

# **OpenFabrics Alliance**

### Interoperability Logo Group (OFILG)

May 2013 Logo Event Report

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Pradeep Satyanarayana Date: July 18, 2013

IBMReport Revision:1.21385 NW Amberglen ParkwayOFED Version:3.5

Hillsboro, OR 97006 OS Version: Red Hat Enterprise

Linux 6.3

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

IBM 0F30000010 board with Mellanox MT26448

The test suite referenced in this report is available at the IOL website. Release 1.47 (2013-April-16) was used.

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

The following table reflects the results of tests performed during the May 2013 Logo Event.

| Test Procedures                | IWG Test Status | Result/Notes |
|--------------------------------|-----------------|--------------|
| 12.2: RoCE Link Initialization | Beta            | PASS         |
| 13.4: TI uDAPL                 | Beta            | PASS         |
| <u>13.7: TI MPI – Open</u>     | Beta            | PASS         |
| 13.5: TI RDMA Basic Interop    | Beta            | 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 17, 2013

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Review Completed July 15, 2013

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## OFA Logo Event Report – May 2013 DUT: IBM 0F30000010 board with Mellanox MT26448

### **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 | Beta            | PASS         |
| 13.1: TI iSER                  | Beta            | Not Tested   |
| 13.2: TI NFS over RDMA         | Beta            | Not Tested   |
| 13.3: TI RDS                   | Beta            | Not Tested   |
| 13.4: TI uDAPL                 | Beta            | PASS         |
| 13.5: TI RDMA Basic Interop    | Beta            | PASS         |
| 13.6TI RDMA Stress             | Beta            | Not Tested   |
| <u>13.7: TI MPI – Open</u>     | Beta            | PASS         |

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## OFA Logo Event Report – May 2013 DUT: IBM 0F30000010 board with Mellanox MT26448

## **Report Revision History**

- v1.0 Initial Release
- v1.1 Corrected error in listed operating system
- v1.2 Added machine type to DUT information

## **Configuration Files**

| Description                                     | Attachment   |
|---|--|
| Red Hat Enterprise Linux 6.3 Configuration File | Preconfigured servers were provided for this event |
| OFED 3.5 Configuration File                     |  |

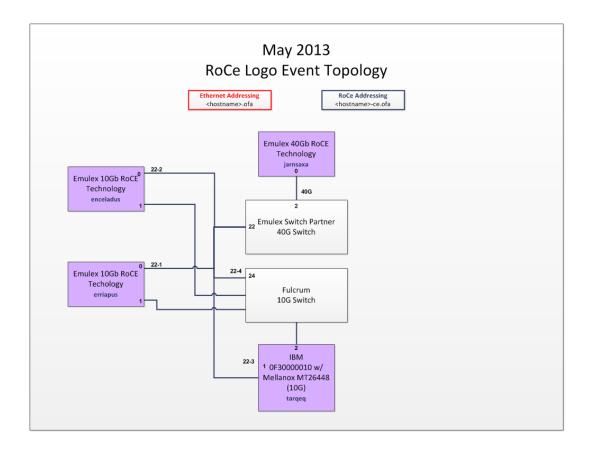
### **Result Key**

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         | The DUT was observed to exhibit conformant behavior however an additional  |
| Comments          | explanation of the situation is included.  |
| 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.



| <b>DUT Details</b>           |                  |                    |          |
|------------------------------|------------------|--------------------|----------|
| Manufacturer:                | IBM              |                    |          |
| Machine:                     | IBM P7R2         |                    |          |
| Board:                       | OF30000010       | Firmware Revision: | 2.9.1200 |
| Model:                       | Mellanox MT26448 | Hardware Revision: | В0       |
| Speed:                       | 10Gb             | Located in Host:   | tarqeq   |
| Firmware MD5sum:             |                  |                    |          |
| Additional Comments / Notes: |                  |                    |          |
|                              |                  |                    |          |

### **Beta Tests - RoCE Device Test Results:**

#### 12.2: RoCELink Initialization

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

| Link Partner                     | Mellanox<br>MT26448 |
|----------------------------------|---------------------|
| RCA: Mellanox MT26448            | N/A                 |
| RCA: Emulex 10Gb RoCE Technology | PASS                |
| RCA: Emulex 40Gb RoCE Technology | 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  | Not Tested |  |
|--|------------|--|
| Result Discussion:   |            |  |
| This test is not required for logo certification due to its beta status. |            |  |
|  |            |  |
|  |            |  |

#### 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. No Group 3: Switched Topology with Multiple Switches tests were performed. |      |  |

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#### 13.5: TI RDMA Basic Interoperability

| Test Result   | PASS |  |
|---|------|--|
| Discussion:   |      |  |
| RDMA Read, Write, and Send operations were performed successfully between all RCAs. |      |  |
|   |      |  |
|   |      |  |

#### 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 MPI – Open

Test Result PASS

#### Discussion:

The RCA in the Intel PPC system was excluded due to MPI's limitations in regards to heterogeneous rings, and was instead tested against itself by being put in a "loopback" mode where it was able to complete all benchmarks successfully. This was accomplished by running the following command:

/usr/local/bin/mpirun --mca btl openib,self --bind-to-core 16 --host
<sys1> /usr/local/bin/IMB-MPI1