OpenFabrics Alliance

Interoperability Logo Group (OFILG)

May 2012 Logo Event Report

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Date:	3 July 2012
Report Revision:	1.0
OFED Version on Compute Nodes:	1.5.4.1
Operating System on Compute Nodes:	SL 6.2

Enclosed are the results from OFA Logo testing performed on the following devices under test (DUTs):
Intel 12200-CH01

The test suite referenced in this report is available at the IOL website. Release 1.42 (2012-Apr-03) was used.

http://www.iol.unh.edu/services/testing/ofa/testsuites/OFA-IWG_Interoperability_Test_Plan-v1.42.pdf

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) .

Additional beta testing than reflected in this report was performed using the DUT. A separate report will outline those results.

Test Procedures	IWG Test Status	Result/Notes
10.1: Link Initialization	Mandatory	PASS
10.2: IB Fabric Initialization	Mandatory	PASS
10.3: IPoIB Connected Mode	Mandatory	PASS
10:4: IPoIB Datagram Mode	Mandatory	PASS
10.5: SM Failover and Handover	Mandatory	PASS
10.6: SRP	Mandatory	PASS
12.1: TI iSER	Mandatory	Not Available
12.2: TI NFS over RDMA	Mandatory	Not Tested
12.3: TI RDS	Mandatory	PASS
12.4: TI SDP	Mandatory	PASS
12.5: TI uDAPL	Mandatory	PASS
12.6: TI RDMA Basic Interop	Mandatory	PASS
12.8: TI RDMA Stress	Mandatory	PASS
12.11: 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 05 June 2012

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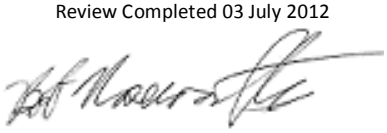
Digitally signed by UNH-IOL
Date: 2012.08.13 17:03:53 -04'00'

Review Completed 03 July 2012



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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
10.1: Link Initialization	Mandatory	PASS
10.2: IB Fabric Initialization	Mandatory	PASS
10.3: IPoIB Connected Mode	Mandatory	PASS
10:4: IPoIB Datagram Mode	Mandatory	PASS
10.5: SM Failover and Handover	Mandatory	PASS
10.6: SRP	Mandatory	PASS
12.1: TI iSER	Mandatory	Not Available
12.2: TI NFS over RDMA	Mandatory	Not Tested
12.3: TI RDS	Mandatory	PASS
12.4: TI SDP	Mandatory	PASS
12.5: TI uDAPL	Mandatory	PASS
12.6: TI RDMA Basic Interoperability	Mandatory	PASS
12.8: TI RDMA Stress	Mandatory	PASS
12.11: TI MPI – Open	Mandatory	PASS

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Report Revision History

- v1.0 Initial working copy

Configuration Files

Description	Attachment
Scientific Linux 6.2 Configuration File	
OFED 1.5.4.1 Configuration File	

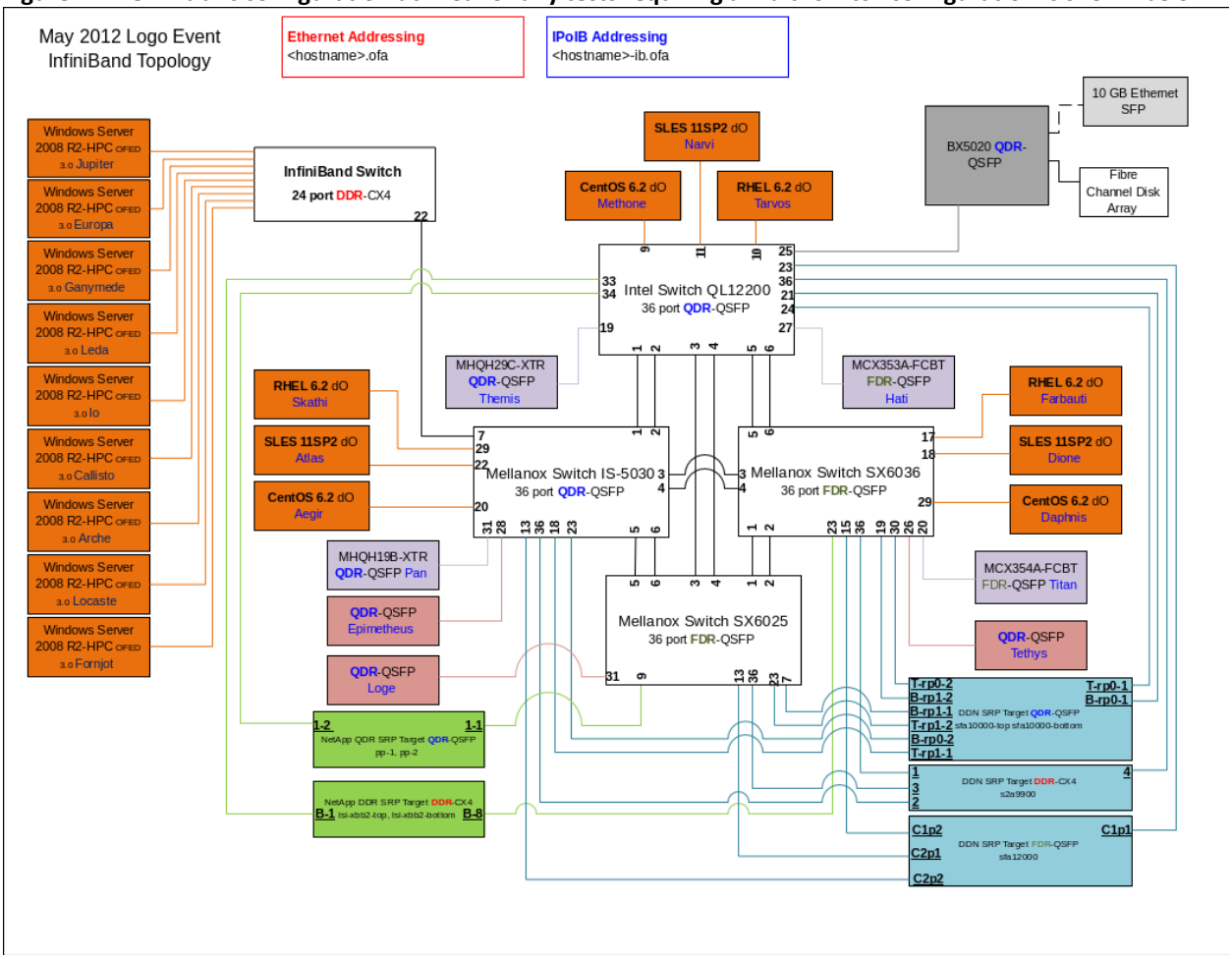
Result Key

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:	Intel	Firmware Revision:	7.1.0
Model:	12200-CH01	Hardware Revision:	003
Speed:	QDR	Located in Host:	NA
Firmware MD5sum:	db4dae932cc2a12167aeaf2b4fc57714		
Additional Comments / Notes:			

Mandatory Tests – IB Device Test Results:

10.1: Link Initialization

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

Link Partner		12200
Intel 12200 (Switch) – QDR		NA
Mellanox SX6025 (Switch) – FDR		PASS
Mellanox SX6036 (Switch) – FDR		PASS
Mellanox IS-5030 (Switch) – QDR		PASS
DataDirect Networks SFA12000 (SRP Target) – FDR		PASS
DataDirect Networks SFA10000 (SRP Target) – QDR		PASS
DataDirect Networks S2A9900 (SRP Target) – DDR		PASS
LSI Pikes Peak (SRP Target) – QDR		PASS
LSI XBB2 (SRP Target) – DDR		PASS
Mellanox BX5020 (Gateway) - QDR		PASS
Host: Themis	HCA: MHQH29C-XTR (QDR)	PASS
Host: Pan	HCA: MHQH19B-XTR (QDR)	PASS
Host: Hati	HCA: MCX353A-FCBT (FDR)	PASS
Host: Titan	HCA: MCX354A-FCBT (FDR)	PASS

10.2: Fabric Initialization

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
PASS	PASS	PASS	PASS	PASS
Result Discussion:				
All subnet managers used while testing with OFED 1.5.4.1 were able to correctly configure the selected topology.				

10.3: IPoIB Connected Mode

	Subnet Manager				
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
A	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
C	**PASS**	**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.					

10.4: IPoIB Datagram Mode

	Subnet Manager				
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
A	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
C	**PASS**	**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.					

10.5: SM Failover and Handover

SM Pairings		Result
OpenSM OFED 1.5.4.1	OpenSM OFED 1.5.4.1	**PASS**
Result Discussion:		
OpenSM was able to properly handle SM priority and state rules.		

10.6: SRP

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
PASS	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				
SRP communications between all HCAs and all SRP targets succeeded while the above mentioned SMs were in control of the fabric.				

12.1 TI iSER

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
Not Tested	**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.				

12.2: TI NFS over RDMA

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
Not Tested	**Not Tested**	**Not Tested**	**Not Tested**	**Not Tested**
Result Discussion:				
NFS over RDMA is not supported in the version of the Linux kernel used during this event (2.6.32); therefore this test could not be performed.				

12.3: TI RDS

	Subnet Manager				
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
A	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:					
The reliable datagram socket protocol was tested between all HCAs; all communications completed successfully.					

12.4: TI SDP

	Subnet Manager				
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
A	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
C	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:					
All communications using the SDP protocol completed successfully; each HCA acted as both a client and a server for all tests.					

12.5: TI uDAPL

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
PASS	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				
All communications using DAPL were seen to complete successfully as described in the referenced testplan; each HCA acted as both a client and a server for all tests.				

12.6: TI RDMA Basic Interoperability

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
PASS	**PASS**	**PASS**	**PASS**	**PASS**
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.				

12.8: TI RDMA Stress

Subnet Manager				
OpenSM	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
PASS	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:				
All IB switches were seen to properly handle a large load as indicated by the successfully completion of control communications between two HCAs while all other HCAs acted as noise on the fabric. Each HCA acted as both a client and a server for the control connection.				

12.11: TI MPI – Open

	Subnet Manager				
Part	**OpenSM**	**IS-5030 SM**	**SX-6036 SM**	**12200 SM**	**WinOF SM**
A	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
B	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
Result Discussion:					
Complete heterogeneity; one process per system as described in the cluster topology.					