

Product Bulletin



Product Bulletin: Brocade DCX Backbone, 6-Port 10Gb Card (FC10-6), Enterprise Fabric Connectivity Manager (EFCM)

Revision History

January 24, 2008

Summary of Changes

Initial Version

This product bulletin informs NetApp sales and NetApp partners about new or changed Network Appliance™ products or services.

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1. Summary

This product bulletin announces the availability of Brocade DCX Backbone. Brocade DCX supports existing and emerging protocols, including 8Gb/sec Fibre Channel, Data Center Ethernet (DCE), Fibre Channel over Ethernet (FCoE), 10 Gigabit Ethernet, iSCSI, FCIP, and FICON. The initial release offers support for 16-, 32-, and 48-port 8Gb/sec Fibre Channel blades; 16-port 4Gb FC/2-port IP routing line card (FR4-18i); and 6-port 10Gb/sec ISL line card (FC10-6). It also offers adaptive policy-driven networking services to move and protect data in virtualized environments.

This bulletin also announces the availability of the Brocade Enterprise Fabric Connectivity Manager (EFCM), which is a browser-based SAN management tool that is capable of managing both McData-based and Brocade-based fabrics.

2. What's New

Brocade DCX can be configured with up to 384 8Gb ports per chassis into eight available slots. The chassis can have any combination of the cards initially introduced with the limitation of two 16FC/2IP (FR4-18i) and two 6-port 10Gb/sec ISL (FC10-6) blades per chassis. All the new FC cards require **Brocade branded 4Gb/sec or 8Gb/sec SFPs**. The 8Gb FC line cards can operate only in 2Gb, 4Gb, or 8Gb mode. No 1Gb mode is supported with the 8Gb FC line cards.

Brocade DCX can have a dual-chassis configuration using an inter-chassis link (ICL) to become a dual-chassis system with 768 Fibre Channel ports. The interchassis links operate at a total speed of 544 Gb/sec and bundle 64 8Gb ICL ports per chassis with total of 128 ICL ports per dual-chassis system. The DCX chassis comes with two core processor and two control processor for additional redundancy. The core blades are also used to connect two DCX chassis by using ICLs.

Brocade DCX comes bundled with two core processors, two control processors, and two power supplies. The power supplies support any configuration that does not include a 16-port 4G FC/2-port IP routing line card (FR4-18i) or a 6-port 10Gb/sec ISL line card (FC10-6). It also **always** includes an Enterprise Software bundle that contains Brocade Web Tools, Advanced Zoning, Extended Fabrics, Fabric Watch, Advanced Performance Monitoring, ISL Trunking, and Adaptive Networking.

Three optional software licenses are available for purchase on Brocade DCX Backbone:

- High-Performance FCIP/FC Extension License
- FICON/CUP Management License
- Inter-Chassis Link Kit (consists of two licenses and four cables)

Brocade Enterprise Fabric Connectivity Manager (EFCM) is a client-side SAN fabric management application that is capable of managing McData-based and Brocade-based fabrics. It is available as an independent software option in the client software section of the eConfigurator.

NetApp provides SupportEdge maintenance services for both Brocade DCX-based and EFCM package offerings.

3. Sales Tools (Sales Guides, Training Presentations, SE Presentations)

N/A

4. Customer-Ready Tools (Customer Presentations, Datasheets)

N/A

5. System Requirements

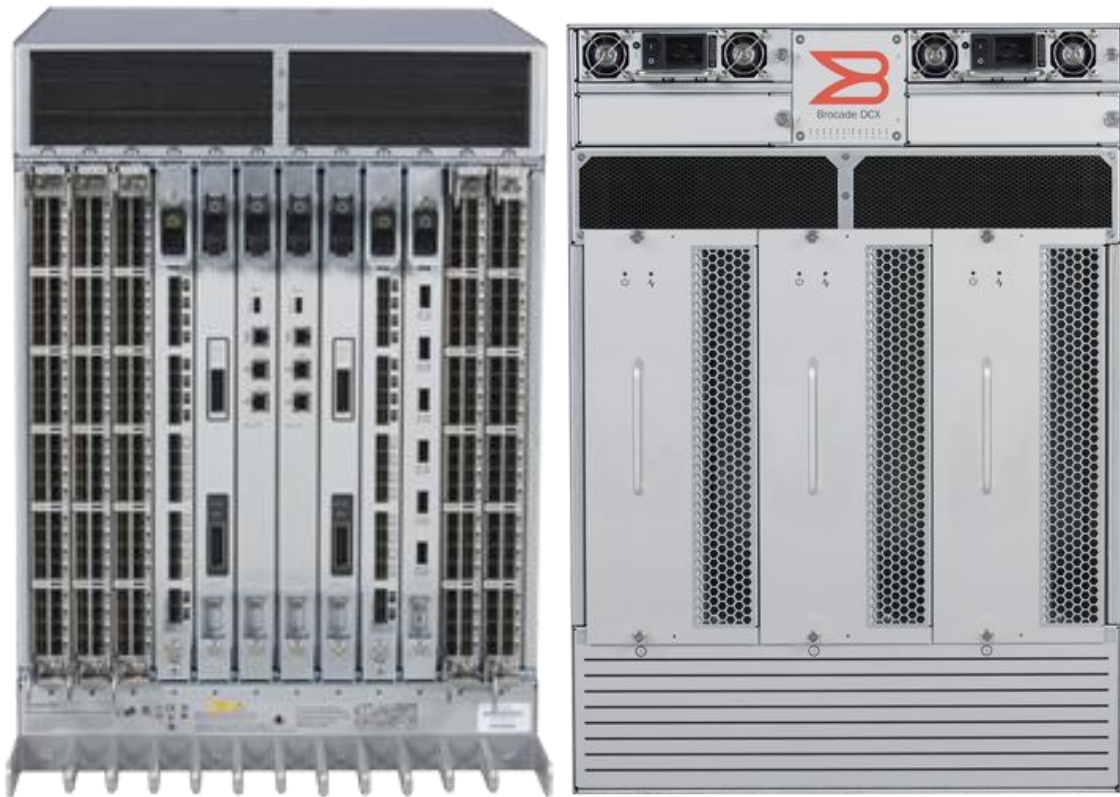
Supported Platforms

The latest Brocade support statements can be found at the NetApp Fibre Channel Switch Support Matrix:

[Support Matrix](#)

6. Product Information

The following photos show the front and back of the Brocade DCX.



The following table summarizes the parts that are available for the Brocade DCX Backbone. Partners should contact their channel representative for pricing information.

Part Number	Description	Discount Category Code
X1858-R5	Brocade DCX Director,Bundle,R5	B
X1859-R5	BRCD DCX 8G,16-Port Blade,R5	B
X1860-R5	BRCD DCX 8G,16-Port Blade,w/16 4G SW SFP,R5	B
X1861-R5	BRCD DCX 8G,32-Port Blade,R5	B
X1862-R5	BRCD DCX 8G,32-Port Blade,w/32 4G SW SFP,R5	B
X1863-R5	BRCD DCX 8G,48-Port Blade,R5	B
X1864-R5	BRCD DCX 8G,48-Port Blade,w/48 4G SW SFP,R5	B
X1865-R5	BRCD DCX 6-Port 10Gbit FC Blade,R5	B
X1866-R6	BRCD Branded SWL SFP,4Gbps,R6	B
X1866-8PK-R6	Brocade Branded SWL SFP, 8-pk, 4Gbps	B
X1867-R6	BRCD Branded SWL SFP,8Gbps,R6	B
X1867-8PK-R6	Brocade Branded SWL SFP, 8-pk, 8Gbps	B
X1868-R6	BRCD Branded LWL SFP,4Gbps,4Km,R6	B
X1868-8PK-R6	Brocade Branded LWL SFP, 8-pk, 4Gbps, 4Km	B
X1870-R6	BRCD Short Reach SFP,10Gbps,R6	B

X1871-R6	BRCD Long Reach SFP,10Gbps,R6	B
X1872-R5	BRCD DCX Power Supply,2000W,R5	B
X1873-R6	BRCD DCX, North America, PWR CRD,R6	B
X1875-R6	BRCD DCX, Cont. Europe, PWR CRD,R6	B
X1876-R6	BRCD DCX, Aust/NZ,PWR CRD,R6	B
X1877-R6	BRCD DCX,IEC-60309, PWR CRD,R6	B
X1878-R5	Brocade DCX,Mid-Mount Rack Kit,R5	B
X1879-R5	Brocade,Inter-Chassis Link,R5	B
X1880-R6	BRCD Branded LWL SFP,4Gbps,10Km,R6	B
X1881-R6	BRCD Branded LWL SFP,4Gbps,30Km,R6	B
X1884-R5	BRCD DCX Rack Mount Kit,14U,R5	B

FRUs/Components

Part Number	Description	Discount Category Code
X1858-CH-R5	Brocade, FRU, DCX Switch Chassis,R5	B
X1885-R5	BRCD,FRU,DCX,CR8,Control Processor Blade,R5	B
X1886-R5	BRCD,FRU,DCX,CR8,Core Blade,R5	B
X1887-R5	BRCD,FRU,DCX,ICL Cable,5M,R5	B
X1888-R5	BRCD,FRU,DCX,Cable Mgmt Comb,R5	B
X1889-R5	BRCD,FRU,DCX,Door,R5	B
X1890-R5	BRCD,FRU,DCX,WWN Cover,R5	B
X1891-R5	BRCD,FRU,DCX,WWN Card,R5	B
X1892-R5	BRCD,FRU,DCX,Blower Assy,R5	B
X1893-R5	BRCD,FRU,DCX,Port Card Slot Filler,R5	B
X1894-R5	BRCD,FRU,DCX,PS Slot Filler Pnl,R5	B
X1895-R6	BRCD,FRU,DCX,USB Drive,2G,R6	B
X1896-R5	BRCD,FRU,Serial Cable RJ45/Adaptor,R5	B
X1897-R5	BRCD,FRU,SFP Extraction Tool (6 pack),R5	B
X1898-R5	Brocade DCX Accessory Tray,R5	B

Base Configuration

The base Brocade DCX chassis is sold with two control processor blades, two core process blades, and two power supplies to support any configuration that does not include a 16port 4G FC/2-port IP routing line card (FR4-18i) or a 6-port 10Gb/sec ISL line card (FC10-6). If the FR4-18i or FC10-6 line card is included in the configuration, Brocade DCX requires four power supplies to be configured into the chassis.

The 16-port, 32-port, or 48-port 8G FC blades can be purchased either populated with 4Gb/sec Short Wave FC SFPs or with no 4G SFPs included. In either case, it is possible to add any number of 4Gb/sec SFPs or 8Gb/sec SFPs to the configuration in the eConfigurator. The 6-port 10Gb/sec blade comes with no 10Gb SFPs included. These 10Gb SFPs can be added to the blade if necessary.

The base Brocade DCX chassis always comes with the Enterprise Software bundle included; it is not possible to buy the chassis without this software bundle.

The Enterprise Software bundle includes the following software packages (the following links are to the Brocade Web site):

- Brocade Advanced Zoning
- [Web Tools](#)
- [Fabric Watch](#)
- [Extended Fabrics](#)
- [ISL Trunking](#)

- [Advanced Performance Monitoring](#)
- [Adaptive Networking](#)

Dual-chassis configuration

Brocade DCX can have a dual-chassis configuration using an inter-chassis link (ICL) to become a dual-chassis system with 768 Fibre Channel ports (two chassis fully populated with eight 48-port line cards each). To connect two Brocade DCX chassis at the speed of 544 Gb/sec requires purchasing the Inter-Chassis Link Kit, which contains two licenses and four cables. ICL uses bundles of 64 8G ICL ports per chassis, with a total of 128 ICL ports for the dual configuration. The core blades are used to connect two DCX chassis by using ICLs.

Software Options

Brocade Inter-Chassis Link

Brocade DCX Backbone can be ordered with the Inter-Chassis Link Kit to become a dual-chassis system with 768 Fibre Channel ports. The ICL Kit contains two licenses (one per chassis) and four cables to connect two Brocade DCX Chassis.

[ICL Kit](#) (look for ICL description).

This kit is licensed for every dual-switch configuration.

FICON Management License Package

Brocade DCX can also be ordered with the FICON Management License Package, which enables IBM FICON protocol and CUP Management.

The feature is licensed *per switch*.

High-Performance FCIP extension license

The switch can also be ordered with the High-Performance FCIP extension license to enable the FR4-18i blade.

This feature is licensed *per switch*.

EFCM software package

Brocade Enterprise Fabric Connectivity Manager is a client-side SAN fabric management application that is capable of managing McData-based and Brocade-based fabrics. It is available as an independent software option in the Client Software section of the NetApp Quote Tool.

The EFCM package can be ordered either as a Base package or as an Advanced Module package.

The EFCM [Base package](#) (link is to the Brocade Web site) includes:

- Asset tracking
- Advanced zoning tools
- Customized reports
- Event notification
- Advanced call home support
- Role-based access controls
- Planning tools

The EFCM [Advanced Module package](#) (link is to the Brocade Web site) is an upgrade to the Base package and includes:

- Real-time and historical performance monitoring (including performance reports)
- Proactive event management
- Group configuration management
- Security Center

The Advanced Module package is licensed per number of ports monitored and has 64-, 256-, and 512-port options.

The following table below describes current software part numbers. Partners should contact their channel representative for pricing information.

Part Number	Description	Discount Category Code
X1879-R5	Brocade, Inter-Chassis Link, R5	B
SW-BSWDCX-FICON-QS	Brocade, FICON Management License	J
SW-BSWDCX-FCIP-QS	Brocade, High-Performance FCIP/FC Extension License	J
SW-BSW-EFCMBASE-QS	Brocade EFCM Enterprise Base	J
SW-BSW-EFCM64PT-QS	Brocade EFCM Advance Module, 64 port	J
SW-BSW-EFCM256PT-QS	Brocade EFCM Advance Module, 256 port	J
SW-BSW-EFCM512PT-QS	Brocade EFCM Advance Module, 512 port	J

Service

NetApp offers NetApp Global Support for all of the Brocade SAN gear.

The following table lists the NetApp SupportEdge offerings for the Brocade DCX Backbone and all other Brocade switches and their software options. These part numbers are the same for different models, but their pricing is different, depending on the list price of the hardware and software for which the support agreement is purchased.

Part Number	Description	Discount Category Code
SVC-O-2HR	HW Support, Premium, 2hr	S
SVC-O-4HR	HW Support, Premium, 4hr	S
SVC-O-NBD	HW Support, Premium, NBD	S
SVC-INST-O-2HR	Initial Install, Premium, 2hr	S
SVC-INST-O-4HR	Initial Install, Premium, 4hr	S
SVC-INST-O-NBD	Initial Install, Premium, NBD	S
SVC-A-4D	HW Support, Standard, 4hr	S
SVC-A-4R	HW Support, Standard Replace, 4hr	S
SVC-A-NBR	HW Support, Standard Replace, NBD	S
SVC-A-IN-4D	HW Support, Standard, Inst, 4hr	S
SVC-A-IN-4R	HW Support, Standard Replace, Inst, 4hr	S
SVC-A-IN-NBR	HW Support, Standard Replace, Inst, NBD	S
SVC-INST-A-IN-4D	Initial Install, Standard, Inst, 4hr	S
SVC-INST-A-IN-4R	Initial Install, Standard Delivery, Inst, 4hr	S
SVC-INST-A-IN-NBR	Initial Install, Standard Delivery, Inst, NBD	S
SVC-SEC-2HR	HW Support, Secure, 2hr	S
SVC-SEC-4HR	HW Support, Secure, 4hr	S
SVC-SEC-NBD	HW Support, Secure, NBD	S

SVC-INST-SEC-2HR	Initial Install, Secure, 2hr	S
SVC-INST-SEC-4HR	Initial Install, Secure, 4hr	S
SVC-INST-SEC-NBD	Initial Install, Secure, NBD	S
SVC-SEC-2D	HW Support, Secure, Parts Delivery, 2hr	S
SVC-SEC-4D	HW Support, Secure, Parts Delivery, 4hr	S
SVC-SEC-NBDD	HW Support, Secure, Parts Delivery, NBD	S
SW-SSP-O-2HR	SW Subs,Premium,2hr	S
SW-SSP-O-4HR	SW Subs,Premium,4hr	S
SW-SSP-O-NBD	SW Subs, Premium, NBD	S
SW-SSP-A-4D	SW Subs, Standard, Parts Delivery, 4hr	S
SW-SSP-A-4R	SW Subs, Standard Replace, 4hr	S
SW-SSP-A-NBR	SW Subs, Standard Replace, NBD	S
SW-SSP-A-IN-4D	SW Subs, Standard, Inst, 4hr	S
SW-SSP-A-IN-4R	SW Subs, Standard Replace, Inst, 4hr	S
SW-SSP-A-IN-NBR	SW Subs, Standard Replace, Inst, NBD	S
SW-SSP-SEC-2HR	SW Subs,Secure,2hr	S
SW-SSP-SEC-4HR	SW Subs,Secure,4hr	S
SW-SSP-SEC-NBD	SW Subs, Secure, NBD	S
SW-SSP-SEC-2D	SW Subs, Secure, Parts Delivery, 2hr	S
SW-SSP-SEC-4D	SW Subs, Secure Parts Delivery, 4hr	S
SW-SSP-SEC-NBDD	SW Subs, Secure Parts Delivery, NBD	S

Software Subscription Plans

Software subscription plans for all of the software options in this bulletin (including the Brocade EFCM package) are fully supported through the NetApp SupportEdge services.

Downloading

Brocade DCX Backbone requires Brocade FOS 6.0.0 or later to run. To download the latest FOS version, go to

[Brocade Firmware Download Page](#).

Product Availability

The Brocade DCX Backbone, 6-port 10Gb/sec ISL line card (FC10-6) and Brocade Enterprise Fabric Connectivity Manager (EFCM) will be available to quote in the February 4, 2008 release of the Quote Tool.

7. Regulatory Compliance

Meets all defined NetApp EMI and ROHS compliance requirements.

8. Warranty and Service

The warranty, extended warranty, and NetApp SupportEdge purchases and renewals apply to Brocade DCX Backbone and all its software options, 6-port 10Gb/sec ISL line card (FC10-6), and Brocade Enterprise Fabric Connectivity Manager (EFCM) just as they do to storage controllers (FAS systems) and other Brocade switches already under NetApp SupportEdge services. Customers can order SupportEdge Premium, SupportEdge Standard, and SupportEdge Secure for Government.

9. Additional Information

Contact Information: Please contact your Network Appliance sales or channel partner representative with questions concerning this bulletin.

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