OpenFabrics Alliance
Interoperability Logo Group (OFILG)
January 2014 Logo Event Report

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Date:	February 24, 2014
Report Revision:	1.1
OFED Version:	3.5-2
OS Version:	Scientific Linux 6.4

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

Mellanox MCX312A-XCBT

The test suite referenced in this report is available at the IOL website. Release 1.49 (2013-Nov-5) was used.

https://www.iol.unh.edu/ofatestplan

The following table reflects the results of tests performed during the January 2014 Logo Event.

Test Procedures	IWG Test Status	Result/Notes
12.2: RoCE Link Initialization	**Mandatory**	**PASS**
13.2: TI NFS over RDMA	**Beta**	**PASS with Comments**
13.4: TI uDAPL	**Mandatory**	**PASS**
13.5: TI RDMA Basic Interop	**Mandatory**	**PASS with Comments**
13.7: TI RSockets	**Beta**	**PASS**
13.8: 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 February 6, 2014

Review Completed February 24, 2014

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Result Summary

The Following table summarizes all results from the event pertinent to this RoCE device class.

Test Procedures	IWG Test Status	Result/Notes
12.2: RoCE Link Initialization	Mandatory	**PASS**
13.1: TI iSER	Beta	Not Tested
13.2: TI NFS over RDMA	Beta	**PASS with Comments**
13.3: TI RDS	Beta	Not Tested
13.4: TI uDAPL	Mandatory	**PASS**
13.5: TI RDMA Basic Interop	Mandatory	**PASS with Comments**
13.6: TI RDMA Stress	Beta	Not Tested
13.7: TI RSockets	Beta	**PASS**
13.8: TI MPI – Open	Mandatory	**PASS**

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Report Revision History

- v1.0 Initial Release
- v1.1 Modified tests 13.2 and 13.6 to more accurately reflect the behavior of the DUT

Configuration Files

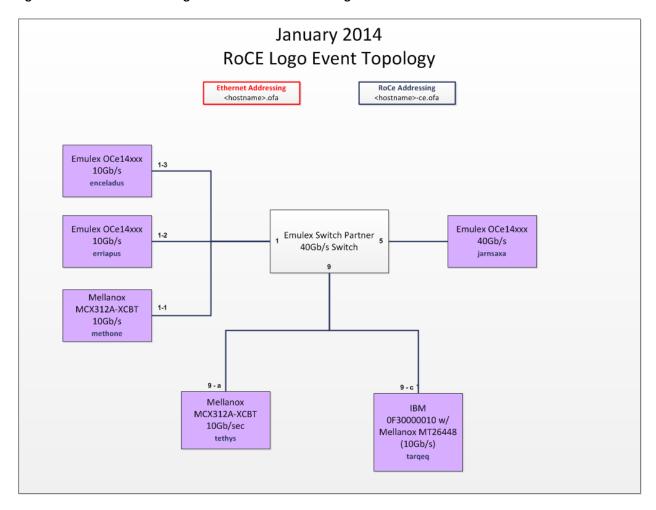| Description	Attachment
Scientific Linux 6.4 Configuration File	📎
OFED 3.5-2 Configuration File	📎

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.
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 RoCE fabric configuration utilized for all testing is shown below.

DUT Details			
Manufacturer:	Mellanox	Firmware Revision:	2.3.0.3200
Model:	MCX312A-XCBT	Hardware Revision:	00
Speed:	10Gb/s	Located in Host:	tethys, methone
Firmware MD5sum:			
Additional Comments / Notes:			

Beta Tests – RoCE Device Test Results:

12.2: RoCE Link Initialization

Test Result	PASS
Result Discussion:	
All RoCE Channel Adapters were observed to link at the expected speed.	

Link Partner	MCX312A-XCBT
RCA: Emulex OCe14102 in host enceladus	PASS
RCA: Emulex OCe14102 in host erriapus	PASS
RCA: Emulex OCe14401 in host jarnsaxa	PASS
RCA: IBM MT26448 in host tarqeq	PASS
RCA: Mellanox MCX312A-XCBT in host tethys	PASS
RCA: Mellanox MCX312A-XCBT in host methone	PASS

13.1: TI iSER

Test Result	Not Tested
Result Discussion:	
There were no iSER targets available in the cluster; therefore this test could not be performed.	

13.2: TI NFS over RDMA

Test Result	PASS with Comments
Result Discussion:	
The DUT was observed to successfully mount, export, and complete all NFSoRDMA connectathon tests while using RDMA, however while testing with OFED 3.5-2 a bug was discovered when interoperating between big and little endian architectures.	

13.3: TI RDS

Test Result	Not Tested
Result Discussion:	
RDS is not supported by any of the RCAs in the topology; therefore this test was not able to be completed.	

13.4: TI uDAPL

Test Result	PASS
Discussion:	

All of the Group 1: Point-to-Point and Group 2: Switched Topology tests were performed using OFED 3.5-2.
Group 3: Switched Topology with Multiple Switches tests were performed using OFED 3.5-2-rc2 due to time and equipment limitations.

13.5: TI RDMA Basic Interoperability

Test Result	PASS with Comments
Discussion:	

RDMA read and write operations were observed to perform successfully between all RCAs in the topology. RDMA sends smaller than size 240 were observed to fail due to a bug in the OFED software, which is documented here.

13.6: TI RDMA Stress

Test Result	Not Tested
Discussion:	

RDMA Stress test was not performed as per the pre-event agreement.

13.7 TI RSockets

Test Result	PASS
Discussion:	

All RCAs were able to successfully perform all Asynchronous, Blocking, and Non-blocking procedures.

13.8: TI MPI – OpenMPI

Test Result	PASS
Discussion:	

The Intel MPI Benchmarks were performed between all three Emulex RCAs. The RCA in the PPC64 system was excluded due to MPI's limitations in regards to heterogeneous rings.