OpenFabrics Alliance
Interoperability Logo Group (OFILG)
February 2013Logo 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 SX6036	*Mellanox SX6025*	*Mellanox IS-5030*

The test suite referenced in this report is available at the IOL website. Release 1.46 (2012-Dec-17) was used.

https://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**
13.5: TI uDAPL	**Mandatory**	**PASS**
13.6: TI RDMA Basic Interop	**Mandatory**	**PASS**
13.8: TI RDMA Stress	**Mandatory**	**PASS**
13.11: 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 25 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 status of RDS test

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.
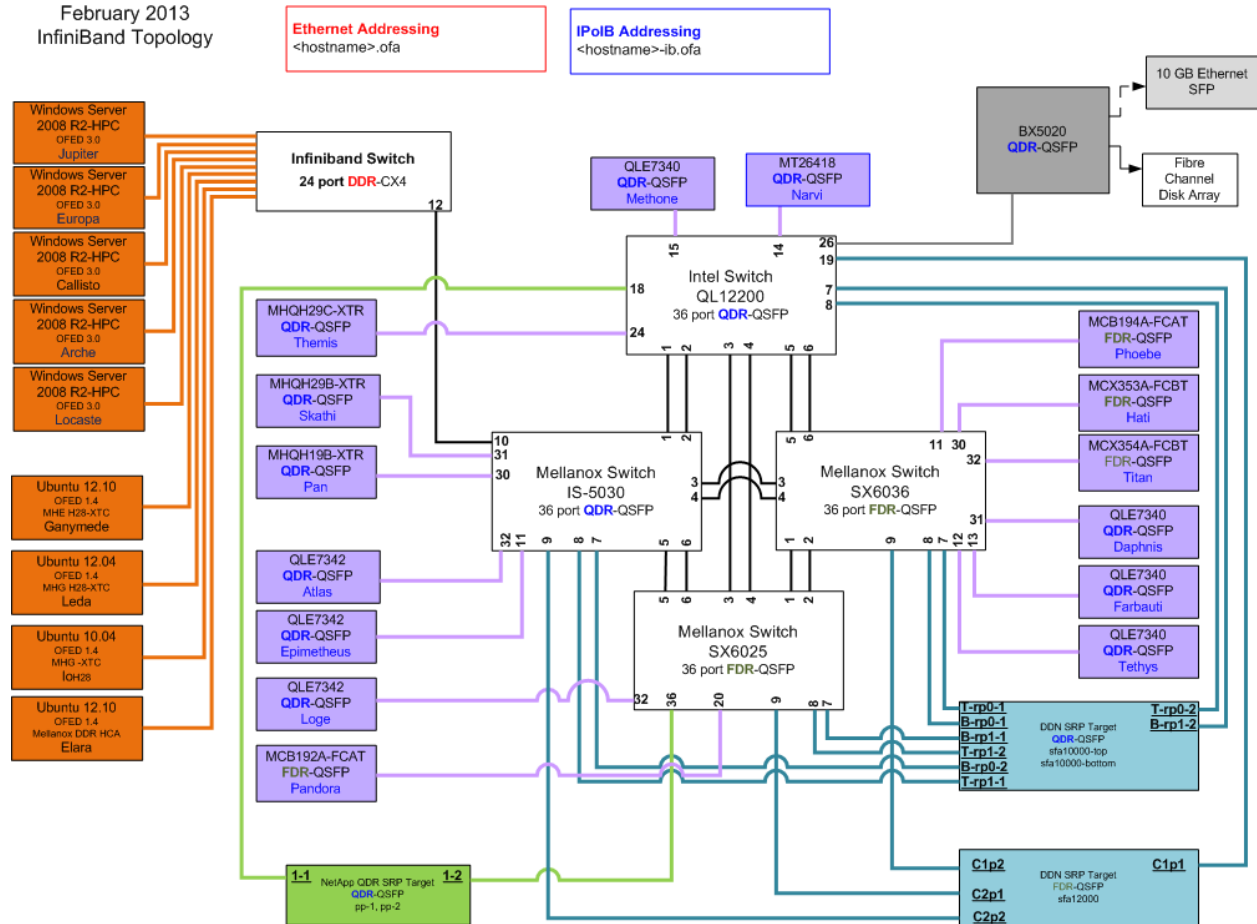
DUT #1 Details			
Manufacturer:	Mellanox	Firmware Revision:	9.1.6670
Model:	SX6036	Hardware Revision:	X2
Speed:	FDR	Located in Host:	NA
Firmware MD5sum:	6c20e88f72e4ff6b4fc9497b9ab29bc7		
Additional Comments / Notes:			

DUT #2 Details			
Manufacturer:	Mellanox	Firmware Revision:	9.1.6670
Model:	SX6025	Hardware Revision:	X2
Speed:	FDR	Located in Host:	NA
Firmware MD5sum:	6d52899234bf6c5ac9b959b57489bc6d		
Additional Comments / Notes:			

DUT #3 Details			
Manufacturer:	Mellanox	Firmware Revision:	7.4.2200
Model:	IS-5030	Hardware Revision:	X2
Speed:	QDR	Located in Host:	NA
Firmware MD5sum:	da54969c3d6c074c3e166eabbb9fd4ee		
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		SX6025	SX6036	IS-5030
QLogic 12200 (Switch) – QDR		**PASS**	**PASS**	**PASS**
Mellanox SX6025 (Switch) – FDR		**NA**	**PASS**	**PASS**
Mellanox SX6036 (Switch) – FDR		**PASS**	**NA**	**PASS**
Mellanox IS-5030 (Switch) – QDR		**PASS**	**PASS**	**NA**
DataDirect Networks SFA10000 (SRP Target) – QDR		**PASS**	**PASS**	**PASS**
DataDirect Networks SFA12000 (SRP Target) – FDR		**PASS**	**PASS**	**PASS**
LSI Pikes Peak (SRP Target) – QDR		**PASS**	**PASS**	**PASS**
Mellanox BX5020 (Gateway) - QDR		**PASS**	**PASS**	**PASS**
Host: themis	HCA: MHQH29C-XTR (QDR)	**PASS**	**PASS**	**PASS**
Host: pan	HCA: MHQH19B-XTR (QDR)	**PASS**	**PASS**	**PASS**
Host: hati	HCA: MCX353A-FCBT (FDR)	**PASS**	**PASS**	**PASS**
Host: titan	HCA: MCX354A-FCBT (FDR)	**PASS**	**PASS**	**PASS**
Host: phoebe	HCA: MCB194A-FCAT (FDR)	**PASS**	**PASS**	**PASS**
Host: pandora	HCA: MCB192A-FCAT (FDR)	**PASS**	**PASS**	**PASS**
Host: loge	HCA: QLE7342 (QDR)	**PASS**	**PASS**	**PASS**
Host: tethys	HCA: QLE7340 (QDR)	**PASS**	**PASS**	**PASS**

11.2: Fabric Initialization

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 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

Part	Subnet Manager			
	OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 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

Part	Subnet Manager			
	OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 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**	**QL12200 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 currently do not support SRP operations.

13.1 TI iSER

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 SM**
Not Available	**Not Available**	**Not Available**	**Not Available**
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**	**QL12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			
With the exception of XXXX and YYYY HCAs, all other HCAs were able to complete the Connectathon test suite; each HCA acted as both a client and server. XXXX and YYYY were unable to insert the necessary kernel modules required for this test.			

13.3: TI RDS

	Subnet Manager			
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**QL12200 SM**
A	**Not Available**	**Not Available**	**Not Available**	**Not Available**
B	**Not Available**	**Not Available**	**Not Available**	**Not Available**
Result Discussion:				
RDS is currently only supported on the Linux 3.5 kernel; therefore this test could not be performed.				

13.4: TI uDAPL

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 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**	**QL12200 SM**
PASS	**PASS**	**PASS**	**PASS**
Result Discussion:			

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

With the exception of 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.

13.6: TI RDMA Stress

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 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**	**QL12200 SM**
A	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				

With the exception of XXXX and YYYY HCAs, all other HCAs were able to successfully complete the suite of Intel benchmarks required for this test. 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**	**QL12200 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 event topology.			

11.8 IB FibreChannel Gateway

Subnet Manager			
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**QL12200 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 event topology.			