



# OpenFabrics Alliance

## Interoperability Logo Group (OFILG)

### May 2014 Logo Event Report

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Date: 31 July 2014  
 Report Revision: 1.1  
 OFED Version: 3.12  
 OS Version: Scientific Linux 6.5

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

*Chelsio Communications T520-CR RNIC*

The test suite referenced in this report is available at the UNH-IOL website. Release 1.50 (2014 May-06) was used.

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

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="#">12.1: Ethernet Link Initialization</a>	Mandatory	PASS
<a href="#">13.4: TI uDAPL</a>	Mandatory	PASS
<a href="#">13.5: TI RDMA Basic Interoperability</a>	Mandatory	PASS
<a href="#">13.6: TI RDMA Stress</a>	Mandatory	PASS
<a href="#">13.7: TI MPI – Open MPI</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 June 9, 2014

  
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Review Completed July 31, 2014

  
 Edward Mossman  
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# Result Summary

The following table summarizes all results from the event pertinent to this iWARP device class.

Test Procedures	IWG Test Status	Result/Notes
<a href="#">12.1: Ethernet Link Initialization</a>	Mandatory	PASS
<a href="#">13.1: TI iSER</a>	Beta	Not Available
<a href="#">13.2: TI NFS over RDMA</a>	Beta	Qualified PASS
<a href="#">13.4: TI uDAPL</a>	Mandatory	PASS
<a href="#">13.5: TI RDMA Basic Interoperability</a>	Mandatory	PASS
<a href="#">13.6: TI RDMA Stress</a>	Mandatory	PASS
<a href="#">13.7: TI MPI – Open MPI</a>	Mandatory	PASS

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## Report Revision History

- v1.0 Initial Release
- v1.1 Updated DUT Information

## Configuration Files

Description	Attachment
Scientific Linux 6.5 Configuration File	
OFED 3.12 Configuration File	

## Result Key

The following table contains possible results and their meanings:

Result:	Description:
<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>Qualified PASS</b>	The DUT was observed to exhibit conformant behavior, with the exception of fault(s) or defect(s) which were previously known.
<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.

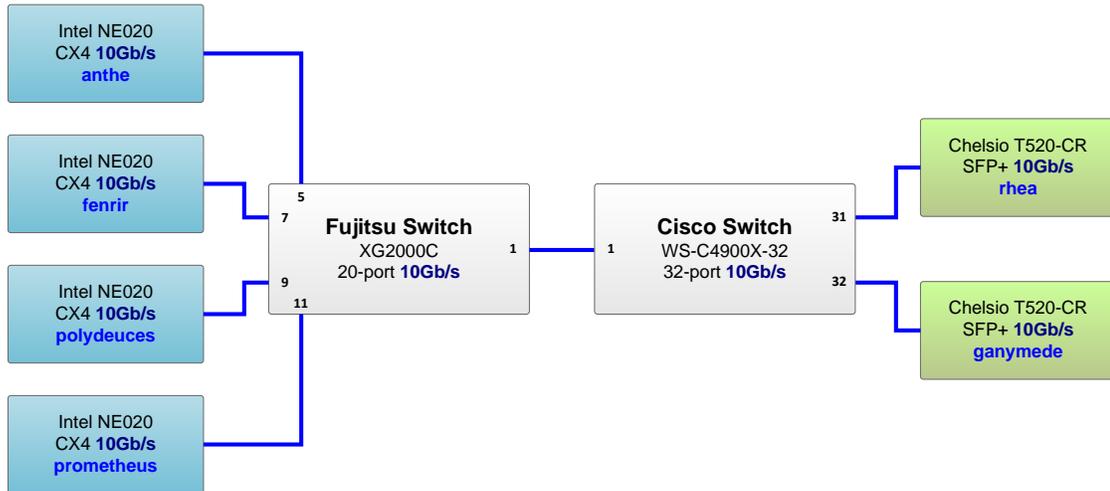
# DUT and Test Setup Information

The IW fabric configuration utilized for all testing is shown below.

May 2014  
 iWARP Topology

Ethernet Addressing  
 <hostname>.ofa

iWarp Addressing  
 <hostname>-iw.ofa



DUT #1 Details			
Manufacturer:	Chelsio	Firmware Revision:	0.265.5888
Model:	T520-CR	Hardware Revision:	0
Speed:	10Gb/s	Located in Host:	ganymede, rhea
Additional Comments / Notes:			

# Mandatory Tests – IW Device Test Results:

## 12.1: Ethernet Link Initialization

<b>Test Result</b>	<b>PASS</b>
<b>Result Discussion:</b>	
All devices were shown to link and pass traffic to all other devices in a back-to-back configuration under nominal (unstressed) conditions.	

Link Partner	Chelsio T520-CR	Intel NE020
RNIC: Chelsio T520-CR	N/A	PASS
RNIC: Intel NE020	PASS	N/A

## 13.4: TI uDAPL

<b>Test Result</b>	<b>PASS</b>
<b>Discussion:</b>	
All devices were shown to communicate correctly using the Direct Access Programming Library, by use of the Linux dapltest tool.	

## 13.5: TI RDMA Basic Interoperability

<b>Test Result</b>	<b>PASS</b>
<b>Discussion:</b>	
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.	

## 13.6: TI RDMA Stress

	Switch Load	Switch Fan In
<b>Test Result</b>	<b>PASS</b>	<b>PASS</b>
<b>Discussion:</b>		
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 MPI – Open MPI

<b>Test Result</b>	<b>PASS</b>
<b>Discussion:</b>	
Complete heterogeneity; 1 process per system as described in the cluster topology.	

## Beta Tests – IW Device Test Results

### 13.1: TI iSER

<b>Test Result</b>	<b>Not Tested</b>
<b>Result Discussion:</b>	
There are currently no iSER targets available in the cluster, therefore this test was unable to be performed.	

### 13.2: TI NFS over RDMA

<b>Test Result</b>	<b>Qualified PASS</b>
<b>Result Discussion:</b>	
This test is not required for logo certification due to its beta status. During testing the DUT was observed to mount volumes exported from a homogeneous system when using NFS mount options to specify read and write sizes. Read and write sizes of 6553 and 65536, respectively, were suggested by the vendor, however it was observed that specifying read and write sizes of any value allowed the NFS share to be mounted from the server. Once mounted, devices were capable of file and directory creation. Other Link Partners do not support NFS functionality over Remote Direct Memory Access, so the DUTs were unable to complete interoperability testing.	