



NEW IBM SYSTEM STORAGE SAN64B-2 (2005-B64) UNIQUELY POSITIONED FOR PORT AGGREGATION AND CORE SWITCHING

The IBM System Storage SAN64B-2 (2005-B64) delivers the best performance and value in a 32-48-64-port SAN switch for organizations that want to consolidate or scale to larger port counts in fewer switches—with the option to scale on a “pay-as-you-grow” basis at a nominal cost. The reduced domain count and cabling complexity help improve administrator productivity, and 4 Gbit/sec Fibre Channel technology provides extremely high performance. The IBM System Storage SAN64B-2 (2005-B64) is an ideal solution as a core switch for organizations that do not require the full capabilities of a director-class switch, and as an edge switch in large data centers.

INTRODUCING THE NEW IBM SYSTEM STORAGE SAN18B-R (2005-R18) AND FC ROUTING BLADE FOR THE SAN256B-2 (2109-M48)

The The IBM System Storage SAN18B-R (2005-R18) and FC Routing Blade for the SAN256B-2 (2109-M48) enable organizations to derive more value from the SAN infrastructure by extending its reach across disparate SANs without the risk and downtime of merging them. Organizations can achieve this value whether the SANs reside in the same data center or in geographically disparate locations using FCIP or native Fibre Channel.

BROCADE DIFFERENTIATING FEATURES SUPPORT BUSINESS CONTINUITY

Brocade® ultra-high availability features address a variety of issues that can cause downtime for a SAN:

- **Hardware Failures:** Hardware redundancy provides 99.999 percent availability (includes non-disruptive control processor failover).
- **Maintenance:** Hot code activation causes zero-second data flow interruption and no dropped frames.
- **User Errors or Malicious Attacks:** Advanced Security enforces change control in the fabric to greatly reduce operator errors. Plus, SAN fabric and corporate data are protected from attacks that might cause downtime, data corruption, or data theft.
- **Catching Marginal Components:** The Fabric Watch health monitoring tool allows administrators to catch marginal components and error conditions before they become hard failures that cause downtime.

WHY CHOOSE BROCADE?

Market-Proven Technology: Brocade is the SAN infrastructure market leader with 52% share of the entire SAN switch market. With over 8 million SAN ports deployed in small, medium, and enterprise companies worldwide, Brocade-based SANs are proven to deliver increased storage utilization, reduced management costs, and highly available systems for business continuity.

Tailored Solutions: Brocade has the broadest product line that supports IBM networked storage solutions. Under the IBM System Storage brand, Brocade delivers simplified infrastructure for entry-level SANs requiring ease of use and pay-as-you-grow scalability as well as infrastructure for enterprise-level, larger SANs demanding high-availability and scalability. In addition, the Brocade SAN Switch Module for the IBM BladeCenter brings a higher level of SAN intelligence to the bladed server environment.

Compatibility: Brocade is IBM’s longest-standing Fibre Channel networking partner that sells its product under the IBM System Storage brand of SAN Switches and Directors. This strategic relationship ensures that Brocade-based products are tested, certified, and warranted by IBM to be compatible with all IBM server, storage, and solution offerings such as:

- **Server Lines:** System i, System p, System x, System z
- **Storage Virtualization:** SAN Volume Controller, SAN Integration Server, and SAN File System products
- **Enterprise Storage:** Both Fibre Channel and FICON support on DS8x00 products
- **Modular Storage:** The IBM System Storage DS family (formerly FASTT)
- **Storage Management:** Integrated into Tivoli SAN Manager for total storage area management

GENERAL INFORMATION

For technical or sales questions, send e-mail to: ibm-sales@brocade.com or in EMEA, ibm_emea_la@brocade.com

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QUICK REFERENCE GUIDE

IBM 1-4 GBIT/SEC SYSTEM STORAGE SAN SWITCH FAMILY

| | 2005-B16 | 2005-B32 | 2005-B64 | 2109-M48 | FC ROUTING BLADE FOR THE 2109-M48 | 2005-R18 | 2109-A16 |
|--|--|--|--|---|---|---|---|
| |  |  |  |  |  |  |  |
| Brocade Product Name | SilkWorm 200E | SilkWorm 4100 | SilkWorm 4900 | SilkWorm 48000 | FR4-18i | SilkWorm 7500 | SilkWorm AP7420 |
| Port Count | 8-16 | 16-32 | 32-64 | 16-256 in a single domain | 2 GigE/16 FC | 2 GigE/16 FC | 8-16 GigE/FC |
| Height | 1U | 1U | 2U | 14U | 1 Slot in M48, max 2 | 1U | 2U |
| Hardware (Standard) | | | | | | | |
| Power Supply | Single, Fixed | 2 Hot Swappable | 2 Hot Swappable | 2-4 Hot Swappable | Requires 2 Additional Power Supplies in the 2109M48 Director (FC7840) | 2 Hot Swappable | 2 Hot Swappable |
| Fans | Fixed (3) | 3 Hot Swappable | 3 Hot Swappable | 3 Hot Swappable | | 3 Hot Swappable | 2 Hot Swappable |
| Other | 200516B HVEC (Includes (8) 4 Gbit SWL SFPs) | 200532B HVEC (Includes (16) 4 Gbit SWL SFPs) | | 2 Additional Power Supplies Option FC7840 | Order FC3450 | | |
| Hardware (Optional) | | | | | | | |
| SWL and LWL SFPs | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Ports on Demand | 4 ports (Field/Plant Upgrade FC7515) 4 ports 8-11 (Field Upg. FC7515) 4 ports 12-15 (Field Upg. FC7515) | 8 ports (Field/Plant Upgrade FC7514) 8 ports 16-23 (Field Upg. FC7510) 8 ports 24-31 (Field Upg. FC7511) 16 ports 16-31 (Field Upg. FC7513) 16 ports 16-31 (Plant Only FC7512) | 16 ports (Field/Plant Upgrade FC7520) | N/A | N/A | N/A | 8 ports (Field Upgrade FC7902) 8 ports (Plant Upgrade FC7901) |
| Other | 1. 4Gbit/sec SWL & LWL SFP's 2. 2Gbit/sec SWL & LWL SFP's | 1. 4Gbit/sec SWL & LWL SFP's 2. 2Gbit/sec SWL & LWL SFP's | 1. 4Gbit/sec SWL & LWL SFP's 2. 2Gbit/sec SWL & LWL SFP's | 1. 16 & 32 port 4Gbit/sec FC cards 2. Designed to support 16 port 2Gbit/sec cards from the M14. 3. Designed to support additional blades with Routing, IP, and Application capabilities | 1. 4Gbit/sec SWL & LWL SFPs 2. 2Gbit/sec SWL & LWL SFPs | 1. 4Gbit/sec SWL & LWL SFPs 2. 2Gbit/sec SWL & LWL SFPs | 1. Tri-rate SW SFP (FC2110) 2. Tri-rate 10km LW SFP (FC 2120) 3. Extended Distance LW 35km SFP (FC 2335) |
| Software | | | | | | | |
| Fabric OS | Fabric OS v5.0.x | Fabric OS 4.x, 5.0x | Fabric OS 5.1.x | Fabric OS 5.0.x 5.1.x w/FC Routing Blade | Fabric OS 5.1.x | Fabric OS 5.1.x | XPath OS 7.x |
| Web Tools | Base | Base | Base | Base | Base | Base | Base |
| Advanced Zoning | Base | Base | Base | Base | Base | Base | Base |
| Fabric Watch | Optional FC7550 | Base | Base | Base | Base | Base | Base |
| Full Fabric | Optional E-Port Activation (Plant FC7450; Field FC7451) | Base | Base | Base | Base | Base | Base |
| Performance Bundle (ISL Trunking, Advanced Performance Monitoring) | Optional FC7555 | Optional FC7555 | Optional FC7565 | Base | Base | Optional FC7575 | Exchange-Based Trunking in Base |
| Dynamic Path Selection | Base | Base | Base | Base | Base | Base | Base |
| Extended Fabrics | Optional FC7455 | Optional FC7553 | Optional FC7563 | Optional FC7803 | Optional FC7803 | Base | Base |
| Advanced Security (Secure Fabric OS) | Optional FC7554 | Optional FC7554 | Optional FC7564 | Optional FC7823 | Optional FC7823 | Optional FC7574 | |
| FC Routing | | | | | Base with Fabric OS 5.1.x | Base with Fabric OS 5.1.x | Optional FC7903 |
| FCIP | | | | Order FC3450 and FC7827 | Optional FC7827 | Optional FC7579 | Optional FC7904 |
| NPIV | | Base | Base | Base | | | |
| FICON | | Yes | In process | Yes | In process | In process | |
| FICON CUP | | Optional Single FC7530, Cascading FC7531 | In Process | Optional Single FC7831, Cascading FC7833 | | | |
| Hot Code Activation | Yes | Yes | Yes | Yes | Yes | Yes | |
| Other | EZSwitchSetup Wizard Performance Monitoring (FC7556), ISL Trunking (FC7557) | EZSwitchSetup Wizard Performance Monitoring (FC7556), ISL Trunking (FC7557) | Performance Monitoring (FC7566), ISL Trunking (FC7567) | | | Performance Monitoring (Optional FC7576), ISL Trunking (Optional FC7577) | FC Routing and FCIP Bundle (FC7905) |
| Fabric Management | Fabric Manager 5.x | Fabric Manager 4.x, 5.x • Unlimited Domains (Option FC#7551) | Fabric Manager 5.x | Fabric Manager 5.x | | Fabric Manager 5.x | Fabric Manager 4.x, 5.x |
| Target Environment | <ul style="list-style-type: none"> • Entry • Workgroup • Department • Edge | <ul style="list-style-type: none"> • Departments • High-performance edge • FICON | <ul style="list-style-type: none"> • Enterprise Edge • Fabric Core Switch • FICON | <ul style="list-style-type: none"> • Enterprise Core Director (up to 256 ports) • FICON | <ul style="list-style-type: none"> • Consolidation • ILM • Business Continuity | <ul style="list-style-type: none"> • Consolidation • ILM • Business Continuity | <ul style="list-style-type: none"> • SAN consolidation • Infrastructure consolidation • Infrastructure migration |
| Customer Profile | <ul style="list-style-type: none"> • SMB SAN • Cost sensitive • High Availability • DAS to SAN migration | <ul style="list-style-type: none"> • Workgroup • Midsize SAN • High Availability • Projected growth | <ul style="list-style-type: none"> • Workgroup • Mid-Large Size SAN • High Availability • Projected Growth | <ul style="list-style-type: none"> • Large Mission Critical SAN • High Availability • Future expandability to 10 Gbit/sec | <ul style="list-style-type: none"> • Multiple SAN Islands • Multiple SAN Vendors • Consolidation • Distance | <ul style="list-style-type: none"> • Multiple SAN Islands • Multiple SAN Vendors • Consolidation • Distance | <ul style="list-style-type: none"> • Multiple SAN islands • Multiple SAN vendors • Consolidation |