QuickSpecs

Overview

HPE Complete – Brocade Analytics Monitoring Platform

Today's IT organizations are constantly being faced with the task of managing extraordinary data growth while also becoming more knowledgeable about their own networks, in order to better pinpoint problem areas and maximize overall performance.

The growing challenges of application performance management are
- Extremely complex deployment of real-time application monitoring across the infrastructure
- Difficulty in identifying, isolating, and resolving application issues
- Growing costs associated with application visibility
- Lack of non-disruptive device-level troubleshooting tools that can be deployed in minutes

The Brocade Analytics Monitoring Platform (AMP) provides advanced storage telemetry, including storage device I/O performance, latency, and other SCSI metrics, across the network. Leveraging Brocade Fabric Vision technology, this platform ensures non-stop operations, identifies potential points of congestion, and maximizes end-to-end application performance. It not only provides end-to-end visibility that was not available previously, but it also improves the ROI for storage infrastructures by providing in-depth, fabric-wide metrics.

Figure 1. Brocade AMP Appliance

Brocade AMP is available on HPE Catalog via HPE Complete program.

HPE Complete- Resell of Third Party Branded Products

HPE Complete is a resource enabling the purchase of best in class third party branded products with the added reliability of Hewlett Packard Enterprise's interop assurance for a complete validated solution, all via one HPE purchase order.

Benefits
- One Stop Shop - Purchase complete solutions from HPE that include best in class third party branded products, all on a single HPE purchase order
- Validated solution - Confidence of The HPE interop assurance validation for third party branded products that complement HPE Storage & Server solutions
- Customer Experience - Hewlett Packard Enterprise ensures complete customer satisfaction, by troubleshooting the solution and facilitating third party expertise for the installation, support and warranty of their products
- Unique Value – Minimize risk, complexity and cost when deploying multi-vendor products and technologies into the HPE ecosystem

For more information please refer **HPE Complete** on HPE.com

Overview

Hewlett Packard Enterprise is making the following Brocade AMP SKUs available via HPE Complete:

Hardware SKUs

Brocade Analytics Monitoring Platform v2.0 Appliance	Q1N26A
Brocade XBR-DCX-0131 2GB USB Flash Drive	P9M45A
Brocade Analytics Monitoring Platform C13 to NEMA 5-15P US Power Cord	P9M46A
Brocade Analytics Monitoring Platform CN Power Cord for FastIron Switch	P9M48A
Brocade Analytics Monitoring Platform RPS2/3/5/9 EU Power Cord	P9M49A
Brocade Analytics Monitoring Platform IN AC Power Cord	P9M50A
Brocade Analytics Monitoring Platform RPS2/3/5/9 JP Power Cord	P9M51A
Brocade Analytics Monitoring Platform 13A UK Power Cord	P9M52A
Brocade Analytics Monitoring Platform (AU) AC Power Cord	P9M54A
Brocade C13-C14 15A PDU Cord	P9M58A

Software SKUs

Brocade AMP Fabric Insight Portal Advanced Analytics Management license	Q1M85A

Professional SKUs

Brocade Analytics Monitoring Platform 1U PS Implementation LTU	P9T23A
Brocade Analytics Monitoring Platform Additional PS Implementation LTU	P9T24A

Service SKUs

Brocade Analytics Monitoring Platform Gen5 4hr Onsite 1yr Support LTU	P9T25A
Brocade Analytics Monitoring Platform Gen5 4hr Onsite 2yr Support LTU	P9T26A
Brocade Analytics Monitoring Platform Gen5 4hr Onsite 3yr Support LTU	P9T27A
Brocade Analytics Monitoring Platform Gen5 4hr Onsite 4yr Support LTU	P9T28A
Brocade Analytics Monitoring Platform Gen5 4hr Onsite 5yr Support LTU	P9T29A
Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 1yr Support LTU	P9T30A
Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 2yr Support LTU	P9T31A
Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 3yr Support LTU	P9T32A
Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 4yr Support LTU	P9T33A
Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 5yr Support LTU	P9T34A
Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 1yr Support LTU	P9T91A
Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 2yr Support LTU	P9T92A
Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 3yr Support LTU	P9T93A
Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 4yr Support LTU	P9T94A
Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 5yr Support LTU	P9T95A
Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 1yr Support LTU	P9T96A
Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 2yr Support LTU	P9T97A
Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 3yr Support LTU	P9T98A
Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 4yr Support LTU	P9T99A
Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 5yr Support LTU	P9U00A
Brocade Analytics Monitoring Platform Custom 1 Assessment PS Service LTU	P9U45A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 1yr Support LTU	Q0P32A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 2yr Support LTU	Q0P33A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 3yr Support LTU	Q0P34A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 4yr Support LTU	Q0P35A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 5yr Support LTU	Q0P36A

Overview

Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 1yr Support LTU	Q0P37A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 2yr Support LTU	Q0P38A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 3yr Support LTU	Q0P39A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 4yr Support LTU	Q0P40A
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 5yr Support LTU	Q0P41A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 1yr Support LTU	Q0P42A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 2yr Support LTU	Q0P43A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 3yr Support LTU	Q0P44A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 4yr Support LTU	Q0P45A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 5yr Support LTU	Q0P46A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 1yr Support LTU	Q0P47A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 2yr Support LTU	Q0P48A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 3yr Support LTU	Q0P49A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 4yr Support LTU	Q0P50A
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 5yr Support LTU	Q0P51A
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 1yr Support LTU	Q0P52A
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 2yr Support LTU	Q0P53A
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 3yr Support LTU	Q0P54A
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 4yr Support LTU	Q0P55A
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 5yr Support LTU	Q0P56A
Brocade Analytics Monitoring Platform Gen5 Return to Factory 1yr Support LTU	Q0P57A
Brocade Analytics Monitoring Platform Gen5 Return to Factory 2yr Support LTU	Q0P58A
Brocade Analytics Monitoring Platform Gen5 Return to Factory 3yr Support LTU	Q0P59A
Brocade Analytics Monitoring Platform Gen5 Return to Factory 4yr Support LTU	Q0P60A
Brocade Analytics Monitoring Platform Gen5 Return to Factory 5yr Support LTU	Q0P61A
Brocade Analytics Monitoring Platform Gen5 Secure Uplift 1yr Support LTU	Q0P62A
Brocade Analytics Monitoring Platform Gen5 Secure Uplift 2yr Support LTU	Q0P63A
Brocade Analytics Monitoring Platform Gen5 Secure Uplift 3yr Support LTU	Q0P64A
Brocade Analytics Monitoring Platform Gen5 Secure Uplift 4yr Support LTU	Q0P65A
Brocade Analytics Monitoring Platform Gen5 Secure Uplift 5yr Support LTU	Q0P66A

Brocade AMP can only be connected to Gen 5 and above switches, and end devices to be monitored have to be attached to Gen 5 and above switches in the fabric. The switch fabric can also include non Gen5 Brocade switches. Any one of the following HPE B-series switches with Fabric Vision enabled are supported for the Brocade AMP:

B-Series Switch Models

HPE SN3000B 16Gb 24-port/24-port Active Fibre Channel Switch	QW938A
HPE SN3000B 16Gb 24-port/12-port Active Fibre Channel Switch	QW937A
HPE SN6000B 16Gb 48-port/48-port Active Power Pack+ Fibre Channel Switch	QR481B
HPE SN6000B 16Gb 48-port/24-port Active Power Pack+ Fibre Channel Switch	QK754B
HPE SN6000B 16Gb 48-port/48-port Active Fibre Channel Switch	QR480B
HPE SN6000B 16Gb 48-port/24-port Active Fibre Channel Switch	QK753B
HPE StoreFabric SN6000B 16Gb 48/24 Port Side Air Intake Fibre Channel Switch	E7X99A
HPE StoreFabric SN6000B 16Gb 48/24 Bundled Fibre Channel Switch	C8R08A
HPE StoreFabric SN6500B 16Gb 96/96 Power Pack+ FC Switch	C8R42A
HPE StoreFabric SN6500B 16Gb 96/96 FC Switch	C8R43A
HPE StoreFabric SN6500B 16Gb 96/48 Power Pack+ FC Switch	C8R44A

Overview

HPE StoreFabric SN6500B 16Gb 96/48 FC Switch	C8R45A
HPE StoreFabric SN6500B 16Gb 96/48 Port Side Air Intake Fibre Channel Switch	E7X98A
HPE Brocade 16Gb SAN Switch for HPE BladeSystem c-Class	
HPE SN8000B SAN Director 4-slot or 8-slot	

Brocade Network Advisor Software

Brocade SAN Network Advisor Enterprise Software LTU	Q1M86A

Features and Benefits

The Brocade AMP is a fully integrated monitoring and analytics solution for Brocade Gen 5 (16 Gig) Fibre Channel fabrics. The product is a 2U, 24-port management, purpose-built appliance that runs Brocade's Fabric OS (FOS) to ensure tight interoperability with the SAN.

The Brocade product sits out of band and connects into a single port on any Brocade Gen 5 FC director or switch. The out-of-band connectivity enables the product to collect data from storage or host ports without impacting performance levels or compromising security. Through that port, the product can capture and analyze millions of traffic flows and give detailed performance metrics for storage and server connections within the SAN fabric. The switch fabric can also include non Gen5 Brocade switches.
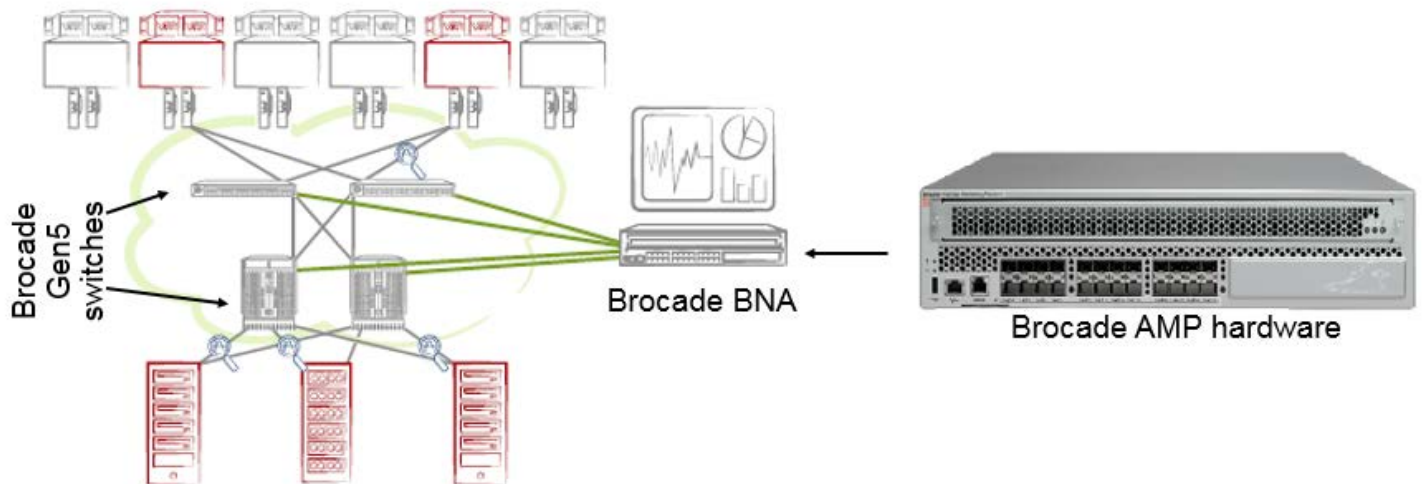

Figure 2. Brocade AMP Solution

The Brocade Analytics Monitoring Platform provides a non-intrusive connection that can make a virtual connection to any port in the fabric . The virtual taps are ASIC based and non disruptive. AMP automaticallylearns all IT/ITL flow conversations at each virtual tap-enabled Gen 5+ port and tracks metrics for each flow individually. It can track 20,000 flows concurrently, up to 5 million IOPS

Key Features

The metrics captured are a mix of real-time and historical and include the following:
- Read/write I/O latency and first response times (including both average and maximum values)
- Read/write IOPS transfer rate
- Other command latency stats (reserve, release)
- I/O queue depth (pending IOs)
- Protocol errorstats: Check conditions; I/O aborts; SCSI reserves, releases, reserve conflicts
- Fabric latency

Unmatched Monitoring
- Delivers Application-level performance monitoring with zero downtime
- SCSI command behavior and response time monitoring of any device without impacting distance or link integrity, unlike physical taps that cause light degradation
- Normal device behavior learning by measuring time to first response, exchange completion time, read/write IOPS, and pending or outstanding I/Os to ensure predictable performance and flag unusual behavior or potential problems
- The ability to discover and deploy monitoring automatically to tens of thousands of initiator/target and initiator/target/LUN pairs in a fabric

Features and Benefits

Advanced troubleshooting

- Analyze 20,000 data flows and millions of IOPS on a single system to optimize application performance
- Track performance history and trends, enabling IT staff to proactively monitor individual IO violations and resolve issues, often before they occur
- Provides customizable reports to correlate metrics and events and summarize trends for behavior analysis
- On-demand, non-disruptive diagnostics of server, storage, and fabric devices to help quickly pinpoint problems
- Integrated device-level and fabric behavior metrics to provide visibility into the entire environment and simplify
- Granular threshold settings and automated alerts of unusual device behavior to enable early problem detection

Increased ROI

- Provides flexibility and scalability, from a few application flows to tens of thousands of flows
- Reduces the time to deploy advanced monitoring and analytics from days or weeks to minutes
- Automates monitoring, alerting, and troubleshooting tasks to save administrators critical time
- Scales out analytics for large environments without additional OpEx to maximize ROI
- Integrates with existing Brocade Network Advisor, Fabric Vision technology, and Brocade Fabric OS, CLI tools to reduce the learning curve and save OpEx

Configuration Information

The HPE Complete Brocade AMP configuration are as follows:

Step-1 Hardware	**The Appliance**	
	Brocade Analytics Monitoring Platform v2.0 Appliance	**Q1N26A**
	Brocade Analytics Monitoring Platform, 24 FC Ports and includes 24 16G SW SFPS preinstalled with Analytic Capacity Upgrade License. Rackmount kit included.	
	NOTE: power cords need to be purchased separately.	
Step-2 Select License	**Brocade AMP Fabric Insight Portal Advanced Analytics Management license**	**Q1M85A**
	Brocade Analytics Monitoring Platform Fabric Insight License.Must be ordered together for each Brocade AMP appliance..	
Step-3 Select Flash Drive	**USB Flash Drive**	
	Brocade XBR-DCX-0131 2GB USB Flash Drive	**P9M45A**
	Brocade 2GB USB Flash Drive for system log file downloads or firmware upgrades.	
Step-4 Select Power Cord	**Power Cords**	
	Brocade Analytics Monitoring Platform C13 to NEMA 5-15P US Power Cord	**P9M46A**
	Brocade AMP Power Cord for USA, NEMA5-15/C13, 13A, 125V	
	Brocade Analytics Monitoring Platform CN Power Cord for FastIron Switch	**P9M48A**
	Power cord for the FastIron Edge Switch 1.5RU, FastIron Workgroup X Series, FastIron Edge X Series, FastIron GS. It is also compatible with the RPS9 power supply. This power cord supports 10A and 250VAC for input.	
	Brocade Analytics Monitoring Platform RPS2/3/5/9 EU Power Cord	**P9M49A**
	Power Cord for RPS2/3/5/9, European version	
	Brocade Analytics Monitoring Platform IN AC Power Cord	**P9M50A**
	Single 6 FOOT AC Power Cord for India	
	Brocade Analytics Monitoring Platform RPS2/3/5/9 JP Power Cord	**P9M51A**
	Power Cord for RPS2/3/5/9, Japan version	
	Brocade Analytics Monitoring Platform 13A UK Power Cord	**P9M52A**
	Power Cord for UK,13A,250V	
	Brocade Analytics Monitoring Platform (AU) AC Power Cord	**P9M54A**
	Power Cord for use in Australia	
	Brocade Analytics Monitoring Platform (AU) C13-C14 PDU Cord	**P9M58A**
	Device PDU Cord	
	NOTE: Please note that each Brocade AMP Appliance has two power supplies, and requires two power cords	
Step-5 Default Professional Service SKUs	**Implementation Professional Service SKUs**	
	Brocade Analytics Monitoring Platform 1U PS Implementation LTU	**P9T23A**
	Implementation service for 1 AMP. Includes start-up training on deployment and use of AMP. It is mandatory for a customer to purchase this SKU with the first Brocade AMP deployment.	
	NOTE: Required with purchase of AMP	
	Brocade Analytics Monitoring Platform Additional PS Implementation LTU	**P9T24A**
	For additional AMP units being deployed at the same site. Includes start-up training on deployment and use of AMP. It is mandatory for a customer to purchase this SKU with any additional Brocade AMP deployment.	
	NOTE: Required with purchase of AMP	

Configuration Information

Step-6 Select Service SKUs	Service SKUs	
	Brocade Analytics Monitoring Platform Gen5 4hr Onsite 1yr Support LTU	**P9T25A**
	AMP for Gen 5 fabrics essential 4-hour Onsite Support for 1 year	
	Brocade Analytics Monitoring Platform Gen5 4hr Onsite 2yr Support LTU	**P9T26A**
	AMP for Gen 5 fabrics essential 4-hour Onsite Support for 2 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Onsite 3yr Support LTU	**P9T27A**
	AMP for Gen 5 fabrics essential 4-hour Onsite Support for 3 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Onsite 4yr Support LTU	**P9T28A**
	AMP for Gen 5 fabrics essential 4-hour Onsite Support for 4 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Onsite 5yr Support LTU	**P9T29A**
	AMP for Gen 5 fabrics essential 4-hour Onsite Support for 5 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 1yr Support LTU	**P9T30A**
	AMP for Gen 5 fabrics essential 4-hour Parts only Support for 1 year	
	Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 2yr Support LTU	**P9T31A**
	AMP for Gen 5 fabrics essential 4-hour Parts only Support for 2 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 3yr Support LTU	**P9T32A**
	AMP for Gen 5 fabrics essential 4-hour Parts only Support for 3 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 4yr Support LTU	**P9T33A**
	AMP for Gen 5 fabrics essential 4-hour Parts only Support for 4 years	
	Brocade Analytics Monitoring Platform Gen5 4hr Parts Only 5yr Support LTU	**P9T34A**
	AMP for Gen 5 fabrics essential 4-hour Parts only Support for 5 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 1yr Support LTU	**P9T91A**
	AMP for Gen 5 fabrics essential Next Day Parts only Support for 1 year	
	Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 2yr Support LTU	**P9T92A**
	AMP for Gen 5 fabrics essential Next Day Parts only Support for 2 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 3yr Support LTU	**P9T93A**
	AMP for Gen 5 fabrics essential Next Day Parts only Support for 3 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 4yr Support LTU	**P9T94A**
	AMP for Gen 5 fabrics essential Next Day Parts only Support for 4 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Parts Only 5yr Support LTU	**P9T95A**
	AMP for Gen 5 fabrics essential Next Day Parts only Support for 5 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 1yr Support LTU	**P9T96A**
	AMP for Gen 5 fabrics essential Next Day Onsite Support for 1 year	
	Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 2yr Support LTU	**P9T97A**
	AMP for Gen 5 fabrics essential Next Day Onsite Support for 2 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 3yr Support LTU	**P9T98A**
	AMP for Gen 5 fabrics essential Next Day Onsite Support for 3 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 4yr Support LTU	**P9T99A**
	AMP for Gen 5 fabrics essential Next Day Onsite Support for 4 years	
	Brocade Analytics Monitoring Platform Gen5 Next Day Onsite 5yr Support LTU	**P9U00A**
	AMP for Gen 5 fabrics essential Next Day Onsite Support for 5 years	
	Brocade Analytics Monitoring Platform Custom 1 Assessment PS Service LTU .	**P9U45A**
	AMP Asessement and Tuning Service.	
	NOTE: Customized SOW is required before placing an order	
	Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 1yr Support LTU	**Q0P32A**
	AMP for Gen 5 fabrics Premier 4-hour Onsite Support for 1 year	
	Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 2yr Support LTU	**Q0P33A**
	AMP for Gen 5 fabrics Premier 4-hour Onsite Support for 2 years	
	Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 3yr Support LTU	**Q0P34A**
	AMP for Gen 5 fabrics Premier 4-hour Onsite Support for 3 years	
	Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 4yr Support LTU	**Q0P35A**
	AMP for Gen 5 fabrics Premier 4-hour Onsite Support for 4 years	

Configuration Information

Brocade Analytics Monitoring Platform Gen5 Premier 4hr Onsite 5yr Support LTU	**Q0P36A**
AMP for Gen 5 fabrics Premier 4-hour Onsite Support for 5 years	
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 1yr Support LTU	**Q0P37A**
AMP for Gen 5 fabrics Premier 4-hour Parts only Support for 1 year	
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 2yr Support LTU	**Q0P38A**
AMP for Gen 5 fabrics Premier 4-hour Parts only Support for 2 years	
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 3yr Support LTU	**Q0P39A**
AMP for Gen 5 fabrics Premier 4-hour Parts only Support for 3 years	
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 4yr Support LTU	**Q0P40A**
AMP for Gen 5 fabrics Premier 4-hour Parts only Support for 4 years	
Brocade Analytics Monitoring Platform Gen5 Premier 4hr Parts Only 5yr Support LTU	**Q0P41A**
AMP for Gen 5 fabrics Premier 4-hour Parts only Support for 5 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 1yr Support LTU	**Q0P42A**
AMP for Gen 5 fabrics Premier Next Day Parts only Support for 1 year	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 2yr Support LTU	**Q0P43A**
AMP for Gen 5 fabrics Premier Next Day Parts only Support for 2 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 3yr Support LTU	**Q0P44A**
AMP for Gen 5 fabrics Premier Next Day Parts only Support for 3 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 4yr Support LTU	**Q0P45A**
AMP for Gen 5 fabrics Premier Next Day Parts only Support for 4 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Parts Only 5yr Support LTU	**Q0P46A**
AMP for Gen 5 fabrics Premier Next Day Parts only Support for 5 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 1yr Support LTU	**Q0P47A**
AMP for Gen 5 fabrics Premier Next Day Onsite Support for 1 year	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 2yr Support LTU	**Q0P48A**
AMP for Gen 5 fabrics Premier Next Day Onsite Support for 2 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 3yr Support LTU	**Q0P49A**
AMP for Gen 5 fabrics Premier Next Day Onsite Support for 3 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 4yr Support LTU	**Q0P50A**
AMP for Gen 5 fabrics Premier Next Day Onsite Support for 4 years	
Brocade Analytics Monitoring Platform Gen5 Premier Next Day Onsite 5yr Support LTU	**Q0P51A**
AMP for Gen 5 fabrics Premier Next Day Onsite Support for 5 years	

NOTE: 4-hour response for onsite/ parts and labor is from the time Brocade has determined a replacement is required and confirmed dispatch with the customer. Same applies to "Next Day" support. Also, please NOTE that with the exception of some major metropolitan cities, most regions in EMEA and APJ do not have coverage for 4OS (4-hour onsite), 4P (4-hour parts) and NDO (Next Day Onsite) support. Customer should contact the regional Brocade support to confirm the Brocade services available for that region. The NDP (Next Day Parts) support is available in all regions.

Premier Support is the highest level of support offered by Brocade. In addition to all the features included in **Essential Support**, Premier Support includes personalized, preferential, and proactive support feature. For more information, please refer **Brocade Premier Support**

Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 1yr Support LTU	**Q0P52A**
AMP for Gen 5 fabrics Premier Return to Factory Support for 1 year	
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 2yr Support LTU	**Q0P53A**
AMP for Gen 5 fabrics Premier Return to Factory Support for 2 years	
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 3yr Support LTU	**Q0P54A**
AMP for Gen 5 fabrics Premier Return to Factory Support for 3 years	
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 4yr Support LTU	**Q0P55A**
AMP for Gen 5 fabrics Premier Return to Factory Support for 4 years	
Brocade Analytics Monitoring Platform Gen5 Premier Return to Factory 5yr Support LTU	**Q0P56A**

Configuration Information

AMP for Gen 5 fabrics Premier Return to Factory Support for 5 years

Brocade Analytics Monitoring Platform Gen5 Return to Factory 1yr Support LTU   **Q0P57A**

AMP for Gen 5 fabrics essential Return to Factory Support for 1 year

Brocade Analytics Monitoring Platform Gen5 Return to Factory 2yr Support LTU   **Q0P58A**

AMP for Gen 5 fabrics essential Return to Factory Support for 2 years

Brocade Analytics Monitoring Platform Gen5 Return to Factory 3yr Support LTU   **Q0P59A**

AMP for Gen 5 fabrics essential Return to Factory Support for 3 years

Brocade Analytics Monitoring Platform Gen5 Return to Factory 4yr Support LTU   **Q0P60A**

AMP for Gen 5 fabrics essential Return to Factory Support for 4 years

Brocade Analytics Monitoring Platform Gen5 Return to Factory 5yr Support LTU   **Q0P61A**

AMP for Gen 5 fabrics essential Return to Factory Support for 5 years

NOTE: Provides a five-business-day reshipment for parts replacement from the time Brocade has physically received the defective material and confirmed dispatch with customer. Customer is responsible for return shipping costs as well as items lost or damaged in transit. Delivery times may vary due to customs and regulations that are outside of Brocade control. RTF is available worldwide and includes 24×7 access to the TAC software updates, and online self-service tools.

Brocade Analytics Monitoring Platform Gen5 Secure Uplift 1yr Support LTU   **Q0P62A**

AMP for Gen5 fabrics secure uplift support for 1 year

Brocade Analytics Monitoring Platform Gen5 Secure Uplift 2yr Support LTU   **Q0P63A**

AMP for Gen5 fabrics secure uplift support for 2 years

Brocade Analytics Monitoring Platform Gen5 Secure Uplift 3yr Support LTU   **Q0P64A**

AMP for Gen5 fabrics secure uplift support for 3 years

Brocade Analytics Monitoring Platform Gen5 Secure Uplift 4yr Support LTU   **Q0P65A**

AMP for Gen5 fabrics secure uplift support for 4 years

Brocade Analytics Monitoring Platform Gen5 Secure Uplift 5yr Support LTU   **Q0P66A**

AMP for Gen5 fabrics secure uplift support for 5 years

NOTE: Secure uplift is an add-on service option that is mostly for federal business where there is classified information in the SAN environment and potentially stored on the device. When there is malfunctioning equipment that needs to be swapped out with a working replacement under the services and support plan, rather than the malfunctioning equipment being returned to Brocade as per the standard process, the customers can destroy that equipment in order to meet their secure data requirements.

Step-7 Validate Brocade environment	**Brocade Environment**

Brocade AMP can only be connected to Gen 5 and above switches, and end devices to be monitored have to be attached to Gen 5 and above switches in the fabric. The switch fabric can also include non Gen5 Brocade switches. Any one of the following HPE B-series switches with Fabric Vision enabled are supported for the Brocade AMP,

- **HPE SN3000B 16Gb FC Switch**
  16Gb 24/24, 24/12 FC Switch with 12, 24 active ports; rackmount kit; accessory kit (enterprise safety and regulatory information, installation guide, rack-mounting instructions), power cord, serial cable, base software of Advanced Fabric OS, Advanced Web Tools, Brocade EZ Switch, Advanced Zoning and SAN Network Advisor Professional.
  Models
  HPE SN3000B 16Gb 24-port/24-port Active Fibre Channel Switch   QW938A
  HPE SN3000B 16Gb 24-port/12-port Active Fibre Channel Switch   QW937A

- **HPE SN6000B 16Gb FC Switch**
  Simplifies enterprise SAN deployment by combining higher edge switch port density with exceptional scalability, performance and reliability
  - Delivers 24, 36, or 48-ports in a 1U enclosure

Configuration Information

- Provides 4 Gb/s, 8 Gb/s, 10 Gb/s, 16 Gb/s* performance
- Employs optional Inter-Switch Link (ISL) Trunking to provide a high-speed data path between switches which enables a high speed data path between 16 Gb/s switches up to 128 Gb/s

Models

HPE SN6000B 16Gb 48-port/48-port Active Power Pack+ Fibre Channel Switch	QR481B
HPE SN6000B 16Gb 48-port/24-port Active Power Pack+ Fibre Channel Switch	QK754B
HPE SN6000B 16Gb 48-port/48-port Active Fibre Channel Switch	QR480B
HPE SN6000B 16Gb 48-port/24-port Active Fibre Channel Switch	QK753B
HPE StoreFabric SN6000B 16Gb 48/24 Port Side Air Intake Fibre Channel Switch	E7X99A
HPE StoreFabric SN6000B 16Gb 48/24 Bundled Fibre Channel Switch	C8R08A

- **HPE SN6500B 16Gb FC Switch**
  Simplifies enterprise SAN deployment by combining higher edge switch port density with exceptional scalability, performance and reliability
  - Delivers 48, 72, or 96-ports in a 2U enclosure
  - Provides 4 Gb/s, 8 Gb/s, 16 Gb/s* performance
  - Employs optional Inter-Switch Link (ISL) Trunking to provide a high-speed data path between switches which enables a high speed data path between 16 Gb/s switches up to 128 Gb/s

Models

HPE StoreFabric SN6500B 16Gb 96/96 Power Pack+ FC Switch	C8R42A
HPE StoreFabric SN6500B 16Gb 96/96 FC Switch	C8R43A
HPE StoreFabric SN6500B 16Gb 96/48 Power Pack+ FC Switch	C8R44A
HPE StoreFabric SN6500B 16Gb 96/48 FC Switch	C8R45A
HPE StoreFabric SN6500B 16Gb 96/48 Port Side Air Intake Fibre Channel Switch	E7X98A

- **SN8000B SAN Director 4-slot or 8-slot**
  The SN8000B 8-Slot Director is a 14U chassis and supports 8Gb and 16Gb Fibre Channel blades for large enterprises to deliver maximum scalability and port density, performance, and functionality. The SN8000B 4-Slot Director is a 9U chassis and also supports 8Gb and 16Gb Fibre Channel blades for mid-size enterprises as the core of their SANs.

- **Brocade 16Gb SAN Switch for HPE BladeSystem c-Class**
  Gen 5 FC switch module for HPE BladeSystem

- **Fabric Vision**
  Fabric Vision offers innovative diagnostic, monitoring and management capabilities to help accelerate new application deployments, address SAN problems before they impact operations and reduce operational costs. It Includes
  - Monitoring and Alerting Policy Suite (MAPS): A policy-based monitoring tool with pre-built rules and automation that simplifies fabric-wide threshold configuration and monitoring.
  - Flow Vision: A comprehensive tool that enables administrators to identify, monitor, and analyze specific application data flows without using taps to ensure optimized performance
  - Health and performance dashboard: A single customizable screen displayed in HPE SAN Network Advisor that contains all critical SAN information for convenient review and analysis

  Any switch directly connected to the AMP requires a Fabric Vision software

  NOTE: Fabric Vision will be included by default in all HPE StoreFabric B-series Fibre Channel switches and Directors bundled with Power Pack+ (with FOS 7.2.x and later*). In all other cases, Fabric Vision can be enabled on HPE StoreFabric B-series Fibre Channel switches and Directors in any one of the following ways
  - Application of the Fabric Vision LTU (TC509A) (FOS 7.2.x and later*)
  - Application of the Power Pack+ LTU (T5521A) (FOS 7.2.x and later*)
  - Upgrading existing Switch/Director loaded with Power Pack+ to FOS 7.2.x or later*

Configuration Information

- Upgrading existing Switch/Director loaded with both Advanced Performance Monitor (APM) and Fabric Watch (FW) licenses to FOS 7.2.x or later* * See HPE Spock for Hewlett Packard Enterprise supported versions of FOS 7.2.x

Brocade Network Advisor Software

- **SAN Network Advisor Professional**

  HPE SAN Network Advisor Professional is a server based management application available at no charge that comes with B-series SAN Switches and includes the following features:
  - Allows management of up to 2 SAN Fabric OS (FOS) fabric (up to a 300 B-Series switch ports)
  - Performs group switch management beyond the scope of Web Tools
  - Does not offer management for the DC SAN Backbone Director, the SN8000B Director, or FICON

  It is targeted for SMB customers that use FOS based SAN fabrics and require a management solution for smaller SANs based on a single fabric.

  SMB customers that initially start off with SAN Network Advisor Professional and have a small SAN environment may over time feel the need for an enterprise-class product (SAN Network Advisor Enterprise) as their environments start to grow in size and complexity, and as they start to uptake more enterprise-class functionality (such as Fibre Channel Routing, FCIP, etc.). A non-disruptive upgrade path is available from SAN Network Advisor Professional to SAN Network Advisor Enterprise

  NOTE: It is required for the management of AMP

- **Brocade SAN Network Advisor Enterprise Software LTU (Q1M86A)**

  SAN Network Advisor Enterprise provides complete B-series Directors Management including enterprise-class features/environments such as FICON, Fibre Channel Routing, FCIP, adaptive networking, etc. It delivers unprecedented scalability, up to 100 fabrics and 15,000 switch ports

  NOTE: It is required for the management of AMP

Service, Support, Warranty and Other Information

Service and Support

Service and Support for Brocade AMP product is provided directly by Brocade. For any support and generic queries please email to **support@brocade.com** . Brocade licensors service delivery organization will be responsible for responding with a call, assigning a severity level to the call, and determining the service Severity Level acceptable to Hewlett Packard Enterprise customer. The support request will be processed by Brocade in accordance with the Severity Level agreed upon.

Warranty

Hardware
For a period of thirteen (13) months from the Start Date, Brocade warrants that the Brocade-branded product hardware will be free from defects in materials and workmanship under normal use. End User's sole and exclusive remedy and the entire liability of Brocade and its suppliers under this limited warranty will be, at Brocade's option, repair or replacement of such product hardware within thirty (30) working days of its receipt of the failed hardware, if in advance of its receipt, such hardware received a Technical Support RMA number from Brocade. Further, the product hardware must be shipped, shipment pre-paid, to Brocade, and the RMA number must be clearly indicated on the shipping box and papers. Where applicable, for shipments to locations outside the US, Customer or Customer's assigned agent will act as Importer of Record for shipments of repaired/replacement units and will be responsible for payment of any import duties, taxes and fees. See other Warranty Limitations and Restrictions below.

Software
For a period of ninety (90) days from the Start Date, Brocade warrants (a) that the media on which the software is delivered will be free of defects in material and workmanship, and (b) the software will operate substantially as set forth in the applicable Brocade specifications when used in accordance with the terms of the Brocade software license. End User's exclusive remedy and the entire liability of Brocade and its suppliers under this limited warranty will be replacement of the software media. Except for the foregoing, the software is provided AS IS. This limited warranty extends only to the End User as the original licensee. See other Warranty Limitations and Restrictions below.

Restrictions

Brocade warranties as set forth herein ("Warranty") are contingent on proper use of the Brocade branded hardware and software ("Products") and do not apply if (a) the Products have been modified without the written approval of Brocade, (b) the Products' serial number label is removed, (c) the Product has been damaged or subjected to abnormal physical or electrical stress, abnormal environmental conditions, misuse, negligence, or accident, or (d) the Product is licensed for beta, evaluation, testing or demonstration purposes. In order to ensure proper operation of Brocade products, it is required that all Brocade systems utilize only Brocade supplied optical transceiver components. Brocade reserves the right to void warranty and service support offerings if optical transceiver components other than those supplied by Brocade are used in the operation of Brocade products. The terms of the Warranty are limited to the remedies as set forth in this Warranty. This warranty is provided in lieu of all other rights, conditions and warranties. Brocade makes no other express or implied warranty with respect to the software, hardware, products, documentation or brocade support, including, without limitation, any warranty of merchantability, fitness for a particular purpose and non-infringement of third party rights. Brocade does not warrant that any products will be error-free, or that any defects that may exist in its products can be corrected. In no event shall brocade be liable for cost of procurement of substitute goods, lost profits or any other special, indirect, consequential or incidental damages (including but not limited to lost data), however caused whether or not brocade has been advised of the possibility of such damages. Some jurisdictions do not allow limitation or exclusion of liability for consequential or incidental damages, so that limitation or exclusion may not apply.

Return Policy for Resellers

Stocking of HPE Complete Brocade products are not recommended. Please purchase accurate quantity required to fulfil the customer order.

Summary of Changes

Date	Version History	Action	Description of Change
20-Jan-2017	From Version 2 to 3	Changed	Added V2.0 Applaince SKUs
02-Sept-2016	From Version 1 to 2	Changed	Changes made to the entire document
07-June-2016	Version 1	Created	All content created

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