



Configuring Fibre Channel Write Acceleration

The Storage Services Module (SSM) supports Intelligent Storage Services in Cisco MDS SAN-OS Release 2.0(2b) and later that include Fibre Channel write acceleration.

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About 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.

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:

$(\text{Number of concurrent SCSI writes} * \text{size of SCSI writes in bytes}) / \text{FCP data frame size in bytes}$

For example, for HDS TrueCopy between HDS 9970s, which use 1KB FCP data frames, and you perform an initial sync for a 16-LUN TrueCopy group with 15 tracks, or 768 KB per LUN, the approximate number of write buffers required would be $16 * (768 * 1024) / 1024$ or 12248 buffers.



Note



Note

Enabling Fibre Channel Write Acceleration

	Command	Purpose
Step 1	switch(config)#	
Step 2	<pre> ssm enable feature scsi-flow module 2 </pre>	
Step 3	<pre> scsi-flow flow-id 3 initiator-vsan 2 initiator-pwvn 21:00:00:e0:8b:07:5f:aa target-vsan 4 target-pwvn 2a:20:00:05:30:00:77:e0 </pre>	
Step 4	<pre> scsi-flow flow-id 3 write-acceleration </pre>	
	<pre> no scsi-flow flow-id 3 write-acceleration </pre>	
Step 5		

Displaying SCSI Flow Services Information

```
show scsi-flow
```

Example 39-1 Displays Fibre Channel Write Acceleration Configuration for All SCSI Flow Identifiers

```

switch# show scsi-flow
Flow Id: 3
  Initiator VSAN: 101
  Initiator WWN: 21:00:00:e0:8b:05:76:28
  Target VSAN: 102
  Target WWN: 21:00:00:20:37:38:7f:7d
  Target LUN: ALL LUNs
  Flow Verification Status:
  -----
  Initiator Verification Status: success
  Target Verification Status: success
  Initiator Linecard Status: success
  Target Linecard Status: success
  Feature Status:
  -----
  Write-Acceleration enabled
  Write-Acceleration Buffers: 1024
  Configuration Status: success

```

```

Configuration Status: success

Flow Id: 4
Initiator VSAN: 101
Initiator WWN: 21:00:00:e0:8b:05:76:28
Target VSAN: 102
Target WWN: 21:00:00:20:37:38:a7:89
Target LUN: ALL LUNS
Flow Verification Status:
-----
Initiator Verification Status: success
Target Verification Status: success
Initiator Linecard Status: success
Target Linecard Status: success
Feature Status:
-----

Statistics enabled
Configuration Status: success

```

Example 39-2 Displays Fibre Channel Write Acceleration Configuration for a Specific SCSI Flow Identifier

```

switch#
Flow Id: 3
Initiator VSAN: 101
Initiator WWN: 21:00:00:e0:8b:05:76:28
Target VSAN: 102
Target WWN: 21:00:00:20:37:38:7f:7d
Target LUN: ALL LUNS
Flow Verification Status:
-----
Initiator Verification Status: success
Target Verification Status: success
Initiator Linecard Status: success
Target Linecard Status: success
Feature Status:
-----

Statistics enabled
Configuration Status: success

```

Table 39-1 Default Intelligent Storage Services Parameters

Parameters	Default

