



# OpenFabrics Alliance

## Interoperability Logo Group (OFILG)

### May 2014 Logo Event Report

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Report Revision: 1.0  
OFED Version on Compute Nodes: 3.12  
Operating System on Compute Nodes: Scientific Linux 6.5

Enclosed are the results from OFA Logo testing performed on the following devices under test (DUTs):  
*Mellanox MCX354A-FCBT*

The test suite referenced in this report is available at the UNH-IOL website. Release 1.50 (2014-May-6) was used.

<http://iol.unh.edu/ofatestplan>

The following table highlights the Mandatory tests required for the OpenFabrics Interoperability Logo for the InfiniBand HCA device class per the Test Plan and the current OpenFabrics Interoperability Logo Program (OFILP).

Test Procedures	IWG Test Status	Result/Notes
<a href="#">11.1: Link Initialization</a>	Mandatory	PASS
<a href="#">11.2: Fabric Initialization</a>	Mandatory	PASS
<a href="#">11.3: IPoIB Connected Mode</a>	Mandatory	PASS
<a href="#">11.4: IPoIB Datagram Mode</a>	Mandatory	PASS
<a href="#">11.5: SM Failover and Handover</a>	Mandatory	PASS
<a href="#">11.6: SRP</a>	Mandatory	PASS
<a href="#">13.2: TI NFS over RDMA</a>	Mandatory	PASS
<a href="#">13.4: TI uDAPL</a>	Mandatory	PASS
<a href="#">13.5: TI RDMA Basic Interoperability</a>	Mandatory	PASS
<a href="#">13.6: TI RDMA Stress</a>	Mandatory	PASS
<a href="#">13.8: TI MPI – Open</a>	Mandatory	PASS

Summary of all results follows on the second page of this report.  
For Specific details regarding issues, please see the corresponding test result.

Testing Completed 11 June 2014

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Review Completed 15 July 2014

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## Result Summary

The Following table summarizes all results from the event pertinent to this IB device class (InfiniBand HCA)

Test Procedures	IWG Test Status	Result/Notes
<a href="#">11.1: Link Initialization</a>	Mandatory	PASS
<a href="#">11.2: IB Fabric Initialization</a>	Mandatory	PASS
<a href="#">11.3: IPoIB Connected Mode</a>	Mandatory	PASS
<a href="#">11.4: IPoIB Datagram Mode</a>	Mandatory	PASS
<a href="#">11.5: SM Failover and Handover</a>	Mandatory	PASS
<a href="#">11.6: SRP</a>	Mandatory	PASS
<a href="#">11.7: Ethernet Gateway</a>	Beta	Not Tested
<a href="#">11.8: FibreChannel Gateway</a>	Beta	Not Tested
<a href="#">13.2: TI NFS over RDMA</a>	Mandatory	PASS
<a href="#">13.4: TI uDAPL</a>	Mandatory	PASS
<a href="#">13.5: TI RDMA Basic Interoperability</a>	Mandatory	PASS
<a href="#">13.6: TI RDMA Stress</a>	Mandatory	PASS
<a href="#">13.7: TI MPI – Open</a>	Mandatory	PASS

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# Report Revision History

- v1.0 Initial working copy

## Configuration Files

Description	Attachment
Scientific Linux 6.5 Configuration File	
OFED 3.12 Configuration File	

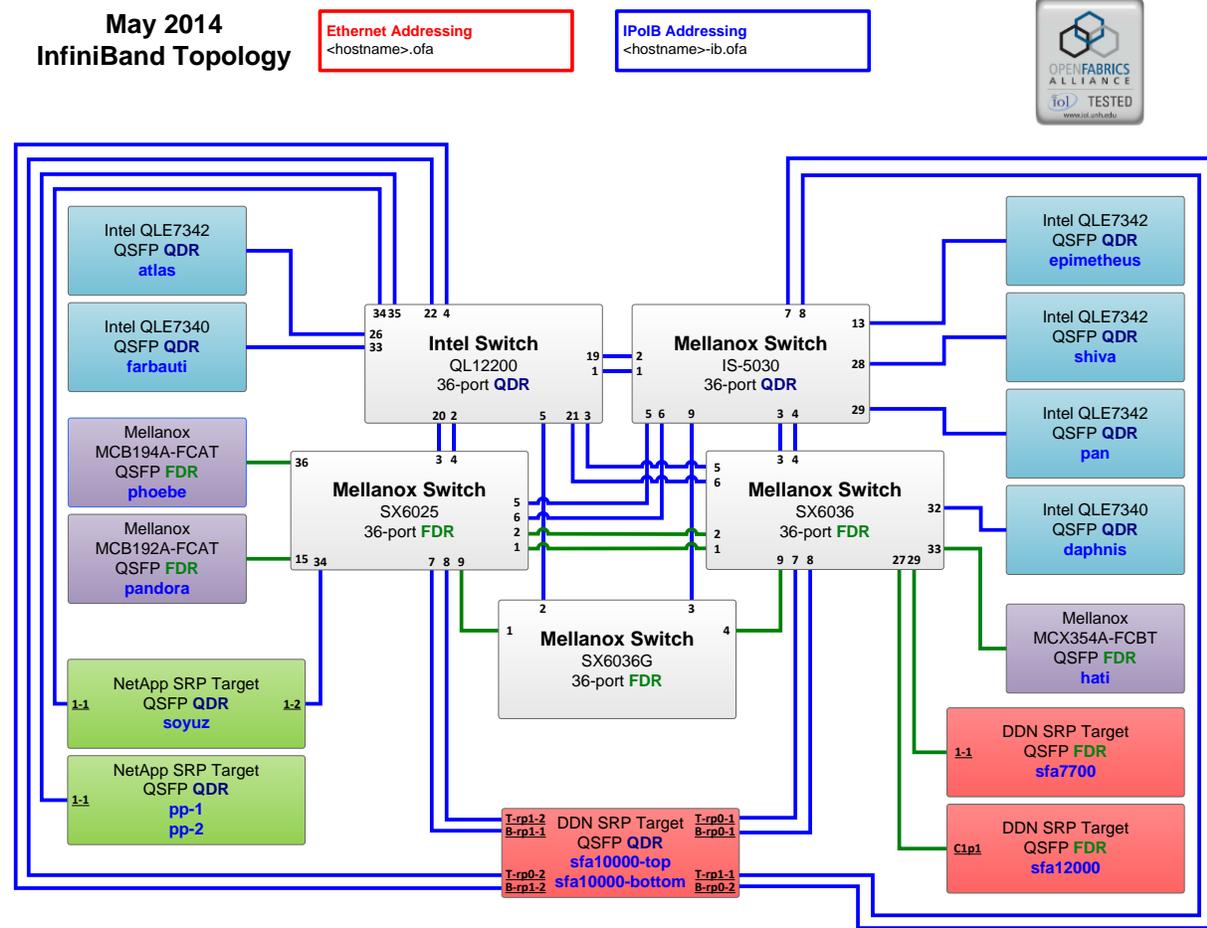
## Result Key

The following table contains possible results and their meanings:

Result:	Description:
<b>PASS</b>	The Device Under Test (DUT) was observed to exhibit conformant behavior.
<b>PASS with Comments</b>	The DUT was observed to exhibit conformant behavior however an additional explanation of the situation is included.
<b>Qualified PASS</b>	The DUT was observed to exhibit conformant behavior, with the exception of fault(s) or defect(s) which were previously known.
<b>FAIL</b>	The DUT was observed to exhibit non-conformant behavior.
<b>Warning</b>	The DUT was observed to exhibit behavior that is not recommended.
<b>Informative</b>	Results are for informative purposes only and are not judged on a pass or fail basis.
<b>Refer to Comments</b>	From the observations, a valid pass or fail could not be determined. An additional explanation of the situation is included.
<b>Not Applicable</b>	The DUT does not support the technology required to perform this test.
<b>Not Available</b>	Due to testing station limitations or time limitations, the tests could not be performed.
<b>Borderline</b>	The observed values of the specific parameters are valid at one extreme and invalid at the other.
<b>Not Tested</b>	Not tested due to the time constraints of the test period.

# DUT and Test Setup Information

Figure 1: The IB fabric configuration utilized for any tests requiring a multi-switch configuration is shown below.



DUT #1 Details			
Manufacturer:	Mellanox	Firmware Revision:	2.31.5050
Model:	MCX354A-FCBT	Hardware Revision:	X2
Speed:	FDR	Located in Host:	hati
Firmware MD5sum:	ef137eb7a40f62d30f921e8bc843cd99		
Additional Comments / Notes:			

## Mandatory Tests – IB Device Test Results:

### 11.1: Link Initialization

Results	
Part #1:	PASS
Discussion:	
All links established with the DUT were of the proper link speed and width.	

Link Partner	MCX354A-FCBT
Intel 12200 (Switch) – QDR	PASS
Mellanox SX6025 (Switch) – FDR	PASS
Mellanox SX6036 (Switch) – FDR	PASS
Mellanox IS-5030 (Switch) – QDR	PASS
Mellanox SX6036g (Switch) – FDR	PASS
DataDirect Networks SFA12000 (SRP Target) – FDR	PASS
DataDirect Networks SFA10000 (SRP Target) – QDR	PASS
DataDirect Networks SFA7700 (SRP Target) – FDR	PASS
NetApp Soyuz (SRP Target) – QDR	PASS
NetApp Pikes Peak (SRP Target) – QDR	PASS
Host: hati	HCA: MCX354A-FCBT (FDR) NA
Host: pandora	HCA: MCB192A-FCAT (FDR) PASS
Host: phoebe	HCA: MCB194A-FCAT (FDR) PASS
Host: daphnis	HCA: QLE7340 (QDR) PASS
Host: loge	HCA: QLE7342 (QDR) PASS

### 11.2: Fabric Initialization

Subnet Manager	Result
OpenSM	PASS
Result Discussion:	
All subnet managers used while testing with OFED 3.12 were able to correctly configure the selected topology.	

**11.3: IPoIB Connected Mode**

Subnet Manager	Part A	Part B	Part C
OpenSM	PASS	PASS	PASS
<b>Result Discussion:</b>			
IPoIB ping, SFTP, and SCP transactions completed successfully between all HCAs; each HCA acted as both a client and a server for all tests.			

**11.4: IPoIB Datagram Mode**

Subnet Manager	Part A	Part B	Part C
OpenSM	PASS	PASS	PASS
<b>Result Discussion:</b>			
IPoIB ping, SFTP, and SCP transactions completed successfully between all HCAs; each HCA acted as both a client and a server for all tests.			

**11.5: SM Failover and Handover**

SM Pairings	Result
OpenSM	PASS
<b>Result Discussion:</b>	
OpenSM was able to properly handle SM priority and state rules.	

**11.6: SRP**

Subnet Manager	Result
OpenSM	PASS
<b>Result Discussion:</b>	
SRP communications between all HCAs and all SRP targets succeeded while OpenSM was in control of the fabric.	

**13.2: TI NFS over RDMA**

Subnet Manager	Result
OpenSM	PASS
<b>Result Discussion:</b>	
With the exception of the XXXX and YYYY HCAs, all other devices were able to complete the Connectathon test suite; each HCA acted as both a client and a server. The XXXX and YYYY HCAs were unable to successfully complete the Connectathon test suite while running as the server.	

**13.4: TI uDAPL**

Subnet Manager	Result
OpenSM	PASS
<b>Result Discussion:</b>	
All communications using DAPL were seen to complete successfully as described in the referenced test plan; each HCA acted as both a client and a server for all tests.	

**13.5: TI RDMA Basic Interoperability**

Subnet Manager	Result
OpenSM	PASS
<b>Result Discussion:</b>	
All devices were shown to correctly exchange core RDMA operations across a simple network path under nominal (unstressed) conditions; each HCA acted as both a client and a server for all tests.	

**13.6: TI RDMA Stress**

Subnet Manager	Result
OpenSM	PASS
<b>Result Discussion:</b>	
All IB switches were seen to properly handle a large load as indicated by the successful completion of control communications between two HCAs while all other HCAs in the fabric were used to generate traffic in order to put a high load on the switch. Each HCA acted as both a client and a server for the control connection.	

**13.8: TI MPI – Open**

Subnet Manager	Part A	Part B
OpenSM	PASS	PASS
<b>Result Discussion:</b>		
Complete heterogeneity; 1 process per system.		

## Beta Tests – IB Device Test Results:

### 11.7: IB Ethernet Gateway

Subnet Manager	Result
OpenSM	Not Tested
<b>Result Discussion:</b>	
This test was not performed, as there are no devices that support the Ethernet Gateway test procedure present in the event topology.	

### 11.8: IB FibreChannel Gateway

Subnet Manager	Result
OpenSM	Not Tested
<b>Result Discussion:</b>	
This test was not performed, as there are no devices that support the FibreChannel Gateway test procedure present in the event topology.	

### 13.7: TI Rsockets

Subnet Manager	Result
OpenSM	PASS
<b>Result Discussion:</b>	
All HCAs were able to successfully perform all Asynchronous, Blocking, and Non-blocking procedures.	