v2 Base LTU		BD404A
HP 3PAR 7440c Data Optimization Suite v2 Drive LTU		BD405A
HP 3PAR 7450 Data Optimization Software Suite V2 Base LTU		BD272A
HP 3PAR 7450 Data Optimization Software Suite V2 Drive LTU		BD273A

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Replication Software Suite

Overview The HP 3PAR Replication Software Suite offers automatic replication, transparent failover and Point-in-Time (PIT) copies enabling seamless disaster recovery for critical data. These features provide an agile, efficient and simple solution to protect against the unpredictable. This suite is ideal for virtualized data centers demanding data availability and business continuity 24x7. Remote Copy Software dramatically reduces the cost of remote data replication and disaster recovery by leveraging thin copy technology, enabling multi-site and multi-mode replication with both midrange and high-end arrays, and reducing the need for professional

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services. Virtual Copy enables rapid application recovery-while containing costs with a "thin-aware" implementation that minimizes the amount of physical capacity that is actually being consumed by your data-and without sacrificing performance, availability, or versatility. HP 3PAR Peer Persistence software enables HP 3PAR StoreServ systems located at metropolitan distances to act as peers to each other, presenting a nearly continuous storage system to VMware vSphere hosts connected to them.

The Replication Suite includes the following functionality and features:

- HP 3PAR Virtual Copy
- HP 3PAR Remote Copy
- HP 3PAR Peer Persistence

For more information see
http://h18006.www1.hp.com/storage/software/3par7000/drs/index.html

Models		
	HP 3PAR 10400 Replication Software Suite Base LTU	BD249A
	HP 3PAR 10400 Replication Software Suite Magazine LTU	BD250A
	HP 3PAR 10800 Replication Software Suite Base LTU	BD261A
	HP 3PAR 10800 Replication Software Suite Magazine LTU	BD262A
	HP 3PAR 10400 Replication Software Suite 1TB Provisioned LTU	BD251A
	HP 3PAR 10800 Replication Software Suite 1TB Provisioned LTU	BD263A
	HP 3PAR 7200 Replication Software Suite Base LTU	BC747A
	HP 3PAR 7200 Replication Software Suite Drive LTU	BC748A
	HP 3PAR 7400 Replication Software Suite Base LTU	BC775A
	HP 3PAR 7400 Replication Software Suite Drive LTU	BC776A
	HP 3PAR 7440c Replication Suite Base LTU	BD382A
	HP 3PAR 7440c Replication Suite Drive LTU	BD383A
	HP 3PAR 7450 Replication Software Suite Base LTU	BC892A
	HP 3PAR 7450 Replication Software Suite Drive LTU	BC893A

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Security Software Suite

Overview HP 3PAR Security Software Suite provides secure administrative segregation of users and hosts, allowing individual user groups and applications to confidently share a HP 3PAR StoreServ Storage system. It also allows you to secure volumes and copies so they cannot be deleted, even by a HP 3PAR StoreServ Storage user with the highest level privileges. When coupled with reservationless, non-duplicative, read-only virtual copies (snapshots), the Virtual Lock feature enables you to retain frozen, point-in-time copies of your data to assist internal data retention and simplify compliance with internal governance procedures.

The Security Suite includes the following products:

- HP 3PAR Virtual Domains

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- HP 3PAR Virtual Lock

For more information see http://h18006.www1.hp.com/storage/software/3par7000/ss/index.html

Models		
	HP 3PAR 10400 Security Software Suite Base LTU	BD242A
	HP 3PAR 10400 Security Software Suite Magazine LTU	BD243A
	HP 3PAR 10800 Security Software Suite Base LTU	BD254A
	HP 3PAR 10800 Security Software Suite Magazine LTU	BD255A
	HP 3PAR 7200 Security Software Suite Base LTU	BC751A
	HP 3PAR 7200 Security Software Suite Drive LTU	BC752A
	HP 3PAR 7400 Security Software Suite Base LTU	BC779A
	HP 3PAR 7400 Security Software Suite Drive LTU	BC780A
	HP 3PAR 7440c Security Suite Base LTU	BD384A
	HP 3PAR 7440c Security Suite Drive LTU	BD385A
	HP 3PAR 7450 Security Software Suite Base LTU	BC908A
	HP 3PAR 7450 Security Software Suite Drive LTU	BC909A

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Reporting Software Suite

Overview HP 3PAR Reporting Suite provides flexible, simple-to-use performance and capacity management tools that aggregate fine-grained, performance and capacity usage data. It also provides useful information on the volume mapping between the HP 3PAR StoreServ Storage and the application host.

The Reporting Suite includes the following products:

- HP 3PAR System Reporter
- HP 3PARinfo

For more information see http://h18006.www1.hp.com/storage/software/3par7000/rs/index.html

Models		
	HP 3PAR 10400 Reporting Suite LTU	BD244B
	HP 3PAR 10800 Reporting Suite LTU	BD256B
	HP 3PAR 7200 Reporting Suite LTU	BC767B
	HP 3PAR 7400 Reporting Suite LTU	BC795B
	HP 3PAR 7440c Reporting Suite LTU	BD375A
	HP 3PAR 7450 Reporting Suite LTU	BC914B

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Application Software Suite for VMware

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Overview HP 3PAR Application Suite for VMware provides VMware administrators enhanced visibility into storage resources and precise insight into how individual virtual machines are mapped to datastores and individual storage volumes. It also gives administrators the power of seamless, rapid online recovery from within the vCenter Server virtualization management console.

The Application Suite for VMware is now a part of Insight Control for vCenter. The Insight Control for vCenter now includes the following functionality and features:

- HP Server component
- HP Storage component - includes HP 3PAR VASA provider and HP 3PAR Management Plug-in for VMware vCenter
- HP 3PAR Recovery Manager for VMware vSphere

For more information see http://h18006.www1.hp.com/storage/software/3par7000/as-vmware/index.html

Models

HP 3PAR 10400 Application Suite for VMware LTU	BD245B
HP 3PAR 10800 Application Suite for VMware LTU	BD257B
HP 3PAR 7200 Application Suite for VMware LTU	BC768B
HP 3PAR 7400 Application Suite for VMware LTU	BC796B
HP 3PAR 7440c Application Suite for VMware LTU	BD376A
HP 3PAR 7450 Application Suite for VMware LTU	BC915B

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Application Software Suite for Exchange

Overview HP 3PAR Application Suite for Exchange provides administrators the power of seamless, rapid online recovery of Microsoft Exchange application. It is an extension to Virtual Copy which enables creation of application consistent snapshots without sacrificing performance, availability or versatility.

The Application Suite for Exchange includes the following functionality and features:

- HP 3PAR Recovery Manager for Exchange
- HP 3PAR VSS hardware provider

For more information see http://h18006.www1.hp.com/storage/software/3par7000/as-exchange/index.html

Models

HP 3PAR 10400 Application Suite for Microsoft Exchange LTU	BD246B
HP 3PAR 10800 Application Suite for Microsoft Exchange LTU	BD258B
HP 3PAR 7200 Application Suite for Microsoft Exchange LTU	BC769B
HP 3PAR 7400 Application Suite for Microsoft Exchange LTU	BC797B
HP 3PAR 7440c Application Suite for Exchange LTU	BD377A
HP 3PAR 7450 Application Suite for Microsoft Exchange LTU	BC916B

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

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HP 3PAR Application Software Suite for SQL

Overview HP 3PAR Application Suite for SQL provides administrators the power of seamless, rapid online recovery of Microsoft SQL application. It is an extension to Virtual Copy which enables creation of application consistent snapshots without sacrificing performance, availability or versatility.

The Application Suite for SQL includes the following functionality and features:

- HP 3PAR Recovery Manager for SQL
- HP 3PAR VSS hardware provider

For more information see http://h18006.www1.hp.com/storage/software/3par7000/as-sql/index.html

Models

HP 3PAR 10400 Application Suite for Microsoft SQL LTU	BD247B
HP 3PAR 10800 Application Suite for Microsoft SQL LTU	BD259B
HP 3PAR 7200 Application Suite for Microsoft SQL LTU	BC770B
HP 3PAR 7400 Application Suite for Microsoft SQL LTU	BC798B
HP 3PAR 7440c Application Suite for SQL LTU	BD378A
HP 3PAR 7450 Application Suite for Microsoft SQL LTU	BC917B

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Application Software Suite for Microsoft Hyper-V

Overview HP 3PAR Application Suite for Hyper-V provides administrators the power of seamless, rapid online recovery of Microsoft Hyper-V VMs. It is an extension to Virtual Copy which enables creation of application consistent snapshots without sacrificing performance, availability or versatility.
The Application Suite for Hyper-V includes the following functionality and features:

- HP 3PAR Recovery Manager for Hyper-V
- HP 3PAR VSS hardware provider

NOTE: HP 3PAR Virtual Copy Software is a prerequisite, purchased independently or in the HP 3PAR Replication Software Suite.

Models

HP 3PAR 10400 Application Suite for Microsoft Hyper-V LTU	BD182B
HP 3PAR 10800 Application Suite for Microsoft Hyper-V LTU	BD183B
HP 3PAR 7200 Application Suite for Microsoft Hyper-V LTU	BD178B
HP 3PAR 7400 Application Suite for Microsoft Hyper-V LTU	BD179B
HP 3PAR 7440c Application Suite for Hyper-V LTU	BD380A
HP 3PAR 7450 Application Suite for Microsoft Hyper-V LTU	BD190B

Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR Application Software Suite for Oracle

Overview HP 3PAR Application Suite for Oracle provides administrators the power of seamless, rapid online recovery of

Technical Specifications

Oracle database application. It is an extension to Virtual Copy which enables creation of application consistent snapshots without sacrificing performance, availability or versatility.

The Application Suite for Oracle database includes the following functionality and features:

- HP 3PAR Recovery Manager for Oracle

For more information see http://h18006.www1.hp.com/storage/software/3par7000/as-oracle/index.html

Models	HP 3PAR 10400 Application Suite for Oracle LTU	BD248B
	HP 3PAR 10800 Application Suite for Oracle LTU	BD260B
	HP 3PAR 7200 Application Suite for Oracle LTU	BC771B
	HP 3PAR 7400 Application Suite for Oracle LTU	BC799B
	HP 3PAR 7440c Application Suite for Oracle LTU	BD379A
	HP 3PAR 7450 Application Suite for Oracle LTU	BC918B

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR StoreServ 10000 Software Suites Upgrade Options

Overview The HP 3PAR StoreServ 10000 Storage now provides the opportunity for you to upgrade your individual software title(s) to an appropriate lower priced and simpler to use software suite. The upgrade can be done by the purchase of upgrade LTUs corresponding to the software titles already available in your system, as indicated below

Models	HP 3PAR 10400 Remote Copy to Replication Software Suite Upgrade LTU	BD280A
	HP 3PAR 10800 Remote Copy to Replication Software Suite Upgrade LTU	BD293A
	HP 3PAR 10400 Remote Copy Virtual Copy to Replication Software Suite Upgrade LTU	BD281A
	HP 3PAR 10800 Remote Copy Virtual Copy to Replication Software Suite Upgrade LTU	BD294A
	HP 3PAR 10400 Remote Copy Peer Persistence to Replication Software Suite Upg LTU	BD282A
	HP 3PAR 10800 Remote Copy Peer Persistence to Replication Software Suite Upg LTU	BD295A
	HP 3PAR 10400 Virtual Copy to Replication Software Suite Upgrade LTU	BD283A
	HP 3PAR 10800 Virtual Copy to Replication Software Suite Upgrade LTU	BD296A
	HP 3PAR 10400 Adaptive Optimization to Data Optimization SW Suite v2 Upg LTU	BD284A
	HP 3PAR 10800 Adaptive Optimization to Data Optimization SW Suite v2 Upg LTU	BD297A
	HP 3PAR 10400 Dynamic Optimization to Data Optimization SW Suite v2 Upgrade LTU	BD285A
	HP 3PAR 10800 Dynamic Optimization to Data Optimization SW Suite v2 Upgrade LTU	BD298A
	HP 3PAR 10400 Adaptive Opt Dynamic Opt to Data Optimization SW St v2 Upg LTU	BD286A
	HP 3PAR 10800 Adaptive Opt Dynamic Opt to Data Optimization SW St v2 Upg LTU	BD299A
	HP 3PAR 10400 Adaptive Optimzation Peer Mn to Data Optimization SW St v2 Upg LTU	BD287A
	HP 3PAR 10800 Adaptive Optimzation Peer Mn to Data Optimization SW St v2 Upg LTU	BD300A
	HP 3PAR 10400 Dynamic Optimization Peer Mn to Data Optimization SW St v2 Upg LTU	BD288A
	HP 3PAR 10800 Dynamic Optimization Peer Mn to Data Optimization SW St v2 Upg LTU	BD301A
	HP 3PAR 10400 Adpt Opt Dyn Opt Peer Mn to Data Optimization SW St v2 Upg LTU	BD289A

Technical Specifications

HP 3PAR 10800 Adpt Opt Dyn Opt Peer Mn to Data Optimization SW St v2 Upg LTU	BD302A
HP 3PAR 10400 Virtual Domain to Security Software Suite Upgrade LTU	BD290A
HP 3PAR 10800 Virtual Domain to Security Software Suite Upgrade LTU	BD303A
HP 3PAR 10400 Virtual Lock to Security Software Suite Upgrade LTU	BD291A
HP 3PAR 10800 Virtual Lock to Security Software Suite Upgrade LTU	BD304A
HP 3PAR 10400 Optimization Suite to Data Optimization Software Suite v2 Upg LTU	BD292A
HP 3PAR 10800 Optimization Suite to Data Optimization Software Suite v2 Upg LTU	BD305A

NOTE: Insert AE at the end of a part number above for an electronic LTU (eg. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HP 3PAR StoreServ Software Media

Overview

The part numbers below are media kits for all 3PAR Software products. Electronic and physical media kits options are available

Models

HP 3PAR StoreServ Management and Core Software Media	BD362A
HP 3PAR 7000/7450 Operating System Suite Media	BD363A
HP 3PAR 10000 Operating System Suite and Service Processor Software Media	BD364A
HP 3PAR StoreServ Reporting Suite Media	BD373A
HP 3PAR StoreServ Application Suite for Microsoft Exchange Media	BD368A
HP 3PAR StoreServ Application Suite for Microsoft Hyper-V Media	BD369A
HP 3PAR StoreServ Application Suite for Oracle Media	BD370A
HP 3PAR StoreServ Application Suite for Microsoft SQL Media	BD371A
HP 3PAR StoreServ Application Suite for VMware Media	BD372A
HP 3PAR 7000 Service Processor Software Media	BD365A

NOTE: Insert AE at the end of a part number above for an electronic media (eg. XXXXAAE).

Note on HP 3PAR Software Licensing Schemes

HP 3PAR follows multiple licensing schemes for different software offerings. There are three different licensing schemes those are largely employed across the HP 3PAR software portfolio. They are the spindle based licensing, simplified spindle based licensing and frame based licensing. The frame based licensing approach requires that the HP 3PAR software offering is licensed only once for the system. This form of licensing is common to all the HP 3PAR Storage platforms. The following list shows the HP 3PAR software products which follow the frame based licensing approach:

- HP 3PAR System Reporter
- HP 3PAR Online Import Software
- HP 3PAR Reporting Software Suite
- HP 3PAR Recovery Manager for VMware vSphere
- HP 3PAR Recovery Manager for Microsoft Exchange
- HP 3PAR Recovery Manager for Oracle
- HP 3PAR Recovery Manager for Microsoft SQL Server
- HP 3PAR Plug-In for VMware vCenter
- HP 3PAR Plug-In for Microsoft Hyper-V
- HP 3PAR Application Software Suite for VMware
- HP 3PAR Application Software Suite for Exchange

Technical Specifications

- HP 3PAR Application Software Suite for SQL
- HP 3PAR Application Software Suite for Microsoft Hyper-V
- HP 3PAR Application Software Suite for Oracle

The spindle based licensing approach requires a HP 3PAR software offering to be licensed based on each drive or drive magazine installed on the HP 3PAR Storage system. There are two different models followed based on this licensing mechanism - the spindle based licensing and the simplified spindle based licensing. The following table shows the licensing models used in the various HP 3PAR Storage platforms:

Licensing Scheme	Spindle Based Licensing	Simplified Spindle Based Licensing
HP 3PAR F-Class Storage	Yes	No
HP 3PAR T-Class Storage	Yes	No
HP 3PAR StoreServ 7000 Storage	No	Yes
HP 3PAR StoreServ 10000 Storage	Yes*	Yes

* Spindle based licensing on HP 3PAR StoreServ 10000 Storage will be available till 10/31/2013 only

In the spindle based licensing approach, there is a different SKU available for each combination of drive capacity and drive type. Based on the specific drives being purchased for a HP 3PAR Storage system, the corresponding software SKU needs to be purchased. This purchase should be done for all the drives on the system irrespective of the number of drives or nodes or capacity of the system

In the simplified spindle based licensing approach, every software title has a Base LTU which needs to be purchased once for a system. For every drive or drive magazine added to the system thereon, a drive LTU (for 7000) or a drive magazine LTU (for 10000) has to be purchased for the system respectively. The drive LTU or the drive magazine LTU for a particular platform is a single SKU irrespective of the drive type or drive capacity. Furthermore, based on the type of HP 3PAR Storage system, there is a specific number of drives beyond which any software title is not required to be purchased for that system. Please note that HP 3PAR Software suites are available only in the form of simplified spindle based licensing approach. The following table shows the maximum drive limits for each of the HP 3PAR Storage systems that support the simplified spindle based licensing approach:

HP 3PAR StoreServ Storage	Maximum number of drives for licensing*	Comments
HP 3PAR StoreServ 7200 Storage	48 drives	-
HP 3PAR StoreServ 7400 Storage	168 drives	-
HP 3PAR StoreServ 7440c Storage	320 drives	
HP 3PAR StoreServ 7450 Storage	no limit	-
HP 3PAR StoreServ 10400 Storage	320 drives	80 drive magazines
HP 3PAR StoreServ 10800 Storage	640 drives	160 drive magazines

*For a particular software offering no further licensing is required for a system beyond these drive counts

The list below shows the software titles available in the form of spindle based licensing and simplified spindle based licensing:

HP 3PAR Software Title	Spindle Based Licensing	Simplified Spindle Based Licensing
HP 3PAR Operating System Software	Yes	No
HP 3PAR Thin Provisioning	Yes	No

Technical Specifications

HP 3PAR Thin Conversion	Yes	No
HP 3PAR Thin Persistence	Yes	No
HP 3PAR Virtual Copy	Yes	Yes
HP 3PAR Remote Copy	Yes	Yes
HP 3PAR Peer Persistence	Yes	Yes
HP 3PAR Adaptive Optimization	Yes	Yes
HP 3PAR Dynamic Optimization	Yes	Yes
HP 3PAR Priority Optimization	Yes	Yes
HP 3PAR System Turner	Yes	Yes
HP 3PAR Virtual Domains	Yes	Yes
HP 3PAR Virtual Lock	Yes	Yes
HP 3PAR Peer Motion	Yes	Yes
HP 3PAR Operating System Software Suite	No	Yes
HP 3PAR Replication Software Suite	No	Yes
HP 3PAR Data Optimization Software Suite	No	Yes
HP 3PAR Optimization Software Suite*	Yes	Yes
HP 3PAR Data Optimization Software Suite V2	No	Yes
HP 3PAR Security Suite	No	Yes

* Optimization Software Suite is available only on HP 3PAR StoreServ 10000 Storage

Service and Support

Service and Support	**Services to accelerate time to results**

HP Storage Services bring you a rich portfolio of consulting and support services designed to add value to our core storage products and solutions. We have the know-how and experience to put storage technology to work for you. We work closely with you as your strategic partner, leveraging our full services portfolio to make sure that everything works to optimize your enterprise.

Choose from services aligned to our storage product offerings and lifecycle. From mission-critical onsite services to innovative web-based remote support, you choose the precise level of attention and support your business demands. |
| **Discover, plan, and design** | Choose from a rich portfolio of services to make the most of 3PAR Application Software Suite for Microsoft Exchange (Malpe - PL 43), so you can efficiently and affordably consolidate, manage, and extract value from unstructured data.

Start here to understand your data protection options. Next, develop a methodical plan and design the optimal 3PAR Application Software Suite for Microsoft Exchange (Malpe - PL 43) Storage that addresses your unique technology requirements.

HP Storage Efficiency Analysis - HP Storage Efficiency Analysis (SEA) combine tool-based fact gathering and HP's expertise for a quick path to identify immediate issues and their resolution, and helps customer realize the benefits of HP Storage Technology
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-6727ENW.pdf

HP Storage Impact Analysis - This service provides assessment service to analyze your current storage and evaluate the impact of change to the infrastructure. It is ideal for customers looking to achieving top utilization of your storage technology and assessing the likely impact of data growth and future projects that require storage.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-1174ENW.pdf

HP Storage Modernization service Storage Modernization helps customers seamlessly position themselves to integrate the latest technological advancements in storage effectively. It helps clients modernize, reduce costs, and improve quality of service through the execution of process and technology changes to achieve demand management.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-4620ENW.pdf |
| **Deploy and integrate** | **Implement 3PAR Application Software Suite for Microsoft Exchange (Malpe - PL 43) Storage correctly-right from the start-so you can count on reduced risk and accelerated deployment, while implementing a best-practice configuration from day one.**

HP 3PAR StoreServ Storage Installation and Startup Service - Onsite installation and testing installs and tests HP 3PAR StoreServ Storage, including configuration and deployment, properly integrated into your environment
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-2568ENW.pdf

HP 3PAR Software Installation and Startup Service - Support for deployment of licensed HP 3PAR |

Service and Support

software products into operation
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-2569ENN.pdf

HP Storage Data Migration Service - End-to-end data migration service providing seamless discovery, assessment, planning, and design, completely customizable to your organization's storage area network (SAN) or network attached storage (NAS) environment and using innovative software to help you migrate to HP storage quickly and efficiently
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-0774ENW.pdf

HP EVA to HP 3PAR StoreServ Acceleration Service - An alternative to do-it-yourself data migration options with guidance from our storage migration specialists, designed to help you execute an HP EVA to HP 3PAR StoreServ Storage data migration at your own pace and with lowered cost
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-4234ENW.pdf

HP Data Replication Solution Service - Configuration of real-time data mirroring or snapshot capabilities of 3PAR Remote Copy and 3PAR Virtual Copy to safeguard your critical business information
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA0-9431ENW.pdf

HP Enhanced Implementation Service for SANs - Complete design and implementation service for Fibre Channel, FCoE, FCIP, SAS, and iSCSI SAN connectivity components

HP 3PAR Adaptive Optimization Policy Implementation Service - Analysis, recommendations, and implementation of HP 3PAR Adaptive Optimization policies to enable storage tiering using data collected from your HP 3PAR storage over time

HP Storage Virtual Volume Design and Implementation Service - Activities your organization needs to design and implement a new LUN, virtual volume, or virtual disk (Vdisk) configuration
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-0774ENW.pdf

HP Proactive Select - A flexible way to purchase services to fit your environment with an extensive menu of HP Proactive Select event and technical services, such as onsite firmware upgrades, health checks, assessments, and education
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENW.pdf

HP Thin Volume Conversion Service - Evaluation and execution of conversion from standard to thin provisioned volumes for HP 3PAR StoreServ Storage for when you are looking to optimize the utilization of HP 3PAR StoreServ Storage by improving capacity utilization and performance
http://h20195.www2.hp.com/V2/GetPDF.aspx/c01658303.pdf

HP 3PAR StoreServ Health Check - Assessment of the overall health and supportability of your HP 3PAR StoreServ Storage
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA4-3404ENW.pdf

HP Performance Analysis Service - Data collection, detailed input/output (I/O) analysis, and enhancement recommendations to improve HP 3PAR StoreServ Storage disk array performance, stability, and availability by identifying potential problems and understanding the possible solutions

Service and Support

that will help avoid them

HP 3PAR Rebalance Service - Planning and coordinating activities led by HP Storage Services professionals to deliver a successful disk array rebalance, including creation and implementation of a rebalance service plan, verification tests to confirm product functionality, and an orientation session to review changes made to the system
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA4-0280ENW.pdf

HP 3PAR Storage Assessment Service - Assessment check based on a point-in-time snapshot of system configuration, capacity, supportability, and interoperability for a single HP 3PAR Storage, ideal when you are experiencing rapid growth or need to establish a baseline understanding of your current HP 3PAR StoreServ environment
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA4-0280ENW.pdf

Operate and support

Choose the right support to maximize uptime, free up your resources, and achieve improved value- as you get the most out of the existing IT assets while accelerating time-to-revenue.

HP Critical Service - Proactive activities and 24x7 monitoring of your environment-ideal for when uninterrupted uptime is essential

HP Proactive Care 24x7 - Hardware and software support services designed specifically for your technology with rapid access to Advanced Solution Center Specialists plus firmware and software management and best practice advice
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf

HP Proactive Care Personalized Support - An option-if you have HP Proactive Care- to bring increased personalization of the Proactive Care support experience through the assignment of an Account Service Manager (ASM) who provides IT best practice advice to help address IT issues and projects.
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-3446ENW.pdf

HP Education Services - Comprehensive training for new, as well as experienced, storage administrators designed to expand your skills and keep you up to speed with the latest storage and virtualization technology from HP Storage. http://education.hp.com/curr-storsan.htm

Optimized Care - delivers best performance and stability through deployment and proactive management practices

Choose from three levels of operate and support care

HP Critical Service

Additional options - 10 HP Proactive Select credits per year, per array

Standard Care - maintains high level of uptime, along with expert help to cut the cost and complexity of implementation and support

HP Proactive Care 24x7-Plus, 20 credits per year per array

Additional options - HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year, per array

Service and Support

Basic Care - Minimum recommended support	**HP Proactive Care 24x7, plus 10 HP Proactive Select credits per year, per array** **Additional options - HP Proactive Care Personalized Support (once per Proactive Care support new environment), an additional day of HP Personalized Support, and 10 additional HP Proactive Select credits per year, per array**
Remote Support Automation	HP Automation provides 24x7 coverage, proactive problem prevention, accurate problem diagnosis and faster problem resolution, as well as interactive support portals and tools. This is an integral, and cost-free, part of your HP support relationship and we are continually investing in additional cutting-edge capabilities to make it better.
For more information	www.hp.com/services/storage To learn more on HP Storage Services, please contact your HP sales representative or HP Authorized Channel Partner **HP Care Pack Services are sold by HP and HP Authorized Service Partners**: • Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools. • Customers purchasing from a commercial reseller can find HP Care Pack Services at: www.hp.com/go/lookuptool

Summary of Changes

Date	Version History	Action	Description of Change:
10-Nov-2014	From Version 23 to 24	Changed	Changes made throughout the entire QuickSpec.
20-Aug-2014	From Version 22 to 23	Changed	Changes made to the Overview section.
18-Aug-2014	From Version 21 to 22	Changed	Changes made throughout the entire QuickSpec
18-Jul-2014	From Version 20 to 21	Changed	– removed NOTE regarding physical licenses for F-Class and T-Class platforms for Virtual Copy Software, Remote Copy Software, Peer Persistence Software, Adaptive Optimization Software, Dynamic Optimization Software, System Tuner Software, Virtual Domain Software, Virtual Lock Software, Peer Motion Software, Priority Optimization Software, Recovery Manager Software, 3PAR Multipath I/O for Microsoft Windows 2003, 3PAR Inform Software
27-jun-2014	From version 19 to 20	Changed	Changes made throughout the entire QuickSpec
10-Jun-2014	From Version 18 to 19	Changed	Product descriptions were revised throughout.
18-Apr-2014	From Version 17 to 18	Changed	Removed a note.
14-Apr-2014	From Version 16 to 17	Changed	Product Specifications was revised.
31-Mar-2014	From Version 15 to 16	Changed	Product Specifications was revised.
17-Jan-2014	From Version 14 to 15	Changed	Product Specifications and Technical Specifications were revised.
09-Dec-2013	From Version 13 to 14	Changed	Product Specifications and Technical Specifications were revised.
04-Oct-2013	From Version 11 to 13	Added	Added Note on HP 3PAR Software Licensing Schemes to the Technical Specification section.
26-Aug-2013	From Version 10 to 11	Added	Added HP 3PAR StoreServ 10000 Software Suites Upgrade Options.
11-Jun-2013	From Version 9 to 10	Added	Added a new part number BC959A to the HP 3PAR Operating System Software section.
10-Jun-2013	From Version 8 to 9	Changed	Changes made throughout the entire QuickSpec.
08-Mar-2013	From Version 7 to 8	Changed	Updated the following: Overview - added branding to Host Software; Inform OS Highlights - added HP; Additional 3PAR Software - added Virtual Lock, Peer Motion and Peer Persistence; Product Specifications - replaced Vrt Cpy with Virtual Copy; 3PAR Remote Copy - added HP branding; 3PAR Dynamic Optimization and Policy Advisor - added HP branding, replaced V-Class with StoreServe 10000; 3PAR System Tuner - added HP branding, replaced V-Class with StoreServe 10000; 3PAR Virtual Domains - replaced InServ with StoreServ and added HP branding; 3PAR Virtual Lock - replaced InServ with StoreServ and added HP branding; Peer Motion - added HP branding; 3PAR Host Software; removed

Summary of Changes

			"Inform" and changed intro paragraph; Added Models - System Reporter, Host Explorer, MPIO; Models - Cluster Extension SW
19-Feb-2013	From Version 6 to 7	Added	Added the Service and Support section.
		Changed	Changes made throughout the Product Specifications sections.
04-Dec-2012	From Version 5 to 6	Changed	Changes made throughout the entire QuickSpec.
30-Aug-2011	From Version 4 to 5	Changed	Changes made throughout the entire QuickSpec.
21-Apr-2011	From Version 3 to 4	Changed	Part numbers were revised and added.
05-Apr-2011	From Version 2 to 3	Changed	Part numbers were revised and Insert AE at the end of a part number for an electronic LTU note was added.
23-Feb-2011	From Version 1 to 2	Changed	Changed the Overview information for the HP 3PAR Adaptive Optimization section.