OpenFabrics Alliance
Interoperability Logo Group (OFILG)
February 2019 Logo Report

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Date:	February 27, 2019
Report Revision:	2.05-v2
OFED Version:	OFED 4.17
OS Version:	RHEL 7.5

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

Marvell QL41212HLCU
Marvell QL45611HLCU

The test suite referenced in this report is available at the UNH-IOL website. Release 2.05 (2017-06-16) was used.

https://iol.unh.edu/ofatestplan

The following table highlights the Mandatory test results required for the OpenFabrics Interoperability Logo for the RoCE Network Adapter 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: RoCE Link Initialization	**Mandatory**	**Pass**
12.4: IPoCE	**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 RSockets	**Mandatory**	**Pass**
13.8: TI MPI – Open MPI	**Mandatory**	**Pass**

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

Testing Completed February 27, 2019

Reviewed & Issued March 19, 2019

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Result Summary

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

Test Procedures	IWG Test Status	Result/Notes
12.2: RoCE Link Initialization	**Mandatory**	**Pass**
12.4: IPoCE	**Mandatory**	**Pass**
13.2: TI NFSoRDMA	**Beta**	**N/A**
13.4: TI uDAPL	**Mandatory**	**Pass**
13.5: TI RDMA Basic Interop	**Mandatory**	**Pass**
13.6: TI RDMA Stress	**Mandatory**	**Pass**
13.7: TI RSockets	**Mandatory**	**Pass**
13.8: TI MPI – Open MPI	**Mandatory**	**Pass**

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Report Revision History

- v1.0 Initial Release

Configuration Files

Description	Attachment
RHEL 7.5 Configuration File	📎
OFED 4.17 Configuration File	📎

Result Key

The following table contains possible results and their meanings:

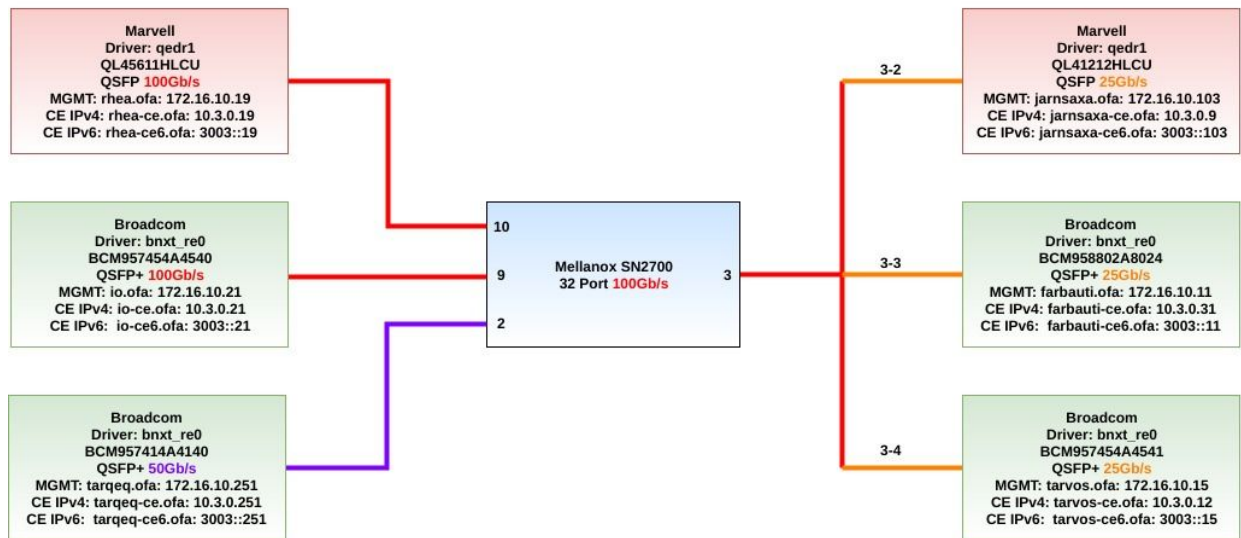| Result:	Description:
PASS	The Device Under Test (DUT) was observed to exhibit conformant behavior.
PASS with Comments	The DUT was observed to exhibit conformant behavior however an additional explanation of the situation is included.
Qualified PASS	The DUT was observed to exhibit conformant behavior, 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:	Marvell	Firmware Revision:	8.37.2.0
Model:	QL41212HLCU	Hardware Revision:	A2
Speed:	25Gb/s	Located in Host:	jarnsaxa
Additional Comments / Notes:			
Drivers were provided by Marvell for this event.			

DUT Details			
Manufacturer:	Marvell	Firmware Revision:	8.37.2.0
Model:	QL45611HLCU	Hardware Revision:	B0
Speed:	100Gb/s	Located in Host:	rhea
Additional Comments / Notes:			
Drivers were provided by Marvell for this event.			

Mandatory Tests – RoCE Device Test Results:

12.2: RoCE Link Initialization

Test Result	Pass
Result Discussion:	
All devices were seen to link at proper speeds. All ICMP requests were sent and received properly.	

12.4: IPoCE

Test Result	Pass
Result Discussion:	
All devices were seen to link at proper speeds. All ICMP requests were sent and received properly.	

13.2: TI NFSoRDMA

Test Result	N/A
Discussion:	
NFSoRDMA is not supported in OFED.	

13.4: TI uDAPL

Test Result	Pass
Discussion:	
With the use of the dapltest utility, devices exhibited simple send receive, verification, polling, scatter gather on a point-to-point topology. Devices were then connected to a switched topology and, with the use of the dapltest 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. - 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 CE switches seem to properly handle a large load as indicated by the successful completion of control communications between two RCAs while all other RCAs in the fabric were used to generate traffic in order to put a high load on the switch. Each RCA acted as both a client and a server for the control connection.	

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 – Open MPI

Test Result	Pass
Discussion:	
Intel MPI Benchmarks were performed between all RCAs and were observed to exhibit the successful behavior except for the clean up stage of the run (we have determined this is an issue with the Benchmarks tool itself). We have moved to version 4.0.0 for OpenMPI due to an issue with the older version with the new machines at the UNH-IOL Lab.	