



BROCADE 7500E EXTENSION SWITCH FREQUENTLY ASKED QUESTIONS

Q What is the Brocade® 7500E?

A The Brocade 7500E is an entry-level Fibre Channel over IP (FCIP) storage and SAN extension solution that reduces the cost of remote data replication. It combines FCIP services with fabric isolation to provide robust, yet cost-effective point-to-point connectivity of remote SAN fabrics or Fibre Channel storage over IP WANs.

Q What are the key features of the Brocade 7500E?

A The Brocade 7500E includes two 4 Gbit/sec Fibre Channel ports and two Gigabit Ethernet ports; redundant power supplies and fans; and advanced functionality to optimize storage application performance and resiliency across extended distances. Advanced functionality support includes:

- Fast Write for FCIP to significantly improve disk mirroring application response time over distance
- Hardware-based compression to optimize bandwidth utilization and reduce bandwidth costs
- Storage-optimized TCP for unprecedented network resiliency, even when using sub-optimal WAN links
- Remote SAN connectivity without merging fabrics, providing a more secure and reliable distance connectivity solution
- A seamless upgrade path to additional functionality and port density, minimizing upfront costs and providing complete investment protection

Q What are some use cases for the Brocade 7500E?

A The Brocade 7500E supports strategic initiatives such as disaster recovery, business continuance, compliance, and data migration. It is designed for cost-effective, point-to-point FCIP data replication environments with lower bandwidth requirements—including smaller enterprise organizations, large enterprise remote offices, and FCIP-based network service providers. The Brocade 7500E provides the performance, ease of use, and cost-effectiveness needed for these and other business requirements. As your requirements grow, you can upgrade to full Brocade 7500 capability, adding Fibre Channel ports and advanced capabilities with a simple software license upgrade.

Q Does the Brocade 7500E interoperate with other Brocade Fabric OS® switches in existing fabrics?

A The Brocade 7500E uses the same Fabric OS (FOS) code stream that supports the entire portfolio of Brocade SAN switches and directors, including the Brocade DCX™ Backbone, providing forward and backward compatibility while simplifying software maintenance and field upgrades.

This interoperability also enables cost-effective hub-and-spoke architectures, enabling more scalable Brocade directors or SAN routers to reside at the fabric core, and lower-cost Brocade 7500E devices to reside at remote offices. This approach reduces the total cost of ownership for multi-point SAN environments.

Q What management tools are available for the Brocade 7500E?

A You can manage the Brocade 7500E with the same tools you use to manage other Brocade routers and switches: Brocade Web Tools, SNMP, Telnet, Brocade Fabric Manager (optional), and Brocade SMI Agent-based applications. You can also use Brocade Enterprise Fabric Connectivity Manager (EFCM) to manage the Brocade 7500E, including EFCM's embedded Brocade Web Tools element manager.

Q Can I use the Brocade 7500E for Fibre Channel extension?

A The Brocade 7500E only supports FCIP extension. The Brocade 7500 and Brocade FR4-18i SAN Extension Blade support both Fibre Channel and FCIP-based extension and would be the solution of choice for those requirements. The Brocade 7500E can be upgraded to full Brocade 7500 capability to support Fibre Channel extension.

Q What are the key differences between the Brocade 7500 and Brocade 7500E?

A The Brocade 7500E leverages Brocade 7500 technology but offers lower port density, select advanced features, and a lower price point—making it a reliable entry-level remote data replication solution. The Brocade 7500E includes high-availability features such as redundant power supplies and fans, as well as Fast Write acceleration, hardware data compression, and Storage Optimized-TCP (SO-TCP). The list below includes key features for the Brocade 7500 and Brocade 7500E:

Capability	Brocade 7500	Brocade 7500E
Redundant power supplies and fans	√	√
Hardware-based encryption	√	-
Fibre Channel Tape Pipelining (over FCIP)	√	-
FICON (disk and tape) over metro	√	-
Fibre Channel-based extension with Fast Write	√	-
Qualified for local Fibre Channel switching	√	-
Fibre Channel Routing between fabrics	√	-
Call Home feature	√	-
Fabric isolation	√	√
WAN port speed	1 Gbit/sec	50 Mbit/sec
Number of Fibre Channel ports	16	2
Number of FCIP ports	2	2
Connections or tunnels (remote sites)	8 per GigE port	1 per GigE port
Hardware-based compression	√	√
Open system extension with Fast Write over FCIP	√	√
Storage-optimized TCP	√	√

Q Can I upgrade my Brocade 7500E to the full Brocade 7500 capability? What do I need?

A Yes. You can order and install a software upgrade license. After the Brocade 7500E firmware detects the presence of the upgrade license, the Brocade 7500E will enable functions equivalent to the Brocade 7500 as well as the high-performance extension license, activation of all 16 Fibre Channel ports, and full line-rate performance.

Q Who should upgrade from the Brocade 7500E and when?

A The Brocade 7500E addresses the needs of smaller environments, where smaller amounts of data need to be replicated to a single remote site. With data and business growth, you might exceed the capabilities of the Brocade 7500E, requiring an upgrade to full Brocade 7500 functionality. In general, if you reach 80 percent utilization of available bandwidth, you should add WAN bandwidth and upgrade to the Brocade 7500. An upgrade to full Brocade 7500 capability is also required for multi-point routing, tape extension, support for local Fibre Channel switching, and other advanced capabilities.

Q What features are included in the software upgrade license?

A The software upgrade license is a bundled package that includes:

- Hardware-based encryption
- Read and Write Tape Pipelining
- Fibre Channel-based extension with Fast Write
- FICON (disk and tape) over metro distances
- Local switching
- Fibre Channel Routing between fabrics
- Call Home feature
- Full line rate speeds across IP WAN ports
- Activation of 14 additional Fibre Channel ports
- Seven additional tunnels per Gigabit Ethernet port

Q What additional software licenses are available for the Brocade 7500E?

A The Brocade 7500E is an all-inclusive package with support for open systems extension with Fast Write over FCIP. For advanced network management, you can use Brocade Fabric Watch and Brocade Advanced Performance Monitoring, which can also be ordered with the Brocade 7500E. As your requirements grow, you can upgrade the Brocade 7500E to full Brocade 7500 capability via an upgrade license. After you have upgraded the Brocade 7500E to full Brocade 7500 capability, you can also use the Brocade Accelerator for FICON® to support FCIP-based remote FICON tape or virtual tape as well as remote z/OS Global Mirror (XRC) implementations.

Q Does the Brocade 7500E include Fibre Channel Routing?

A The Brocade 7500 uses Fibre Channel Routing to ensure that remote SAN fabrics can be connected without merging them, maintaining fabric isolation and improving fabric stability. The Brocade 7500E is not intended for multi-point routing or routing between local fabrics. It is a point-to-point remote extension solution. If you require Fibre Channel Routing, you should upgrade to the full Brocade 7500 capability.

Q Does the Brocade 7500E support Fibre Channel switching?

A No. The Brocade 7500E does not support local switching. If you require local switching, you should upgrade to the full Brocade 7500 capability.

Q What “hot-swappable” Field Replaceable Units (FRUs) does the Brocade 7500E use?

A For the Brocade 7500E, FRUs consist of SFPs, power supplies, and fans.

Q What OEM applications are qualified with the Brocade 7500E?

A The Brocade 7500E is based on the Brocade 7500 technology and therefore carries all of the certifications currently available for the Brocade 7500.

Q Who sells the Brocade 7500E?

A The Brocade 7500E is available through Brocade as well as Brocade OEM Partner and independent channels. Availability schedules vary for each partner.

Q What are the competitive advantages of the Brocade 7500E?

A The Brocade 7500E is specifically designed to meet the needs of the SME, large enterprise remote office, and FCIP-based service provider markets—providing the functionality, performance, ease of deployment/ease of use, and high availability at the right price point. Its competitive advantages include:

- The only product that provides pay-as-you-grow investment protection, allowing you to start small and scale as your requirements grow.
- The only product that provides enterprise-class features/functionality without adding management complexity.
- The only product that natively connects to and extends the large existing Brocade installed base. For large enterprises, this enables cost-effective extension of the network to remote sites. For service providers, the Brocade 7500E is an easy drop-in solution for connecting to existing Brocade SAN fabrics at customer sites.

Q Will there be a Brocade 7500E-specific training course?

A There will be a Web-based training course *AFS176: Introduction to the Brocade 7500E*.

Q Does the Brocade 7500E comply with FIPS 140-2 Level 2?

A Yes, the Brocade 7500E base unit will be FIPS 140-2 Level 2-ready. You can order and apply the FIPS seal kit to a Brocade 7500E to make it fully compliant.

Q Does the Brocade 7500E accept non-Brocade branded SFPs?

A While Brocade branded SFPs are recommended, the Brocade 7500E accepts non-Brocade branded SFPs for increased flexibility.

Q What version of Fabric OS will ship with the Brocade 7500E?

A The Brocade 7500E will initially ship with the Fabric OS 6.0.0b release.

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