

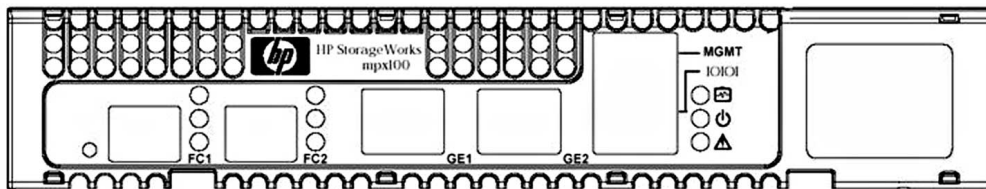
QuickSpecs

HP IP Distance Gateway

Overview

The HP IP Distance Gateway provides SAN over WAN connectivity for protecting and replicating data between EVA and XP systems. By connecting islands of SANs over WANs, the IP Distance Gateway enables Continuous Access replication (Asynchronous and Synchronous), SAN device sharing, data migration and other long distance data services. At the core of providing long distance data services is the ability to copy, move and replicate data locally and over long distances. However, SANs have limited distance capabilities (35km) and IT managers need to share, protect and move data over greater distances than 35km, routers and switches that link SANs over IP WANs are the weapon of choice for most IT managers. The IP Distance Gateway uses the FCIP (Fibre Channel Internet Protocol) standard to extend SAN connectivity over the WAN.

This solution improves the performance and lowers the cost of data protection. It helps EVAs and XPs support the myriad of changing business requirements related to data management and retention, the growing needs for business continuance and disaster recovery solutions and other business and regulatory needs including (SARBOX, HIPPA, SEC 17a4).



Compliance - Across the globe, regularity requirements from most governments have changed and are placing greater demands on businesses. The data outlined by these regulations is often outside of the data center, but needs to be protected, secured and accessible globally. US regulations such as SEC 17a-4, Sarbanes Oxley section 404, and HIPAA are driving the need for new storage strategies into every organization. This means those servers, and the storage that supports those servers, need data protection and management capabilities, often associated with enterprise SANs and traditionally are only found in central IT departments.

Control - Management and security of data is a paramount concern for IT Managers since any mistakes in this area often end up on the front page of the Wall Street Journal and Financial Times. When transferring data over telecommunications lines, especially public lines, stringent security and control measures are required. Security needs to be on the data delivery, user access, and authentication levels.

Continuance - Ensuring that business continues without interruption is a leading priority for IT organizations worldwide. This means, both from a regulatory and a practical standpoint, the source and backup copy of data need to be geographically distant to protect against regional issues (power grid failures, natural disasters...). Linking SANs over WANs is the primary method for accomplishing this type of data replication.

Consolidation - Traditionally, when we discuss consolidation in a storage context we are referring to aggregating storage into the data center. In this case we would expand that definition to include consolidation of SAN islands in multiple locations to simplify replication across multiple SANs and storage systems.

Cost - As the demands for SAN over WAN services for data protection grow, so does the need to control the cost of WAN lines. Key solutions to lower cost for SAN over WAN solutions include tools to improve WAN line efficiency, data compression and load balancing to maximize the cost/MB transferred.

The IP Distance Gateway sets a new price/performance mark in the industry for Continuous Access SAN over WAN connection. It is Easy to Use, Easy to Manage, Easy to Own, the advanced install and configuration wizard enables set up in less than 15 minutes and makes it simple to manage.



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Key Benefits of the IP Distance Gateway are:

- Significantly lowers the cost of Continuous Access connectivity over the WAN
 - Reduce transfer times with compression
 - Disaster Recovery for Business Continuance
 - Data Migration for Applications
 - Sharing SAN devices to improve utilization
 - Connecting SAN islands over WANs and LANs
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Key Features

- Low Cost SAN over WAN Connectivity
- High Performance with data compression
- Support for FCIP for SAN extension
- Supports two Ethernet and two Fibre Channel ports
- Supports High Availability Options
- HP mpx Manager



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Models

HP IP Distance Gateway	HP IP Distance Gateway	AG680A
	Order this part for all new installations. Includes one unit, shelf, brackets, and documentation.	
	Order two of this part number for SAN extension, one for each site.	
	HP IP Distance Gateway Upgrade	AG681A
	Includes one unit to mount in existing shelf and documentation	
	For multi-path (dual unit high availability) order both part numbers. This second hardware unit installs into the shelf that is supplied with AG680A.	
	Order two of this part number for high availability, no single point of failure multi-path SAN extension, one for each site.	



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Product Highlights

Configuration Support The IP Distance Gateway is fully compatible with the B-series and C-Series family of FC switches. For complete interoperability information please check:

- <http://www.hp.com/go/SANdesign>
- <http://www.hp.com/go/SANdesignguide>

Two hardware units at each site may be implemented for high availability and redundant data paths.

Manageability

- HP mpx Manager

Scalability Initial support: Refer to the guidelines described in the HP SAN Design Reference Guide available at: <http://www.hp.com/go/SANdesignguide>

Software Components, Standard

HP mpx Manager HP mpx Manager provides the capability to manage the IP Distance Gateway (mpx110) and is installed on a Microsoft Windows, Linux, or Apple Mac OS X server, existing Storage Management Appliance, a management server or a NAS server.



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Service and Support, HP Care Pack and Warranty Information

Warranty (1-1-1) Hardware Warranty - One-year on-site warranty, 8x5, next business day response, installation not included.
NOTE: The hardware warranty covers firmware and embedded non-saleable software.

HP Service & Warranty Support HP Service & Warranty Support Additional Warranty protection and/or HP Installation packages can be purchased.
NOTE: Certain restrictions and exclusions apply. Consult the Customer Support Center for details. HP provides a one-year, hardware limited warranty, fully supported by a worldwide network of resellers and service providers.
In addition, available service offerings include a full range of HP Care Pack packaged hardware and software services:

- Installation
- Extended coverage hours and enhanced response times
- System management and performance services

For more information on warranty and support options, please visit our Web site at:
<http://www.hp.com/hps/tech/storage/supp/>.

Software Product Services

- Stand-alone telephone support
- Rights to a new license
- Media and documentation updates

Hardware Product Services

- Installation services
- On-site Maintenance (includes warranty support)
- Response time upgrades during the warranty period
- Post-warranty coverage

HP Care Pack Services Warranty Upgrade Options Service offerings include a full range of Customer HP Care Pack services for both hardware and software services:

- Response - Upgrade on-site response from next business day to same day 4-hours
- Coverage - Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours
- Duration - Select duration of coverage for a period of 1, 3, or 5 years

Additional Warranty protection and/or HP Installation packages can be purchased.
NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.



Service and Support, HP Care Pack and Warranty Information

HP Care Pack Information HP Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.

HP Care Pack is not available for less than the product's warranty duration.

HP Care Pack is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required.

HP Care Pack services are prepaid.

For additional HP Care Pack (hardware & software) information, as well as orderable part numbers, please refer to the URL:

<http://h18005.www1.hp.com/services/carepaq/index.html>

Additional Services

Implementation service, SAN Architecture service. For more information on service options, please visit our Web site at: <http://www.hp.com/go/san>.



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Configuration Information

Step 1 - Base Configuration and Power Pack

Select one:

Model	Model Description	Part Number
IP Distance Gateway	Includes 1 unit, shelf, brackets, and documentation NOTE: Order two of this part number for SAN extension, one for each site.	AG680A
IP Distance Gateway Upgrade	Includes 1 unit to mount in existing shelf and documentation NOTE: Order two of this part number for high availability, no single point of failure multi-path SAN extension, one for each site.	AG681A

Step 2 - Additional Options

Optical Transceivers	Short Wave - 300m	A7446B
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2 Gb optical cables (Required for Fabric attach)	LC-LC for between two 2 Gb devices	
	2 m LC-LC Multi-Mode Fibre Channel Cable	221692-B21
	5 m LC-LC Multi-Mode Fibre Channel Cable	221692-B22
	15 m LC-LC Multi-Mode Fibre Channel Cable	221692-B23
	30 m LC-LC Multi-Mode Fibre Channel Cable	221692-B26
	50 m LC-LC Multi-Mode Fibre Channel Cable	221692-B27



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Technical Specifications

Arrays supported	EVA 4000, 4100, 4400, 6000, 6100, 6400, 8000, 8100, 8400 EVA 3000, 5000 XP10000, XP12000, XP20000, XP24000 For firmware versions: http://www.hp.com/go/eva ; http://www.hp.com/go/xp
Management Software Support	HP mpx Manager
OS Support	All operating systems supported by Continuous Access EVA and XP
Cluster Support	All clusters supported by Continuous Access EVA and XP
Fibre Channel Interface	Dual Port, 2Gb
FC Transceiver	SFP, supported 4Gb @ 2Gb speed
FC Connectivity Mode	Fabric attach connected as a B-Port
IP Interface	Dual port, 1GbE
Multi-Path support	All multi-path supported by Continuous Access EVA
Distance	LAN, WAN, Refer to the guidelines described in the HP SAN Design Reference Guide available at: http://www.hp.com/go/SANdesignguide
Host Platform Support	Any 32-bit or 64-bit servers running the supported OS
Performance*	half duplex 45 MB/sec full duplex 84 MB/sec

* Performance information is based on measured and projected performance limits and may not reflect what may be attained in all applications. FCIP performance is dependent on link distance, latency, link quality, data compression, and total available guaranteed link bandwidth.

Environmental Specifications

Optional side-by-side 1U rack-mount kit; Non-cable-side to cable-side airflow; power from cable-side; 1U, 19-in. EIA rack-compliant; Cooling: Two fans with back-to-front airflow

	Condition	
Environment	Operating ¹	Non Operation ²
Temperature	41° to 104° F (5° to 40° C)	-40° to 158° F (-25°C to 70° C)
Humidity ³	5 to 90%, non-condensing	5 to 93%, non-condensing
Altitude	3 km	15 km
Shock	IEC 68-2, 4g, 11ms, 20 repetitions	IEC 68-3, 30g, 292 ips, 3 repetitions, 3 axis
Vibration ⁴	IEC 68-2, 5-500Hz, random, 0.21G rms, 10 minutes	IEC 68-2, 5-500Hz, random, 2.09G rms, 10 minutes
Power AC input Nominal	Power AC input Nominal: 0.5A@100-125 VAC 0.25A@200-240 VAC	
Frequency Range	47 to 63 Hz	
Nominal Frequency Range	50 Hz to 60 Hz	
Power Dissipation	48W maximum (optics included)	



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Technical Specifications

¹ Environmental specification for operating condition should be satisfied before the IP Distance Gateway subsystem is powered on. Maximum temperature of 40°C should be strictly satisfied at air inlet portion.

² Non-operating conditions include both packing and unpacking conditions unless otherwise specified.

³ No condensation in and around the IP Distance Gateway should be observed under any conditions.

⁴ The above specifications of vibration are applied to all three axes.

On shipping/storage condition, the product should be packed with factory packing.

Physical Size	Height	1U (1.7 in / 4.3 cm)
	Width	8.5 in (21.6 cm)
	Depth	12 in (30.5 cm)
	Weight	10 lbs (4.5 kg)
Installation	User installable, but recommended field service install	

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