

OpenFabrics Alliance

Interoperability Logo Group (OFILG)

May 2013 Logo Event Report

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Idan KligvasserDate:12 July 2013Mellanox Technologies LTDReport Revision:1.0Hermon Building 4th FloorOFED Version on Compute Nodes:3.5P.O. Box 586, Yokenam 20692Operating System on Compute Nodes:SL 6.3Israel

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

Mellanox MHQH29C-XTR

Mellanox MCX353A-FCBT

Mellanox MCX354A-FCBT

The test suite referenced in this report is available at the IOL website. Release 1.47 (2013-Apr-16) 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: IPolB Connected Mode	Mandatory	PASS
11:4: IPolB 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 08 July 2013

Glenn A. Martin gmartin@iol.unh.edu

Review Completed 08 July 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: IPolB Connected Mode	Mandatory	PASS
11:4: IPolB 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
13.6: TI RDMA Stress	Mandatory	PASS
<u>13.7: TI MPI – Open</u>	Mandatory	PASS

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Report Revision History

• v1.0 Initial working copy

Configuration Files

Description	Attachment
Scientific Linux 6.3 Configuration File	Q
OFED 3.5 Configuration File	Ď

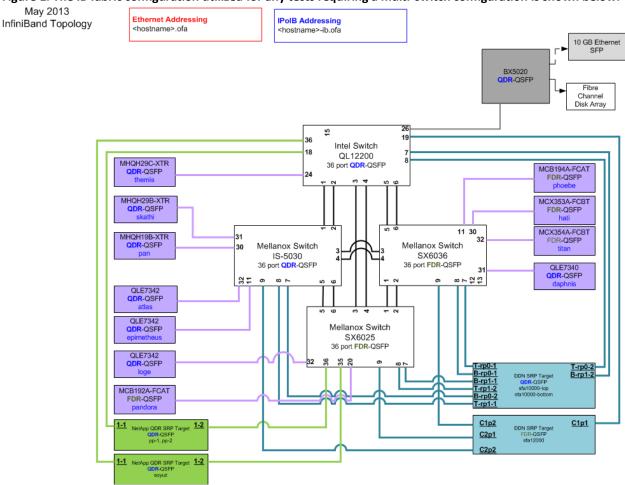
Result Key

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:	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:			

OFA Logo Event Report May 2013 DUTs: MHQH29C-XTR, MHQH19B-XTR, MCX353A-FCBT & MCX354A-FCBT HCAs

DUT #3 Details			
Manufacturer:	Mellanox	Firmware Revision:	2.11.1250
Model:	MCX353A-FCBT	Hardware Revision:	X2
Speed:	FDR	Located in Host:	hati
Firmware MD5sum: f80cb9d572c55401a9028d0ef20bb0a3			
Additional Comments / Notes:			

DUT #4 Details			
Manufacturer:	Mellanox	Firmware Revision:	2.11.1250
Model:	MCX354A-FCBT	Hardware Revision:	X2
Speed:	FDR	Located in Host:	titan
Firmware MD5sum: 332f1f742196676f489d4ca4602e686a			
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-	MHQH19B-	MCX353A-	MCX354A-
		XTR	XTR	FCBT	FCBT
Intel 12200 (Swi	tch) – QDR	PASS	PASS	PASS	PASS
Mellanox SX602	5 (Switch) – FDR	PASS	PASS	PASS	PASS
Mellanox SX603	6 (Switch) – FDR	PASS	PASS	PASS	PASS
Mellanox IS-503	0 (Switch) – QDR	PASS	PASS	PASS	PASS
DataDirect Netw (SRP Target) – FI		PASS	PASS	PASS	PASS
DataDirect Netw (SRP Target) – Q		PASS	PASS	PASS	PASS
NetApp Soyuz (S	SRP Target) – QDR	PASS	PASS	PASS	PASS
LSI Pikes Peak (S	RP Target) – QDR	PASS	PASS	PASS	PASS
Mellanox BX502	0 (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: daphnis	HCA: QLE7340 (QDR)	PASS	PASS	PASS	PASS
Host: loge	HCA: QLE7342 (QDR)	PASS	PASS	PASS	PASS

11.2: Fabric Initialization

Subnet Manager	Result			
OpenSM PASS				
Result Discussion:				
All subnet managers used while testing with OFED 3.5 were able to correctly configure the selected topology.				

OFA Logo Event Report May 2013 DUTs: MHQH29C-XTR, MHQH19B-XTR, MCX353A-FCBT & MCX354A-FCBT HCAs

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:	

With the exception of the MCB192A-FCAT and MCB194A-FCAT HCAs, SRP communications between all HCAs and all SRP targets succeeded while OpenSM was in control of the fabric. The MCB192A-FCAT and MCB194A-FCAT HCAs do not currently support SRP operations.

13.1 TI iSER

event topology.

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	

OFA Logo Event Report May 2013 DUTs: MHQH29C-XTR, MHQH19B-XTR, MCX353A-FCBT & MCX354A-FCBT HCAs

13.2: TI NFS over RDMA

Subnet Manager	Result
OpenSM	PASS
Bara II Diagram to a	

Result Discussion:

With the exception of the MCB192A-FCAT and MCB194A-FCAT HCAs, all other devices were able to complete the Connectathon test suite; each HCA acted as both a client and a server. MCB192A-FCAT and MCB194A-FCAT were unable to insert the necessary kernel modules required for this test.

13.4: TI uDAPL

Subnet Manager	Result
OpenSM	PASS
Result Discussion:	
All the state of t	

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
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.

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

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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.		