



OpenFabrics Alliance

Interoperability Logo Group (OFILG)

July 2015 Logo Event Report

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Date: 2015-10-13
 Report Revision: 1.0
 OFED Version: 3.18
 OS Version: RHEL 7.0

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

IBM Power 7 R2 Server with RoCE Channel Adapter

The test suite referenced in this report is available at the UNH-IOL website. Release 2.04 (2015-Jul -23) was used.

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

This report is a summary of testing completed after the release of OFED 3.18 (released on July 14, 2015) and is the product of only a few days of testing. It does not include results from the testing of 14 different daily builds of OFED 3.18 performed over the months since the October 2014 Interop Debug event. Please refer to the event summary on the next page.

The following table highlights the Mandatory test results required for the OpenFabrics Interoperability Logo for the Server System using RoCE Channel Adapter and Running OFA Software device class per the Test Plan referenced above and the current OpenFabrics Interoperability Logo Program (OFILP).

Test Procedures	IWG Test Status	Result/Notes
12.2: RoCELink Initialization	Mandatory	Pass
12.4: IPoCE	Mandatory	Pass
13.4: TI uDAPL	Mandatory	Pass
13.5: TI RDMA Basic Interop	Mandatory	Pass
13.7: TI Rsockets	Mandatory	Pass
13.8: TI MPI – OpenMPI	Mandatory	Pass

For specific details regarding issues, please see the corresponding test result.

Testing Completed 2015-09-21

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Report Revision History

- v1.0 Initial Release

Configuration Files

Description	Attachment
Scientific Linux 7.0 Configuration File	
OFED 3.18 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 currently 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.

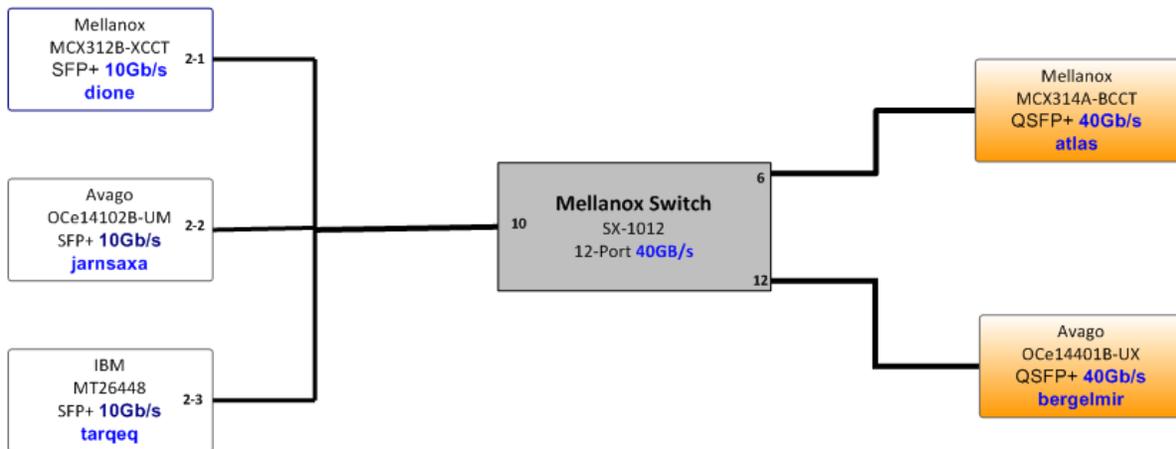
DUT and Test Setup Information

Figure 1: The RoCE fabric configuration utilized for all testing is shown below.

July 2015 Logo RoCE Topology

Ethernet Addressing
 <hostname>.ofa

RoCE Addressing
 <hostname>-ce.ofa



DUT Details			
Manufacturer:	IBM		
Machine:	IBM Power 7R2		
Board:	OF30000010	Firmware Revision:	2.9.1200
Model:	Mellanox MT26448	Hardware Revision:	B0
Speed:	10Gb/s	Host:	tarqeq
Firmware MD5sum:	N/A		
Additional Comments / Notes:			

Mandatory Tests –RoCE Server System Test Results:

12.2: RoCELink Initialization

Test Result	Pass
Result Discussion:	
All machines showed link lights when connected to the fabric. ICMP requests were sent and received by all nodes correctly.	

12.4: IPoCE

Test Result	Pass
Discussion:	
All devices were configured to have a IP addresses over their CR interface.	

13.4: TI uDAPL

Test Result	Pass
Discussion:	
With the use of the daplttest utility, devices exhibited simple send receive, varication, polling, scatter gather on a point-to-point topology. Devices were then connected to a switched topology and, with the use of the daplttest utility, tested on correct use of multiple threads, RDMA read and write operations, pipeline tests with RDMA write scatter gather list and RDMA read, and the multiple switches test.	

13.5: TI RDMA Basic Interoperability

Test Result	Pass
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 listed below.	
<ul style="list-style-type: none">• Small & Large RDMA Read• Small & Large RDMA Write• Small & Large RDMA Send• Small & Large RDMA Verify	

13.6: TI RDMA Stress

Test Result	Pass
Discussion:	
All switches were seen to properly handle a large load as indicated by the successful completion of control communications between two RNICs while other RNICs in the fabric were used to generate traffic in order to put a high load on the switch.	

13.7: TI RSockets

Test Result	Pass
Discussion:	
Utilizing the rstream utility, all RCAs were able to successfully perform General, Asynchronous, Blocking, and Non-blocking procedures.	

13.8: TI MPI – OpenMPI

Test Result	Pass
Discussion:	
MPI was run on a loop back interface since there are no other big endian machines in the cluster and was able to run the Intel MPI Benchmark successfully	