



# OpenFabrics Alliance

## Interoperability Logo Group (OFILG)

### May 2011 Logo Event Report

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Report Revision: 1.0  
OFED Version on Compute Nodes: 1.5.3.1  
Operating System on Compute Nodes: CentOS 5.5

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

*Mellanox IS 5030*  
*Mellanox IS 5024*

*Mellanox IS 5025*  
*Mellanox IS 5023*

The test suite referenced in this report is available at the IOL website. Release 1.36 (2011-Mar-01) was used.

[http://www.iol.unh.edu/services/testing/ofa/testsuites/OFA-IWG\\_Interoperability\\_Test\\_Plan-v1.36.pdf](http://www.iol.unh.edu/services/testing/ofa/testsuites/OFA-IWG_Interoperability_Test_Plan-v1.36.pdf)

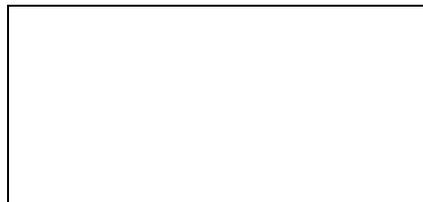
The Following Table highlights the Mandatory test results required for the OpenFabrics Interoperability Logo for the DUT per the Test Plan referenced above and the current OpenFabrics Interoperability Logo Program (OFILP)

Test Procedures	IWG Test Status	Result/Notes
<a href="#">10.1: Link Initialization</a>	Mandatory	PASS
<a href="#">10.2: IB Fabric Initialization</a>	Mandatory	PASS
<a href="#">10.3: IPoIB Connected Mode</a>	Mandatory	PASS
<a href="#">10.4: IPoIB Datagram Mode</a>	Mandatory	PASS
<a href="#">10.5: SM Failover and Handover</a>	Mandatory	PASS
<a href="#">10.6: SRP</a>	Mandatory	PASS
<a href="#">12.1: TI iSER</a>	Mandatory	Not Available
<a href="#">12.3: TI RDS</a>	Mandatory	PASS
<a href="#">12.4: TI SDP</a>	Mandatory	PASS
<a href="#">12.5: TI uDAPL</a>	Mandatory	PASS
<a href="#">12.6: TI RDMA Basic Interop</a>	Mandatory	PASS
<a href="#">12.8: TI RDMA Stress</a>	Mandatory	PASS
<a href="#">12.11: TI MPI – Open</a>	Mandatory	PASS
<a href="#">12.12: TI MPI – OSU</a>	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 13 June 2011

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Review Completed 05 July 2011

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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
<a href="#">10.1: Link Initialization</a>	Mandatory	PASS
<a href="#">10.2: IB Fabric Initialization</a>	Mandatory	PASS
<a href="#">10.3: IPoIB Connected Mode</a>	Mandatory	PASS
<a href="#">10.4: IPoIB Datagram Mode</a>	Mandatory	PASS
<a href="#">10.5: SM Failover and Handover</a>	Mandatory	PASS
<a href="#">10.6: SRP</a>	Mandatory	PASS
<a href="#">10.7: Ethernet Gateway</a>	Beta	Not Tested
<a href="#">10.8: FibreChannel Gateway</a>	Beta	Not Tested
<a href="#">12.1: TI iSER</a>	Mandatory	Not Available
<a href="#">12.2: TI NFS over RDMA</a>	Beta	Not Tested
<a href="#">12.3: TI RDS</a>	Mandatory	PASS
<a href="#">12.4: TI SDP</a>	Mandatory	PASS
<a href="#">12.5: TI uDAPL</a>	Mandatory	PASS
<a href="#">12.6: TI RDMA Basic Interoperability</a>	Mandatory	PASS
<a href="#">12.8: TI RDMA Stress</a>	Mandatory	PASS
<a href="#">12.10: TI MPI – Intel</a>	Beta	Not Tested
<a href="#">12.11: TI MPI – Open</a>	Mandatory	PASS
<a href="#">12.12: TI MPI – OSU</a>	Mandatory	PASS

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# Report Revision History

- v1.0 Initial working copy

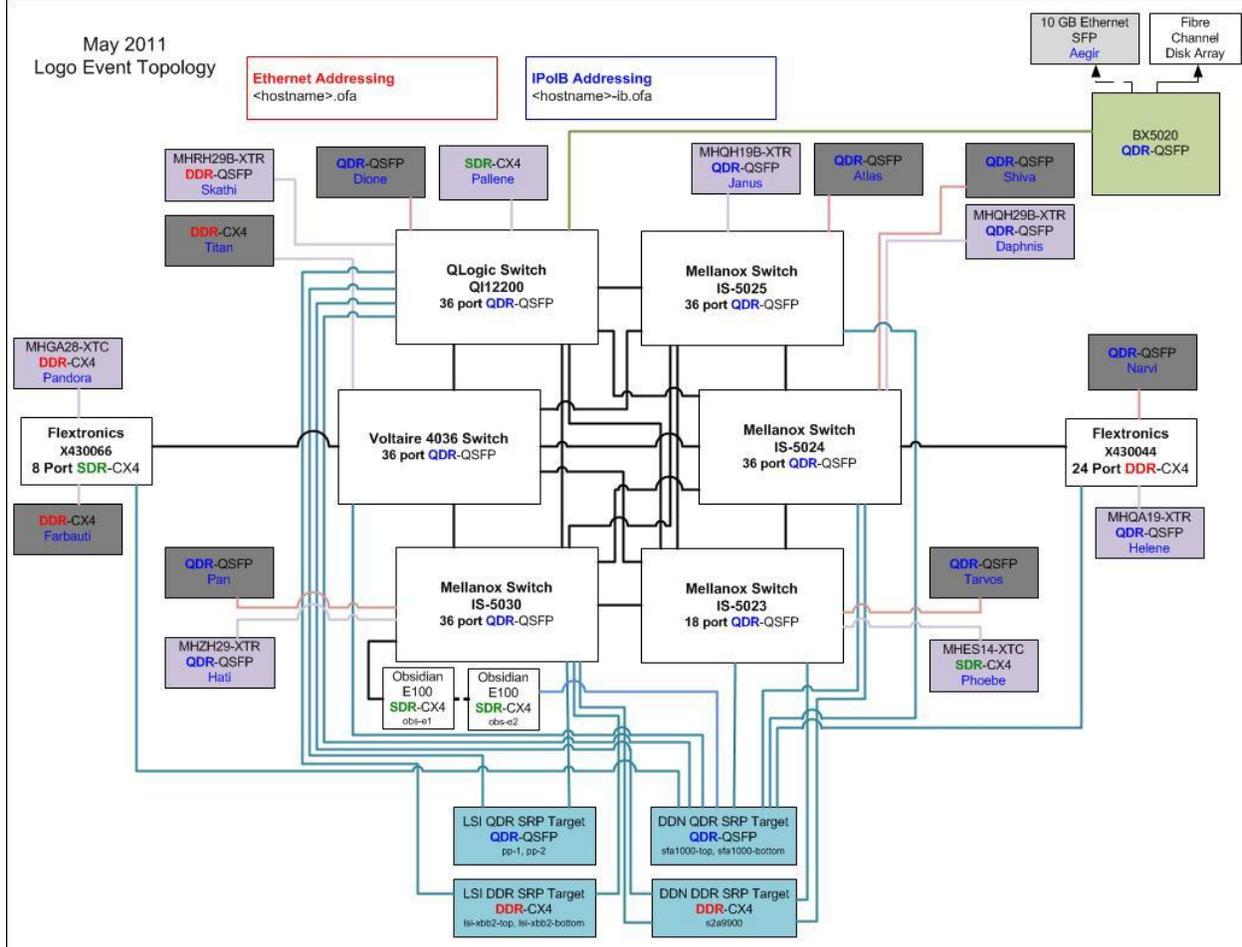
## Result Key

The following table contains possible results and their meanings:

<b>Result:</b>	<b>Description:</b>
<b>PASS</b>	The Device Under Test (DUT) was observed to exhibit conformant behavior.
<b>PASS with Comments</b>	The DUT was observed to exhibit conformant behavior however an additional explanation of the situation is included.
<b>FAIL</b>	The DUT was observed to exhibit non-conformant behavior.
<b>Warning</b>	The DUT was observed to exhibit behavior that is not recommended.
<b>Informative</b>	Results are for informative purposes only and are not judged on a pass or fail basis.
<b>Refer to Comments</b>	From the observations, a valid pass or fail could not be determined. An additional explanation of the situation is included.
<b>Not Applicable</b>	The DUT does not support the technology required to perform this test.
<b>Not Available</b>	Due to testing station limitations or time limitations, the tests could not be performed.
<b>Borderline</b>	The observed values of the specific parameters are valid at one extreme and invalid at the other.
<b>Not Tested</b>	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:	1.1.2500
Model:	IS 5030	Hardware Revision:	X1
Speed:	QDR	Located in Host:	NA
Firmware MD5sum:	0ef01cc4800a569e4e2951391cb42693		
Additional Comments / Notes:			

DUT #2 Details			
Manufacturer:	Mellanox	Firmware Revision:	7.4.2060
Model:	IS 5025	Hardware Revision:	X1
Speed:	QDR	Located in Host:	NA
Firmware MD5sum:	98472df87c7a0ee7f01071230b089a4e		
Additional Comments / Notes:			

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DUT: Mellanox IS5030, IS5025, IS5024, IS5023

<b>DUT #3 Details</b>			
Manufacturer:	Mellanox	Firmware Revision:	7.4.2060
Model:	IS 5024	Hardware Revision:	X1
Speed:	QDR	Located in Host:	NA
Firmware MD5sum:	fb6a4234f447bb7a12b9d001bee16cd4		
<b>Additional Comments / Notes:</b>			

<b>DUT #4 Details</b>			
Manufacturer:	Mellanox	Firmware Revision:	7.4.2060
Model:	IS 5023	Hardware Revision:	X1
Speed:	QDR	Located in Host:	NA
Firmware MD5sum:	52bef21803efc0ce63e0a9219fc22ad7		
<b>Additional Comments / Notes:</b>			

## Mandatory Tests – IB Device Test Results:

### 10.1: Link Initialization

Results	
Part a:	PASS
<b>Discussion:</b>	
No issues seen	

Link Partner	IS 5030	IS 5025	IS 5024	IS 5023
QLogic 12200 (Switch) – QDR	PASS	PASS	PASS	PASS
Flextronics X430066 (Switch) – SDR	PASS	PASS	PASS	PASS
Flextronics X430044 (Switch) – DDR	PASS	PASS	PASS	PASS
Mellanox IS-5030 (Switch) – QDR	NA	PASS	PASS	PASS
Mellanox IS-5025 (Switch) – QDR	PASS	NA	PASS	PASS
Mellanox IS-5024 (Switch) – QDR	PASS	PASS	NA	PASS
Mellanox IS-5023 (Switch) – QDR	PASS	PASS	PASS	NA
Obsidian Longbow E100 (Range Extender) – SDR	PASS	PASS	PASS	PASS
Mellanox BX5020 (Gateway) - QDR	PASS	PASS	PASS	PASS
LSI XBB2 (SRP Target) – DDR	PASS	PASS	PASS	PASS
LSI Pikes Peak (SRP Target) – QDR	PASS	PASS	PASS	PASS
DataDirect Networks S2A9900 (SRP Target) – DDR	PASS	PASS	PASS	PASS
DataDirect Networks SFA10000 (SRP Target) – QDR	PASS	PASS	PASS	PASS
Host: Skathi G2 PCI e	HCA: MHRH29B-XTR – DDR	PASS	PASS	PASS
Host: Phoebe	HCA: MHES14-XTC – SDR	PASS	PASS	PASS
Host: Pandora	HCA: MHGA28-XTC – DDR	PASS	PASS	PASS
Host: Daphnis G2 PCI e	HCA: MHQH29B-XTR – QDR	PASS	PASS	PASS
Host: Hati G2 PCI e	HCA: MHZH29-XTR – QDR	PASS	PASS	PASS
Host: Helene G2 PCI e	HCA: MHQA19-XTR – QDR	PASS	PASS	PASS
Host: Janus	HCA: MHQH19B-XTR - QDR	PASS	PASS	PASS

### 10.2: Fabric Initialization

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

### 10.3: IPoB Connected Mode

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: Pingtest	PASS	PASS	PASS
Part b: Fabric Convergence	PASS	PASS	PASS
Part c: SFTP	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

### 10.4: IPoB Datagram Mode

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: Pingtest	PASS	PASS	PASS
Part b: Fabric Convergence	PASS	PASS	PASS
Part c: SFTP	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

### 10.5: SM Failover and Handover

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	PASS	NA	NA
<b>Discussion:</b>			
No issues seen			

### 10.6: SRP

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

### 12.1 TI iSER

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	Not Tested	Not Tested	Not Tested
<b>Discussion:</b>			
No iSER target available in the tested cluster.			

**12.3: TI RDS**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: Ping	PASS	PASS	PASS
Part b: Stress	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

**12.4: TI SDP**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: Netperf	PASS	PASS	PASS
Part b: SFTP	PASS	PASS	PASS
Part c: SCP	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

**12.5: TI uDAPL**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	PASS	PASS	PASS
<b>Discussion:</b>			
No issues seen			

**12.6: TI RDMA Basic Interoperability**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	PASS	PASS	PASS
<b>Discussion:</b>			
Due to limitations of the testing tools an additional parameter had to be added to the command set. Specifically “-m 2048” to mitigate the problems faced when an Infiniband fabric does not utilize a single MTU size on all links. Additionally, large test iterations had to be increased to 300 as the tools would not run with anything smaller and small test iterations decreased to 25000 due to an exponential increase in execution time that was unacceptable.			

**12.8: TI RDMA Stress**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	PASS	PASS	PASS
<b>Discussion:</b>			
Due to limitations of the testing tools an additional parameter had to be added to the command set. Specifically “-m 2048” to mitigate the problems faced when an Infiniband fabric does not utilize a single MTU size on all links.			

**12.11: TI MPI – Open**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: PingPing & PingPong	PASS	PASS	PASS
Part b: All	PASS	PASS	PASS
<b>Discussion:</b>			
<p>Performed using the following clusters:</p> <p>Homogeneous Mellanox1 (20 processes, 4/system) – farbauti, daphnis, skathi, hati, DDR HCA  Homogeneous Mellanox2 (20 processes, 4/system) – phoebe, helene, pallene, pandora, janus  Heterogeneous All (64 processes, 4/system)</p>			

**12.12: TI MPI – OSU**

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: PingPing & PingPong	PASS	PASS	PASS
Part b: All	PASS	PASS	PASS
<b>Discussion:</b>			
<p>Mvapich 1 only.</p> <p>Performed using the following clusters:</p> <p>Homogeneous Mellanox1 (20 processes, 4/system) – farbauti, daphnis, skathi, hati, DDR HCA  Homogeneous Mellanox2 (20 processes, 4/system) – phoebe, helene, pallene, pandora, janus  Heterogeneous All (64 processes, 4/system)</p>			

## Beta Tests – IB Device Test Results:

### 10.7: IB Ethernet Gateway

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	<b>Not Tested</b>	<b>Not Tested</b>	<b>Not Tested</b>
<b>Discussion:</b>			
No Ethernet gateway available in the tested cluster.			

### 10.8 IB FibreChannel Gateway

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	<b>Not Tested</b>	<b>Not Tested</b>	<b>Not Tested</b>
<b>Discussion:</b>			
No FibreChannel gateway available in the tested cluster.			

### 12.2: TI NFS over RDMA

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a:	<b>Not Tested</b>	<b>Not Tested</b>	<b>Not Tested</b>
<b>Discussion:</b>			
Due to time constraints this test was not performed.			

### 12.10: MPI – Intel

Results	OpenSM	QLogic 12200 SM	Mellanox IS-5030 SM
Part a: PingPing & PingPong	<b>Not Tested</b>	<b>Not Tested</b>	<b>Not Tested</b>
Part b: All	<b>Not Tested</b>	<b>Not Tested</b>	<b>Not Tested</b>
<b>Discussion:</b>			
Not performed.			