

Overview

HPE 3PAR Software Products

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

HPE 3PAR StoreServ Software Suites

HPE 3PAR StoreServ provides 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.

Additional HPE 3PAR Software

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

HPE 3PAR Host Software

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

What's New

HPE 3PAR File Persona:

- File Lock feature for long term data retention
- StoreOnce Recovery Manager Central Express Protect backup
- Support for FTP

HPE 3PAR Operating System Software Suite

Overview HPE 3PAR Operating System Software Suite is the foundation software of HPE 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 HPE EVA and 3PAR systems to HPE 3PAR StoreServ Storage is easy with the included 1 year Online Import license. HPE 3PAR SmartStart Software, included in the suite for HPE 3PAR StoreServ 7xxx series, guides you through the configuration of the service processor, StoreServ Storage and the application hosts - making storage setup virtually effortless. HPE 3PAR Operating System Software Suite is a required purchase.

The Operating System Suite includes the following functionality and features:

- HPE 3PAR Operating System Software
- HPE 3PAR StoreServ Management Console
- HPE 3PAR 3PAR Online Import (1 year)
- HPE 3PAR Host Explorer
- HPE 3PAR System Reporter*
- HPE 3PAR SmartStart (not included in HPE 3PAR StoreServ 10000 and 20000)
- HPE 3PAR Virtual Service Processor (not included in HPE 3PAR StoreServ 10000 and 20000)

NOTE: * System Reporter is include in the 3PAR OS Suite for HPE 3PAR StoreServ 8000/20000 only; other platforms require Reporting Suite

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
	HP 3PAR 7450 Operating System Software Suite Drive LTU	BC891A
	HP 3PAR 20850 Operating System Suite Base LTU	L7C89A
	HP 3PAR 20850 Operating System Suite Drive LTU	L7C90A
	HPE 3PAR 20840 Operating System Software Suite Base LTU	L7E06A
	HPE 3PAR 20840 Operating System Software Suite Drive LTU	L7E07A
	HP 3PAR 20800 Operating System Suite Base LTU	L7C41A
	HP 3PAR 20800 Operating System Suite Drive LTU	L7C42A
	HP 3PAR 20450 Operating System Suite Base LTU	L7C65A

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HP 3PAR 20450 Operating System Suite Drive LTU	L7C66A
HP 3PAR 8200 Operating System Suite Base LTU	L7B45A
HP 3PAR 8200 Operating System Suite Drive LTU	L7B46A
HP 3PAR 8400 Operating System Suite Base LTU	L7B69A
HP 3PAR 8400 Operating System Suite Drive LTU	L7B70A
HP 3PAR 8440 Operating System Suite Base LTU	L7B93A
HP 3PAR 8440 Operating System Suite Drive LTU	L7B94A
HP 3PAR 8450 Operating System Suite Base LTU	L7C17A
HP 3PAR 8450 Operating System Suite Drive LTU	L7C18A

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

HPE 3PAR Operating System Software

Overview

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

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

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

NOTE: *Available on HPE 3PAR StoreServ 8000 and 20000 platforms only

Product Highlights

HPE 3PAR Access Guard

Access Guard is an HPE 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.

HPE 3PAR Autonomic Groups

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

HPE 3PAR Full Copy

Full Copy is an HPE 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.

HPE 3PAR Persistent Cache

HPE 3PAR Persistent Cache is a resiliency feature built into the HPE 3PAR OS that allows "always on" 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. HPE 3PAR Persistent Cache leverages the clustered HPE 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 HPE 3PAR arrays, including StoreServ 7400 and the InServ F400-making 3PAR HPE the only vendor to incorporate this industry-leading service level protection capability into midrange as well as high-end arrays.

HPE 3PAR Persistent Ports

HPE 3PAR Persistent Ports is a Tier 1 resiliency feature that allows for non-disruptive online software upgrades on HPE 3PAR StoreServ Storage systems without relying on multipathing software. This feature, available on all HPE 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) 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 HPE 3PAR OS 3.1.3 Persistent Ports also autonomically fails over a

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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.

HPE 3PAR Persistent Checksum

HPE 3PAR Persistent Checksum: Persistent Checksum is a data integrity feature built in to the HPE 3PAR OS that ensures data integrity to ensure end to end data protection via a T10 Data Integrity Field (DIF). Persistent Checksum addresses media and transmission errors that can be caused by any component in the I/O stack and provides additional protection above FC/Iscsi/ CRC transmissions. With supported HBA's on hosts T10- DIF tags are added and verified on the HPE 3PAR StoreServ Storage system and when host HBA's are not supported T10-DIF tags are added and verified on the array target ports and backend HBA's before data is written to the array drives. This technology is available on systems with GEN5 ASIC only.

HPE 3PAR Autonomic Rebalance

HPE 3PAR Autonomic Rebalance provides the ability to analyze how volumes on the HPE 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.

HPE 3PAR Web Services API

HPE 3PAR Web Services API delivers a programming interface for implementing durable automation of storage management tasks with HPE 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).

HPE 3PAR OS Administration Tools

The HPE 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 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).

HPE 3PAR LDAP

Support Native support for lightweight directory access protocol (LDAP) within the HPE 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

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integrate HPE 3PAR Utility StoreServ Storage with standard, open enterprise directory services. The result is simplified security administration with centralized access control and identity management.

HPE 3PAR RAID MP (Multi-Parity)

HPE 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 HPE 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.

HPE 3PAR Rapid Provisioning

The HPE 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.

HPE 3PAR Scheduler

HPE 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 HPE 3PAR Utility StoreServ Storage. When used in conjunction with Autonomic Groups, HPE 3PAR Scheduler automates virtual copy snapshots across multiple boot and data volumes with full write consistency across all these different volumes.

HPE 3PAR Adaptive Flash Cache

Adaptive Flash Cache provides DRAM cache extension by leveraging HPE 3PAR first in class virtualization technologies. This functionality allows dedicating a portion of SSDs capacity as an augmentation of the HPE 3PAR Array primary cache, reducing application response time for read-intensive I/O workloads and improving write throughput in mixed workload environments

HPE 3PAR Thin Technologies

Overview

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

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- **Start Thin:** HPE 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 HPE 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 HPE 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. HPE 3PAR Thin Conversion software makes this possible by leveraging the zero-detection capabilities within the HPE 3PAR ASIC and Thin Engine - HPE 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 HPE 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.

HPE 3PAR Thin Technologies includes the following features:

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

More details about HPE 3PAR Thin Technologies can be found in the HPE 3PAR Thin Technologies White paper available [here](#).

HPE 3PAR StoreServ Software Suites

The HPE 3PAR StoreServ Storage family 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.

HPE 3PAR File Persona Software Suite

Technical Specifications

Overview

The HPE 3PAR File Persona Software Suite is a licensed feature of the 3PAR OS that enables a rich set of file protocols and core file data services on a converged 3PAR StoreServ system. As a feature of the 3PAR OS, the File Persona inherits the industry leading architecture and Block Persona benefits of 3PAR StoreServ. It extends the spectrum of primary storage workloads natively addressed by 3PAR StoreServ from virtualization, databases, and applications via the Block Persona to also include such as home directory consolidation and user shares, content management and collaboration, data preservation/governance and custom cloud applications via the File Persona - all with one converged controller architecture, one agile capacity group, and one truly unified management GUI and CLI.

The File Persona is supported on the HPE 3PAR StoreServ 7000c, 8000 and 20800/20840/20450/20850. It requires the installation of 1GbE or 10GbE network cards or enabling on-board RCIP port (1GbE/10GbE) for File Persona.

Models

HP 3PAR 7200c File Persona Software Suite 1TB LTU	BD408A
HP 3PAR 7400c File Persona Software Suite 1TB LTU	BD409A
HP 3PAR 7440c File Persona Software Suite 1TB LTU	BD410A
HP 3PAR 7450c File Persona Software Suite 1TB LTU	BD411A
HP 3PAR 8200 File Persona Software Suite 1TB LTU	BD440A
HP 3PAR 8400 File Persona Software Suite 1TB LTU	BD441A
HP 3PAR 8440 File Persona Software Suite 1TB LTU	BD442A
HP 3PAR 8450 File Persona Software Suite 1TB LTU	BD443A
HP 3PAR 20450 File Persona Software Suite 1TB LTU	BD445A
HP 3PAR 20800 File Persona Software Suite 1TB LTU	BD444A
HP 3PAR 20850 File Persona Software Suite 1TB LTU	BD446A
HP 3PAR 20840 File Persona Software Suite 1TB LTU	L7E05A

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

Product Highlights

- Rich file protocols including SMB 3.0, 2.1, 2.0, and 1.0, NFSv4.0, v3.0 and FTP to support a broad range of client operating systems.
- Object Access API that enables programmatic data access via a REST API for select custom cloud applications from virtually any device anywhere.
- Transparent failover for clients via SMB 3.0 and NFS to allow for non-disruptive 3PAR OS upgrades or in the event of a controller failure.
- File Lock for policy-based and ad hoc file level retention and immutability
- Performance acceleration leveraging Adaptive Flash Cache for read intensive workloads.
- Data compaction via Thin Built-In Zero Detect and Thin Provisioning, plus data optimization via the separately licensed Adaptive Optimization and Dynamic Optimization.
- Comprehensive data protection with point-in-time File Store snapshots for in place data protection and for user driven file recovery, StoreOnce Recovery Manager Central Express Protect for high-speed protection of entire File Provisioning Groups, support for third party antivirus and data protection software, and disaster

Technical Specifications

- recovery replication via the separately licensed Remote Copy.
- Security of FIPS 140-2 validated Data At Rest Encryption as an optional additional measure to prevent unauthorized data access.
- Seamless integration with a broad range of IT infrastructure. This includes Active Directory, Folder Redirection, Offline Files, Roaming User Profiles, DFS-Namespace, and Microsoft Management Console for Microsoft-based IT infrastructure. It also includes LDAP and local user authentication for Linux-based IT infrastructure.
- Single management interface for file and block through the 3PAR StoreServ Management Console (SSMC) GUI with a performance dashboard, custom reports capability and the 3PAR OS CLI.

HPE 3PAR Data Optimization Software Suite

Overview The HPE 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 HPE 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:

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

The Data Optimization Software Suite is offered on HPE 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
	HP 3PAR 20800 Data Optimization Software Suite v2 Base LTU	L7C43A
	HP 3PAR 20800 Data Optimization Software Suite v2 Drive LTU	L7C44A

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HP 3PAR 20850 Data Optimization Software Suite v2 Base LTU	L7C91A
HP 3PAR 20850 Data Optimization Software Suite v2 Drive LTU	L7C92A
HP 3PAR 20840 Data Optimization Software Suite v2 Base LTU	L7E08A
HP 3PAR 20840 Data Optimization Software Suite v2 Drive LTU	L7E09A
HP 3PAR 20450 Data Optimization Software Suite v2 Base LTU	L7C67A
HP 3PAR 20450 Data Optimization Software Suite v2 Drive LTU	L7C68A
HP 3PAR 8200 Data Optimization Software Suite v2 Base LTU	L7B47A
HP 3PAR 8200 Data Optimization Software Suite v2 Drive LTU	L7B48A
HP 3PAR 8400 Data Optimization Software Suite v2 Base LTU	L7B71A
HP 3PAR 8400 Data Optimization Software Suite v2 Drive LTU	L7B72A
HP 3PAR 8440 Data Optimization Software Suite v2 Base LTU	L7B95A
HP 3PAR 8440 Data Optimization Software Suite v2 Drive LTU	L7B96A
HP 3PAR 8450 Data Optimization Software Suite v2 Base LTU	L7C19A
HP 3PAR 8450 Data Optimization Software Suite v2 Drive LTU	L7C20A

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

HPE 3PAR Replication Software Suite

Overview The HPE 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 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. HPE 3PAR Peer Persistence software enables HPE 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:

- HPE 3PAR Virtual Copy
- HPE 3PAR Remote Copy
- HPE 3PAR Peer Persistence
- HPE 3PAR Cluster Extension (CLX)*

NOTE: * CLX is included in the Replication Suite for HPE 3PAR StoreServ 8000 and 20000 only

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

Technical Specifications

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
HP 3PAR 20850 Replication Software Suite Base LTU	L7C93A
HP 3PAR 20850 Replication Software Suite Drive LTU	L7C94A
HP 3PAR 20840 Replication Software Suite Base LTU	L7E10A
HP 3PAR 20840 Replication Software Suite Drive LTU	L7E11A
HP 3PAR 20800 Replication Software Suite Base LTU	L7C45A
HP 3PAR 20800 Replication Software Suite Drive LTU	L7C46A
HP 3PAR 20450 Replication Software Suite Base LTU	L7C69A
HP 3PAR 20450 Replication Software Suite Drive LTU	L7C70A
HP 3PAR 20000 Replication Software Suite 1TB Provisioned LTU	L7D53A
HP 3PAR 8200 Replication Software Suite Base LTU	L7B49A
HP 3PAR 8200 Replication Software Suite Drive LTU	L7B50A
HP 3PAR 8400 Replication Software Suite Base LTU	L7B73A
HP 3PAR 8400 Replication Software Suite Drive LTU	L7B74A
HP 3PAR 8440 Replication Software Suite Base LTU	L7B97A
HP 3PAR 8440 Replication Software Suite Drive LTU	L7B98A
HP 3PAR 8450 Replication Software Suite Base LTU	L7C21A
HP 3PAR 8450 Replication Software Suite Drive LTU	L7C22A

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

HPE 3PAR Security Software Suite

Overview HPE 3PAR Security Software Suite provides secure administrative segregation of users and hosts, allowing individual user groups and applications to confidently share a HPE 3PAR StoreServ Storage system. It also allows you to secure volumes and copies so they cannot be deleted, even by a HPE 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:

- HPE 3PAR Virtual Domains
- HPE 3PAR Virtual Lock

Technical Specifications

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
	HP 3PAR 20800 Security Software Suite Base LTU	L7C49A
	HP 3PAR 20800 Security Software Suite Drive LTU	L7C50A
	HP 3PAR 20850 Security Software Suite Base LTU	L7C97A
	HP 3PAR 20850 Security Software Suite Drive LTU	L7C98A
	HP 3PAR 20840 Security Software Suite Base LTU	L7E14A
	HP 3PAR 20840 Security Software Suite Drive LTU	L7E15A
	HP 3PAR 20450 Security Software Suite Base LTU	L7C73A
	HP 3PAR 20450 Security Software Suite Drive LTU	L7C74A
	HP 3PAR 8200 Security Software Suite Base LTU	L7B53A
	HP 3PAR 8200 Security Software Suite Drive LTU	L7B54A
	HP 3PAR 8400 Security Software Suite Base LTU	L7B77A
	HP 3PAR 8400 Security Software Suite Drive LTU	L7B78A
	HP 3PAR 8440 Security Software Suite Base LTU	L7C01A
	HP 3PAR 8440 Security Software Suite Drive LTU	L7C02A
	HP 3PAR 8450 Security Software Suite Base LTU	L7C25A
	HP 3PAR 8450 Security Software Suite Drive LTU	L7C26A

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

HPE 3PAR Reporting Software Suite

Overview HPE 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 HPE 3PAR StoreServ Storage and the application host.

The Reporting Suite includes the following products:

- HPE 3PAR System Reporter
- HPE 3PARinfo (electronic download [here](#))

Technical Specifications

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 (e.g. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

NOTE: Reporting Suite is not necessary for HPE 3PAR StoreServ 8000 and 20000 platforms as System Reporter is part of the 3PAR Operating Suite

Individual HPE 3PAR StoreServ Software

HPE 3PAR OS Additional Software is also offered as individual titles :

- ***Smart SAN for 3PAR
- Virtual Copy
- Remote Copy
- Peer Persistence*
- Adaptive Optimization
- Dynamic Optimization
- Priority Optimization
- Virtual Domains*
- Virtual Lock*
- Peer Motion
- Online Import
- System Reporter

NOTE: File Persona Software Suite ***These individual titles are not available a-la-carte on HPE 3PAR StoreServ 8000 and 20000 platforms, they must be purchased via a suite.

** HPE 3PAR File Persona Software Suite is available for HPE 3PAR StoreServ 7000c, 8000 and 20000 storage only.

*** HPE Smart SAN is not available as a factory install on the 3PAR StoreServ 7000 and 3PAR StoreServ 10000 until 3.2.2 MU2 or higher is available as a factory install.

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HPE Smart SAN for 3PAR Software

Overview

HPE Smart SAN for HPE 3PAR makes end-to-end SAN configuration and management simple and autonomic, reducing the probability of errors through SAN automation. It is an application embedded in the SAN that leverages StoreFabric components with intelligence from the array (hosts and switches), which enables the 3PAR to automate configuration for settings and policies across the SAN. Smart SAN is only supported on HPE 3PAR storage, HPE StoreFabric B-series Switches, and HPE Q and E 16Gb FC adapters (HBAs). HPE Smart SAN for 3PAR leverages Industry Standards based Peer zoning, called Target Driven Peer Zoning (TDPZ) to automate SAN zoning. Smart SAN features enable customers to automate peer zoning, resulting in the creation of fewer zones, and enables configuration of zones in minutes, not hours, which is the case with traditional manual SAN zoning. Additional information can be found here: <http://www8.hp.com/us/en/products/storage-software/product-detail.html?oid=8295863#!tab=features>.

HP Smart SAN for HP 3PAR 7000 LTU	L7D48A
HP Smart SAN for HP 3PAR 7000 E-LTU	L7D48AAE
	BD221A
HP Smart SAN for HP 3PAR 8000 LTU	L7D49A
HP Smart SAN for HP 3PAR 8000 E-LTU	L7D49AAE
HP Smart SAN for HP 3PAR 10000 LTU	L7D50A
HP Smart SAN for HP 3PAR 10000 E-LTU	L7D50AAE
HP Smart SAN for HP 3PAR 20000 LTU	L7D51A
HP Smart SAN for HP 3PAR 20000 E-LTU	L7D51AAE

NOTE: HPE Smart SAN is not available as a factory install on 3PAR StoreServ 7000 and 3PAR StoreServ 10000 until 3.2.2 MU2 or higher is available as a factory install. However, if the OS is updated to 3.2.2 MU2 or higher you can order the electronic license to use ELTU SKUs to enable Smart SAN Software.

NOTE: Requires 3PAR StoreServ 3.2.2 or later with HP 3PAR StoreServ 7000 2-port 16Gb Fibre Channel Adapter E7X47A.

NOTE: Requires 3PAR StoreServ 3.2.2 or later with HP 3PAR StoreServ 8000 4-port 16Gb Fibre Channel Adapter H6Z00A.

NOTE: Requires 3PAR StoreServ 3.2.2 or later with HP 3PAR StoreServ 10000 2-port 16Gb Fiber Channel Upgrade Host Bus Adapter E7Y67A.

NOTE: Requires 3PAR StoreServ 3.2.2 or later with HP 3PAR StoreServ 20000 4-port 16Gb Fiber Channel Upgrade Host Bus Adapter C8S96A.

NOTE: Supports HPE FlexFabric 5900CP Series switches and HPE Flexfabric 5930 Series switches with 24-port CP 2QSFP option, Comware Software version 7.1.045, release 2422PO1 or later.

Technical Specifications

NOTE: Supports HPE StoreFabric B-series Brocade 16/8Gb FC switches with FOS 7.4a or later.

NOTE: Supports HPE StoreFabric HPE 16Gb FC adapters: SN1000Q 2P (QW972A), SN1000Q 1P (QW971A) and QLE2560 - 81q (AK344A), QLE2562 - 82q (AJ764A).

Product Highlights

- Protocol agnostic end-to-end SAN management and orchestration from 3PAR StoreServ array enabled via in-band metadata collection
- Standards based—leverages Fibre Channel Standards Technical Committee T11 Peer Zoning
- Automated Target Driven Peer Zoning (TDPZ) makes zoning simple for a HP 3PAR SAN and StoreFabric hosts and switches
- SAN intelligence automatically collected from HPE StoreFabric B-series and HPE FlexFabric 5900CP Series switches, HPE Flexfabric 5930 Series switches with 24-port CP 2QSFP option, and HPE StoreFabric HPE 16Gb FC adapters: SN1000Q 2P (QW972A), SN1000Q 1P (QW971A) and QLE2560 - 81q (AK344A), QLE2562 - 82q (AJ764A).
- Automatic discovery using FC in-band FC-CT/FDMI access
- From a single point in the fabric, display meaningful information for any device to ease network troubleshooting
- Control through 3PAR CLI
- Embedded in the firmware - No additional software needed

HPE 3PAR Virtual Copy Software

Overview

Built on thin copy technology, HPE 3PAR Virtual Copy is a reservation less, 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 HPE 3PAR Autonomic Groups and HPE 3PAR Scheduler-both features which are built into the HPE 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 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.

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

Technical Specifications

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
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
HP 3PAR 20850 Virtual Copy Base LTU	L7D01A
HP 3PAR 20850 Virtual Copy Drive LTU	L7D02A
HPE 3PAR 20840 Virtual Copy Software Base LTU	L7E18A
HPE 3PAR 20840 Virtual Copy Software Drive LTU	L7E19A
HP 3PAR 20800 Virtual Copy Base LTU	L7C53A
HP 3PAR 20800 Virtual Copy Drive LTU	L7C54A
HP 3PAR 20450 Virtual Copy Base LTU	L7C77A
HP 3PAR 20450 Virtual Copy Drive LTU	L7C78A
HP 3PAR 20000 Virtual Copy Software 1TB Provisioned LTU	L7D54A
HP 3PAR 8200 Virtual Copy Base LTU	L7B57A
HP 3PAR 8200 Virtual Copy Drive LTU	L7B58A
HP 3PAR 8400 Virtual Copy Base LTU	L7B81A
HP 3PAR 8400 Virtual Copy Drive LTU	L7B82A
HP 3PAR 8440 Virtual Copy Base LTU	L7C05A
HP 3PAR 8440 Virtual Copy Drive LTU	L7C06A
HP 3PAR 8450 Virtual Copy Base LTU	L7C29A
HP 3PAR 8450 Virtual Copy Drive LTU	L7C30A

NOTE: Insert AE at the end of a part number for an electronic LTU (e.g. 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.
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Technical Specifications

- Thin copy-on-write technology and massive parallelism mean little to no performance impact.
- Freely delete snapshots without affecting peer snapshots.

HPE 3PAR Remote Copy Software

Overview

HPE 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 HPE 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, HPE 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 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
HP 3PAR 20800 Remote Copy Base LTU	L7C51A
HP 3PAR 20800 Remote Copy Drive LTU	L7C52A
HP 3PAR 20850 Remote Copy Base LTU	L7C99A
HP 3PAR 20850 Remote Copy Drive LTU	L7D00A
HPE 3PAR 20840 Remote Copy Software Base LTU	L7E16A
HPE 3PAR 20840 Remote Copy Software Drive LTU	L7E17A
HP 3PAR 20450 Remote Copy Base LTU	L7C75A
HP 3PAR 20450 Remote Copy Drive LTU	L7C76A
HP 3PAR 20000 Remote Copy Software 1TB Provisioned LTU	L7D52A
HP 3PAR 8200 Remote Copy Base LTU	L7B55A
HP 3PAR 8200 Remote Copy Drive LTU	L7B56A
HP 3PAR 8400 Remote Copy Base LTU	L7B79A
HP 3PAR 8400 Remote Copy Drive LTU	L7B80A
HP 3PAR 8440 Remote Copy Base LTU	L7C03A

Technical Specifications

HP 3PAR 8440 Remote Copy Drive LTU	L7C04A
HP 3PAR 8450 Remote Copy Base LTU	L7C27A
HP 3PAR 8450 Remote Copy Drive LTU	L7C28A

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

Product Highlights

- **Autonomic Configuration:** With the HPE 3PAR StoreServ 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 HPE 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 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:** HPE 3PAR Remote Copy is a host-independent, array-based data mirroring solution that boosts performance by offloading host servers of replication tasks. HPE 3PAR Virtual Volumes (VVs) are mirrored from one HPE 3PAR array to another over variable distances using the mode of operation that best fits your needs.
- **Flexible, Modular Architecture:** HPE 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. HPE 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:** HPE 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:** HPE 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:** HPE 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 HPE 3PAR Thin Provisioning and HPE 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.

Technical Specifications

HPE 3PAR Peer Persistence

Overview

HPE 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 HPE 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

HP 3PAR 10400 Peer Persistence Software Base LTU	BD204A
HP 3PAR 10400 Peer Persistence Software Magazine LTU	BD215A
HP 3PAR 10400 Peer Persistence Software 1TB Provisioned LTU	BD188A
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 (e.g. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HPE 3PAR Adaptive Optimization

Overview

HPE 3PAR Adaptive Optimization Software 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.

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 HPE 3PAR StoreServ 10000 Storage Systems and in the Data Optimization Software Suite v2 on HPE 3PAR

Technical Specifications

StoreServ 7000 and 7450 Storage.

HP 3PAR Adaptive Optimization 90-day Evaluation LTU	TE337B
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
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
HP 3PAR 20800 Adaptive Optimization Base LTU	L7C57A
HP 3PAR 20800 Adaptive Optimization Drive LTU	L7C58A
HP 3PAR 20850 Adaptive Optimization Base LTU	L7D05A
HP 3PAR 20850 Adaptive Optimization Drive LTU	L7D06A
HPE 3PAR 20840 Adaptive Optimization Software Base LTU	L7E22A
HPE 3PAR 20840 Adaptive Optimization Software Drive LTU	L7E23A
HP 3PAR 20450 Adaptive Optimization Base LTU	L7C81A
HP 3PAR 20450 Adaptive Optimization Drive LTU	L7C82A
HP 3PAR 8200 Adaptive Optimization Base LTU	L7B61A
HP 3PAR 8200 Adaptive Optimization Drive LTU	L7B62A
HP 3PAR 8400 Adaptive Optimization Base LTU	L7B85A
HP 3PAR 8400 Adaptive Optimization Drive LTU	L7B86A
HP 3PAR 8440 Adaptive Optimization Base LTU	L7C09A
HP 3PAR 8440 Adaptive Optimization Drive LTU	L7C10A
HP 3PAR 8450 Adaptive Optimization Base LTU	L7C33A
HP 3PAR 8450 Adaptive Optimization Drive LTU	L7C34A

NOTE: Insert AE at the end of a part number for an electronic LTU (e.g. 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.

HPE 3PAR Dynamic Optimization

Overview

HPE 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 HPE 3PAR StoreServ 10000 Storage Systems and in the Data Optimization Software Suite v2 on HPE 3PAR StoreServ 7000 and 7450 Storage.

HP 3PAR Dynamic Optimization 90-day Evaluation LTU	TE092B
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
HP 3PAR 20850 Dynamic Optimization Base LTU	L7D03A
HP 3PAR 20850 Dynamic Optimization Drive LTU	L7D04A
HPE 3PAR 20840 Dynamic Optimization Software Base LTU	L7E20A
HPE 3PAR 20840 Dynamic Optimization Software Drive LTU	L7E21A
HP 3PAR 20800 Dynamic Optimization Base LTU	L7C55A
HP 3PAR 20800 Dynamic Optimization Drive LTU	L7C56A
HP 3PAR 20450 Dynamic Optimization Base LTU	L7C79A
HP 3PAR 20450 Dynamic Optimization Drive LTU	L7C80A
HP 3PAR 8200 Dynamic Optimization Base LTU	L7B59A
HP 3PAR 8200 Dynamic Optimization Drive LTU	L7B60A
HP 3PAR 8400 Dynamic Optimization Base LTU	L7B83A
HP 3PAR 8400 Dynamic Optimization Drive LTU	L7B84A
HP 3PAR 8440 Dynamic Optimization Base LTU	L7C07A
HP 3PAR 8440 Dynamic Optimization Drive LTU	L7C08A
HP 3PAR 8450 Dynamic Optimization Base LTU	L7C31A
HP 3PAR 8450 Dynamic Optimization Drive LTU	L7C32A

Technical Specifications

NOTE: Insert AE at the end of a part number for an electronic LTU (e.g. 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 button.
- Allows for large-scale performance optimizations after adding new resources to the system or moving a large number of volumes between tiers.

HPE 3PAR Virtual Domains

Overview

HPE 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 HPE 3PAR StoreServ, Virtual Domains allows individual user groups and applications to affordably achieve greater storage service levels (performance, availability, and functionality) than previously possible.

HPE 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.

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 (e.g. 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

Technical Specifications

- 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 HPE 3PAR OS software products and features including 3PAR Remote Copy, System Reporter, LDAP support, and Autonomic Groups

HPE 3PAR Virtual Lock Software

Overview

The need for secure data retention is a fact of doing business in the information age. HPE 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).

HPE 3PAR Virtual Lock prevents deletion of virtual volumes (including thin volumes created with HPE 3PAR Thin Provisioning software) and volume copies (such as those created with HPE 3PAR Virtual Copy or HPE 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 HPE 3PAR Store 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.

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
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 (e.g. XXXXBAE). E-Delivery should be ordered with any Standalone or Upgrade software order.

HPE 3PAR Peer Motion

Overview

HPE 3PAR Peer Motion Software is the first non-disruptive, do-it-yourself data migration

Technical Specifications

tool for enterprise Storage Area Networks. With Peer Motion, HPE 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 HPE 3PAR StoreServ Storage Systems online, non-disruptively, and without complex planning or dependency on extra tools. Peer Motion leverages HPE 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 HPE 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.

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
HP 3PAR 20800 Peer Motion Base LTU	L7C59A
HP 3PAR 20800 Peer Motion Drive LTU	L7C60A
HP 3PAR 20850 Peer Motion Base LTU	L7D07A
HP 3PAR 20850 Peer Motion Drive LTU	L7D08A
HPE 3PAR 20840 Peer Motion Software Base LTU	L7E24A
HPE 3PAR 20840 Peer Motion Software Drive LTU	L7E25A
HP 3PAR 20450 Peer Motion Base LTU	L7C83A
HP 3PAR 20450 Peer Motion Drive LTU	L7C84A
HP 3PAR 8200 Peer Motion Base LTU	L7B63A
HP 3PAR 8200 Peer Motion Drive LTU	L7B64A
HP 3PAR 8400 Peer Motion Base LTU	L7B87A
HP 3PAR 8400 Peer Motion Drive LTU	L7B88A
HP 3PAR 8440 Peer Motion Base LTU	L7C11A
HP 3PAR 8440 Peer Motion Drive LTU	L7C12A
HP 3PAR 8450 Peer Motion Base LTU	L7C35A
HP 3PAR 8450 Peer Motion Drive LTU	L7C36A

Technical Specifications

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

HPE 3PAR Online Import Software

Overview

HPE 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 HPE EVA Storage, EMC CX4 or EMC VNX Storage to HPE 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
HP 3PAR 20800 Online Import 180-day LTU	L7C64A
HP 3PAR 20850 Online Import Software 180-day LTU	L7D12A
HPE 3PAR 20840 Online Import Software 180-day LTU	L7E29A
HP 3PAR 20450 Online Import 180-day LTU	L7C88A
HP 3PAR 8200 Online Import 180-day LTU	L7B68A
HP 3PAR 8400 Online Import 180-day LTU	L7B92A
HP 3PAR 8440 Online Import 180-day LTU	L7C16A
HP 3PAR 8450 Online Import 180-day LTU	L7C40A

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

HPE 3PAR Priority Optimization

Overview

HPE 3PAR Priority Optimization Software enables service levels for applications and workloads as business requirements dictate. HPE 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 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. HPE

Technical Specifications

3PAR Priority Optimization control is implemented within the HPE 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	BC992
	HP 3PAR 10400 Priority Optimization Software Base LTU	BD206
	HP 3PAR 10400 Priority Optimization Software Magazine LTU	BD217
	HP 3PAR 10800 Priority Optimization Software Base LTU	BD228
	HP 3PAR 10800 Priority Optimization Software Magazine LTU	BD239
	HP 3PAR 7200 Priority Optimization Software Base LTU	BC986
	HP 3PAR 7200 Priority Optimization Software Drive LTU	BC987
	HP 3PAR 7400 Priority Optimization Software Base LTU	BC988
	HP 3PAR 7400 Priority Optimization Software Drive LTU	BC989
	HP 3PAR 7440c Priority Optimization Base LTU	BD402
	HP 3PAR 7440c Priority Optimization Drive LTU	BD403
	HP 3PAR 7450 Priority Optimization Software Base LTU	BC990
	HP 3PAR 7450 Priority Optimization Software Drive LTU	BC991
	HP 3PAR 20800 Priority Optimization Base LTU	L7C61
	HP 3PAR 20800 Priority Optimization Software Drive LTU	L7C62A
	HP 3PAR 20850 Priority Optimization Base LTU	L7D09
	HP 3PAR 20850 Priority Optimization Drive LTU	L7D10
	HPE 3PAR 20840 Priority Optimization Software Base LTU	L7E26
	HPE 3PAR 20840 Priority Optimization Software Drive LTU	L7E27
	HP 3PAR 20450 Priority Optimization Base LTU	L7C85
	HP 3PAR 20450 Priority Optimization Drive LTU	L7C86
	HP 3PAR 8200 Priority Optimization Base LTU	L7B65
	HP 3PAR 8200 Priority Optimization Drive LTU	L7B66
	HP 3PAR 8400 Priority Optimization Base LTU	L7B89
	HP 3PAR 8400 Priority Optimization Drive LTU	L7B90
	HP 3PAR 8440 Priority Optimization Base LTU	L7C13
	HP 3PAR 8440 Priority Optimization Drive LTU	L7C14
	HP 3PAR 8450 Priority Optimization Base LTU	L7C37
	HP 3PAR 8450 Priority Optimization Drive LTU	L7C38

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

Technical Specifications

HPE StoreOnce Recovery Manager Central (RMC)

Protect your business critical applications without impacting performance using HPE StoreOnce Recovery Manager Central (RMC). This automated, non-intrusive software combines the simplicity and performance of snapshots with the reliability and cost-effective retention of deduplicated backups. RMC integrates 3PAR StoreServ primary storage and StoreOnce Backup for converged data protection that delivers assured recovery of application-consistent recovery points with flexible recovery options. RMC offers a simple, efficient and fast backup and recovery solution, which augments traditional backup applications.

HPE StoreOnce RMC for VMware is a license that enables RMC customers to protect VMware Virtual Machine Disks (VMDKs) and data stores using application-consistent snapshots for rapid online recovery. At the same time, the Express Protect feature (enabled by the StoreOnce Catalyst license) offers a second-tier of data protection by facilitating direct backup from 3PAR StoreServ to StoreOnce. Backups to StoreOnce are self-contained volumes, deduplicated to save space, and can be used to recover back to the original or a different 3PAR StoreServ array, even if the original base volume is lost. VMware administrators can access all of this functionality from within the familiar VMware vCenter management console.

HPE StoreOnce Recovery Manager Central - Application plug-ins

Overview HPE StoreOnce Recovery Manager Central provides integration with specific hypervisor/application environments through the following plug-ins.

HPE StoreOnce Recovery Manager Central for VMware: allows VMware administrators to create hundreds of VM-aware consistent snapshots and initiate rapid online recovery directly from within the VMware vCenter™ Server virtualization management console. Using the StoreOnce RMC Express Protect feature customers can also backup to StoreOnce directly. The backups are self-contained volumes that can be restored back to the original or different 3PAR StoreServ array in the event of a disaster.

OneView for VMware vCenter plug-in: gives VMware administrators enhanced visibility of storage resources and precise insight into how individual virtual machines are mapped to datastores and individual storage volumes. When used in conjunction with StoreOnce Recovery Manager Central for VMware, this plug-in gives administrators the power of seamless, rapid online recovery from either snapshots or backups directly from within the vCenter Server virtualization management console.

NOTE: additional application-specific plug-ins will be made available through subsequent releases of the HPE StoreOnce RMC software.

SKUs at-a-glance	HP StoreOnce Recovery Manager Central LTU / E-LTU	D4U75A / D4U75AAE
	HP StoreOnce Recovery Manager Central with VMware for 3PAR StoreServ 72xx/82xx LTU / E-LTU	D4U64A / D4U64AAE
	HP StoreOnce Recovery Manager Central with VMware for 3PAR StoreServ 10xxx/20xxx LTU / E-LTU	D4U65A / D4U65AAE
	HP StoreOnce Recovery Manager Central with VMware for 3PAR StoreServ 74xx/84xx LTU / E-LTU	D4U66A / D4U66AAE
	HP StoreOnce Recovery Manager Central Media	D4U76A

HPE 3PAR Application Software Suite for Exchange

Technical Specifications

Overview HPE 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:

- HPE 3PAR Recovery Manager for Exchange
- HPE 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	BD24
	HP 3PAR 10800 Application Suite for Microsoft Exchange LTU	BD25
	HP 3PAR 7200 Application Suite for Microsoft Exchange LTU	BC76
	HP 3PAR 7400 Application Suite for Microsoft Exchange LTU	BC79
	HP 3PAR 7440c Application Suite for Exchange LTU	BD37
	HP 3PAR 7450 Application Suite for Microsoft Exchange LTU	BC91

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

HPE 3PAR Application Software Suite for SQL

Overview HPE 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:

- HPE 3PAR Recovery Manager for SQL
- HPE 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	BD24
	HP 3PAR 10800 Application Suite for Microsoft SQL LTU	BD25
	HP 3PAR 7200 Application Suite for Microsoft SQL LTU	BC77
	HP 3PAR 7400 Application Suite for Microsoft SQL LTU	BC79
	HP 3PAR 7440c Application Suite for SQL LTU	BD37
	HP 3PAR 7450 Application Suite for Microsoft SQL LTU	BC91

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

HPE 3PAR Application Software Suite for Microsoft Hyper-V

Overview HPE 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.

Technical Specifications

The Application Suite for Hyper-V includes the following functionality and features:

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

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

Models	HP 3PAR 10400 Application Suite for Microsoft Hyper-V LTU	BD18
	HP 3PAR 10800 Application Suite for Microsoft Hyper-V LTU	BD18
	HP 3PAR 7200 Application Suite for Microsoft Hyper-V LTU	BD17
	HP 3PAR 7400 Application Suite for Microsoft Hyper-V LTU	BD17
	HP 3PAR 7440c Application Suite for Hyper-V LTU	BD38
	HP 3PAR 7450 Application Suite for Microsoft Hyper-V LTU	BD19

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

HPE OneView for Microsoft System Center

Overview HPE OneView for Microsoft System Center provides comprehensive integration with Microsoft System Center (SCOM and SCVMM) to enable management and monitoring of HPE 3PAR Storage running in Microsoft Hyper-V environments. It includes:

- HPE 3PAR Management Pack for SCOM (to discover and monitor pre-defined rules to display events/alerts, capacity & health dashboards)
- HPE Storage UI Add-in for SCVMM software (integrated view of VMs, Hosts, LUNs, CPGs and associated storage resources on HPE 3PAR Storage)

HPE 3PAR Storage also enables all Storage Management functionality provided by Microsoft System Center Virtual Machine Manager (SCVMM) via SMI-S providers.

For more information see https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=System_Center

HPE 3PAR Application Software Suite for Oracle

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

- HPE 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	BD24
	HP 3PAR 10800 Application Suite for Oracle LTU	BD26
	HP 3PAR 7200 Application Suite for Oracle LTU	BC77
	HP 3PAR 7400 Application Suite for Oracle LTU	BC79

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HP 3PAR 7440c Application Suite for Oracle LTU

BD37

HP 3PAR 7450 Application Suite for Oracle LTU

BC9'

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

HPE Storage plug-in for SAP LVM

Overview HPE Storage plug-in for SAP Landscape Virtualization Manager (LVM) is a high-performance and easy-to-use software to manage SAP landscapes in physical, virtual and cloud environments using HPE 3PAR Storage. It enables customers to Clone/Refresh SAP Systems and also relocate them across physical and virtual infrastructure reducing the administrative effort to manage the SAP landscape and improve productivity. It enhances the flexibility in making development and test data consistent with the production data and provides simple visualization to monitor and manage SAP Systems running on HPE 3PAR Storage. For more information see : https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=SAP_LVM

HPE StoreFront Remote SaaS Portal

Overview The HPE StoreFront Remote SaaS Portal provides proactive tools and integrated data collection from the HPE 3PAR StoreServ Storage arrays that call home to deliver unique insights and analytics all in one dashboard. Identify capacity and performance issues early through intuitive capacity and performance trend analysis and forecasting. These valuable analytics help maximize asset utilization and optimize the datacenter with recommendations and remedial actions when issues arise. Users can log into <http://www.storefrontremote.com> to claim their arrays and get access for free.

HPE 3PAR Host Software

Overview The following are host-based software products from HPE 3PAR.

HPE 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 array to reduce manual administration.

HPE 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.

HPE 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.

HPE 3PAR Cluster Extension Software: HPE 3PAR Cluster Extension Software offers rapid automated protection against application downtime from fault, failure, or site disaster. CLX integrates with the Windows OS

Technical Specifications

clustering software and HPE 3PAR Remote Copy to automate failover and failback between sites. The HPE 3PAR Cluster Extension Software is part of the HPE 3PAR Replication Suite for 8000 and 20000 models, however host based license is needed for the 7000 and 10000 models.

HPE 3PAR Policy Server

HPE 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 HPE 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 HPE 3PAR Storage systems.

HPE 3PAR Policy Server provides the following benefits:

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

Models

HP 3PAR Host Explorer Software Media Kit	TE250
HP 3PAR MPIO for Microsoft Windows Evaluation LTU	TE090
HP 3PAR MPIO for Microsoft Windows Software	TE083
HP 3PAR MPIO for IBM AIX Evaluation LTU	TE091
HP 3PAR MPIO for IBM AIX Media Kit	TE088
HP 3PAR Cluster Extension Windows LTU	TC355
HP 3PAR Cluster Extension Software Windows Array Media LTU	BC885
HP 3PAR Policy Manager Software LTU	TE400

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

Please note that the current HPE 3PAR CLX for Windows Array LTU/e-LTU will only support HPE 3PAR CLX for Windows v4.0 and above

HPE 3PAR StoreServ 10000 Software Suites Upgrade Options

Overview The HPE 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	BD28
	HP 3PAR 10800 Remote Copy to Replication Software Suite Upgrade LTU	BD29
	HP 3PAR 10400 Remote Copy Virtual Copy to Replication Software Suite Upgrade LTU	BD28
	HP 3PAR 10800 Remote Copy Virtual Copy to Replication Software Suite Upgrade LTU	BD29
	HP 3PAR 10400 Remote Copy Peer Persistence to Replication Software Suite Upg LTU	BD28
	HP 3PAR 10800 Remote Copy Peer Persistence to Replication Software Suite Upg LTU	BD29

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HP 3PAR 10400 Virtual Copy to Replication Software Suite Upgrade LTU	BD28
HP 3PAR 10800 Virtual Copy to Replication Software Suite Upgrade LTU	BD29
HP 3PAR 10400 Adaptive Optimization to Data Optimization SW Suite v2 Upg LTU	BD28
HP 3PAR 10800 Adaptive Optimization to Data Optimization SW Suite v2 Upg LTU	BD29
HP 3PAR 10400 Dynamic Optimization to Data Optimization SW Suite v2 Upgrade LTU	BD28
HP 3PAR 10800 Dynamic Optimization to Data Optimization SW Suite v2 Upgrade LTU	BD29
HP 3PAR 10400 Adaptive Opt Dynamic Opt to Data Optimization SW St v2 Upg LTU	BD28
HP 3PAR 10800 Adaptive Opt Dynamic Opt to Data Optimization SW St v2 Upg LTU	BD29
HP 3PAR 10400 Adaptive Optimzation Peer Mn to Data Optimization SW St v2 Upg LTU	BD28
HP 3PAR 10800 Adaptive Optimzation Peer Mn to Data Optimization SW St v2 Upg LTU	BD30
HP 3PAR 10400 Dynamic Optimization Peer Mn to Data Optimization SW St v2 Upg LTU	BD28
HP 3PAR 10800 Dynamic Optimization Peer Mn to Data Optimization SW St v2 Upg LTU	BD30
HP 3PAR 10400 Adpt Opt Dyn Opt Peer Mn to Data Optimization SW St v2 Upg LTU	BD28
HP 3PAR 10800 Adpt Opt Dyn Opt Peer Mn to Data Optimization SW St v2 Upg LTU	BD30
HP 3PAR 10400 Virtual Domain to Security Software Suite Upgrade LTU	BD29
HP 3PAR 10800 Virtual Domain to Security Software Suite Upgrade LTU	BD30
HP 3PAR 10400 Virtual Lock to Security Software Suite Upgrade LTU	BD29
HP 3PAR 10800 Virtual Lock to Security Software Suite Upgrade LTU	BD30
HP 3PAR 10400 Optimization Suite to Data Optimization Software Suite v2 Upg LTU	BD29
HP 3PAR 10800 Optimization Suite to Data Optimization Software Suite v2 Upg LTU	BD30

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

HPE 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	BD362
	HP 3PAR 7000/7450 Operating System Suite Media	BD363
	HP 3PAR 10000 Operating System Suite and Service Processor Software Media	BD364
	HP 3PAR StoreServ Reporting Suite Media	BD373
	HP 3PAR StoreServ Application Suite for Microsoft Exchange Media	BD368
	HP 3PAR StoreServ Application Suite for Microsoft Hyper-V Media	BD369
	HP 3PAR StoreServ Application Suite for Oracle Media	BD370
	HP 3PAR StoreServ Application Suite for Microsoft SQL Media	BD371
	HP 3PAR StoreServ Application Suite for VMware Media	BD372
	HP 3PAR 7000 Service Processor Software Media	BD365

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

Note on HPE 3PAR Software Licensing Schemes

HPE 3PAR follows multiple licensing schemes for different software offerings. There are four different licensing

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

- HPE 3PAR Online Import Software
- HPE 3PAR Reporting Software Suite
- HPE 3PAR Recovery Manager for VMware vSphere
- HPE 3PAR Recovery Manager for Microsoft Exchange
- HPE 3PAR Recovery Manager for Oracle
- HPE 3PAR Recovery Manager for Microsoft SQL Server
- HPE 3PAR Application Software Suite for VMware
- HPE 3PAR Application Software Suite for Exchange
- HPE 3PAR Application Software Suite for SQL
- HPE 3PAR Application Software Suite for Microsoft Hyper-V
- HPE 3PAR Application Software Suite for Oracle

The spindle based licensing approach requires a HPE 3PAR software offering to be licensed based on each drive or drive magazine installed on the HPE 3PAR Storage system. There are two different models followed based on this licensing mechanism - the spindle based licensing and the simplified spindle based licensing.

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 HPE 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 HPE 3PAR Storage system, there is a specific number of drives beyond which any software title is not required to be purchased for that system.

The following table shows the maximum drive limits for each of the HPE 3PAR Storage systems that support the simplified spindle based licensing approach:

HPE 3PAR StoreServ Storage	Maximum number of drives for licensing*	Comments
HPE 3PAR StoreServ 7200 Storage	48 drives	-
HPE 3PAR StoreServ 7200c Storage	48 drives	-
HPE 3PAR StoreServ 7400 Storage	168 drives	-
HPE 3PAR StoreServ 7400c Storage	168 drives	-
HPE 3PAR StoreServ 7440c Storage	320 drives	-
HPE 3PAR StoreServ 7450 Storage	no limit	-

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HPE 3PAR StoreServ 7450c Storage	168 drives	-
HPE 3PAR StoreServ 10400 Storage	320 drives	80 drive magazines
HPE 3PAR StoreServ 10800 Storage	640 drives	160 drive magazines
HPE 3PAR StoreServ 20800 Storage	480 drives	-
HPE 3PAR StoreServ 20850 Storage	320 drives	-
HPE 3PAR StoreServ 20840 Storage	640 drives	-
HPE 3PAR StoreServ 20450 Storage	168 drives	-
HPE 3PAR StoreServ 8200 Storage	48 drives	-
HPE 3PAR StoreServ 8400 Storage	168 drives	-
HPE 3PAR StoreServ 8440 Storage	320 drives	-
HPE 3PAR StoreServ 8450 Storage	168 drives	-

NOTE: *For a simplified spindle based software offering no further licensing is required for a system beyond these drive counts

The capacity based licensing approach is limited to specific software titles and restricted to specific 3PAR StoreServ model. For the replication software titles available on 3PAR StoreServ 10000 and 3PAR StoreServ 20000, the capacity based licensing approach involves licensing the software product based on the provisioned usable capacity in the system that is marked for any of the replication functions. For example, if a customer plans to use HPE 3PAR Remote Copy for replication of a 16TB volume (Fully provisioned) to a DR site, then 16TB of HPE 3PAR Remote Copy licenses need to be purchased for that particular system. Please note that the provisioned usable capacity of volume allocated as target of replication on the DR site, should also be licensed in the same way. Capacity based licensing is also available for the HPE 3PAR File Persona Software Suite. The software title has a 1TB software LTU for each HPE 3PAR StoreServ 7000c, 8000 and 20000 series models. The 1TB software LTU for a particular platform is a single SKU irrespective of the drive type or drive capacity. Specific number of 1TB LTUs need to be purchased for every TB used by that software title.

The following table shows the licensing models used in the various HPE 3PAR Storage platforms:

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Licensing Scheme	Spindle Based Licensing	Simplified Spindle Based Licensing	Capacity Based Licensing
HPE 3PAR StoreServ 7000 Storage	No	Yes	No
HPE 3PAR StoreServ 7000c Storage	No	Yes	Yes**
HPE 3PAR StoreServ 8000 Storage	No	Yes	Yes**
HPE 3PAR StoreServ 10000 Storage	Yes*	Yes	Yes***
HPE 3PAR StoreServ 20000 Storage	No	Yes	Yes****

- NOTE:**
- * Discontinued in favor of Simplified Spindle Based Licensing.
 - **Only for the HPE 3PAR File Persona Software Suite
 - *** Only for replication related titles - Peer Persistence, Remote Copy, Virtual Copy & Replication Suite
 - **** Only for replication related titles - Peer Persistence, Remote Copy, Virtual Copy & Replication Suite and File Persona Software Suite title

Please note that HPE 3PAR Software suites are available only in the form of simplified spindle based licensing and capacity based licensing.

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

HPE 3PAR Software Title	Spindle Based Licensing	Simplified Spindle Based Licensing	Capacity Based Licensing
HPE 3PAR Operating System Software	Yes	No	No
HPE 3PAR Thin Provisioning	Yes	No	No
HPE 3PAR Thin Conversion	Yes	No	No
HPE 3PAR Thin Persistence	Yes	No	No
HPE 3PAR Virtual Copy	Yes	Yes	Yes (10000 and 20000)
HPE 3PAR Remote Copy	Yes	Yes	Yes (10000 and 20000)
HPE 3PAR Peer Persistence	Yes	Yes	Yes (10000 and 20000)
HPE 3PAR Adaptive Optimization	Yes	Yes	No
HPE 3PAR Dynamic Optimization	Yes	Yes	No
HPE 3PAR Priority Optimization	Yes	Yes	No
HPE 3PAR System Turner	Yes	Yes	No
HPE 3PAR Virtual Domains	Yes	Yes	No
HPE 3PAR Virtual Lock	Yes	Yes	No
HPE 3PAR Peer Motion	Yes	Yes	No
HPE 3PAR Operating System Software Suite	No	Yes	No

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HPE 3PAR Replication Software Suite	No	Yes	Yes(10000 and 20000)
HPE 3PAR Optimization Software Suite*	Yes	Yes	No
HPE 3PAR Data Optimization Software Suite V2	No	Yes	No
HPE 3PAR Security Software Suite	No	Yes	No
HPE 3PAR File Persona Software Suite	No	No	Yes (7000c, 8000 and 20000)

NOTE: * Optimization Software Suite is available only on HPE 3PAR StoreServ 10000 Storage

Service and Support

Service and Support Protect your business beyond warranty with HPE Support Services. HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Our integrated portfolio of Services for storage help customers reduce costs, optimize data, streamline storage management, and improve backup and recovery. HPE Support Services enable you to choose the right service level, length of coverage and response time as you purchase your new storage solution, giving you full entitlement for the support for need for your IT and business.

Connect your devices Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77%¹ reduction in down time, near 100%² diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7 monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to Hewlett Packard Enterprise support.

1- IDC

2 - HP CSC reports 2014 - 2015

Recommended Services

Optimized Care HPE Proactive Care Advanced* - 24x7 coverage, three year Support Service. This services helps achieve a higher return on your product investment with personalized support from a local assigned Account Support Manager who will share best practice advice and personalized recommendations designed to help improve availability and performance to increase stability and reduce unplanned downtime. Leverage your system's ability to connect to Hewlett Packard Enterprise for pre-failure alerts, automatic call logging and parts dispatch. For business critical incidents, this service offers critical event management to reduce mean time to resolution. This recommendation provides 24x7 coverage with four-hour response for hardware and collaborative support that offers two-hour callback for supported software issues. Collaborative software management is included with independent software vendors unless you have your software support from Hewlett Packard Enterprise where we own all cases from start through to resolution.

<http://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA5-3259ENW&cc=us&lc=en>

Standard Care HPE Proactive Care* with 24x7 coverage, three year Support Service + 20 Services credits per year per array. HPE Proactive Care gives customers an enhanced call experience plus helps preventing problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice when your products are connected to Hewlett Packard Enterprise. This Service combines three years' proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem.

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf>

Basic Care HPE Proactive Care* with 24x7 coverage, three year Support Service + 10 Services credits per year per array. HPE Proactive Care gives customers an enhanced call experience plus helps preventing problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice when your products are connected to Hewlett Packard

Service and Support

Enterprise. This Service combines three years' proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem.

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf>

HPE Support Services
Support Credits

Services Support Credits offer flexible services and technical skills to meet your changing IT demands. With a menu of service that is tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT. Offered as annual credits, you can plan your budgets while proactively responding to your dynamic business.

NOTE: *HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables.

Related Services

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

HPE 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>

HPE 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>

HPE 3PAR StoreServ Storage Installation and Startup Service - Onsite installation and testing installs and tests HPE 3PAR StoreServ Storage, including configuration and deployment, properly integrated into your environment

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-2568ENW.pdf>

HPE 3PAR Software Installation and Startup Service - Support for deployment of licensed HPE 3PAR software products into operation

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-2569ENN.pdf>

HPE 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 HPE storage quickly and efficiently

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-0774ENW.pdf>

HPE EVA to HPE 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 HPE EVA to HPE 3PAR StoreServ Storage data migration at your

own pace and with lowered cost

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA4-4234ENW.pdf>

HPE 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>

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

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

HPE 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>

HPE Thin Volume Conversion Service - Evaluation and execution of conversion from standard to thin provisioned volumes for HPE 3PAR StoreServ Storage for when you are looking to optimize the utilization of HPE 3PAR StoreServ Storage by improving capacity utilization and performance

<http://h20195.www2.hp.com/V2/GetPDF.aspx/c01658303.pdf>

HPE 3PAR StoreServ Health Check - Assessment of the overall health and supportability of your HPE 3PAR StoreServ Storage

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA4-3404ENW.pdf>

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

HPE 3PAR Rebalance Service - Planning and coordinating activities led by HPE 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>

HPE 3PAR Storage Assessment Service - Assessment check based on a point-in-time snapshot of system configuration, capacity, supportability, and interoperability for a single HPE 3PAR Storage, ideal when you are experiencing rapid growth or need to establish a baseline understanding of your current HPE 3PAR StoreServ environment

<http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA4-0280ENW.pdf>

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Service and Support

For more information <http://www.hp.com/services/storage>

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- Services for customers purchasing from Hewlett Packard Enterprise or an enterprise reseller are quoted using Hewlett Packard Enterprise order configuration tools.
 - Customers purchasing from a commercial reseller can find HPE Support Service Services at: <http://www.hp.com/go/lookuptool>
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Summary of Changes

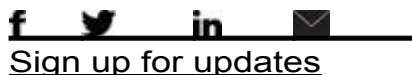
Date	Version History	Action	Description of Change
07-Jun-2016	From Version 33 to 34	Changed	Updated File Persona section for the new features and use cases
31-Mar-2016	From Version 32 to 33	Changed	Changes made to the Service and Support Section
16-Feb-2016	From Version 31 to 32	Changed	Changes made throughout the entire QuickSpecs
02-Oct-2015	From Version 30 to 31	Added	Added The HPE StoreFront Remote SaaS Portal
26-Aug-2015	From Version 29 to 30	Changed	Added SW SKUs for 8000 and 20000 models in all sections.
05-Jun-2015	From Version 28 to 29	Changed	Changes made throughout the entire QuickSpecs.
30-Mar 2015	From Version 27 to 28	Changed	Entered the File Persona SW SKUs. Updated the limited availability comments. Updated Models on the Technical Specifications Section.
20-Feb-2015	From Version 26 to 27	Changed	Added HPE 3PAR 10400 Peer Persistence Software 1TB Provisioned LTU - BD188A
12-Dec-2014	From Version 25 to 26	Changed	Change the control release statement on pg 30.
1-Dec-2014	From version 24 to 25	Added	Added section about HPE 3PAR File Persona Software Suite
10-Nov-2014	From Version 23 to 24	Changed	Changes made throughout the entire QuickSpecs.
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 QuickSpecs
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 QuickSpecs

Summary of Changes

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 HPE 3PAR Software Licensing Schemes to the Technical Specification section.
26-Aug-2013	From Version 10 to 11	Added	Added HPE 3PAR StoreServ 10000 Software Suites Upgrade Options.
11-Jun-2013	From Version 9 to 10	Added	Added a new part number BC959A to the HPE 3PAR Operating System Software section.
10-Jun-2013	From Version 8 to 9	Changed	Changes made throughout the entire QuickSpecs.
08-Mar-2013	From Version 7 to 8	Changed	Updated the following: Overview - added branding to Host Software; Inform OS Highlights - added HPE; Additional 3PAR Software - added Virtual Lock, Peer Motion and Peer Persistence; Product Specifications - replaced Vrt Cpy with Virtual Copy; 3PAR Remote Copy - added HPE branding; 3PAR Dynamic Optimization and Policy Advisor - added HPE branding, replaced V-Class with StoreServe 10000; 3PAR System Tuner - added HPE branding, replaced V-Class with StoreServe 10000; 3PAR Virtual Domains - replaced InServ with StoreServ and added HPE branding; 3PAR Virtual Lock - replaced InServ with StoreServ and added HPE branding; Peer Motion - added HPE branding; 3PAR Host Software; removed "Inform" and changed into paragraph; Added Models - System Reporter, Host Explorer, MPIO; Models - Cluster Extension SW changes made to the entire document.

Summary of Changes

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 QuickSpecs.
30-Aug-2011	From Version 4 to 5	Changed	Changes made throughout the entire QuickSpecs.
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 HPE 3PAR Adaptive Optimization section.



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For drives, 1 GB = 1 billion bytes. Actual formatted capacity is less

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