



OpenFabrics Alliance

Interoperability Logo Group (OFILG)

May 2012 Logo Event Report

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Date: 31 July 2012
Report Revision: 2.0
OFED Version on Compute Nodes: 1.5.4.1
Operating System on Compute Nodes: SL 6.2

Enclosed are the results from OFA Logo testing performed on the following devices under test (DUTs):
DataDirect Networks S2A9900

The test suite referenced in this report is available at the IOL website. Release 1.42 (2012-Apr-03) was used.

www.iol.unh.edu/services/testing/ofa/testsuites/OFA-IWG_Interoperability_Test_Plan-v1.42.pdf

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).

Additional beta testing than reflected in this report was performed using the DUT. A separate report will outline those results.

| Test Procedures | IWG Test Status | Result/Notes |
|--|-----------------|--------------------|
| 10.1: Link Initialization | Mandatory | PASS with Comments |
| 10.2: Fabric Initialization | Mandatory | PASS |
| 10.5: SM Failover and Handover | Mandatory | PASS |
| 10.6: SRP | 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 24 June 2012

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Review Completed 24 July 2012

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Result Summary

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

| Test Procedures | IWG Test Status | Result/Notes |
|--|-----------------|--------------------|
| 10.1: Link Initialization | Mandatory | PASS with Comments |
| 10.2: Fabric Initialization | Mandatory | PASS |
| 10.5: SM Failover and Handover | Mandatory | PASS |
| 10.6: SRP | Mandatory | PASS |

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Report Revision History

- v1.0 Initial working copy
- v2.0 Resolved Link Initialization issue through arbitration.

Configuration Files

| Description | Attachment |
|---|---|
| Scientific Linux 6.2 Configuration File |  |
| OFED 1.5.4.1 Configuration File |  |

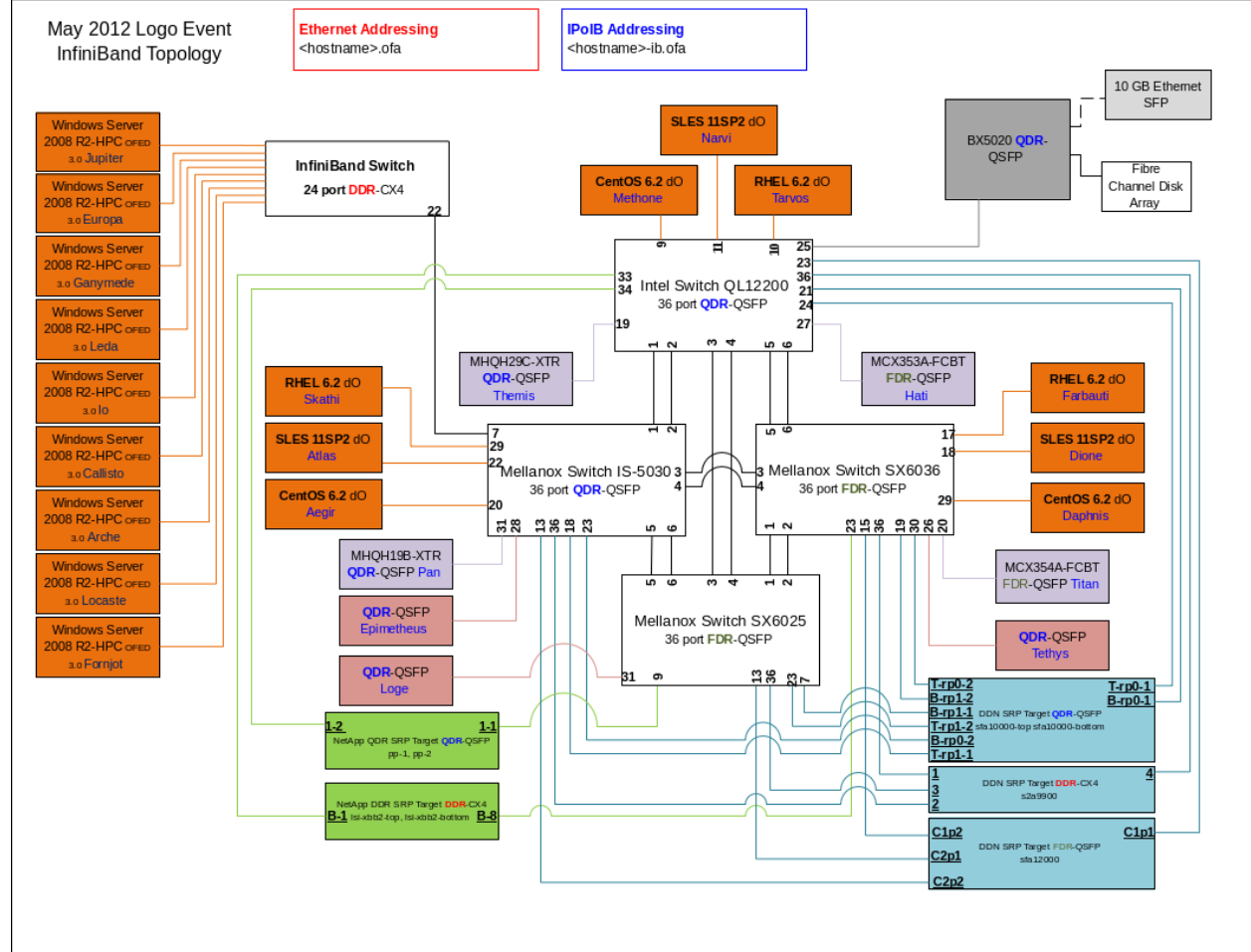
Result Key

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. |
| 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 IB fabric configuration utilized for any tests requiring a multi-switch configuration is shown below.



| DUT #1 Details | | | |
|------------------------------|----------------------------------|--------------------|-------|
| Manufacturer: | DataDirect Networks | Firmware Revision: | 6.11B |
| Model: | S2A9900 | Hardware Revision: | NA |
| Speed: | DDR | Located in Host: | NA |
| Firmware MD5sum: | 3e4e4fb5e9cce8979c44989775168314 | | |
| Additional Comments / Notes: | | | |

Mandatory Tests – IB Device Test Results:

10.1: Link Initialization

| Results | |
|--|---------------------------|
| Part #1: | PASS with Comments |
| Discussion: | |
| <p>The DDN S2A9900 DDR SRP target was unable to properly link with the Intel/QLogic XXXX HCAs using the firmware provided to the UNH-IOL by Intel. A link was established, but only at 4X SDR. This is due to a known issue with Intel HCAs and certain early Mellanox-based DDR solutions such as the DDN S2A9900.</p> <p>Note: Per past agreements, the Intel XXXX HCA should be updated to be compatible with the legacy Mellanox DDR Autonegotiation specification. As this has not occurred, the inability of the DDN S2A9900 to link at the proper speed is waived from the OFA Logo requirements; however, the link speed issue still remains. To draw attention to this compatibility issue with a device that is not on the OFA Logo list, this result is being marked as a Pass with Comments.</p> | |

| Link Partner | S2A9900 | |
|---|-------------------------|-------------|
| Intel 12200 (Switch) – QDR | PASS | |
| Mellanox SX6025 (Switch) – FDR | PASS | |
| Mellanox SX6036 (Switch) – FDR | PASS | |
| Mellanox IS-5030 (Switch) – QDR | PASS | |
| DataDirect Networks SFA12000 (SRP Target) – FDR | NA | |
| DataDirect Networks SFA10000 (SRP Target) – QDR | NA | |
| DataDirect Networks S2A9900 (SRP Target) – DDR | NA | |
| LSI Pikes Peak (SRP Target) – QDR | NA | |
| LSI XBB2 (SRP Target) – DDR | NA | |
| Mellanox BX5020 (Gateway) - QDR | PASS | |
| Host: Themis | HCA: MHQH29C-XTR (QDR) | PASS |
| Host: Pan | HCA: MHQH19B-XTR (QDR) | PASS |
| Host: Hati | HCA: MCX353A-FCBT (FDR) | PASS |
| Host: Titan | HCA: MCX354A-FCBT (FDR) | PASS |

10.2: Fabric Initialization

| Subnet Manager | | | | |
|---|-------------|-------------|-------------|-------------|
| OpenSM | IS-5030 SM | SX-6036 SM | 12200 SM | WinOF SM |
| PASS | PASS | PASS | PASS | PASS |
| Result Discussion: | | | | |
| <p>All subnet managers used while testing with OFED 1.5.4.1 were able to correctly configure the selected topology.</p> | | | | |

10.5: SM Failover and Handover

| SM Pairings | | Result |
|---|------------------------|--------|
| OpenSM OFED 1.5.4.1 | OpenSM OFED 1.5.4.1 | PASS |
| Result Discussion: | | |
| OpenSM was able to properly handle SM priority and state rules. | | |

10.6: SRP

| Subnet Manager | | | | |
|---|------------|------------|----------|----------|
| OpenSM | IS-5030 SM | SX-6036 SM | 12200 SM | WinOF SM |
| PASS | PASS | PASS | PASS | PASS |
| Result Discussion: | | | | |
| SRP communications between all HCAs and all SRP targets succeeded while the above mentioned SMs were in control of the fabric | | | | |