OpenFabrics Alliance
Interoperability Logo Group (OFILG)
February 2013 Logo Event Report

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Date:	13 May 2013
Report Revision:	1.1
OFED Version on Compute Nodes:	3.5
Operating System on Compute Nodes:	SL 6.3

Enclosed are the results from OFA Logo testing performed on the following devices under test (DUTs):

Mellanox MHQH29C-XTR	*Mellanox MHQH19B-XTR*
Mellanox MCX353A-FCBT	*Mellanox MCX354A-FCBT*

The test suite referenced in this report is available at the IOL website. Release 1.46 (2013-Dec-17) was used.

http://iol.unh.edu/ofatestplan

The following table highlights the Mandatory test results required for the OpenFabrics Interoperability Logo for the DUT per the Test Plan referenced above and the current OpenFabrics Interoperability Logo Program (OFILP).

Test Procedures	IWG Test Status	Result/Notes
11.1: Link Initialization	**Mandatory**	**PASS**
11.2: IB Fabric Initialization	**Mandatory**	**PASS**
11.3: IPoIB Connected Mode	**Mandatory**	**PASS**
11:4: IPoIB Datagram Mode	**Mandatory**	**PASS**
11.5: SM Failover and Handover	**Mandatory**	**PASS**
11.6: SRP	**Mandatory**	**PASS**
13.1: TI iSER	**Mandatory**	**Not Available**
13.2: TI NFS over RDMA	**Mandatory**	**PASS**
13.4: TI uDAPL	**Mandatory**	**PASS**
13.5: TI RDMA Basic Interop	**Mandatory**	**PASS**
13.6: TI RDMA Stress	**Mandatory**	**PASS**
13.7: TI MPI – Open	**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 27 March 2013

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Review Completed 13 May 2013

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Result Summary

The Following table summarizes all results from the event pertinent to this IB device class.

Test Procedures	IWG Test Status	Result/Notes
11.1: Link Initialization	Mandatory	PASS
11.2: IB Fabric Initialization	Mandatory	PASS
11.3: IPoIB Connected Mode	Mandatory	PASS
11:4: IPoIB Datagram Mode	Mandatory	PASS
11.5: SM Failover and Handover	Mandatory	PASS
11.6: SRP	Mandatory	PASS
11.7: Ethernet Gateway	Beta	Not Tested
11.8: FibreChannel Gateway	Beta	Not Tested
13.1: TI iSER	Mandatory	Not Available
13.2: TI NFS over RDMA	Mandatory	PASS
13.3: TI RDS	Deprecated	Not Applicable
13.4: TI uDAPL	Mandatory	PASS
13.5: TI RDMA Basic Interoperability	Mandatory	PASS
13.6: TI RDMA Stress	Mandatory	PASS
13.7: TI MPI – Open	Mandatory	PASS

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Report Revision History

- v1.0 Initial working copy
- v1.1 Fixed typos and incorrect Link Initialization chart

Configuration Files

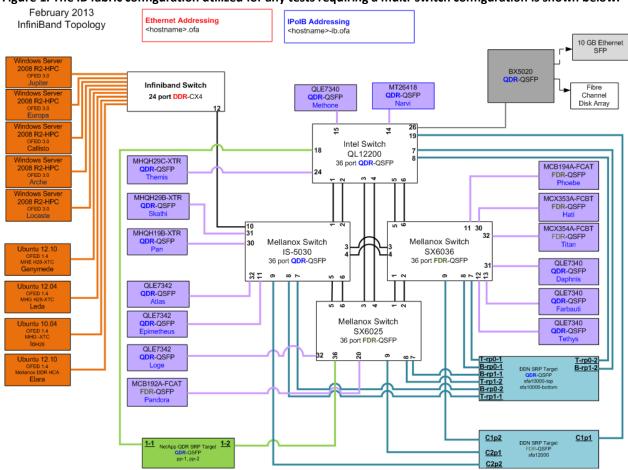| Description	Attachment
Scientific Linux 6.3 Configuration File	
OFED 3.5 Configuration File	

Result Key

The following table contains possible results and their meanings:

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

February 2013 InfiniBand Topology

DUT #1 Details

Manufacturer:	Mellanox	Firmware Revision:	2.11.500
Model:	MHQH29C-XTR	Hardware Revision:	X1
Speed:	QDR	Located in Host:	themis
Firmware MD5sum:	dc395ad38cc515d66ab0e4530d66c23d		
Additional Comments / Notes:			

DUT #2 Details

Manufacturer:	Mellanox	Firmware Revision:	2.11.500
Model:	MHQH19B-XTR	Hardware Revision:	X2
Speed:	QDR	Located in Host:	pan
Firmware MD5sum:	031553f72a8bc2448afdc0a3a26ec78e		
Additional Comments / Notes:			

DUT #3 Details			
Manufacturer:	Mellanox	Firmware Revision:	2.11.1194
Model:	MCX353A-FCBT	Hardware Revision:	X2
Speed:	FDR	Located in Host:	hati
Firmware MD5sum:	12d8e0298e43a07b88be244522be30aa		
Additional Comments / Notes:			

DUT #4 Details			
Manufacturer:	Mellanox	Firmware Revision:	2.11.1194
Model:	MCX354A-FCBT	Hardware Revision:	X2
Speed:	FDR	Located in Host:	titan
Firmware MD5sum:	8e3d5366044e60000a5cf5a1a9c6e8ed		
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		MHQH29C-XTR	MHQH19B-XTR	MCX353A-FCBT	MCX354A-FCBT
Intel 12200 (Switch) – QDR		PASS	PASS	PASS	PASS
Mellanox SX6025 (Switch) – FDR		PASS	PASS	PASS	PASS
Mellanox SX6036 (Switch) – FDR		PASS	PASS	PASS	PASS
Mellanox IS-5030 (Switch) – QDR		PASS	PASS	PASS	PASS
DataDirect Networks SFA12000 (SRP Target) – FDR		PASS	PASS	PASS	PASS
DataDirect Networks SFA10000 (SRP Target) – QDR		PASS	PASS	PASS	PASS
LSI Pikes Peak (SRP Target) – QDR		PASS	PASS	PASS	PASS
Mellanox BX5020 (Gateway) - QDR		PASS	PASS	PASS	PASS
Host: themis	HCA: MHQH29C-XTR (QDR)	NA	PASS	PASS	PASS
Host: pan	HCA: MHQH19B-XTR (QDR)	PASS	NA	PASS	PASS
Host: hati	HCA: MCX353A-FCBT (FDR)	PASS	PASS	NA	PASS
Host: titan	HCA: MCX354A-FCBT (FDR)	PASS	PASS	PASS	NA
Host: pandora	HCA: MCB192A-FCAT (FDR)	PASS	PASS	PASS	PASS
Host: phoebe	HCA: MCB194A-FCAT (FDR)	PASS	PASS	PASS	PASS
Host: tethys	HCA: QLE7340 (QDR)	PASS	PASS	PASS	PASS
Host: epimetheus	HCA: QLE7342 (QDR)	PASS	PASS	PASS	PASS

11.2: Fabric Initialization

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			
All subnet managers used while testing with OFED 3.5 were able to correctly configure the selected topology.			

11.3: IPoIB Connected Mode

	Subnet Manager			
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
A	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**
C	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				
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	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
A	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**
C	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				
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 OFED 3.5	**PASS**
Result Discussion:	
OpenSM was able to properly handle SM priority and state rules.	

11.6: SRP

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			

With the exception of the XXXX and YYYY HCAs, SRP communications between all HCAs and all SRP targets succeeded while the above mentioned SMs were in control of the fabric. The XXXX and YYYY HCAs do not currently support SRP operations.

13.1 TI iSER

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
Not Tested	**Not Tested**	**Not Tested**	**Not Tested**
Result Discussion:			

This test was not performed, as there are no devices that support the iSER test procedure present in the event topology.

13.2: TI NFS over RDMA

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			

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. XXXX and YYYY were unable to insert the necessary kernel modules required for this test.

13.4: TI uDAPL

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			

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			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			

With the exception of the YYYY HCA, all other 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.

When the YYYY HCA was the client, it was observed to unsuccessfully complete a small RDMA Read operation.

13.6: TI RDMA Stress

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			

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.

13.7: TI MPI – Open

Part	Subnet Manager			
	OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
A	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				

Complete heterogeneity; 1 process per system.

Beta Tests – IB Device Test Results:

11.7: IB Ethernet Gateway

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
Not Tested	**Not Tested**	**Not Tested**	**Not Tested**
Result Discussion:			
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			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**
Not Tested	**Not Tested**	**Not Tested**	**Not Tested**
Result Discussion:			
This test was not performed, as there are no devices that support the FibreChannel Gateway test procedure present in the event topology.			