OpenFabrics Alliance
Interoperability Logo Group (OFILG)
January 2014 Logo Event Report

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Date:	25 March 2014
Report Revision:	1.2
OFED Version on Compute Nodes:	3.5-2
Operating System on Compute Nodes:	SL 6.4

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

Intel QLE7340   Intel QLE7342

The test suite referenced in this report is available at the IOL website. Release 1.49 (2013-Nov-5) was used.

http://iol.unh.edu/ofatestplan

The following table highlights the Mandatory test 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
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 with Comments
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 17 Jan 2014   Review Completed 25 March 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
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
13.4: TI uDAPL	Mandatory	PASS
13.5: TI RDMA Basic Interoperability	Mandatory	PASS with Comments
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 Modified tests 11.6, 13.2, and 13.6 to more accurately reflect the behavior of the DUT
- v1.2 Fixed typo in "PASS with Comments" description

Configuration Files

Description	Attachment
Scientific Linux 6.4 Configuration File	📎
OFED 3.5-2 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 explanation of the situation is included.
Qualified PASS	The DUT was observed to exhibit conformant behavior, with the exception of fault(s) or defect(s) which were previously known.
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.
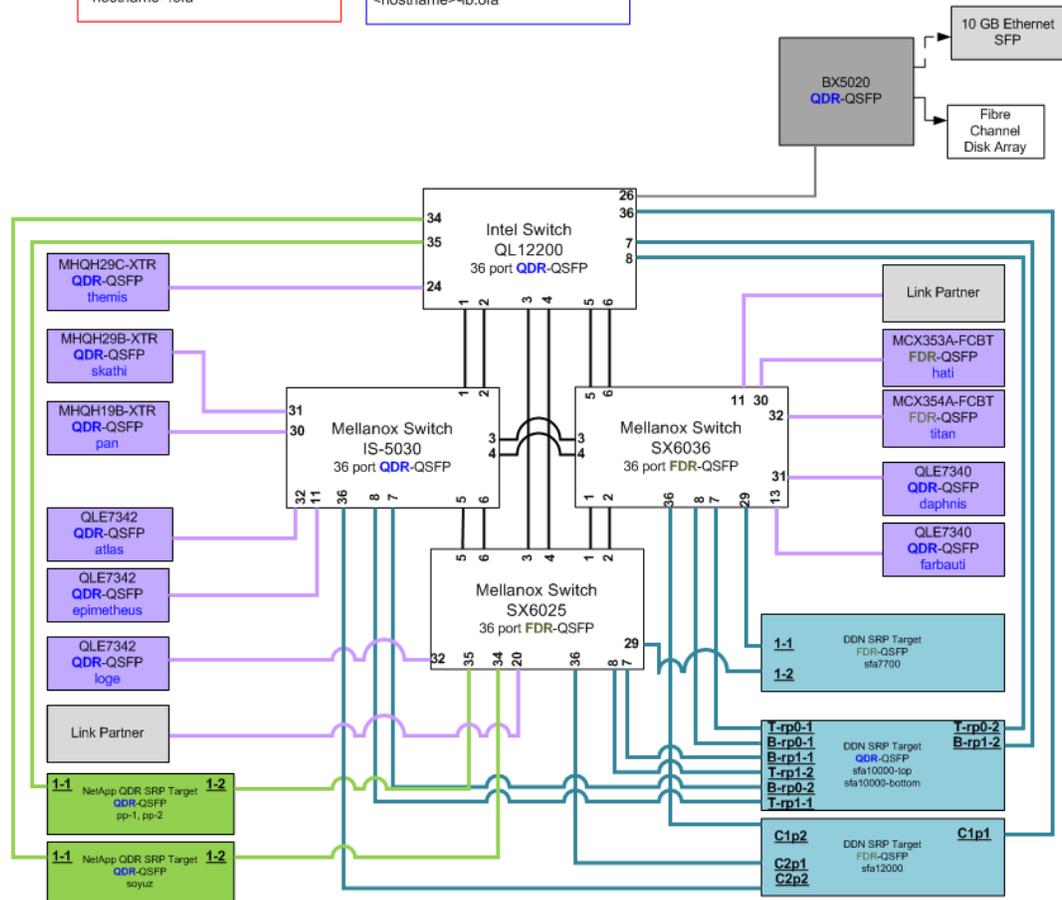
DUT #1 Details			
Manufacturer:	Intel	Firmware Revision:	NA
Model:	QLE7340	Hardware Revision:	2
Speed:	QDR	Located in Host:	daphnis, farbauti
Firmware MD5sum:	NA		
Additional Comments / Notes:			

DUT #2 Details			
Manufacturer:	Intel	Firmware Revision:	NA
Model:	QLE7342	Hardware Revision:	2
Speed:	QDR	Located in Host:	epimetheus, loge, atlas
Firmware MD5sum:	NA		
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		QLE7340	QLE7342
Intel 12200 (Switch) – QDR		**PASS**	**PASS**
Mellanox SX6025 (Switch) – FDR		**PASS**	**PASS**
Mellanox SX6036 (Switch) – FDR		**PASS**	**PASS**
Mellanox IS-5030 (Switch) – QDR		**PASS**	**PASS**
DataDirect Networks SFA12000 (SRP Target) – FDR		**PASS**	**PASS**
DataDirect Networks SFA10000 (SRP Target) – QDR		**PASS**	**PASS**
DataDirect Networks SFA7700 (SRP Target) – FDR		**PASS**	**PASS**
NetApp Soyuz (SRP Target) – QDR		**PASS**	**PASS**
LSI Pikes Peak (SRP Target) – QDR		**PASS**	**PASS**
Mellanox BX5020 (Gateway) - QDR		**PASS**	**PASS**
Host: daphnis	HCA: QLE7340 (QDR)	**NA**	**PASS**
Host: epimetheus	HCA: QLE7342 (QDR)	**PASS**	**NA**
Host: themis	HCA: MHQH29C-XTR (QDR)	**PASS**	**PASS**
Host: pan	HCA: MHQH19B-XTR (QDR)	**PASS**	**PASS**
Host: hati	HCA: MCX353A-FCBT (FDR)	**PASS**	**PASS**
Host: titan	HCA: MCX354A-FCBT (FDR)	**PASS**	**PASS**

11.2: Fabric Initialization

Subnet Manager	Result
OpenSM	**PASS**
Result Discussion:	
All subnet managers used while testing with OFED 3.5-2 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
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 A	Part B	Part C
OpenSM	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	PASS
Result Discussion:	
OpenSM was able to properly handle SM priority and state rules.	

11.6: SRP

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

13.1 TI iSER

Subnet Manager	Result
OpenSM	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	Result
OpenSM	PASS
Result Discussion:	
All devices were able to complete the Connectathon test suite; each HCA acted as both a client and a server.	

13.4: TI uDAPL

Subnet Manager	Result
OpenSM	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	Result
OpenSM	PASS with Comments
Result Discussion:	
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. Failures between all HCAs performing small ib_send_bw operations were observed. This is a known bug in OFED 3.5-2 and can be found here: bug 2457.	

13.6: TI RDMA Stress

Subnet Manager	Result
OpenSM	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

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

Beta Tests – IB Device Test Results:

11.7: IB Ethernet Gateway

Subnet Manager	Result
OpenSM	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	Result
OpenSM	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.	