OpenFabrics Alliance
Interoperability Working Group (OFIWG)
September 2010 Logo Event Report

Amit Krig
Mellanox Technologies
Hermon Building 4th Floor
P.O. Box 586, Yokenam 20692
Israel

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Report Revision: 3.1
OFED Version: 1.5.2
OS Version: CentOS 5.4

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

Mellanox MHGA28-XTC	Mellanox MHRH29B-XTR	Mellanox MHQH29B-XTR
Mellanox MHGS18-XTC	Mellanox MHES11-XTC	Mellanox MHZH29-XTR
Mellanox MHES14-XTC	Mellanox MHGH29B-XTR	Mellanox MHQH19B-XNR

The test suite referenced in this report is available at the IOL website. Release 1.35 (July 27, 2010) was used.

http://www.iol.unh.edu/services/testing/ofa/testsuites/OFA-IWG_Interoperability_Test_Plan-v1.35.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)

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
12.3: TI RDS	Mandatory	PASS
12.4: TI SDP	Mandatory	PASS
12.5: TI uDAPL	Mandatory	PASS
12.6: TI RDMA Basic Interop	Mandatory	PASS with Comments
12.11: TI MPI – Open MPI (Homogenous)	Mandatory	PASS
12.12: TI MPI – OSU MVAPICH (Homogenous)	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 11/11/2010

Christopher Hutchins
chutchins@Iol.unh.edu
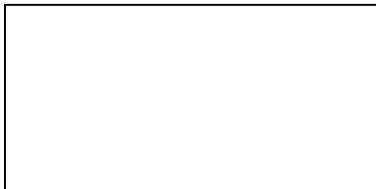
Review Completed 1/10/2011

Nickolas Wood
ndv2@iol.unh.edu

Table 1: 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	Beta	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 with Comments
12.10: TI MPI – Intel	Beta	Not Tested
12.11: TI MPI – Open MPI (Homogenous)	Mandatory	PASS
12.12: TI MPI – OSU MVAPICH (Homogenous)	Mandatory	PASS

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Report Revision History

- **v1.0 Initial working copy**
- **v1.1 Mellanox BX4010 added to Link Initialization table**
- **v2.0 Major formatting revision**
- **v3.0 Modified topology, added OS Version information**
- **v3.1 Post-Arbitration update**

Table 2: 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.

Table 3: DUT and Test Setup Information
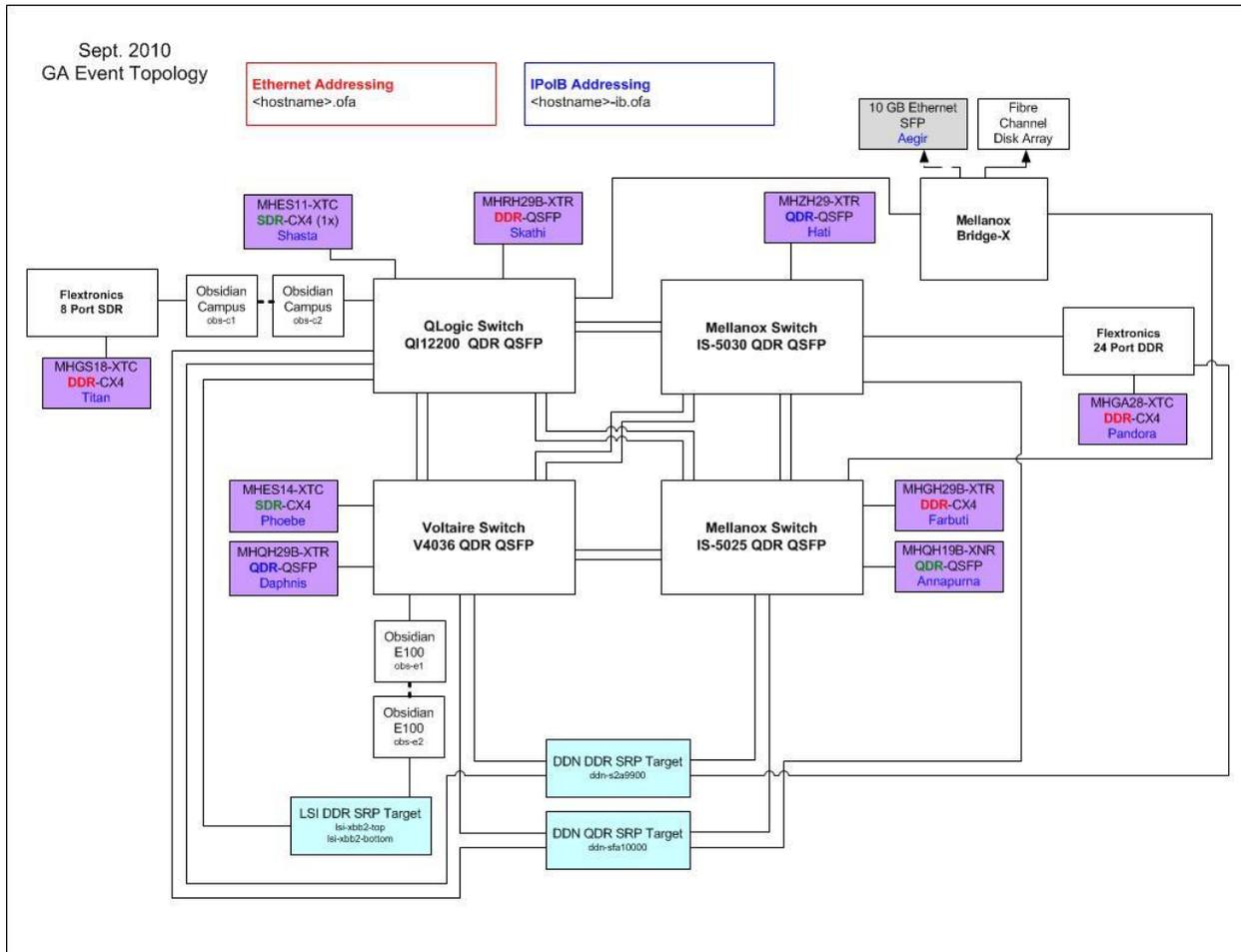
Figure 1: The IB fabric configuration utilized for any tests requiring a multi-switch configuration is shown below.

DUT #1 Details			
Manufacturer:	Mellanox	Firmware Revision:	5.3.940
Model:	MHGA28-XTC	Hardware Revision:	20
Speed:	DDR	Located in Host:	Pandora
Firmware MD5sum:	ccae1bef597d32ceebf19892b9eded4e		
Additional Comments / Notes:			

DUT #2 Details			
Manufacturer:	Mellanox	Firmware Revision:	1.2.940
Model:	MHGS18-XTC	Hardware Revision:	20
Speed:	DDR	Located in Host:	Titan
Firmware MD5sum:	6e2842c6b4e3741cd19828128a8409b3		
Additional Comments / Notes:			

DUT #3 Details

Manufacturer:	Mellanox	Firmware Revision:	1.2.940
Model:	MHES14-XTC	Hardware Revision:	a0
Speed:	SDR	Located in Host:	Phoebe
Firmware MD5sum:	61ce4bc7e15892c7f1a22d95089342b9		
Additional Comments / Notes:			

DUT #4 Details

Manufacturer:	Mellanox	Firmware Revision:	2.7.8100
Model:	MHRH29B-XTR	Hardware Revision:	b0
Speed:	DDR	Located in Host:	Skathi
Firmware MD5sum:	200fa794e58245693fbd545d0bb4c9cc		
Additional Comments / Notes:			

DUT #5 Details

Manufacturer:	Mellanox	Firmware Revision:	1.2.940
Model:	MHES11-XTC	Hardware Revision:	20
Speed:	SDR 1X	Located in Host:	Shasta
Firmware MD5sum:	ca8052fa6ce16a599bfd73b72ef3a460		
Additional Comments / Notes:			

DUT #6 Details

Manufacturer:	Mellanox	Firmware Revision:	2.7.8100
Model:	MHGH29B-XTR	Hardware Revision:	b0
Speed:	QDR	Located in Host:	Farbauti
Firmware MD5sum:	77f65d9393672f41796001b20894c6b5		
Additional Comments / Notes:			

DUT #7 Details

Manufacturer:	Mellanox	Firmware Revision:	2.7.8100
Model:	MHQH29B-XTR	Hardware Revision:	b0
Speed:	QDR	Located in Host:	Daphnis
Firmware MD5sum:	13b9c7c86ed88c1f2896583443a4a460		
Additional Comments / Notes:			

DUT #8 Details

Manufacturer:	Mellanox	Firmware Revision:	2.7.8100
Model:	MHZH29-XTR	Hardware Revision:	b0
Speed:	QDR	Located in Host:	Hati
Firmware MD5sum:	1e5eded02cc1eb7fe73abe854500e355		
Additional Comments / Notes:			

DUT #9 Details			
Manufacturer:	Mellanox	Firmware Revision:	2.7.8100
Model:	MHQH19B-XNR	Hardware Revision:	b0
Speed:	QDR	Located in Host:	Annapurna
Firmware MD5sum:	8ffec55d43a61948a64b7cb2589240ab		
Additional Comments / Notes:			

Mandatory Tests – IB Device Test Results:

10.1: Link Initialization

Results	
Part #1:	**PASS**
Discussion:	
No issues seen.	

Link Partner		MHGH29B-XTR	MHRH29B-XTR	MHGS18-XTC	MHES14-XTC	MHGA28-XTC	MHQH29B-XTR	MHZH29-XTR	MHES11-XTC	MHQH19B-XNR
QLogic 12200 (Switch) – QDR		P	P	P	P	P	P	P	P	P
Flextronics X430066 (Switch) – SDR		P	P	P	P	P	P	P	P	P
Flextronics X430044 (Switch) – DDR		P	P	P	P	P	P	P	P	P
Mellanox IS 5030 (Switch) – QDR		P	P	P	P	P	P	P	P	P
Mellanox IS 5025 (Switch) – QDR		P	P	P	P	P	P	P	P	P
Voltaire 4036 (Switch) – QDR		P	P	P	P	P	P	P	P	P
Obsidian Longbow Campus-1 (Range Extender) – SDR		P	P	P	P	P	P	P	P	P
Obsidian Longbow Campus-2 (Range Extender) – SDR		P	P	P	P	P	P	P	P	P
Obsidian Longbow E100-1 (Range Extender) – SDR		P	P	P	P	P	P	P	P	P
Obsidian Longbow E100-2 (Range Extender) – SDR		P	P	P	P	P	P	P	P	P
LSI XBB2 (SRP Target) – DDR		P	P	P	P	P	P	P	P	P
DataDirect Networks S2A9900 (SRP Target) – DDR		P	P	P	P	P	P	P	P	P
DataDirect Networks SFA10000 (SRP Target) – QDR		P	P	P	P	P	P	P	P	P
Host: Farbauti G2 PCI e	HCA: MHGH29B-XTR – DDR	**NA**	P	P	P	P	P	P	P	P
Host: Skathi G2 PCI e	HCA: MHRH29B-XTR – DDR	P	**NA**	P	P	P	P	P	P	P
Host: Titan	HCA: MHGS18-XTC – DDR	P	P	**NA**	P	P	P	P	P	P
Host: Phoebe	HCA: MHES14-XTC – SDR	P	P	P	**NA**	P	P	P	P	P
Host: Pandora	HCA: MHGA28-XTC – DDR	P	P	P	P	**NA**	P	P	P	P
Host: Daphnis	HCA: MHQH29B-XTR – QDR	P	P	P	P	P	**NA**	P	P	P
Host: Hati	HCA: MHZH29-XTR – QDR	P	P	P	P	P	P	**NA**	P	P
Host: Shasta	HCA: MHES11-XTC – SDR	P	P	P	P	P	P	P	**NA**	P
Host: Annapurna	HCA: MHQH19B-XNR – QDR	P	P	P	P	P	P	P	P	**NA**

10.2: Fabric Initialization

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	PASS	PASS	PASS	PASS
Discussion:				
No issues seen.				

10.3: IPoIB Connected Mode

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	PASS	PASS	PASS	PASS
Part #2:	PASS	PASS	PASS	PASS
Part #3:	PASS	PASS	PASS	PASS
Discussion:				
No issues seen.				

10.4: IPoIB Datagram Mode

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	PASS	PASS	PASS	PASS
Part #2:	PASS	PASS	PASS	PASS
Part #3:	PASS	PASS	PASS	PASS
Discussion:				
No issues seen.				

10.5: SM Failover and Handover

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	PASS	PASS	PASS	PASS
Discussion:				
No issues seen.				

10.6: SRP

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	PASS	PASS	PASS	PASS
Discussion:				
No issues seen.				

12.1 TI iSER

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	Not Available	Not Available	Not Available	Not Available
Discussion:				
Test not performed.				

12.3: TI RDS

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	PASS	PASS	PASS	PASS
Part #2:	PASS	PASS	PASS	PASS
Discussion:				
No issues seen.				

12.4: TI SDP

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1: Netperf	**PASS**	**PASS**	**PASS**	**PASS**
Part #2: SFTP	**PASS**	**PASS**	**PASS**	**PASS**
Part #3: SCP	**PASS**	**PASS**	**PASS**	**PASS**
Discussion:				
No issues seen.				

12.5: TI uDAPL

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	**PASS**	**PASS**	**PASS**	**PASS**
Discussion:				
No issues seen.				

12.6: TI RDMA Basic Interoperability

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	**PASS with Comments**	**PASS with Comments**	**PASS with Comments**	**PASS with Comments**
Discussion:				
RDMA bandwidth tests fail to start when using legacy Mellanox HCAs due to an OFED bug: http://bugs.openfabrics.org/bugzilla/show_bug.cgi?id=2151 The following patch corrects this issue. As of OFED 1.5.3 RC1, this patch has been committed and will not be needed going forward. http://sofa.openfabrics.org/downloads/perftest/perftest-1.3.0-0.31.g7f84b33.tar.gz				

12.11: TI MPI – Open MPI (Homogenous)

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1: PingPing & PingPong	**PASS**	**PASS**	**PASS**	**PASS**
Part #2: All	**PASS**	**PASS**	**PASS**	**PASS**
Discussion:				
Performed using the following homogenous clusters:				

1) (Mellanox only) farbauti, daphnis, skathi, hati, titan
2) (Mellanox only) phoebe, shasta, annapurna, pandora, farbauti

12.12: TI MPI – OSU MVAPICH (Homogenous)

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1: PingPing & PingPong	**PASS**	**PASS**	**PASS**	**PASS**
Part #2: All	**PASS**	**PASS**	**PASS**	**PASS**
Discussion:				
Performed using the following homogenous clusters:				

1) (Mellanox only) farbauti, daphnis, skathi, hati, titan
2) (Mellanox only) phoebe, shasta, annapurna, pandora, farbauti

Beta Tests – IB Device Test Results:

12.2: TI NFS over RDMA

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1:	Not Tested	Not Tested	Not Tested	Not Tested
Discussion:				
Not tested due to time constraints.				

12.10: MPI – Intel

Results	OpenSM	Voltaire 4036	QLogic 12200	Mellanox IS 5030
Part #1: PingPing & PingPong	Not Tested	Not Tested	Not Tested	Not Tested
Part #2: All	Not Tested	Not Tested	Not Tested	Not Tested
Discussion:				
Not tested due to time constraints.				