



## CHAPTER 4

# Troubleshooting the HCA Installation

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This chapter describes how to troubleshoot the HCA installation and contains these sections:

- [Interpret HCA LEDs, page 4-1](#)
- [Check the InfiniBand Cable, page 4-2](#)

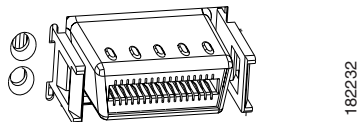
## Interpret HCA LEDs

The HCA adapter card has two types of LEDs:

- The yellow LED on the top indicates a logical link.
- The green LED on the bottom indicates a physical link.

[Figure 4-1](#) shows the two types of LEDs, located to the left of the InfiniBand port.

**Figure 4-1** HCA LEDs



[Table 4-1](#) shows how to interpret the HCA LEDs.

**REVIEW DRAFT – CISCO CONFIDENTIAL****Table 4-1 HCA LED Indications**

LED	Indication
Yellow LED	<p>Indicates the current state of the link-state machine and traffic activity.</p> <ul style="list-style-type: none"> <li>• The yellow LED is on only after the link is in the active state.</li> <li>• The yellow LED is off if the link-state machine cannot reach the active state. A yellow LED that never comes up usually indicates that there is no active Subnet Manager, which is the entity that recognizes the presence of this node.</li> <li>• The yellow LED will blink if traffic is detected. There is some dependency on the frequency and the traffic intensity.</li> </ul>
Green LED	<p>Indicates the physical link status.</p> <ul style="list-style-type: none"> <li>• The green LED is on as soon as the cable is connected and there is a functional InfiniBand device on the other end of the cable. This LED should remain solid on as long as the physical connection is intact and the device on the other end is functional.</li> <li>• The green LED is off to indicate that no physical link is detected.</li> <li>• The green LED will blink if a serious physical link problem is indicated, such as a malfunctioning cable, an incomplete cable connection, or a problematic HCA.</li> </ul>

## Check the InfiniBand Cable

- Ensure that an InfiniBand cable is connected to a port on the HCA and a port on the InfiniBand switch card. We recommend that you tug slightly on the cable to verify that it is tightly connected, as poorly connected InfiniBand cables can cause errors that are difficult to detect.
- If you are running the Element Manager, click the Refresh button and note if the corresponding InfiniBand port on the Element Manager turns green. If it is green, you have a physical connection and a logical link.
- Check the port LEDs on the HCA. The bottom LED should be green.
- Check the port LEDs on the InfiniBand switch. One should turn green, indicating that a physical connection is established.