



Fibre Channel Icon Tasks

This chapter describes the Chassis Manager Fibre Channel icon tasks and contains these sections:

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- [Viewing SRP Hosts \(Initiators\), page 7-2](#)
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Configuring Global ITL Attributes

Configure global initiator, target, LUN (ITL) attributes to select the attributes that apply by default to all new ITLs. For detailed information about these attributes, refer to the *Fibre Channel Gateway User Guide*.

**Note**

If you change ITL attributes, the changes apply only to ITLs that you create after the change. Existing ITLs do not change.

To configure global attributes, perform the following steps:

Step 1 Expand the **Fibre Channel** icon in the Tree frame.

Step 2 Click the **Global Policies** branch. The Global Policies display appears in the View frame.

Step 3 Configure host attributes as follows:

- a. (Optional) Click the **Restricted** checkbox in the Gateway Port Access field to do the following:
 - Check the checkbox and deny all new initiators access to ports.
 - Uncheck the checkbox and grant all new initiators access to ports.
- b. (Optional) Click the **Restricted** checkbox in the LUN Access field to do the following:
 - Check the checkbox and deny all new initiators access to LUNs.
 - Uncheck the checkbox and grant all new initiators access to LUNs.

Step 4 Configure random access device attributes as follows:

- a. (Optional) Enter an integer value between 1 and 256 in the ITL HI Mark field.
- b. (Optional) Enter an integer value between 1 and 100 in the ITL Max Retries field.
- c. (Optional) Enter an integer value between 1 and 1800 in the ITL Min I/O Timeout field.
- d. (Optional) In the ITL Dynamic Loading field, click one of the following:
 - The **Path Affinity** radio button to enable dynamic path affinity on all new ITLs.
 - The **Gateway Port Load Balancing** radio button to enable load balancing between Fibre Channel gateway ports on all new ITLs
 - The **Gateway Port Failover** radio button to enable FC gateway port failover for all new ITLs.

Step 5 Configure sequential access device attributes as follows:

- a. (Optional) Enter an integer value between 1 and 256 in the ITL HI Mark field.
- b. (Optional) Enter an integer value between 1 and 100 in the ITL Max Retries field.
- c. (Optional) Enter an integer value between 1 and 1800 in the ITL Min I/O Timeout field.
- d. (Optional) In the ITL Dynamic Loading field, click one of the following,
 - The **Path Affinity** radio button to enable dynamic path affinity on all new ITLs.
 - The **Gateway Port Load Balancing** radio button to enable load balancing between Fibre Channel gateway ports on all new ITLs
 - The **Gateway Port Failover** radio button to enable FC gateway port failover for all new ITLs.

Step 6 Click the **Apply** button.

Viewing SRP Hosts (Initiators)

To view the SRP hosts that connect to your device and, with your Server Switch, behave as Fibre Channel initiators, perform the following steps:

Step 1 Expand the **Fibre Channel** icon in the Tree frame.

Step 2 Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame. [Table 7-1](#) lists and describes the fields in this table.

Table 7-1 SRP Hosts Table Field Descriptions

Field	Description
Description	User-assigned text description of the SRP host.
SRP Initiator ID	Host GUID and GUID extension.
WWNN	World-wide node name (WWNN) of the SRP host.
Ports Registered With	Port(s) on your Server Switch that connect to the host.

Viewing SRP Host (Initiator) Properties

To view the properties of a SRP host, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.
 - Step 3** Click the radio button next to the SRP host whose properties you want to view, and then click the **Properties** button. The SRP Host Properties window opens. [Table 7-2](#) lists and describes the elements of this window.

Table 7-2 SRP Host Properties Window Elements

Element	Description
SRP Initiator ID field	Host GUID and GUID extension.
Ports Registered With field	Port(s) on your Server Switch that connect to the host.
WWNN field	World-wide node name (WWNN) of the SRP host.
Description field	User-assigned text description of the SRP host.
PKeys field	Partition key(s) of the SRP host.
Boot Target field	WWPN of the target that contains the image that the SRP host uses to boot.
Boot LUN field	LUN ID of the LUN that contains the image that the SRP host uses to boot.
Action field	Provides a pulldown menu of actions that you can perform on the host. Select an action, and then click the Apply button to perform the action.
Result field	Displays the result of the action that you performed with the pulldown menu from the Action field.
Apply button	Applies the changes that you make in the window to the host.
Reset button	Resets the fields in the window to match the properties of the host.
Close button	Closes the window. If you close the window before you apply changes, Chassis Manager makes no changes to the host.
Help button	Opens online help.

Viewing SRP Host (Initiator) World-Wide Port Names

To view the world-wide port names (WWPNs) of the virtual ports through which FC nodes communicate with SRP hosts, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.

Viewing SRP Hosts (Initiators)

- Step 3** Click the radio button next to the SRP host whose WWPNs you want to view.
- Step 4** Select **Show WWPNs** from the Show Options pulldown menu. A SRP Host Wwpns table appears in the View frame. [Table 7-3](#) lists and describes the fields in this table.

Table 7-3 SRP Host Wwpns Table Field Descriptions

Field	Description
GUID	GUID of the SRP host.
Extension	GUID extension of the SRP host.
Slot/Port	Physical FC gateway port (in slot#/port# format) that passes traffic (addressed to the virtual port WWPN) to the SRP host.
WWPN	WWPN of the virtual FC port.
FC Address	FC address of the virtual FC port.

Viewing IT Policies of the Host

To view the details of the initiator-target (IT) pairs to which a host (initiator) belongs, perform the following steps:

- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
- Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.
- Step 3** Click the radio button next to the SRP host whose ITs you want to view.
- Step 4** Select **Show IT Policies** from the Show Options pulldown menu. The Show IT display appears in the View frame, but lists only ITs that include the initiator that you selected. For more information, refer to the “[Viewing ITs](#)” section on page 7-10 or see [Table 7-8](#).

Viewing ITL Policies of the Host

To view the details of the initiator-target-LUN (ITL) groups to which a host (initiator) belongs, perform the following steps:

- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
- Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.
- Step 3** Click the radio button next to the SRP host whose ITLs you want to view.
- Step 4** Select **Show ITL Policies** from the Show Options pulldown menu. The Show ITL display appears in the View frame, but lists only ITLs that include the initiator that you selected. For more information, refer to the “[Viewing ITLs](#)” section on page 7-12 or see [Table 7-10](#).

Adding SRP Host

To add a SRP host to the configuration file, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.
 - Step 3** Click the **Add** button. The Add SRP Host window opens.
 - Step 4** Enter the GUID of the new initiator in the Host GUID field.
 - Step 5** (Optional) Enter a description for the new initiator in the Description field.
 - Step 6** Click the **Apply** button.
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Deleting SRP Host

To delete an SRP host, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.
 - Step 3** Click the radio button next to the host that you want to delete from the configuration file, and then click the **Delete** button.
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Configuring SRP Host (Initiator) Properties

To configure properties of a SRP host, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **SRP Hosts** branch. A SRP Hosts table that includes all SRP hosts that connect to the chassis appears in the View frame.
 - Step 3** Click the radio button next to the SRP host whose properties you want to view, and then click the **Properties** button. The SRP Host Properties window opens.
 - Step 4** (Optional) Enter a text description for the SRP host in the Description field.
 - Step 5** (Optional) Enter a partition key (or comma-separated keys) in the PKeys field.
 - Step 6** (Optional) Enter the world-wide port name (WWPN) of a target that holds a boot image in the Boot Target field.
 - Step 7** (Optional) Enter the LUN ID of a disk that holds a boot image in the Boot LUN field.
 - Step 8** Click the **Apply** button, and then click the **Close** button.
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Viewing Fibre Channel Targets

To view the Fibre Channel targets in the configuration file of your Server Switch, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Targets** branch. A Targets table that includes all targets in your configuration file appears in the View frame. [Table 7-4](#) lists and describes the fields in this table.

Table 7-4 Targets Table Field Descriptions

Field	Description
WWPN	World-wide port name (WWPN) of the port on the target through which your Server Switch accesses the target.
Description	User-assigned target description. Note If no user has assigned a description, a default description appears.
Physical Access	Port on your Server Switch (in slot#card# format) through which your Server Switch accesses the target.
Connection Type	Displays “nlport” to indicate a virtual FC port, or “down” to indicate a faulty connection.

Viewing Fibre Channel Target Properties

To view the properties of a Fibre Channel target, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Targets** branch. A Targets table that includes all targets in your configuration file appears in the View frame.
 - Step 3** Click the radio button next to the target whose properties you want to view, and then click the **Properties** button. The SRP Target Properties window opens. [Table 7-5](#) lists and describes the elements of this window.

Table 7-5 SRP Target Properties Window Element Descriptions

Element	Description
WWPN field	World-wide port name (WWPN) of the port on the target through which your Server Switch accesses the target.
WWNN field	World-wide node name (WWNN) of the target.
FC Address field	Fibre Channel address of the target.
IOC GUID field	InfiniBand I/O controller (IOC) through which initiators access the target. On the Cisco SFS 3012 and Cisco SFS 3001 platforms, the IOC identifies a Fibre Channel gateway slot.

Table 7-5 SRP Target Properties Window Element Descriptions (continued)

Element	Description
Physical Access field	Port on your Server Switch (in slot#/card# format) through which your Server Switch accesses the target.
MTU field	Maximum transmission unit, in bytes, of the target.
Connection Type field	Provides the “down” and “nlPort” radio buttons so you can assign a connection type to the target.
Description field	User-assigned target description. Note If no user has assigned a description, a default description appears.
Service Name field	Name of the service to associate with the WWPN.
Apply button	Applies the changes that you make in the window.
Reset button	Resets the fields in the window to match the properties of the target.
Close button	Closes the window. If you close the window before you apply changes, Chassis Manager makes no changes to the target.
Help button	Opens online help.

Configuring Fibre Channel Target Properties

To configure the properties of a Fibre Channel target, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Targets** branch. A Targets table that includes all targets in your configuration file appears in the View frame.
 - Step 3** Click the radio button next to the target whose properties you want to view, and then click the **Properties** button. The SRP Target Properties window opens.
 - Step 4** (Optional) Click the **down** radio button or **nlPort** radio button to configure the connection type of the target.
 - Step 5** (Optional) Enter a description in the Description field.
 - Step 6** (Optional) Enter a server name in the Service Name field.
 - Step 7** Click the **Apply** button, and then click the **Close** button.
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Viewing IT Policies of the Target

To view the details of the initiator-target (IT) pairs to which a target belongs, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.

Viewing Fibre Channel LUNs

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- Step 2** Click the **Targets** branch. A Targets table that includes all FC targets that connect to the chassis appears in the View frame.
- Step 3** Click the radio button next to the target whose ITs you want to view.
- Step 4** Select **Show IT Policies** from the Show Options pulldown menu. The ITs display appears in the View frame, but lists only ITs that include the target that you selected. For more information, refer to the “Viewing ITs” section on page 7-10 or see [Table 7-8](#).
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Viewing ITL Policies of the Target

To view the details of the initiator-target-LUN (ITL) groups to which a target belongs, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
- Step 2** Click the **SRP Hosts** branch. A Targets table that includes all FC targets that connect to the chassis appears in the View frame.
- Step 3** Click the radio button next to the target whose ITLs you want to view.
- Step 4** Select **Show ITL Policies** from the Show Options pulldown menu. The ITLs display appears in the View frame but lists only ITLs that include the target that you selected. For more information, refer to the “Viewing ITLs” section on page 7-12 or see [Table 7-10](#).
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Viewing Fibre Channel LUNs

To view the logical units (FC storage disks) in the configuration file of your Server Switch, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
- Step 2** Click the **Logical Units** branch. A Logical Units table that includes all LUs in your configuration file appears in the View frame. [Table 7-6](#) lists and describes the fields in this table.

Table 7-6 *Logical Units Table Field Descriptions*

Field	Description
Logical ID	Logical ID of the logical unit (disk).
Description	User-assigned logical unit description. Note If no user has assigned a description, a default description appears.
Physical Access	Physical FC gateway port(s) through which your Server Switch accesses the LU.

Viewing Fibre Channel LUN Properties

To view Fibre Channel LUN properties, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Logical Units** branch. A Logical Units table that includes all LUs in your configuration file appears in the View frame.
 - Step 3** Click the radio button next to the LUN whose properties you want to view, and then click the **Properties** button. The SRP LUN Properties window opens. [Table 7-7](#) lists and describes the elements in this window.

Table 7-7 SRP LUN Properties Window Element Descriptions

Element	Description
Logical ID field	Logical ID of the LUN.
Device Category field	Provides the random radio button and sequential radio button to identify disk devices and tape devices respectively.
Inquiry Data field	SCSI inquiry data retrieved about the LU.
Physical Access field	Ports on your Server Switch that can access the LUN.
Description field	User-assigned description of the LUN.
Hi Mark field	The maximum number of outstanding requests from the initiator to the storage that the ITL can maintain.
Max Retry field	Number of failed communication attempts that must occur before the LUN identifies the initiator as inaccessible.
Min IO Timeout field	Maximum amount of time that elapses before a SRP request times out.
Dynamic Pathing field	Provides the following radio buttons: Path Affinity This feature locks a storage connection to a path for the duration of data transfer to increase speed and efficiency. Gateway Port Load Balancing This feature distributes traffic evenly across both ports in an FC gateway card (when both of the ports can access the same storage). Gateway Port Failover This feature leaves one port on an FC gateway dormant so it can adopt the traffic of the other port (when both of the ports can access the same storage) if that port goes down.
Apply button	Applies the changes that you make in the window to the LUN.
Reset button	Resets the fields in the window to match the properties of the LUN.
Close button	Closes the window. If you close the window before you apply changes, Chassis Manager makes no changes to the LUN.
Help button	Opens online help.

Configuring Fibre Channel LUN Properties

To configure Fibre Channel LUN properties, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Logical Units** branch. A Logical Units table that includes all LUs in your configuration file appears in the View frame.
 - Step 3** Click the radio button next to the LUN whose properties you want to view, and then click the **Properties** button. The SRP LUN Properties window opens.
 - Step 4** (Optional) Enter a description in the Description field.
 - Step 5** (Optional) Enter an integer value in the Hi Mark field.
 - Step 6** (Optional) Enter an integer value in the Max Retry field.
 - Step 7** (Optional) Enter an integer value in the Min IO Timeout field.
 - Step 8** (Optional) Click a radio button in the Dynamic Pathing field.
 - Step 9** Click the **Apply** button, and then click the **Close** button.
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Viewing ITL Policies of the LUN

To view the details of the initiator-target-LUN (ITL) groups to which a LUN belongs, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Logical Units** branch. A Logical Units table that includes all FC targets that connect to the chassis appears in the View frame.
 - Step 3** Click the radio button next to the LUN whose ITLs you want to view.
 - Step 4** Select **Show ITL Policies** from the Show Options pulldown menu. The **ITLs** display appears in the View frame but lists only ITLs that include the LUN that you selected. For more information, refer to the “Viewing ITLs” section on page 7-12 or see [Table 7-10](#).
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Viewing ITs

To view Initiator-Target (IT) pairs on your Server Switch, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
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- Step 2** Click the **ITs** branch. The ITs table appears in the View frame. [Table 7-8](#) lists and describes the fields in this table.

Table 7-8 ITs Table Field Descriptions

Field	Description
SRP Initiator ID	GUID of the initiator (host).
Target WWPN	WWPN of the target.
Current Access	Physical FC gateway port through which the host currently accesses the target.
Physical Access	Physical FC gateway port(s) through which the host can access the target.

Viewing IT Properties

To view detailed Initiator-Target (IT) pair properties, perform the following steps:

- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
- Step 2** Click the **ITs** branch. The ITs table appears in the View frame.
- Step 3** Click the radio button next to the IT pair whose properties you want to view, and then click the **Properties** button. The SRP IT Properties window opens. [Table 7-9](#) lists and describes the elements in this window.

Table 7-9 SRP IT Properties Window Element Descriptions

Element	Description
SRP Initiator ID field	GUID of the host.
Target WWPN field	WWPN of the target.
Description field	User-assigned description of the IT.
Current Access field	Physical FC gateway port through which the host currently accesses the target.
Physical Access field	Physical FC gateway port(s) through which the host can access the target.
Port Mask field	Displays a checkbox for every FC gateway card and FC gateway port on the chassis. Ports with a checked checkbox grant the initiator access to the target.
Mode field	The active radio button in this field represents the mode configuration. The field provides the Normal radio button to configure the IT pair to behave normally and the Test radio button to configure the gateway to perform ITL logins for this IT without the participation of the initiator's HBA. You cannot change the mode of an IT pair to "test."
Action pulldown menu	Discovers the ITLs that the initiator can form with the LUNs in the target.
Result field	Displays the status of the action if you select Discover ITLs from the Action pulldown menu and then click the Apply button.
Apply button	Applies any changes that you make in the window to the Server Switch.

Table 7-9 SRP IT Properties Window Element Descriptions (continued)

Element	Description
Reset button.	Resets the window to match the settings on the Server Switch
Close button.	Closes the window.
Help button.	Opens online help.

Viewing ITLs

To view Initiator-Target-LUN (ITL) properties, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **ITLs** branch. The ITLs table appears in the View frame. [Table 7-10](#) lists and describes the fields in this table.

Table 7-10 ITLs Table Field Descriptions

Field	Description
SRP Initiator ID	GUID of the initiator (host).
Target WWPN	WWPN of the target.
FC LUN ID	Fibre Channel ID of the disk or tape in the target. The ID of the first LUN always appears as 00:00:00:00:00:00, and the IDs for subsequent LUNs increment by 1, in hexadecimal.
LUN Logical ID	Logical ID of the disk or tape in the target.

Viewing ITL Properties

To view detailed Initiator-Target-LUN (ITL) properties, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **ITLs** branch. The ITLs table appears in the View frame.
 - Step 3** Click the radio button next to the ITL whose properties you want to view, and then click the **Properties** button. The SRP ITL Properties window opens. [Table 7-11](#) lists and describes the elements in this window.

Table 7-11 SRP ITL Properties Window Element Descriptions

Element	Description
SRP Initiator ID field	GUID of the initiator (host).
Target WWPN field	WWPN of the target.

Table 7-11 SRP ITL Properties Window Element Descriptions (continued)

Element	Description
FC LUN ID field	Fibre Channel ID of the disk or tape in the target. The ID of the first LUN always appears as 00:00:00:00:00:00, and the IDs for subsequent LUNs increment by 1, in hexadecimal notation.
LUN Logical ID field	Logical ID of the disk or tape in the target.
Device Category field.	Identifies a LUN as random (a disk) or sequential (a tape).
Description field.	User-assigned text identifier of the ITL.
SRP LUN ID field	SRP ID of the disk or tape in the target. The ID of the first LUN always appears as 00:00:00:00:00:00, and the IDs for subsequent LUNs increment by 1, in hexadecimal notation.
Physical Access field	Physical FC gateway port through which the host currently accesses the LUN.
Current Access field	Physical FC gateway port(s) through which the host can access the LUN.
Port Mask field	Displays a checkbox for every FC gateway card and FC gateway port on the chassis. Ports with a checked checkbox grant the initiator access to the LUN.
Apply button	Applies any changes that you make in the window to the Server Switch.
Reset button	Resets the window to match the settings on the Server Switch.
Close button	Closes the window.
Help button	Opens online help.

Viewing Global Statistics

To view global SRP statistics, perform the following steps:

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- Step 1** Expand the **Fibre Channel** icon in the Tree frame.
 - Step 2** Click the **Global Statistics** branch. The SRP Global Statistics display appears in the View frame. [Table 7-12](#) lists and describes the fields in this display.

Table 7-12 SRP Global Statistics Display Field Descriptions

Field	Description
Link Events	Total number of link events (link up, link down) processed by the Fibre Channel interface gateway(s).
SRP Initiated IOs	Total number of I/O transactions requested by the SRP initiator.
SRP Commands Completed	Total number of SRP commands completed on the Fibre Channel interface gateways.
SRP Bytes Read	Total number of I/O bytes read by the SRP initiator that is connected to this chassis.
SRP Bytes Written	Total number of I/O bytes written by the SRP initiator.
SRP Connections	Total number of connections used by the SRP initiator.

Table 7-12 SRP Global Statistics Display Field Descriptions (continued)

Field	Description
SRP Commands Outstanding	Total number of SRP commands outstanding on the Fibre Channel interface gateway(s).
SRP Errors	Total number of SRP errors encountered on the Fibre Channel interface gateway((s)).
FCP Initiated IOs	Total number of I/O responses by the Fibre Channel device to SRP initiator requests.
FCP Commands Completed	Total number of FCP commands completed on the Fibre Channel interface gateway(s).
FCP Bytes Read	Total number of I/O bytes read by the target device.
FCP Bytes Written	Total number of I/O bytes written by the target device.
FCP Commands Outstanding	Total number of FCP commands outstanding on the Fibre Channel interface gateway(s).
FCP Errors	Total number of FCP errors encountered on the Fibre Channel interface gateway(s).