

53-1001807-01
January 31, 2010



Inter-Chassis Link Cable

Replacement Procedure

**Supporting PowerConnect B-DCX Backbone and PowerConnect B-DCX-4S
Backbone**

53-1001807-01



Notes, Cautions, and Warnings

NOTE

A NOTE indicates important information that helps you make better use of your computer.



CAUTION

See the safety and regulatory information that shipped with your system. For additional regulatory information, see the Regulatory Compliance Homepage on www.dell.com at the following location: www.dell.com/regulatory_compliance.



CAUTION

A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.



DANGER

A DANGER indicates a potential for property damage, personal injury, or death.

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Regulatory Model Codes: Brocade DCX-4S, Brocade DCX

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Replacing the Inter-Chassis Link Cables

NOTE

ICL ports can be used only with an ICL license. After the addition or removal of a license, the license enforcement is performed on the ICL ports only when the **portdisable** and **portenable** commands are issued on the ports. An ICL license must be installed on both Brocade Backbones forming the ICL connection. The backbones can be either two PowerConnect B-DCX units, two PowerConnect B-DCX-4S units, or one DCX and one DCX-4S or any combination of three backbones of either type.

[Table 1](#) describes the ICL connector port LED patterns and the recommended actions for those patterns.

TABLE 1 ICL connector port LEDs

LED purpose	Color	Status	Recommended action
LINK LED	No light (LED is off)	No ICL or ICL cable present, but no connection.	Ensure that the ICL cable is correctly installed.
	Steady green	ICL connected.	No action required.
ATTN LED	No light (LED is off)	ICL operational.	No action required.
	Blinking amber	Attention required.	Ensure that the ICL cable is correctly installed.

Follow this procedure to install the inter-chassis link (ICL) cables. Refer to the *Fabric OS Administrator's Guide* for the configuration procedure and requirements.

Time required

The replacement procedure for an ICL cable takes less than five minutes.

Items required

Replacement ICL cable

[Figure 1](#) shows an ICL cable. The ICL cables (2 meters long) and the ICL connectors ([Figure 1](#)) are color-coded and labeled for ease of installation. [Figure 2](#) through [Figure 9](#) show the acceptable cabling configurations for the inter-chassis link (ICL) feature. Connect the ICL cables in one of the configurations shown.

ATTENTION

To prevent the latch mechanism from wear, use the color-coded (green) latch-release tab for cable removal. Pull the tab to disengage the retention latch before cable removal.

Removing an ICL cable

1. Using the latch release tabs, pull each plug on the cable from its respective receptacle on the core switch blades (CR4S-8).
2. Repeat for each cable that requires replacement.

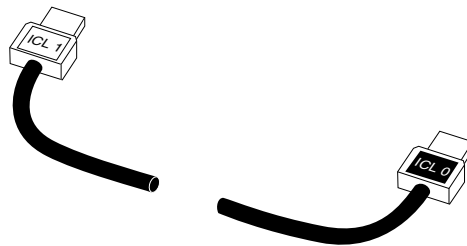


FIGURE 1 Inter-chassis link (ICL) cable

Replacing an ICL cable

1. Align the color-coded and labeled (ICL 1 and ICL 0) plugs on either end of the ICL cable with their respective connectors on the core switch blades (either CR8 blades in the DCX or CR4S-8 blades in the DCX-4S).
2. Push each plug in until the latch mechanism clicks into place. Follow the steps in one of the two procedures below to install the ICL cables.

For a two-DCX installation:

- a. Connect the cables from the top connectors (ICL 1) of the CR8 blades in the first chassis to the bottom connectors (ICL 0) of the CR8 blades in the second chassis.
- b. Connect the cables from the bottom connectors (ICL 0) of the CR8 blades in the first chassis to the top connectors (ICL 1) of the CR8 blades in the second chassis.

For a two-DCX-4S installation remember that the blades in the DCX-4S are installed horizontally, so the usual top-to-bottom orientation becomes a left-to-right orientation:

- a. Connect the cables from the top connectors (ICL 1) of the CR4S-8 blades in the first chassis to the bottom connectors (ICL 0) of the CR4S-8 blades in the second chassis.
- b. Connect the cables from the bottom connectors (ICL 0) of the CR4S-8 blades in the first chassis to the top connectors (ICL 1) of the CR4S-8 blades in the second chassis.

For a DCX-to-DCX-4S installation keep in mind that top and left are the same as are bottom and right when you move from the connectors on the DCX to the DCX-4S.

3. Repeat steps 1 and 2 for each cable that requires replacement.

NOTE

For a two-DCX installation, the cables can cross between the slot 5 CR8 blade and the slot 8 CR8 blade as long as the top-to-bottom rule is followed. See [Figure 3](#) through [Figure 5](#) for illustrations of this.

For a two-DCX-4S installation, the cables can cross between the slot 3 CR4S-8 blade on the first chassis and the slot 6 CR4S-8 blade on the second chassis as long as the left-to-right (top-to-bottom) rule is followed. See [Figure 6](#).

The same general rules apply if the installation includes one DCX and one DCX-4S ([Figure 7](#)) as well as for a three-way ICL installation ([Figure 8](#) and [Figure 9](#)).

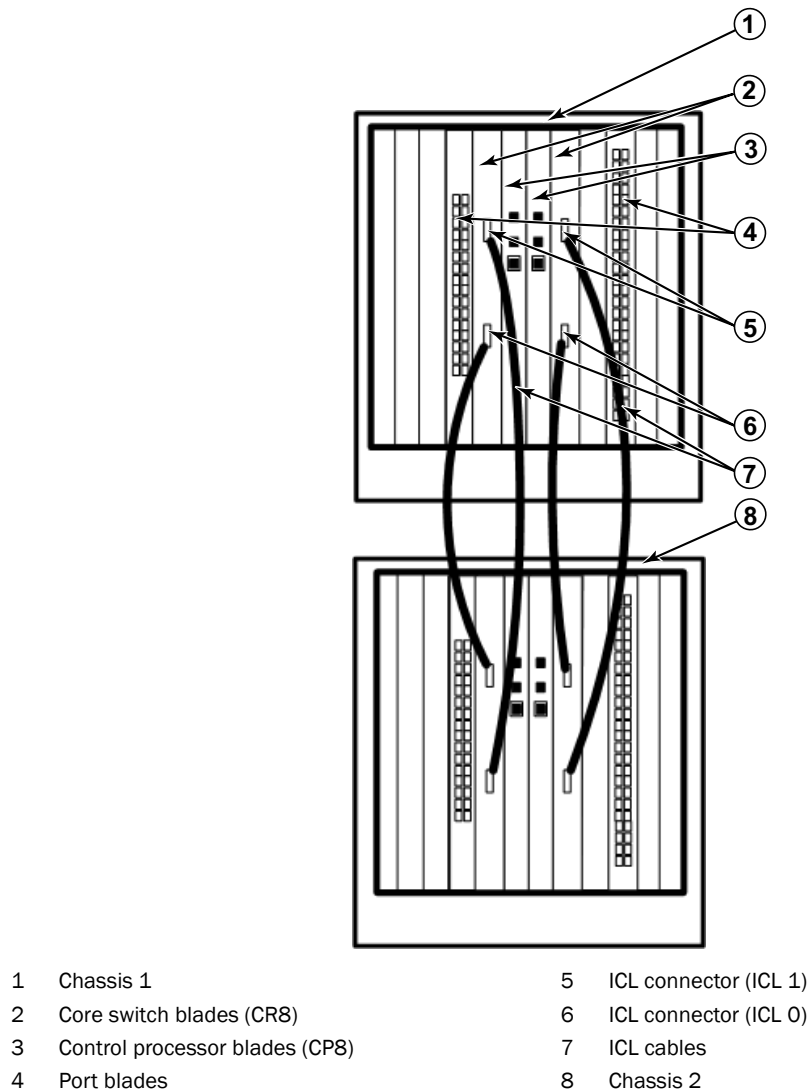
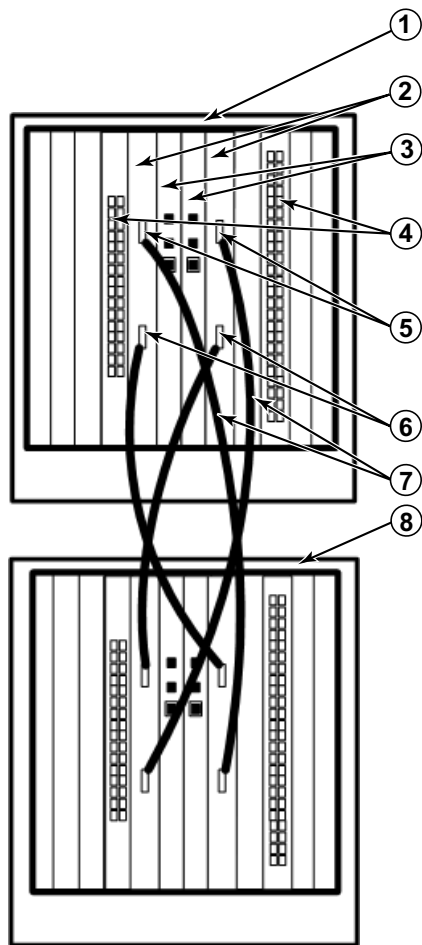
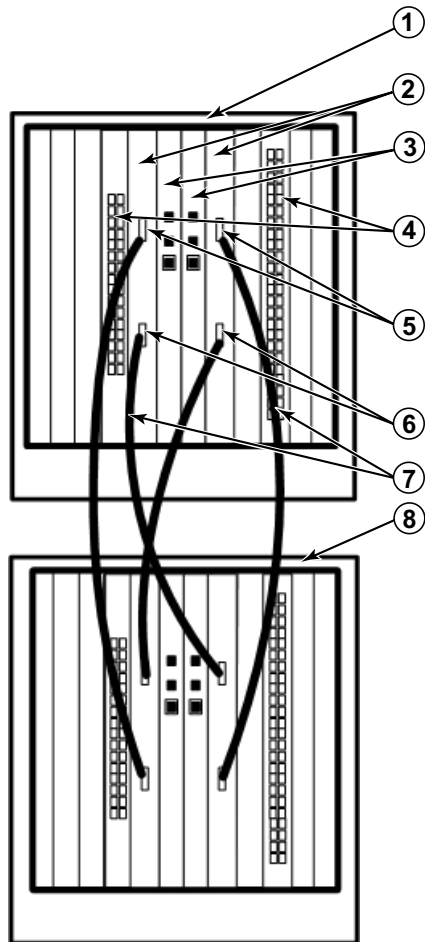


FIGURE 2 Inter-chassis link (ICL) connections (configuration 1)



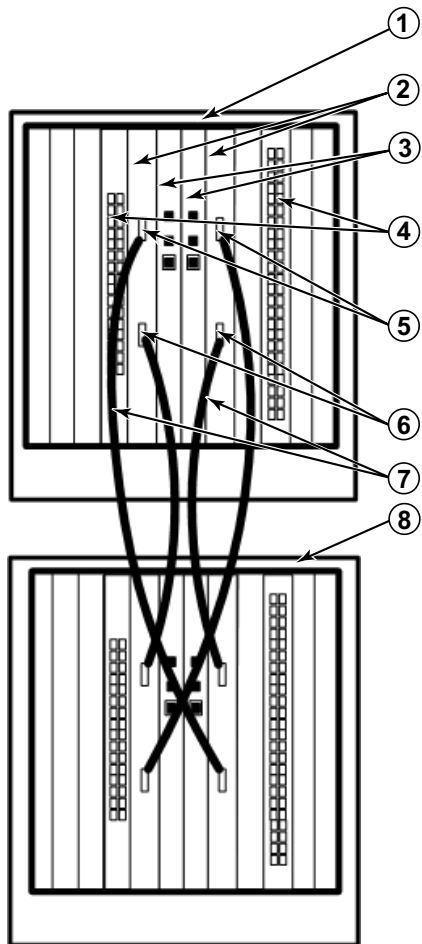
- | | | | |
|---|--------------------------------|---|-----------------------|
| 1 | Chassis 1 | 5 | ICL connector (ICL 1) |
| 2 | Core switch blades (CR8) | 6 | ICL connector (ICL 0) |
| 3 | Control processor blades (CP8) | 7 | ICL cables |
| 4 | Port blades | 8 | Chassis 2 |

FIGURE 3 Inter-chassis link (ICL) connections (configuration 2)



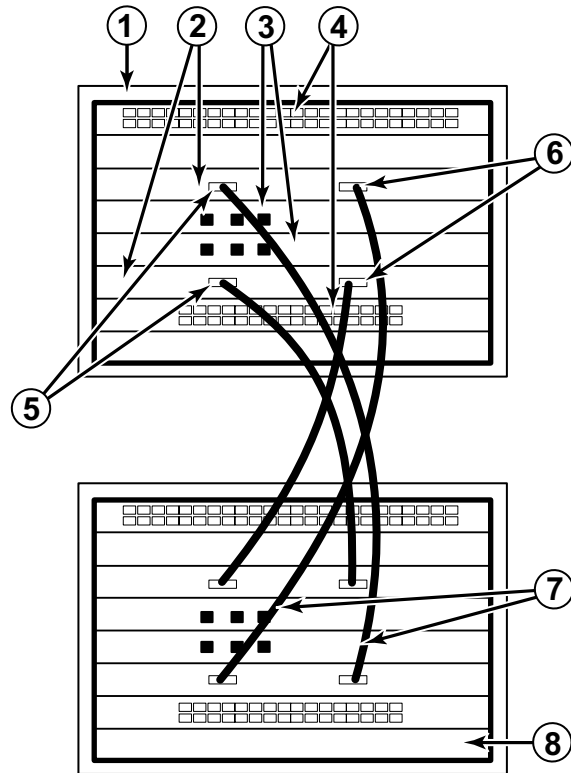
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|----------------------------------|-------------------------|
| 1 Chassis 1 | 5 ICL connector (ICL 1) |
| 2 Core switch blades (CR8) | 6 ICL connector (ICL 0) |
| 3 Control processor blades (CP8) | 7 ICL cables |
| 4 Port blades | 8 Chassis 2 |

FIGURE 4 Inter-chassis link (ICL) connections (configuration 3)



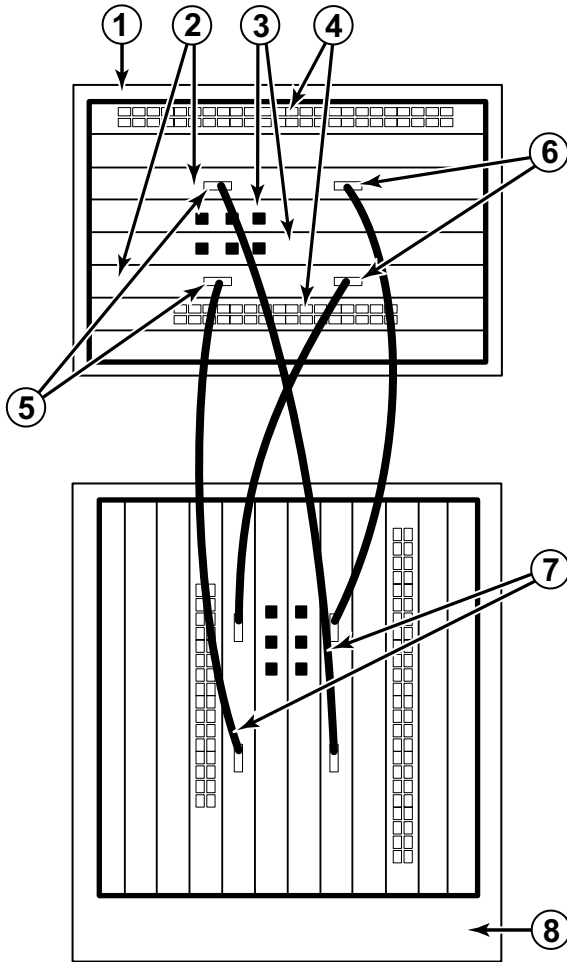
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|---|--------------------------------|---|-----------------------|
| 1 | Chassis 1 | 5 | ICL connector (ICL 1) |
| 2 | Core switch blades (CR8) | 6 | ICL connector (ICL 0) |
| 3 | Control processor blades (CP8) | 7 | ICL cables |
| 4 | Port blades | 8 | Chassis 2 |

FIGURE 5 Inter-chassis link (ICL) connections (configuration 4)



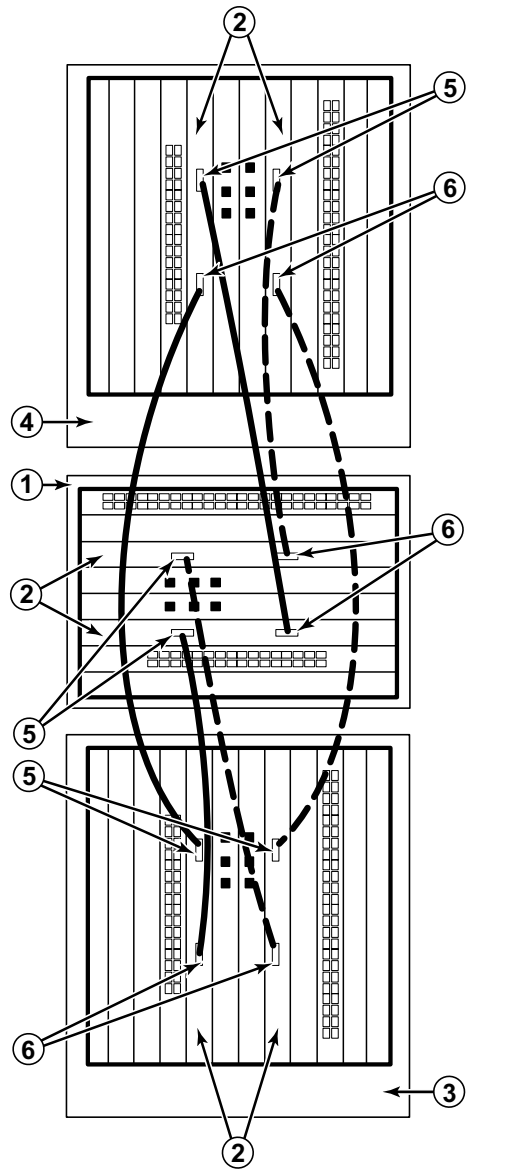
- | | | | |
|---|--------------------------------|---|-----------------------|
| 1 | Chassis 1 | 5 | ICL connector (ICL 1) |
| 2 | Core switch blades (CR4S-8) | 6 | ICL connector (ICL 0) |
| 3 | Control processor blades (CP8) | 7 | ICL cables |
| 4 | Port blades | 8 | Chassis 2 |

FIGURE 6 ICL cable connections – between two DCX-4S chassis



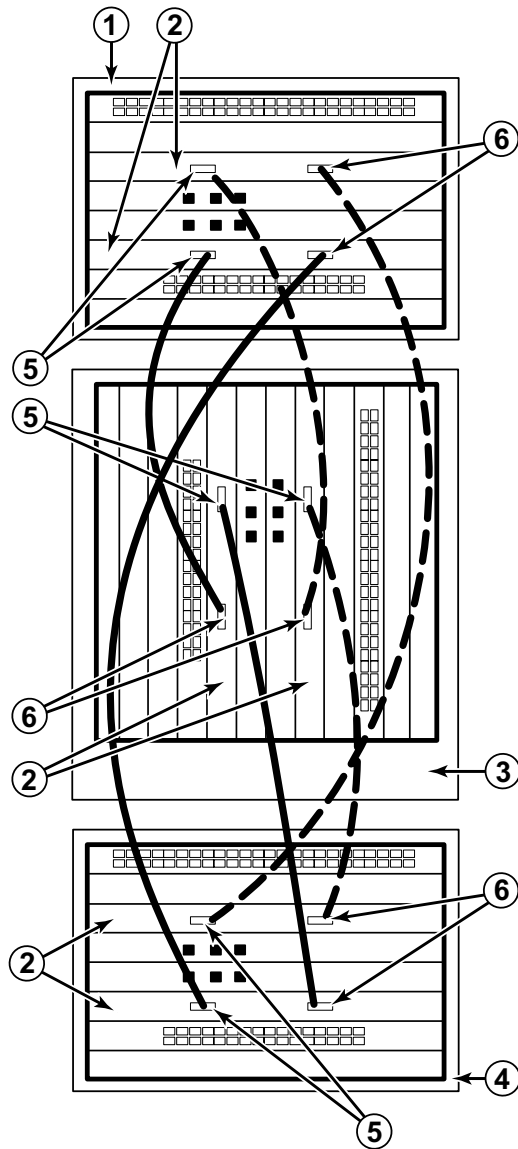
- | | | | |
|---|--------------------------------|---|-----------------------|
| 1 | Chassis 1 (DCX-4S) | 5 | ICL connector (ICL 1) |
| 2 | Core switch blades (CR4S-8) | 6 | ICL connector (ICL 0) |
| 3 | Control processor blades (CP8) | 7 | ICL cables |
| 4 | Port blades | 8 | Chassis 2 (DCX) |

FIGURE 7 ICL cable connections between a DCX-4S and a DCX



- | | |
|----------------------|-------------------------|
| 1 Chassis 1 | 4 Chassis 3 |
| 2 Core switch blades | 5 ICL connector (ICL 1) |
| 3 Chassis 2 | 6 ICL connector (ICL 0) |

FIGURE 8 3-way ICL cable connections



- | | |
|----------------------|-------------------------|
| 1 Chassis 1 | 4 Chassis 3 |
| 2 Core switch blades | 5 ICL connector (ICL 1) |
| 3 Chassis 2 | 6 ICL connector (ICL 0) |

FIGURE 9 3-way ICL cable connections

The same general configuration applies regardless of which backbone chassis are used. To keep all three chassis in the same rack, any combination of DCX and DCX-4S backbones can be used *except* three DCX chassis.

NOTE

For clarity, the two “sets” of cables are drawn differently in [Figure 8](#) and [Figure 9](#). Also note that one set is connected to only the blades in the “low order” slots (slot 3 in the DCX-4S and slot 5 in the DCX) and the other set is connected to the blades in the “high order” slots (slot 5 in the DCX-4S and slot 8 in the DCX). Keeping the sets apart in this manner minimizes the cable confusion.