



OpenFabrics Alliance

Interoperability Logo Group (OFILG)

February 2013 Logo Event Report

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Date: May 13, 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):
Intel 12200-CH01

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
13.4: 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 March 25, 2013

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Review Completed May 13, 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	

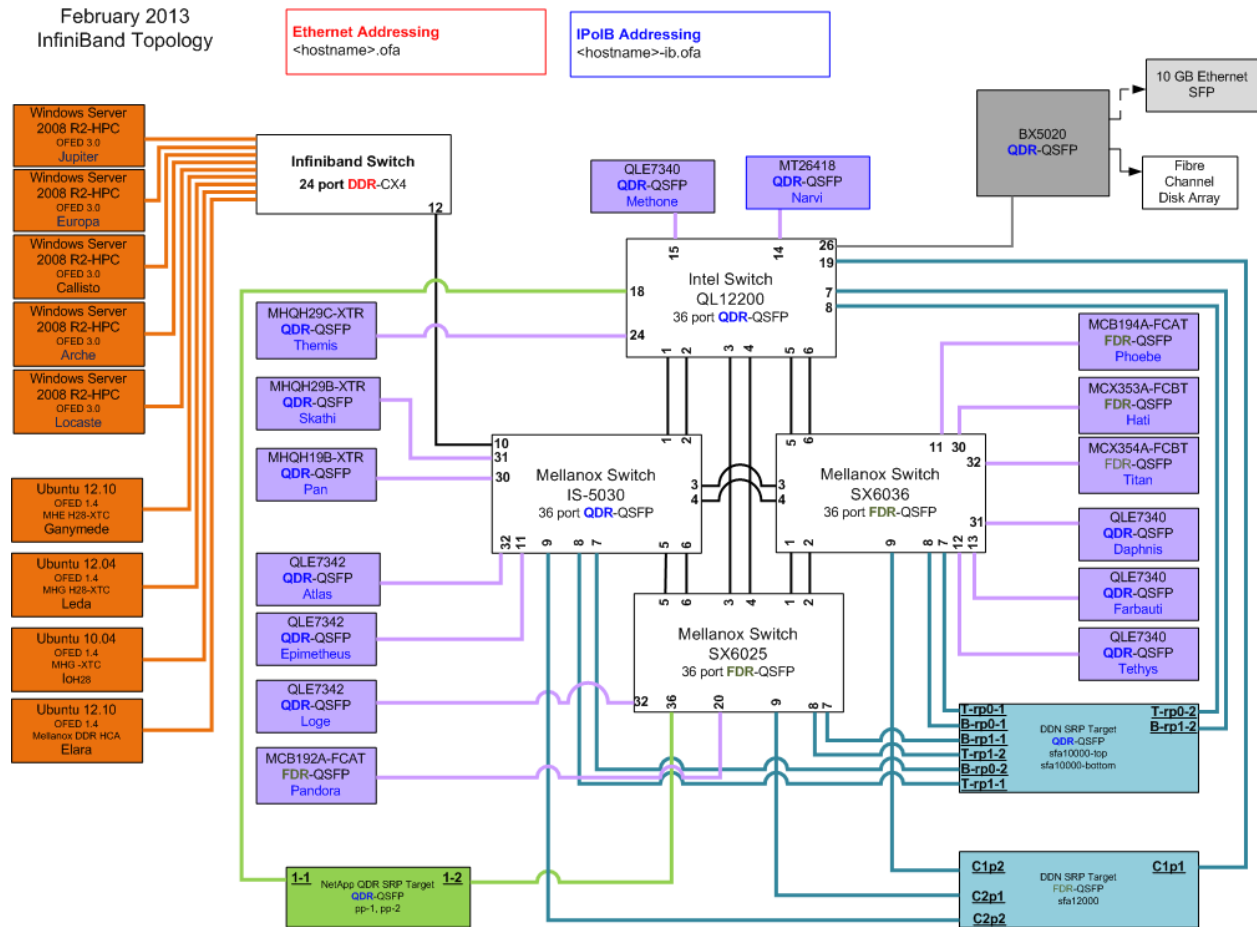
Result Key

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 explanation 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:	7.1.1
Model:	12200-CH01	Hardware Revision:	3
Speed:	QDR	Located in Host:	N/A
Firmware MD5sum:	2ad5724d00515fdbf4d03376c3854437		
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	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
LSI Pikes Peak (SRP Target) – QDR	PASS
Mellanox BX5020 (Gateway) - QDR	PASS
Host: themis	HCA: MHQH29C-XTR (QDR)
Host: pan	HCA: MHQH19B-XTR (QDR)
Host: hati	HCA: MCX353A-FCBT (FDR)
Host: titan	HCA: MCX354A-FCBT (FDR)
Host: phoebe	HCA: MCB194A-FCAT (FDR)
Host: pandora	HCA: MCB192A-FCAT (FDR)
Host: loge	HCA: QLE7342 (QDR)
Host: tethys	HCA: QLE7340 (QDR)

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: IPoB 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:				
IPoB 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 currently do not support SRP operations.			

13.1 TI iSER

Subnet Manager			
OpenSM	IS-5030 SM	SX-6036 SM	12200 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	12200 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	12200 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	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 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 YYYY HCA was the client, YYYY 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

Subnet Manager				
Part	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	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 the 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 the event topology.			