

### Overview

The HP Storage Essentials Enterprise Edition SRM software suite is an award-winning tool that simplifies heterogeneous management of storage infrastructures. HP Storage Essentials Enterprise Edition SRM provides several capabilities to manage storage operations with high performance, availability and predictability. These include storage discovery, capacity management, customized reporting, provisioning, business application and backup monitoring, and end-to-end performance management. The integrated portfolio of SRM management solutions increases staff efficiency, optimizes storage, automates and simplifies tasks, and replaces traditional, manually intensive tools such as spreadsheets, Visio and whiteboards used to manage storage assets.

HP Storage Essentials is a key enabler of HP Business Service Automation strategy, which allows enterprises to manage and automate their entire IT service including applications, servers, network and storage infrastructure.

HP SRM Enterprise Edition software serves as the base management console for the suite. The heterogeneous SRM Software provides auto-discovery of your physical and virtual storage, infrastructure and server environments from a variety of vendors including HP, EMC, HDS, IBM, Netapp, SUN, Brocade, Cisco, Mcddata, and more...Physical device discovery include hosts, HBAs, switches, tape, physical servers and virtual servers VMware and storage systems. Easily auto-discover popular business applications including Oracle database, Microsoft SQL Server, Microsoft Exchange Server, Sybase database and InterSystems Cache' database. To enable end-to-end storage automation, HP Storage Essentials SRM software integrates with HP Operations Orchestration run book automation platform to automate manual and error-prone IT management processes including storage, and with HP Universal Configuration Management Database (UCMDB)-you can perform impact analysis modeling and reporting of requested changes to storage environments and automated change tracking and compliance reporting for storage devices. The software takes advantage of the latest in industry standards such as SMI-S, WBEM, WMI, JBoss and J2EE. This ensures our solution is extensible and will support the most demanding heterogeneous and multi-vendor IT environments.

### **Easily Expand the Storage Management Capabilities of Storage Essentials SRM software with easy to Integrate and Optional Storage Essentials SRM Software plug-in and Integrations software**

HP Storage Essentials SRM Provisioning Manager software accelerates IT's ability to bring new revenue-generating projects and applications on-line and expand the capacity of existing applications by providing interactive and guided path provisioning of heterogeneous storage systems and fabric switches. The software enables device-specific and step-by-step guided path provisioning of storage area network (SAN) resources.

HP Storage Essentials SRM Exchange Viewer and Database Viewer software help storage administrators visualize all application-to-spindle infrastructure dependencies for a database environment. With the software's powerful capacity, performance, fault management and filtered topology views - database infrastructure dependency management is simplified ensuring your enterprise databases are meeting your availability and performance objectives. These Viewers monitor the capacity and performance and application to storage device dependencies of Oracle database, Microsoft Exchange Server, Microsoft SQL Server, Sybase database, and InterSystems Cache' database.

HP Storage Essentials SRM File System Viewer software provides high performance, highly scalable file-level scanning, analysis, reporting, and policy-based management capabilities to reclaim wasted disk space, respond faster to file server out-of-space conditions, and classify unstructured data in support of Information Lifecycle Management (ILM) initiatives. Whether your file servers are hosted on direct attached storage (DAS), network attached storage (NAS), or storage area networks (SAN), the File System Viewer provides the capability you need to reclaim wasted disk space, ensure file server availability, monitor user consumption, and classify unstructured data for ILM initiatives.

HP Storage Essentials SRM Chargeback Manager software extends HP Storage Essentials Software Suite with asset management and accounting capabilities that enable you to associate storage infrastructure costs with business initiatives. Whether you are a service provider offering storage services to external customers, or an internal IT organization building a tiered storage utility for your lines of business, the Chargeback Manager accelerates and enhances your ability to meter utilization, control storage costs, increase revenue, and differentiate your service offering to better meet customer demands.

HP Storage Essentials SRM Global Reporter software rolls up key statistics from multiple HP management servers to give you enterprise-wide control over distributed data center operations. The software acts as a monitor of monitors and takes advantage of its flexible Aggregator/Satellite design to meet all of your consolidated reporting needs. The software's



### Overview

powerful rollup reporting capabilities provide aggregated views of distributed data center storage. Designed for enterprises that implement multiple instances of the HP Storage Essentials SRM Software, the module summarizes key storage statistics from the different elements in your storage infrastructure so you can more efficiently manage enterprise-wide storage operations, and implement strategic IT initiatives such as capacity planning and data center consolidation.

[HP Storage Essentials SRM Report Optimizer software](#) formerly SRM Report Designer Software is a new optional plug-in that extends HP Storage Essentials SRM suite with easy to use and powerful, custom, ad hoc and interactive reporting capabilities that satisfy your unique audit, service-level management, compliance and communications needs. SRM Report Optimizer helps IT and end users perform query and analysis on thousands of storage objects with 80 standard report templates. It allows end users to interact with heterogeneous storage and infrastructure information to answer ad hoc questions with minimal knowledge of underlying data sources and structures. An intuitive drag-and-drop interface makes it easy to quickly analyze data and answer questions or design and deliver custom reports that empower business and end users with actionable business intelligence for better business outcomes.

[HP Storage Essentials SRM NAS Manager software](#) provides comprehensive Network Attached Storage (NAS) management capabilities for HP ProLiant Storage Server, NetApp® NAS and SUN StorEdge NAS network storage solutions. Visualize your distributed HP NAS solutions and NetApp filers and centrally manage their capacity, performance, events, and dependencies to ensure NAS availability and performance and unify SAN and NAS management. Why manage NAS and SAN infrastructure independently? It helps you integrate your entire NAS and SAN infrastructure and better understand the impact of configuration changes and file sharing activities as well as improve capacity utilization, availability and root cause performance analysis on your NAS infrastructure as well as manage NAS and SAN from a unified interface.

[HP Storage Essentials SRM Backup Manager software](#) helps you visualize and monitor the entire backup environment with powerful backup resource management, reporting, device health and performance of your data protection infrastructure. Report on various statistics such as backup resources, success/failure of events and processes, and monitor SLAs, backup volume, job size, and client history. The software maps backup dependencies to SAN resources and extend topology to tape libraries and drives and backup servers as well as monitor drive performance for HP Data Protector and Veritas NetBackup software.

[HP Storage Essentials SRM Performance Pack software](#) combined with Storage Essentials SRM Enterprise Edition Software monitors performance along the complete path of business applications through underlying storage area networks (SAN) components, including host server, host bus adapter (HBA), fabric switch and HP Enterprise Virtual Array. A unified and simplified interface helps HP EVA storage administrators increase efficiency, troubleshoot performance bottlenecks faster, and quickly visualize the big performance picture of their EVA storage, hosts, applications, and SAN infrastructure.

**HP Storage Essentials SRM Software Integrations-** facilitates the integration of HP best-practice based software solution and IT services with heterogeneous storage and infrastructure that can be managed, changed, optimized, orchestrated and controlled automatically throughout the storage lifecycle.

The integration of [HP Storage Essentials SRM software](#) and [HP Operations Orchestration \(OO\) software](#) is delivered through a new Storage Essentials Accelerator Pack which is included with Operations Orchestration. The Storage Essentials SRM Accelerator Pack contains a selection of pre-configured workflows and operations—all based on Storage Essentials SRM Software. The solution enables the entire set of Storage Essentials SRM software commands for usage as operations in storage-related workflows. Workflows in the Storage Essentials SRM Accelerator Pack can be customized through the Operations Orchestration Studio interface, which offers an intuitive visual design for workflows. In addition workflows can be customized to include non-Storage Essentials SRM operations offered by an extensive selection of Accelerator Packs for other-HP and non-HP-IT management software products.

[HP Universal Configuration Management Database \(UCMDB\) software](#) now offers SAN storage Service Context for the enterprise via integration with SRM Storage Essentials Storage Resource Management software suite. This integration provides a rich catalog of all heterogeneous storage infrastructure Configuration Items (CI's) which are fed into the HP UCMDB. The integration between the HP UCMDB and HP Storage Essentials SRM software augments core configuration item data held within the HP UCMDB with comprehensive configuration information stored in Storage Essentials SRM software, making this information available to enterprise applications holding incident and problem information. For example, HP Service Manager or HP Business Availability Center.

[HP Storage Essentials SRM XP Provider](#) allows [Storage Essentials SRM Enterprise Edition software](#) to connect directly to HP XP Arrays without the use of HP StorageWorks XP Command View or Command View XP Advanced Edition Software.



### Overview

This simplifies management by providing a single pane of glass view that spans hosts, applications, infrastructure, tape and HP XP arrays with other heterogeneous storage devices including: EMC, HDS, Netapps, IBM and more. The Storage Essentials SRM XP Provider is included with HP Enterprise Edition SRM Media kit.

HP Storage Essentials SRM Application Integration software for SAP Adaptive Computing Controller environments helps customers with SAP ACC installations seamlessly move and visualize SAN attached storage and infrastructure resources between physical servers when SAP application services are required for more storage. This is an ideal setting for SAP test environments so configuration changes can be tested prior to SAP production. The HP Storage Essentials SRM Application Integration Software for SAP ACC is included with Enterprise Edition SRM Media kit.

HP Storage Essentials SRM software integrates with HP Operations Manager for Windows and Unix via Smart Plug-ins (SPI), as well as with the HP Service Desk.

### Midmarket to Enterprise

For customers that desire SRM functionality for smaller HP Storage-focused SAN environments, HP Storage Essentials SRM Standard Edition Software provides an economical SAN starter kit approach for midsize companies with medium size HP SANs and HP EVA storage. The SRM starter kit solution reduces SAN complexity, replaces traditional manually intensive tools such as spreadsheets and whiteboards to manage storage assets. The software helps your IT staff to become more efficient in managing the SAN with a complete automated big picture integrated SRM software solution to affordably manage small to medium HP storage-based SANs. For more information please refer to the following URL:

<http://h18006.www1.hp.com/storage/software/srmgt/std-suite/index.html>

### What's New

Storage Essentials SRM software support for:

- Full support for VMware virtual machine technology, including discovery, VM - storage mapping, capacity management and provisioning of storage to VMware hypervisors.
- HP Storage Essentials SRM Report Optimizer software; replaces SRM Report Designer Software
- Integration with HP Operations Orchestration software
- Integration with HP UCMDB
- General Interoperability IOP and Service Pack 1 and 2 updates

### Models

#### Tier 1 (Standard Ordering Tier)

Product name	Product description	Product number	E-Delivery product number (E-Media and E-LTUs)
<b>Software Media</b>			
HP Storage Essentials Storage Resource Management Media	v6.0.0 Media kit, physical delivery (CDs and DVD) or Electronic download (E-Delivery).	T4283A	T4283AAE
HP Storage Essentials Storage Resource Management Report Optimizer Media Kit 6.0	(Required to deploy SRM Report Optimizer)	T9421AA	T9421AAE
<b>Licensed by Number of MAPs</b>			
HP Storage Essentials Enterprise Storage Resource Management Enterprise Edition 50 MAP LTU	Discovery topology, event mgmt, monitoring, performance, capacity usage, policies, provisioning, thresholds, reports, HP Software Integration support, and GUI, CLI - base functionality.	T4284AA	T4284AAE

### Overview

HP Storage Essentials Storage Resource Management Provisioning Manager 50 MAP LTU	Application to spindle provisioning automation wizard.	T4285AA	T4285AAE
HP Storage Essentials Storage Resource Management Chargeback Manager 50 MAP LTU	Chargeback and billing usage reporting.	T4286AA	T4286AAE
HP Storage Essentials Global Reporter 50 MAP LTU	Centralizes geographically dispersed reporting.	T4287AA	T4287AAE

#### Licensed by number of MALs

HP Storage Essentials Storage Resource Management Exchange Viewer 1 MAL LTU	Microsoft Exchange path rendering from database, storage groups through disk subsystem.	T4288AA	T4288AAE
1 HP Storage Essentials Storage Resource Management Database Viewer 1 MAL LTU	Oracle table spaces & database, host through spindle rendering as well as support for MS SQL, Sybase and InterSystems Cache - a consolidated database viewer.	T4289AA	T4289AAE

#### Licensed by number of TBs

HP Storage Essentials Storage Resource Management File System Viewer 1TB LTU	High performance, highly scaleable file-level scanning, analysis, reporting, and policy-based management capabilities to reclaim wasted disk space.	T4292AA	T4292AAE
HP Storage Essentials Storage Resource Management NAS Manager 1TB LTU	Visualize HP NAS and NetAPP NAS and SUN StorEdge NAS network storage solutions. Big picture topology view, centrally manage capacity, performance, event and dependencies to ensure NAS availability and performance.	T4294AA	T4294AAE
HP Storage Essentials Storage Resource Management Backup Manager 1TB LTU	Monitor and visualize the entire backup, backup resource management, end-to-end path dependency, reporting, device health and performance of backup and infrastructure. Supports HP Data Protector and Symantec NetBackup.	T4295AA	T4295AAE

#### Licensed by number of Concurrent Users

HP Storage Essentials Storage Resource Management Report Optimizer 1 Concurrent User LTU	This software replaces SRM Report Designer software. Easy to design, create, and deliver custom reports that empower business and IT users with actionable business intelligence to make informed decisions.	T9422AA	T9422AAE
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------	----------

#### Licensed by number of Arrays

HP Storage Essentials Storage Resource Management Performance Pack 1 Array LTU	Provides a big picture holistic performance view of the entire EVA SAN environment - business applications, hosts, HBA ports, switch ports, storage system port counters and HP EVA.	T5422AA	T5422AAE
--------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------	----------

### Models

#### Tier 2 (Higher Quantity Purchase Tier Only)

Product name	Product description	Product number Physical CDs/DVD	E-Delivery product number (E-Media and E-LTUs)
--------------	---------------------	------------------------------------	---------------------------------------------------



### Overview

#### Licensed by the Number of MAPs

HP Storage Essentials Enterprise Storage Resource Management Enterprise Edition 50 MAP LTU	Discovery topology, event mgmt, monitoring, performance, capacity usage, policies, provisioning, thresholds, reports, HP Software Integration support, and GUI, CLI - base functionality  (Use this part number for minimal quantity purchases of (800) MAPs or greater)	T4284AG	T4284AGE
HP Storage Essentials Storage Resource Management Provisioning Manager 50 MAP LTU	Application to spindle provisioning automation wizard.  (Use this part number for minimal quantity purchases of (800) MAPs or greater)	T4285AG	T4285AGE
HP Storage Essentials Storage Resource Management Chargeback Manager 50 MAP LTU	Chargeback and billing usage reporting  (Use this part number for minimal quantity purchases of (800) MAPs or greater)	T4286AG	T4286AGE
HP Storage Essentials Global Reporter 50 MAP LTU	Centralizes geographically dispersed reporting, monitor of monitor (MOM) capability.  (Use this part number for minimal quantity purchases of (800) MAPs or greater)	T4287AG	T4287AGE

#### Licensed by the Number of MALs

HP Storage Essentials Storage Resource Management Exchange Viewer 1 MAL LTU	Microsoft Exchange path rendering from database, storage groups through disk subsystem.  (Use this part number for minimal quantity purchases of (20) MALs or greater)	T4288AG	T4288AGE
HP Storage Essentials Storage Resource Management Database Viewer 1 MAL LTU	Oracle table spaces & database, host through spindle rendering as well as support for MS SQL, Sybase and InterSystems Cache` - a consolidated database viewer.  (Use this part number for quantity purchases greater than quantity (20) MALs only)	T4289AG	T4289AGE

#### Licensed by the Number of TBs

HP Storage Essentials Storage Resource Management File System Viewer 1TB LTU	High performance, highly scaleable file-level scanning, analysis, reporting, and policy-based management capabilities to reclaim wasted disk space.  (Use this part number for quantity purchases greater than quantity (20) TBs only)	T4292AG	T4292AGE
HP Storage Essentials Storage Resource Management NAS Manager 1TB LTU	Visualize HP NAS and NetAPP NAS and SUN StorEdge NAS network storage solutions. Big picture topology view, centrally manage capacity, performance, event and dependencies to ensure NAS availability and performance.  (Use this part number for quantity purchases greater than quantity (20) TBs only)	T4294AG	T4294AGE
HP Storage Essentials Storage Resource Management Backup Manager 1TB LTU	Monitor and visualize the entire backup, backup resource management, end-to-end path dependency, reporting, device health and performance of backup and infrastructure. Supports HP Data Protector and Symantec NetBackup.	T4295AG	T4295AGE



## Overview

(Use this part number for quantity purchases greater than quantity (20) TBs only)

### Licensed by the number of Concurrent Users

HP Storage Essentials Storage Resource Management Report Optimizer 1 Concurrent User LTU	This software replaces SRM Report Designer software. Easy to design, build, and deliver custom reports that empower business and IT users with actionable business intelligence to make informed decisions.	T9422AG	T9422AGE
------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------	----------

(Use this part number for quantity purchases greater than quantity (5) Concurrent Users only)

### Licensed by the Number of Arrays

HP Storage Essentials Storage Resource Management Performance Pack 1 Array LTU	Provides a a big picture holistic performance view of the entire EVA SAN environment including business applications running on Oracle, Sybase, Intersystems Cache`, MS Exchange and SQL, hosts, HBA ports, switch ports, storage system port counters and HP EVA.	T5422AG	T5422AGE
--------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------	----------

(Use this part number for quantity purchases greater than (10) Arrays only) HP EVA only.

## NOTES:

1. For a new Storage Essentials SRM Software installation, you must order at least 1 Storage Essentials SRM Media Kit (T4284A and at least one Storage Essentials SRM Enterprise Edition 50 MAP LTU T4284AAE)
2. You can only use Tier 2 for quantity purchases only. The product numbers are designated by a "G" for example T4284AG. The minimum quantity purchase for the number of MAPs (800), and/or MALs (20), and/or TBs (20), and/or Concurrent Users (5) and/or by Arrays (10).
3. You cannot combine Tier-1 quantities to achieve Tier-2 quantity results. For example, you need 400 MAPs now, but in six months an additional 400 MAPs are required. In the first case, you would order quantity (8) T4284AA, and six months later you would order another (8) T4284AA. Or you could order (16) T4284AG upfront to take advantage of Tier 2 benefits starting at 800 MAPs for pre-determined growth.
4. SRM Report Optimizer Software requires its own media kit and dedicated management server.

### Product Highlights

#### Storage Essentials SRM License to use (LTU) Definitions:

- "MAP" means a managed access port
- "MAL" means a managed application license specific to a software application such as used for Microsoft Exchange Server Viewer and Database Viewer (Oracle database, Sybase, Microsoft SQL and InterSystems Cache')
- "TB" means terabytes which designates the amount of physical capacity that can be managed
- "Concurrent User" or "CC User" means the Software is licensed by the amount of users that simultaneously use the Software at any one point in time. The Software can be installed on any number of computers, provided that the actual usage of the Software does not exceed the number of licenses purchased.
- "Array" means a collection of data items that are given a single name and distinguished by numbers

#### HP Storage Essentials SRM Enterprise Edition software/HP Storage Essentials SRM Provisioning Manager software/HP Storage Essentials SRM Chargeback Manager software/HP Storage Essentials SRM Global Reporter software

These products are licensed by MAP. The following details how to determine the number of MAP licenses required:

- **Interconnect devices:** For a fully populated switch (i.e., all blades are installed and all ports in all blades have GBIC/SFPs installed), all ports are counted towards MAPs total. If no interconnect devices add up the number of GBIC/SFPs installed in the FC switch and that is the MAPs total.

#### Hosts and Infrastructure:

- A non-Storage Area Network (SAN) attached server (no HBA) that has the agent installed/discovered will count as 1 MAP
- A SAN attached server that has the agent installed/discovered will count each Fibre Channel (FC) port as a MAP (a dual ported HBA will count as 2 MAPs)
- A Fibre Channel switch with 64 Fibre channel active ports counts as 64 MAPs
- IDE or SCSI ports are not counted in MAP calculations unless they are used to connect to fabric switches or storage systems
- A Windows server with no CIM Extension installed, but that has been discovered via WMI will count as 1 MAP
- For NPIV only the physical ports are counted. For example, a customer has 10 HP BladeSystem c-Class blades with one Host Bus Adapter (HBA) each dual ported and connected to a Brocade NPIV port will count as 12 MAPs ( $10 \times 2 + 1$ ).
- In the hosted virtual environment, ESX server HBA ports are counted as MAPs. For example, 5 ESX servers with 2 dual ported HBAs counts as 10 MAPs ( $5 \times 2 = 10$ )
- Each VMware Virtual Server discovered with HP Storage Essentials will count towards one MAP. VMware hypervisors (for example VMware ESX servers) will be treated as physical servers

#### Storage subsystems:

- All discovered storage array controller ports count (for example SMI-S is used to find the arrays). If the array has 8 ports, it will count 8 MAPs. The number of MAPs in a storage system includes all physical connections independent of protocol (including Fibre Channel, ESCON, SCSI and/or FICON, Ethernet, or Gigabyte Ethernet).

#### HP Storage Essentials SRM Exchange Viewer software/HP Storage Essentials SRM Database Viewer software

These products are licensed by MAL. The following details how to determine the number of MAL licenses required:

#### Standalone Applications:

- Exchange, Sybase, Oracle, Cache Intersystems, MS SQL - 1 MAL per application instance
- 1 Exchange Application instance = An Exchange Server that hosts many mailboxes
- 1 Oracle Application instance = 1 Oracle Instance (SID) serving an Oracle database
- 1 MSSQL Application Instance - 1 MSSQL Instance which may contain many MSSQL database underneath

#### Clustered Applications:



### Product Highlights

- Exchange, Oracle and MSSQL failover clusters - 1 MAL per application instance. For example to manage an Exchange Instance running on a 3 node failover cluster, we need 1 MAL. 1 Exchange Application Instance = An Exchange Server that hosts many mailboxes.
- Oracle RAC - 1 MAL per RAC instance. For example a 10 instance Oracle RAC serving a single database, we need 10 MALs.

### HP Storage Essentials SRM File System Viewer software

#### TB License Definition and Usage:

For File System Viewer licensing is calculated based on the scanned space of the volumes. Scanned space is the aggregation of file sizes, which have been successfully scanned by SRM File System Viewer Software. Scanned space of each volume is aggregated to calculate the number of TB required to satisfying the minimum 1 TB license to use (LTU). If you have a 20 GB volume, you need a 1 TB LTU or if there were 10TBs used by the file system (actual files taking space) then you need to order a quantity of (10) 1 TB LTUs or if there were 200Kb of files scanned then the count is 200Kb and in this case a minimum 1 TB LTU is required.

### HP Storage Essentials SRM NAS Manager software

Licensing is based upon the number of raw NAS TBs managed.

### HP Storage Essentials SRM Backup Manager software

- Licensing is based on the maximum number of TBs backed up in a 1-day period including partial, incremental, and full backups for Veritas NetBackup or HP Data Protector. Licensing is based on total backed up capacity in one day.

#### SRM Backup Manager ordering example:

- A customer has a 10TB Database and performs a full backup on a daily basis. The total 1-day backed up capacity is 10TBs. In this example, the customer would need to order quantity (10) T4295AA 1TB LTU. However this order assumes database growth is static. To accommodate future capacity growth and reduce the risk of being out of licensing compliance. This customer agreed to a growth factor of 50% to cover incremental capacity growth. The readjusted order now is quantity (15) T4295AA and provides headroom for future capacity growth.

### HP Storage Essentials SRM Report Optimizer software formerly SRM Report Optimizer Software

#### Concurrent User License Definition and Usage:

- The software is licensed by the amount of users that simultaneously use the Software at any one point in time. Licensing is not based on read access to the reports - just the design/creation of the reports

### HP Storage Essentials SRM Performance Pack software

#### Licensing is based on a per Array basis and only the HP Enterprise Virtual Array is supported:

- 1 - Array LTU licensing is determined by the number of HP Enterprise Virtual Array (EVA), you plan to monitor HP EVA performance. For example, you have 1 HP EVA in your Storage Area Network; all you need is 1 Storage Essentials SRM Performance Pack 1-Array LTU. You can also move a license from one HP EVA to another. For example, the customer has 4 HP EVAs, but only 2 LTUs. If the customer wants to view a snapshot of performance data, on any of the 4 HP EVAs with 2 LTUs, they can. By doing so, you will only collect real-time performance data, without interruption, on licensed HP EVAs. As you move a license around from monitoring HP EVA to HP EVA, you will not collect historical data on unlicensed arrays; therefore you will see data collections gaps in your collected data. For some customers this is acceptable; for a customer who prefers a complete historical performance history then you want to have one Storage Essentials SRM Performance Pack 1-Array LTU per monitored HP EVA.

#### License to use (LTU) ordering:

- All initial quotes/orders begin with the selected product number multiplied by the quantity desired of either media and or LTU for each product. If you meet the minimum ordering requirements, you can use the Tier-2 product numbers for

### Product Highlights

example T4284AG or T4284AGE to achieve higher quantity benefits

#### Ordering Examples Tier-1:

- Physical Media Kit (CD and DVD): Customer wants to order (500) MAPs of HP Storage Essentials SRM Enterprise Edition, 500 MAPs of HP Storage Essentials SRM Chargeback Manager, (6) TB of HP Storage Essentials SRM File System Viewer, (1) MAL of HP Storage Essentials SRM Exchange Viewer, (1) Concurrent User LTU of HP SRM Report Optimizer and (2) HP Storage Essentials SRM Performance Pack LTUs to monitor performance on two HP EVA 8000. This is what you order:
  - Quantity (1) T4283A Storage Essentials SRM v6.0.0 Media kit
  - Quantity (1) T9421AA Storage Essentials SRM Report Optimizer v6.0.0 Media Kit
  - Quantity (10) T4284AA Storage Essentials SRM Enterprise Edition 50 MAP LTU (10 X 50 MAPs = 500)
  - Quantity (10) T4286AA Storage Essentials SRM Chargeback Manager 50 MAP LTU
  - Quantity (6) T4292AA Storage Essentials SRM File System Viewer 1TB LTU
  - Quantity (1) T4288AA Storage Essentials SRM Exchange Viewer 1 MAL LTU
  - Quantity (1) T9422AA Storage Essentials SRM Report Optimizer 1 Concurrent User LTU
  - Quantity (2) T5422AA Storage Essentials SRM Performance Pack 1 Array LTU
- Electronic download (E- Delivery Media Kit): Customer wants to order 500 MAPs of Storage Essentials Enterprise Edition, (500) MAPs of Storage Essentials Chargeback Manager, (6) TB of File System Viewer, (1) MAL of Exchange Viewer, (1) Storage Essentials SRM Report Optimizer 1 Concurrent User LTU and (2) HP Storage Essentials SRM Performance Pack 1 array LTUs to monitor performance on two HP EVA 8000. This is what you order:
  - Quantity (1) T4283AE Storage Essentials SRM v6.0.0 E-Media kit
  - Quantity (1) T9421AAE Storage Essentials SRM Report Optimizer v6.0.0 E-Media Kit
  - Quantity (10) T4284AAE Storage Essentials SRM Enterprise Edition 50 MAP E-LTU
  - Quantity (10) T4286AAE Storage Essentials SRM Chargeback Manager 50 MAP E-LTU
  - Quantity (6) T4292AAE Storage Essentials SRM File System Viewer 1TB E-LTU
  - Quantity (1) T4288AAE Storage Essentials SRM Exchange Viewer 1 MAL E-LTU
  - Quantity (1) T9422AAE Storage Essentials SRM Report Optimizer 1 Concurrent User E-LTU
  - Quantity (2) T5422AAE Storage Essentials SRM Performance Pack 1 Array E-LTU

#### Ordering Examples Tier-2 (Higher quantity purchase tier only):

- Physical Delivery (CDs and DVD) Media Kit: Customer wants to order (800) MAPs of HP Storage Essentials SRM Enterprise Edition, (600) MAPs of HP Storage Essentials SRM Chargeback Manager, (20) TBs of HP Storage Essentials SRM File System Viewer, (20) MALs of HP Storage Essentials SRM Exchange Viewer, (5) Storage Essentials SRM Report Optimizer 1 Concurrent User LTU, and (10) HP Storage Essentials SRM Performance Pack LTUs to monitor performance on (10) HP EVA 8000. This is what you order:
  - Quantity (1) T4283A Storage Essentials SRM v6.0.0 Media kit
  - Quantity (1) T9421AA Storage Essentials SRM Report Optimizer v6.0.0 Media Kit
  - Quantity (16) T4284AG Storage Essentials SRM Enterprise Edition 50 MAP LTU (16 X 50 MAPs = 800)
  - Quantity (12) T4286AA Storage Essentials SRM Chargeback Manager 50 MAP LTU
  - Quantity (20) T4292AG Storage Essentials SRM File System Viewer 1TB LTU
  - Quantity (20) T4288AG Storage Essentials SRM Exchange Viewer 1 MAL LTU
  - Quantity (5) T9422AG Storage Essentials SRM Report Optimizer 1 Concurrent User LTU
  - Quantity (10) T5422AG Storage Essentials SRM Performance Pack 1 Array LTU
- Electronic download (E- Delivery Media Kit): Customer wants to order (800) MAPs of Storage Essentials SRM Enterprise Edition, (600) MAPs of Storage Essentials SRM Chargeback Manager, (20) TB of File System Viewer, (20) MALs of Exchange Viewer and (5) Storage Essentials SRM Report Optimizer 1 Concurrent User LTU, and (10) HP Storage Essentials SRM Performance Pack LTUs to monitor performance on two HP EVA 8000. This is what you order:
  - Quantity (1) T4283AE Storage Essentials SRM v6.0.0 E-Media kit
  - Quantity (1) T9421AAE Storage Essentials SRM Report Optimizer v6.0.0 E-Media Kit
  - Quantity (16) T4284AGE Storage Essentials SRM Enterprise Edition 50 MAP E-LTU
  - Quantity (12) T4286AGE Storage Essentials SRM Chargeback Manager 50 MAP E-LTU
  - Quantity (20) T4292AGE Storage Essentials SRM File System Viewer 1TB E-LTU
  - Quantity (20) T4288AGE Storage Essentials SRM Exchange Viewer 1 MAL E-LTU
  - Quantity (5) T9422AGE Storage Essentials SRM Report Optimizer 1 Concurrent User E-LTU
  - Quantity (10) T5422AGE Storage Essentials SRM Performance Pack 1 Array E-LTU

### Product Highlights

#### HP E-Delivery ordering:

- E-Delivery definition - The product is delivered to you in the form of an e-mail which allows you to download the software code (E-Media) and/or receive the License-To-Use (LTU) document and access to the license key. E-Delivery products are available worldwide, excluding Japan
- To place an order, please refer to the E-Delivery product number column and order the applicable E-Delivery E-Media kit T4283AAE and/or E-LTU. When a license product is ordered, the LTU will be replaced with E-LTU in the product description. For example, if you order quantity one T4284AAE the product description changes to SE EE 50 MAP E-LTU for 50 MAPs.

### Customer Benefits

#### Storage Essentials SRM Software Integrations:

- **Automate common storage tasks and remove process errors and latencies** - The integration of HP Operations Orchestration and HP UCMDB removes human error by automating storage tasks and process with easy to execute common workflows for ITIL-compliant storage change management process automation.
- **Provides IT operations with an extended view of storage, SAN infrastructure and servers** -The integration of HP Universal Configuration Management Database (UCMDB) support critical business services by having access to deep configuration information associated with the overall storage environment for better business outcomes.
- **Improve storage administrative efficiency; reduce costs and management complexity** - Storage Essentials SF integration with HP System Insight Manager delivers unified server and storage management, improving efficiency via shared services like single sign on, security administration, asset management, reporting, and discovery, licensing administration, storage resource management and event management.
- **Easy integration increases productivity and manageability** - Storage Essentials SRM integration software integrates with HP software via Smart Plug-In (SPI) delivers integrated IT Services management in areas like provisioning, operations, reporting and charge back and managing an end-to-end Microsoft exchange and UNIX environment when included with HP Operations for Windows or UNIX.
- **Unified tool to manage XP arrays** - Storage Essentials SRM XP Provider allows IT staff to manage all their heterogeneous networked storage, infrastructure and HP XP array from a single unified interface. This simplifies management and reduces TCO since traditional device managers like HP Command View XP are usually not required. HP Storage Essentials SRM XP Provider software is included with HP Storage Essentials SRM Enterprise Edition Software.
- **Easily move and visualize SAN attached storage in an SAP Environment** - HP Storage Essentials Application Integration Software for SAP Adaptive Computing Controller (ACC) helps customers with SAP ACC installations seamlessly move and visualize SAN attached storage and infrastructure resources between physical servers when SAP application services are required for more storage capacity. Ideal for SAP test environments. HP Storage Essentials SRM Software for SAP ACC is included with HP Storage Essentials SRM Enterprise Edition Software.

#### Storage Essentials SRM Suite:

- **Automation of network discovery for quick access to the right data** - Big picture visualization automatically discovers and maps the storage network (DAS, SAN, and NAS) and backup topology by pictorially displaying the objects, path and zones between the application and LUN on which the corresponding data resides.
- **Increases business application availability** - big picture view monitors and reports on a variety of business applications and (Oracle, Sybase, Cache Intersystem's, MExchange, MSSQL) and cluster configurations with infrastructure dependencies to facilitate faster end-to-end root cause analysis and reduce unplanned downtime.
- **Increased utilization of capacity management** - Monitors availability and utilization at host, switch and array. Graphical trending and forecasting. Soft Quota management allows proactive monitoring of consumption levels, and file system management provides file-level scanning, analysis, reporting, tiered storage monitoring/reporting and policy-based management capabilities.
- **Simplifies worldwide access of storage information with powerful ad hoc, interactive and easy to customize reports** - Extensive set of reports can be customized and scheduled for automatic e-mail distribution, satisfying requirements for capacity and performance management and planning, asset management, and chargeback. Supports a wide variety of reporting formats, including HTML, XML, Microsoft Excel, and PDF.
- **File performance management** - Monitor performance from application objects down to storage subsystems and file identification. Monitors application, host, HBA, switch, disk subsystem. Enables quick detections of performance "bottleneck", so service level agreements (SLA) are maintained or exceeded.

### Product Highlights

- **Industry standard based architecture** - Designed on the Storage Management Initiative Specification (SMI-S), industry standard for storage network management based on the Common Information Model (CIM) and Web-Based Enterprise Management (WBEM). Enables support for multi-vendor storage infrastructures and ensuring investment protection.
- **Integrated NAS and SAN Management** - Analyze impact of configuration changes and file sharing activities for HP ProLiant Storage Servers, HP Enterprise File System (EFS) Clustered Gateway and Netapps. Extends full range of discovery, visualization, reporting, event notification, dependency and path, capacity planning, and real-time performance to NAS.
- **End-to-end Backup management** - Monitor overall status of the entire backup process with a single view of backup activities and path dependencies. Identify unprotected applications, servers and files. Root cause analysis of backup failure. Visualize the backup configuration and recoverability of a file, directory, volume or a server for HP Data Protector and Veritas NetBackup Software.
- **End-to-end performance management for HP Enterprise Virtual Array** - Unified and simplified interface helps EVA administrators quickly visualize the big performance picture of their entire EVA SAN environment including business applications, hosts, HBA ports, switch ports, storage system port counters and HP EVA
- **Full support for host virtualization** - HP Storage Essentials agentlessly discovers VMware hypervisors, VM's and the VM- storage dependencies. Users can see VM - storage topology maps, manage and report capacity of hypervisors/VM's and provision storage to hypervisors.

### Software Features/Functionality

---

**Simplifies management, reduces human-error and increases administrator and IT Operations efficiency**

- Integration with HP Operations Orchestration automates error-prone IT management process
- Integration with HP UCMDB provides SAN storage context across the enterprise by providing a comprehensive catalog of all heterogeneous storage infrastructure configuration data
- Integration with HP System Insight Manager for Unified Server and Storage Management
- Unified interface for end-to-end EVA and SAN performance management
- Integration with HP Service Desk Software based on Smart Plug-in interface expands IT management across the enterprise.
- Integration with SAP ACC application environment to seamlessly move SAN attached storage between physical servers when SAP application services for more storage resources are required
- Single interface for managing Servers, Storage and HP XP arrays without HP Command View XP (Legacy or Advanced Edition)
- Automation of network (DAS, SAN, NAS) discovery and time consuming tasks
- Discover and Visualize storage resources
- Single interface for zoning and provisioning
- Easy to create and customize storage and infrastructure inventory reports

---

**Increase utilization**

- Soft quota management
- Identify old, large, junk, duplicate files
- Just-In-Time purchase of capacity via trend analysis

---

**Improve Quality of Storage Service**

- Visualize Application-to-LUN mapping
- Application to infrastructure performance monitoring
- Chargeback based on asset and storage allocation

---

**Protect Investment and protect against downtime**

- Plan, discover, visualize, monitor and report on host clusters
- Product design based on industry standards - SMI-S, WMI and WBEM
- CLI, API, HP Software Service Desk and HP Operations for Windows or Unix Smart Plug-In and ODBC/JDBC interface for integration into existing environment
- Ad hoc, interactive and easy customizable reports in html, xml, xls and PDF format
- Choice of central management station (CMS) OS deployment (Windows or Linux)
- Easy growth path from SMB to Enterprise

### Hardware Support

#### Supported Heterogeneous Fibre Channel and SCSI Storage Devices

- HP StorageWorks XP disk arrays (XP24000, XP20000, XP12000, XP10000, XP1024, XP512, XP128, XP48)
- HP StorageWorks Enterprise Virtual Array (EVA) EVA3000/5000/4400/4100/6100/8100
- HP Modular Storage Array (MSA) MSA1000, MSA1500
- HP EMA 12000, EMA 16000
- HP ProLiant Storage Server ML and DL (NAS)
- HP EFS Clustered NAS Gateway
- HP All in One (AiO 400 and 600)
- HP ESL Tape Libraries (286e, 322e, 712e, 630e, 960)
- HP EML Tape Libraries (71e, 103e, 245e, 348e, 375e, 442e, 469e, and 505e)
- EMC DMX-3, DMX800, 1000, 2000, 3000
- EMC Clariion CX 100, 300, 400, 600, 700
- EMC Clariion CX3
- EMC Clariion FC-4700
- EMC Symmetrix
- Engenio E2600 series, E4600, E5600, E6000
- HDS Lightning 9910, 9960, 9970V, 9980V
- HDS Thunder 9200, 9520V, 9530V, 9570V, 9580V, 9585V
- HDS: Tagmstore:
  - Tagmstore USP\_VM
  - Tagmstore USP Sanrise 100, 600, 1100, USP-V, USP-VM
  - Tagmstore AMS 200, 500, 1000
  - Tagmstore AMS and WMS NAS (100, 200, 500)
  - Tagmstore WMS 100
  - Tagmstore NSC 55
- Hitachi SANRISE H12000 (Japan)
- IBM ESS 800, (2105-F20)
- IBM DS4100 (FAStT 100), DS4300 (FAStT 600, FAStT 600 Turbo), DS4400 (FAStT 700), DS4500 (FAStT 900), DS 4700, DS4800, DS6000, DS6800, DS8000, DS8100, DS8300
- IBM 3581, 3582, 3583, and 3584 Tape Libraries
- IBM SAN Volume Controller (SVC 2145)
- NetApp: Primary, Nearline,) and V-Series (All models running the supported Netapp ONTaAP 7.2.4 version)
- Sun: StorEdge:
  - StorEdge 9900 (SE9910, SE9970, SE9960, SE9980)
  - StorEdge 9990 (100, 600, 1100)
  - StorEdge 9985, 351X
  - StorEdge 6130, 6920, 6940
  - StorEdge NAS 5000 (5210, 5310)
- SUN Storage TEC Array 6140, 6540
- SUN StorageTEC NAS (5210, 5310, 5320)
- StorageTek (Flexline 380, FLX280, 280, D240, FLX240, D178)
- XIOTech Magnitude 3D (3000)
- 3Par Data Systems (INSERV- all models)

### Hardware Support

#### Supported

#### Interconnect Devices - Switches

- HP StorageWorks 4/8 and 4/16 SAN switch
- HP StorageWorks SAN Switch (2/8, 2/8v, 2/16, 2/16N, 2/32, 4/32, 4/64, 4/32B)
- HP StorageWorks Core Switch (2/64)
- HP StorageWorks Director (2/128, 4/256), 4/48 Blade
- HP StorageWorks MSA SAN Switch 2/8
- HP StorageWorks MPR 400
- HP StorageWorks MPR Blade (FR4-18i)
- HP StorageWorks 8/20q Fibre Channel Switch
- HP StorageWorks Director 2/64 (McData Intrepid 6064)
- HP StorageWorks Director 2/140 (McData Intrepid 6140); M4400, M4700
- HP StorageWorks Edge Switch 2/16 (McData Sphereon 3216)
- HP StorageWorks Edge Switch 2/24 (McData Sphereon 4500)
- HP StorageWorks Edge Switch 2/32 (McData ES-3232)
- HP 4Gb Virtual Connect Fibre Channel Module for c-Class BladeSystem (VC-FC)
- Brocade 4Gb SAN Switch for HP c-Class BladeSystem
- Brocade 4GB SAN Switch for HP p-class Blade
- Brocade Silkworm 2xx0, 38xx, 32xx, 3900, 4100, 4900, 5000, 7500, 200E
- Brocade Director 12000, 24000, 48000
- Brocade 6400
- Cisco MDS 9124e Fabric Switch for c-Class BladeSystem
- Cisco MDS (MDS 9216, 9120, 9124, 9134, 9140, 9216A, 9216i, 9222i, 9020)
- CNT FC/9000-64 (1gbps), FC/9000-128 (1gbps) FC/9000-64 (2gbps), FC/9000-128 (2gbps)
- EMC Connectrix DS-16M, DS-24M2, DS-32M2,
- EMC Connectrix Directors : ED-10000M, ED-140M
- McDATA 4Gb SAN Switch for HP p-Class BladeSystem
- McData ES-3016, ES-3032, ES-32xx Series, ES-4500 series; Intrepid i10K
- Qlogic Sanbox: 1-8 X64746 (1GB 8 PORT) ; 1-16 SG-XSW16-32P (1GB 16 PORT) ; 2-8 SG-XSW8-2GB (2GB 8 PORT); 2-16 SG-XSW16-2GB (2GB 16 PORT)
- Qlogic 5200, 5600,
- Qlogic Directors -2-64 SG-XSW64-BASE (2GB 64 PORT) ; 9000
- Sun StorEdge 2 Gb Network FC Switch-64; 2 Gb Network FC Switch-16; Sun StorEdge 2 Gb Network FC Switch-8

#### Central Management Server Hardware Prerequisites

#### Dedicated Management Server:

- **Processor:** At least dual processor (or dual-core) Intel XEON or AMD equivalent 2.8GHz or higher
- **Memory:**
  - Minimum: 4 GB, 6GB is recommended
- **Disk space:** With ARCHIVING and RMAN backup off, the minimum Disk Space is 100 GB, and the recommended Disk Space is 200 GB; With ARCHIVING and RMAN backup on, the minimum Disk Space is 200 GB, and the recommended Disk Space is 350 GB
- **OS:**
  - Windows 2003 SP1, SP2, R2, R2 SP2; - 32 bit Enterprise Edition or Server Edition (Microsoft Windows Server has max. support limit of 4g RAM and supported on dedicated mgmt server only)
  - RHEL Advanced Server /Enterprise Server 3.0 U7, U8 (x86, x64); RHEL AS/ES 4.0 U4, U5, U6 (x86, x64, IA64); RHEL AS/ES 5.0 U1 (x86, x64, IA64)

#### On Shared management server:

- **Processor:** At least dual processor (or dual-core) Intel XEON or AMD equivalent 2.8GHz or higher
- **Memory:**
  - Minimum: 6 GB (includes 2GB requirements for shared application); Recommended: 8 GB
  - To address beyond 4GB, need PAE (Phys Address Ext) and Datacenter, Advanced



### Hardware Support

Server, or Enterprise Edition for combination with HP SIM)

- **Disk space:** Disk space: With ARCHIVING and RMAN backup off, the minimum Disk Space is 100 GB, and the recommended Disk Space is 200 GB; With ARCHIVING and RMAN backup on, the minimum Disk Space is 200 GB, and the recommended Disk Space is 350 GB
- **OS:**
  - Windows 2003 SP1, SP2, R2, R2 SP2; - 32 bit Enterprise Edition or Server Edition (Microsoft Windows Server has max. support limit of 4g RAM and supported on dedicated mgmt server only)
  - RHEL Advanced Server /Enterprise Server 3.0 U7, U8 (x86, x64); RHEL AS/ES 4.0 U4, U5, U6 (x86, x64, IA64); RHEL AS/ES 5.0 U1 (x86, x64, IA64)

#### Dedicated Management Server for SRM Report Optimizer software:

- **Processor:** At least dual processor (or dual-core) Intel XEON or AMD equivalent 2.8GHz or higher
- **Memory:**
  - Minimum 4GB, 6GB is recommended
- **Disk space:** Recommended disk space 200 GB
- **OS:** Windows 2003 Enterprise Server, SP1

#### NOTES:

1. 64-bit Windows OS not supported.
2. To address beyond 4GB, a PAE (Physical Address Extension) and Datacenter, Advanced Server, or Enterprise Edition

---

#### Distribution Media

- CD ROM and DVD or electronic download (E-Delivery)

### Software Support

#### Software Prerequisites

- HP Systems Insight Manager 5.1 SP2, 5.2, 5.2 U1. 5.2 SP2 for Windows; for Linux HP SIM 5.1, 5.2
- Oracle database 10g Release 2 (10.2.0.3)
- Device Managers for each managed device (arrays, switches, tape libraries, etc.)
- Microsoft Internet Explorer, Netscape Navigator, or Mozilla
- For Windows, latest Windows updates
- For Linux refer to Operating Systems Requirements

Application / Database and Host Cluster Support	Database	Version	Platform
	Oracle	8.1.7	Windows 2000 and 2003 Solaris 8, 9, 10
	Oracle	9i, 9iR2	Windows 2000, 2003, Solaris, AIX 5.2, 5.3, HPUX 11.0, 11.11, 11.23, RH Linux AS3.0,4&5, SUSE 9, Tru64 5.1b-2, 5.1b-3, 5.1b-4 OVMS 8.3
	Oracle	10g Versions: 10.1.0.2, 10.1.0.3, 10.2.0.1	Windows 2000, 2003, Solaris, AIX 5.2, AIX 5.3, HPUX 11.0, 11.11, 11.23, RH Linux AS3.0, RH 4 and 5, SUSE 9, Tru64 5.1b-3, 5.1b-4 OVMS 8.3
	Oracle	10g R2 Version 10.2.0.2.0	Tru64 5.1b-3, 5.1b-4, OVMS 8.2, 8.2.1, 8.3 (Alpha and Itanium)
	Oracle RAC	9iR2 RAC	HP-UX 11.11 - VCS 3.5 HP-UX 11.11 - Service Guard 11.16 HP-UX 11.23 IA & PA - VCS 4.1 & 5.0 Solaris 9 (SPARC) - VCS 4.1 Solaris 10 (SPARC) - VCS 5.0
	Oracle RAC	10g R2 RAC	HP-UX 11.23 IA & PA - VCS 4.1 & 5.0 HP-UX 11.23 IA & PA - Service Guard 11.18 Solaris 10 (SPARC & x86_64) - VCS 5.0 OVMS 8.3 (Alpha and Itanium) Tru64 5.1B3 & 5.1B-4
	Oracle Failover Cluster	10g R2	HP-UX 11.23 IA & PA - VCS 4.1 & 5.0 HP-UX 11.23 IA & PA - ServiceGuard 11.18 Solaris 10 (SPARC) - VCS 5.0 Windows 2003 - MSCS
<b>NOTE:</b> Storage Essentials SRM software supports Oracle for Raw Volumes			
	Sybase	ASE 12.5.0, 12.5.1, 12.5.2, 12.5.3*, 12.5.4	Win 2K, 2K3, Solaris 8, 9, 10(SPARC), Solaris 10 (x86_64), HP-UX 11.11 and 11.23
	MS-SQL Server	2000	W2K, 2K3 (x86, x64, IA64)

### Software Support

MS-SQL Server	2005	W2K3 (x86, x64, IA64)
MS-SQL Server	2005 SP2	W2K8 (x86,x64, IA64)
Exchange 2000	SP1, SP2, SP3	Windows
Exchange 2003	SP2	Windows
Exchange 2007		Windows 2003 (x64)
Exchange 2007 SP1		
Exchange 2007	SP1	Windows 2008 (x64)
Exchange Server Cluster	Exchange 2003 with SP2	Windows 2003 (x86)
	Exchange 2007	Windows 2003 (x64)
Exchange Server Cluster	Exchange 2007 SP1	Windows 2008 (x64)
Intersystem's Cache	5.0.20, 5.2	HP-UX, AIX, Linux and Windows OVMS 8.3 Alpha on 5.2 only
Intersystem's Cache	2007.1	Linux and Windows
SAP Adaptive Computing Controller (ACC)	SAP ACC 1.0 & 7.1	HP-UX 11iv3, 11iv2 Oracle 10g SAP Max DB
		Windows 2003 Microsoft SQL 2005
Veritas Cluster Service		HP UX, Solaris SPARC, Solaris (x86, 64)
Visio	2002, 2003, 2007	WinXP, W2K, W2K3
Storage Essentials SRM File System Viewer		Win 2K, 2K3, 2K8 Solaris 8, 9, 10 (SPARC), Solaris 10 (x86_64), HP-UX 11iv1(11.11), 11iv2 (11.23pi), 11iv3 (11.31) RHEL 3.0, 4.0, 5.0 SLES 9.0, 10.0 Tru64 5.1b-2, 5.1b-3, 5.1b-4 AIX 5.2, 5.3, 6.1

### Operating System requirements

#### Host:

- HP-UX - 11iv1 (11.11); PA-Risc 11iv2 (11.23), PA-Risc, Itanium 11iv3 (11.31); PA-Risc, Itanium
- HP Non Stop Kernel G06 27, G06 28, G06 29
- Windows: 2000 SP4 (Standard and Advanced Editions); 2003 SP1, SP2 (x86, x64, IA64); 2003 R2 (x86, x64); 2003 R2 SP2 (x86, x64); 2003 SP2 (x86, x64, IA64); (Standard, Enterprise and Datacenter Editions); 2008 (x86, x64, IA64), Standard, Enterprise & Datacenter edition; Windows 2008; HP-UX LVM 2 and ServiceGuard Cluster
- Linux Red Hat Advanced Server/Enterprise Server: RHEL AS/ES 3.0 U7, U8 (x86, x64); RHEL AS/ES 4.0 U4, U5, U6 (x86, x64, IA64); RHEL AS/ES 5.0 UI (x86, x64, IA64)
- Linux SUSE: SUSE LINUX Enterprise Server release 9 SP3, SP4 (x86, x64, IA64); SUSE LINUX Enterprise Server Release 10(x86, x64, IA64); SUSE LINUX Enterprise Server Release 10 SP1 (x86, x64, IA64)
- IBM: AIX 5.2, 32/64-bit; AIX 5.3, 32/64-bit (TL06 SP06); AIX 6.1 32/64-bit
- SGI Origin: 6.5.27, 6.5.28, 6.5.29, 6.5.30; Altrix: SGI ProPack 3.0 Linux (and later) with Performance Co-Pilot, SGI ProPack 4.0;



### Software Support

- SGI ProPack 5.0
  - Solaris 8, 9, 10 (SPARC) ; Solaris 10 (x86, 64)
  - Tru64 Alpha Tru64 5.1b-2, 5.1b-3, 5.1b-4; OpenVMS - Alpha V7.3-2, 8.2. 8.3-1H1 (IA64)
  - VMware ESX 3.0.1, 3.0.2 Update 1, 3.0.3, 3.5, 3.5 Update 2
  - VMware ESXi 3.5, 3.5 Update 2
- Central Management Server (CMS)**
- Windows
- Windows CMS
- For dedicated OR shared management server: Windows 2003 SP1, SP2, R2, R2 SP2, Enterprise Edition or Server Edition (Microsoft Windows Server has a maximum support limit of 4gb RAM and supported on dedicated mgmt server only); 32bit OS only.
- Linux CMS
- Linux HEL ES and AS 4.0 Update 3/4/5, SLES 9.0 SP3, SUSE 10, SUSE 10 SP1 (Intel or AMD Equivalent); 32bit OS only
- SRM Report Optimizer software
- Windows only: Windows 2003 Enterprise Edition SP1

#### **NOTES:** [HP configurations only](#)

The HP-SIM integrated version requires English or Japanese.

1. 64-bit Windows OS not supported.
2. It is recommended Windows Update be used to keep the Windows operating system current.
3. Database: Oracle 10g release 2 (10.2.0.3)
4. Application Server: JBoss (installed with the management server software)
5. Recommend the management server is a dedicated server, with no other applications or databases residing on management server other than those explicitly listed.
6. SRM Report Optimizer software requires its own dedicated management server.

**NOTE:** Storage Essentials SRM software specifications are updated often to reflect new configuration and or supported devices. For the most up to date product specifications, please refer to your HP representative, who has access to the latest HP Storage Essentials support matrix.

### Software Support

#### Web Client

- Microsoft Internet Explorer, Mozilla, or Firefox

#### Storage Essentials SRM HP Software Integration and tools

- HP Operations Orchestrations software
- HP Universal Configuration Change Management Database (UCMDB)
- HP Systems Insight Manager software
- HP Storage Essentials SRM XP Provider ( a tool to Manage HP StorageWorks XP Arrays without HP StorageWorks XP Command View Advanced Edition Software ); support included with Storage Essentials v5.1 Media kit
- HP Storage Essentials SRM Application Integration Software for SAP Adaptive Computing Controller (Integration is included with Storage Essentials SRM Media kit)
- HP EVA (Command View EVA, EVA Perf)
- HP ProLiant Essentials Software
- HP Operations Manager for Windows or Unix
- HP Data Protector software
- HP Network Node Manager software

#### Software Installation Licensing

HP Storage Essentials SRM Software is not customer installable and requires a HP professional service representative or a HP Certified Partner to install. HP Storage Essentials applications require evaluation or permanent license keys to operate. When you receive your entitlement certificates for evaluation or permanent licenses, you must first register these licenses prior to using the Storage Essentials SRM product. Your entitlement certificate will reflect the Storage Essentials SRM products and licenses selected/purchased. Evaluation licenses allow the entire Storage Essentials SRM product suite to operate for the time period stated on the evaluation entitlement certificate (typically 60 days).

#### Software Warranty

Warranty code 3C; duration of limited warranty: 90 days from the day of purchase, replacement of defective media

### Service and Support, HP Care Pack, and Warranty Information

#### Service and Support Information

HP Care Pack Services offer upgraded service levels to extend and expand your standard product warranty with easy to buy, easy to use support packages that help you make the most of your hardware and software investments. They let you choose the support levels that meet your business requirements, from basic to mission-critical. They help you contain total cost of ownership.

HP Care Pack warranty extensions can be purchased along with HP products to cost-effectively upgrade or extend your warranty. For many products, post-warranty HP Care Pack Services are available when your original warranty has expired.

Why purchase an HP Care Pack service?

Your standard warranty protects against product defects. HP Care Pack Services help you guard against unplanned downtime, which can reduce your productivity and profitability. These convenient service packages:

- Protect your investment in HP products
- Provide consistent, predictable levels of support across your entire department or business
- Ease budget planning with fixed-cost support that includes parts and labor
- Give you direct access to proven technical and problem-solving expertise
- Offer a choice of response-time and repair-time commitments
- Deliver prompt, measurable results
- Are available whenever and wherever you do business

**NOTE:** HP Care Pack availability may vary by country and product.

Supporting your Adaptive Enterprise journey

HP Services helps you make the Adaptive Enterprise real for your organization. The breadth, depth, and quality of HP hardware and software support services can help you improve the performance of your IT support processes and resolve the complex software and hardware problems that tax user productivity. HP Care Pack services help you increase IT environment stability, efficiency, and agility from the desktop to the data center, and improve the productivity of your employees.

---

#### Warranty and Services Included with the Product

HP warrants only that the Software media will be free of physical defects for a period of ninety (90) days from delivery.

For more information about HP's Global Limited Warranty and Technical Support, visit [ftp://ftp.compaq.com/pub/products/storageworks/warranty/EN\\_321708-008.pdf](ftp://ftp.compaq.com/pub/products/storageworks/warranty/EN_321708-008.pdf)

---

#### Recommended Services

Three years of HP Software Support 24 x 7

- Improve the productivity of system managers and operators
- Improve system performance and reduce downtime due to software defects
- Expedite problem resolution through expert-level technical resources
- Enjoy consistent service coverage across geographically dispersed sites
- Update HP and selected third-party software at a predictable cost

Take advantage of subscription savings on software updates

---

#### Available HP Care Pack Services

Extend your product warranty with a wide choice of cost-saving support packages.

HP Care Pack Services are sold by HP and HP authorized enterprise and commercial resellers. Services for customers purchasing via direct and enterprise resellers are quoted using HP order configuration tools. Additional information about HP Care Pack Service features and benefits is available at: [http://support.openview.hp.com/support\\_options.jsp](http://support.openview.hp.com/support_options.jsp)

### Service and Support, HP Care Pack, and Warranty Information

**HP Care Pack Services - Deployment and Per Event Services** HP Storage Essentials SRM Software is not customer installable and requires HP Deployment Service delivered by a HP professional service representative or a HP Certified Partner. For more information about Deployment and Per Event Services for HP Storage, visit: <https://external1.collaboration.hp.com/external/Knome/SESDG/web/index.aspx>

HP offers three service levels of the HP Storage Essentials Solution Service to accommodate the different editions of the software as well as different size environments.

- Level 1 Service is available for:

HP Storage Essentials Standard Edition SRM Software

- Level 2 Services are available for:

HP Storage Essentials Enterprise Edition SRM Software

- Level 3 Statement of Work Service is available for:

HP Storage Essentials Standard Edition SRM Software  
HP Storage Essentials Enterprise Edition SRM Software

For SE installations with Report Optimizer, Level 2 applies (see below).  
For Report Optimizer installation separate from SE install, Level 3 applies.

=====

HP SE Standard Edition Installation & Startup Svc	HH377A1
HP SE Enterprise Edition Level 2 Tier 1 Implementation Service	HH378A1
HP SE Enterprise Edition Level 2 Tier 2 Implementation Service	HH379A1
HP SE Level 3 Custom Implementation Service	HH380A1

**HP Care Pack Services Availability Services**

- HP Software Support - business hours phone support and software updates, available in 1 and 3 year durations
- HP Software Support 24x7 - 24x7 phone support and software updates, available in 1 and 3 year durations

**eSupport** HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

**Support Portal** The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit <http://www.hp.com/support>

### *Service and Support, HP Care Pack, and Warranty Information*

**HP Education and Services Information** For more information about Deployment, Per Event, Consulting and Education services for HP Storage Essentials software, visit: <http://www.hp.com/education/courses/uc424s.html>

For more information about HP Care Pack Services for Storage, visit:  
[http://www.hp.com/hps/carepack/storage/cp\\_networked.html](http://www.hp.com/hps/carepack/storage/cp_networked.html)

For more information about HP Storage Software, services and updates, visit:  
<http://h18006.www1.hp.com/storage/software.html>

If you have specific questions, contact your local HP representative. Contact information for a representative in your area can be found at "Contact HP" <http://www.hp.com>

---

© Copyright 2009 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice.

Microsoft and Windows NT are US registered trademarks of Microsoft Corporation. Intel is a US registered trademark of Intel Corporation. Unix is a registered trademark of The Open Group.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.