



HP 3PAR Performance and Capacity Trending Service

Technology Services

HP 3PAR Performance and Capacity Trending Service provides data collection, analysis, and reports with key performance and capacity metrics for your HP 3PAR StoreServ array. Through this service, you will receive a specified number of reports describing long-term trends in performance and capacity usage, and have the option to purchase additional reports. You will also receive briefing sessions highlighting HP's findings and recommendations.

This service enables you to track changes over time that may indicate a need for configuration changes, additional capacity, or upgrades. Current performance is compared to the maximum calculated throughput and bandwidth for your specific configuration, along with the allocated, used, and free disk capacity. The thin provisioning overallocation percentage for virtual volumes is also tracked, indicating the physical capacity saved due to thin provisioning. Documented HP best practices are used to identify areas of potential improvement, which may include recommendations around configuration changes, physical workload rebalancing, and the addition of capacity or other upgrades. These periodic reports allow you to make informed decisions based on actual performance and capacity trends over the long term.

Service benefits

- Is designed to improve overall disk array performance and capacity utilization, stability, and availability by identifying potential problems and the possible solutions to help you avoid them
- Establishes a baseline as a reference for future performance analysis and capacity management
- Provides the means to make informed, proactive decisions about your HP 3PAR StoreServ capacity planning and helps to reduce unnecessary and costly reactive upgrades
- Helps identify potential issues before they can affect your business operations
- Is performed with no required downtime for your HP 3PAR Storage system

Service feature highlights

- Planning and scheduling
- Data collection and analysis
- Performance and capacity reports
- Briefing sessions

Service features

Table 1. Service features

Feature	Delivery specifications
Planning and scheduling	The HP delivery specialist will meet with the Customer and review the engagement using the pre-delivery checklist. The Customer and HP will agree on the performance and capacity report schedule (e.g., monthly).
Data collection and analysis	The HP specialist will collect the data for the baseline report and perform the analysis remotely. Prior to each follow-on report, the HP specialist will collect up to three months of additional data and perform the analysis.

Performance and capacity reports	HP will develop a 3PAR StoreServ array performance and capacity report for the Customer, which includes the HP specialist's findings and recommendations, plus graphical or tabular representations of the collected performance and capacity data. HP will prepare three reports under this service at the agreed-upon interval. A one-month interval between each report is recommended, but the Customer may choose up to a maximum of three months between each of the three reports provided in the base service. Each report will include up to three months of additional performance and capacity data.
Briefing sessions	HP will provide the Customer's IT storage administrator with a briefing session for the baseline report and the two additional reports. The briefing sessions will be scheduled during HP standard business days and hours excluding HP holidays, shortly after the completion of each data collection period, to review the performance and capacity report highlighting HP's findings and recommendations.

Service limitations

HP 3PAR Performance and Capacity Trending Service is limited to one 3PAR StoreServ array. Additional arrays can be accommodated for an added charge.

This service focuses on HP 3PAR StoreServ array performance and capacity utilization. It does not include detailed SAN or connectivity topology analysis, or analysis of the Customer's computing system, applications, clustering, high availability, or other complex configurations. Review and analysis of these topics is a separate service that is subject to additional charges.

This service utilizes performance data at a high level over a long period of time based upon a set of predefined, standard metrics. The granularity of the data collection does not enable performance analysis at a deep detailed level. If a detailed performance analysis is desired, the Customer may consider purchasing HP 3PAR Performance Analysis for HP Disk Arrays Service, where deeper analysis over a shorter time period is performed.

A maximum of three months is allowed between each report in the base service. HP will also collect up to three months of data in each of the optional additional reports, if purchased. If the Customer allows more than three months to elapse between deliveries of these reports, there will be gaps in the data collected. The collected information will still provide value to the Customer in determining long-term trends. However, for best results, HP recommends that the reports be planned within the maximum three month intervals.

Any HP recommendations are provided with the intention of helping the Customer to understand and assess potential improvements to their HP 3PAR StoreServ array performance and capacity utilization. Any implementation of the recommendations that result as output of this service is outside the scope of this service. These considerations can be quoted separately. Please contact an HP support specialist for more information.

Three reports and briefing sessions are included in this service; additional reports and briefing sessions are available for purchase.

Activities such as, but not limited to, the following are excluded from this service:

- Any services not clearly specified in this document
- Any installations of new or existing hardware
- Any hardware reconfigurations of existing environments, such as removal or movement of host adapters, disk drives, and adapter cards, or conversion and reformatting of existing storage devices
- Planning, design, implementation, or assessment of the Customer's overall SAN or fabric architecture
- Migration of Customer data
- Any documentation other than that specified in this data sheet

Service eligibility

This service is available for any HP 3PAR StoreServ disk array under an active HP warranty or service maintenance contract

The Customer must meet all of the following prerequisites for delivery of this service:

- The Customer will ensure that the disk array on which the service is being delivered, as well as any associated host systems, Ethernet networks, and storage area networks (SANs), are implemented and fully operational.
- This service is available for any HP 3PAR StoreServ disk array under an active HP warranty or service maintenance contract.
- The Customer must have enabled and be running the HP 3PAR remote monitoring and support solutions for the 3PAR StoreServ array to be analyzed.

- For each HP 3PAR StoreServ array, delivery of the HP 3PAR Performance and Capacity Trending Service (i.e., the base service) must be completed before an optional HP 3PAR Performance and Capacity Additional Report Service will be delivered. At HP's request, the Customer must provide HP with a copy of the baseline report as evidence that this service has been delivered.
- Ensure that HP is provided with access to the 3PAR service processor for the storage system on which the service is being delivered.
- All supported hosts must be at supported OS revision and patch levels.
- Customer host applications must be installed and operating normally prior to the delivery of this service.

Customer responsibilities

The Customer will:

- Contact an HP service specialist within 90 days of date of purchase to schedule the delivery of the service
- Provide accurate and complete documentation of the existing storage system in a timely manner
- For HP 3PAR storage systems, ensure that HP is provided with access to the 3PAR service processor for the storage system on which the service is being delivered
- Ensure participation of the Customer's IT storage administrator and selected other staff to discuss needs and objectives and to review results
- Assign a designated person from the Customer's staff who, on behalf of the Customer, will grant all approvals, provide information, and otherwise be available to assist HP in facilitating the delivery of this service
- Ensure that all service prerequisites identified in this document during the Data Collection and Analysis activity have been met prior to data collection and analysis
- Adhere to licensing terms and conditions regarding the use of any HP service tools used to facilitate the delivery of this service, if applicable
- Be responsible for de-installing customer-developed software applications or any third-party software that may impact the service delivery
- Ensure that all hardware, firmware, and software that the HP service specialist will need in order to deliver this service are available and, for software products, are properly licensed
- Define business/operational objectives and any special requirements
- Be responsible for all data backup and restore operations on the involved HP disk array
- Allow HP full and unrestricted access to all locations where the service is to be performed
- Provide a suitable work area for delivery of the service, including access to an outside telephone line, power, and any network connections required
- Perform other reasonable activities to help HP identify or resolve problems, as requested by HP

General provisions/Other exclusions

- HP reserves the right to re-price this service if the Customer does not schedule and provide for subsequent delivery within 90 days of purchase.
- Portions of the service are delivered remotely or onsite, at HP's discretion.
- Services are provided during HP standard business days and hours excluding HP holidays. Any services provided outside of HP standard business days and hours or HP holidays may be subject to additional charges
- HP's ability to deliver this service is dependent upon the Customer's full and timely cooperation with HP, as well as the accuracy and completeness of any information and data the Customer provides to HP.
- HP reserves the right to charge, on a time and materials basis, for any additional work over and above the service package pricing that may result from work required to address service prerequisites or other requirements that are not met by the Customer.
- Deliverables are accepted upon delivery.
- This service does not include any remedial or corrective activity, configuration changes, firmware or patch installation, or detailed performance or capacity recommendations.

Ordering information

HP 3PAR Performance and Capacity Trending Service (referred to as the base service) includes the baseline report and two additional reports. HP 3PAR Performance and Capacity Trending Additional Report Service provides one additional report. Multiple quantities of the Additional Report Service may be purchased to provide the Customer with the desired number of trending reports each year. The delivery of each service must be completed within one year of purchase.

To purchase HP 3PAR Performance and Capacity Trending Service, please contact an HP sales representative or authorized HP channel partner and reference the following product numbers:

- HP 3PAR Performance and Capacity Trending Service:
 - H9Q53AC for HP Contractual Service
 - H9Q53A1 for HP Care Pack Service
- HP 3PAR Performance and Capacity Trending Additional Report Service:
 - H9Q54AC for HP Contractual Service
 - H9Q54A1 for HP Care Pack Service

For more information

For more information on HP Services, contact any of our worldwide sales offices or visit our website at:

www.hp.com/services

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