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CHAPTER 56

Configuring Fibre Channel Write Acceleration

The Storage Services Module (SSM) supports Fibre Channel write acceleration on Cisco MDS 9000 Family switches running Cisco MDS SAN-OS Release 2.0(2b) and later or Cisco NX-OS 4.1(3a).

This chapter includes the following sections:

- Fibre Channel Write Acceleration, page 56-1
- Default Settings, page 56-3

Fibre Channel Write Acceleration

Fibre Channel write acceleration minimizes application latency or reduces transactions per second over long distances. For synchronous data replication, Fibre Channel write acceleration increases the distance of replication or reduces effective latency to improve performance. To take advantage of this feature, both the initiator and target devices must be directly attached to an SSM.

This section includes the following topics:

- About Fibre Channel Write Acceleration, page 56-1
- Enabling Fibre Channel Write Acceleration, page 56-2

About Fibre Channel Write Acceleration

The Fibre Channel write acceleration feature also allows the configuration of the buffer count. You can change the number of 2-KB buffers reserved on the target side DPP for a SCSI flow.

You can estimate the number of buffers to configure using the following formula:

(Number of concurrent SCSI writes * size of SCSI writes in bytes) / FCP data frame size in bytes

For example, HDS TrueCopy between HDS 9970s uses 1-KB FCP data frames. You perform an initial sync for a 16-LUN TrueCopy group with 15 tracks, or 768-KB per LUN, requires approximately 16*(768*1024)/1024 or 12248 write buffers.

Note The Fibre Channel write acceleration feature requires the Enterprise Package license installed on both the initiator and target switches.

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Note The initiator and target cannot connect to the same Cisco MDS switch. Fibre Channel write acceleration requires that the initiator and target must each connect to an SSM module installed on different Cisco MDS switches.

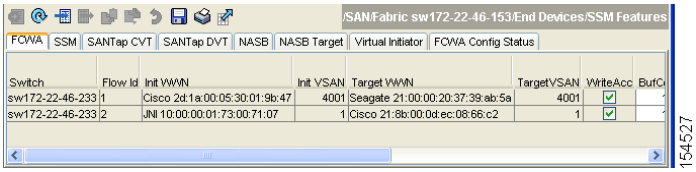
Enabling Fibre Channel Write Acceleration

To enable Fibre Channel write acceleration, and optionally modify the number of write acceleration buffers with Fabric Manager, follow these steps:

Step 1 Expand **End Devices** and then select **SSM Features** from the Physical Attributes pane.

You see the Intelligent Storage Services configuration, showing the FCWA tab in the Information pane (see Figure 56-1).

Figure 56-1 FCWA Tab



Step 2 Click **Create Row** in the Information pane to create a SCSI flow or click a row in the FCWA table to modify an existing SCSI flow.

You see the FC Write Acceleration dialog box shown in Figure 56-2.

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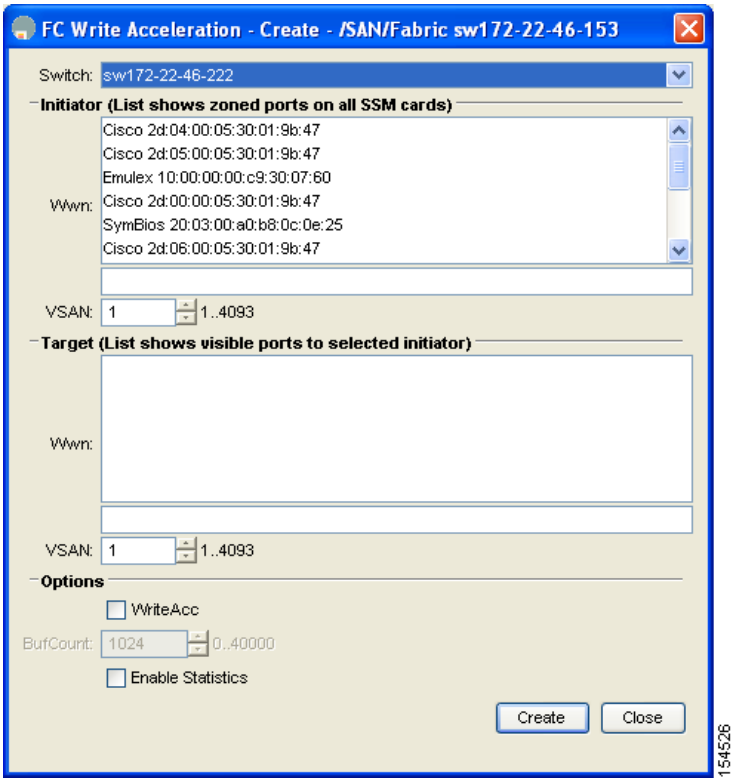
Figure 56-2 FC Write Acceleration Dialog Box



Step 3 Select the initiator and target WWNs and VSAN IDs and check the **WriteAcc** check box to enable Fibre Channel write acceleration on this SCSI flow.

Step 4 (Optional) Enable SCSI flow statistics on this SCSI flow at this time by checking the **Enable Statistics** check box.

Step 5 (Optional) Set the BufCount value to the number of 2K buffers used by the SCSI target.

Step 6 Click **Create** to create this SCSI flow with Fibre Channel write acceleration.

Default Settings

Table 56-1 lists the default settings for Fibre Channel write acceleration parameters.

Table 56-1 Default Fibre Channel Write Acceleration Parameters

Parameters	Default
Fibre Channel write acceleration	Disabled.
Fibre Channel write acceleration buffers	1024.

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