



OpenFabrics Alliance

Interoperability Working Group (OFA-IWG)

June 2009 Logo Event Report

UNH-IOL – 121 Technology Drive, Suite 2 – Durham, NH 03824 – +1-603-862-0090
 OpenFabrics Interoperability Logo Group (OFILG) – ofalab@iol.unh.edu

Martin Schlining
 DataDirect Networks
 8320 Guilford Road
 Suite D
 Columbia, MD 21046

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

DataDirect Networks S2A 9900 (InfiniBand SRP Target Connected Storage System)

The test suite referenced in this report is available at the OFA website, at test time release 1.28 (March 27, 2009 DRAFT) was used:

[http://openfabrics.org/downloads/OFA-IWG Interoperability Test Plan-v1.28.pdf](http://openfabrics.org/downloads/OFA-IWG%20Interoperability%20Test%20Plan-v1.28.pdf)

The following table highlights the Mandatory test results required for the OpenFabrics Interoperability Logo for the DUT per the testplan referenced above and the current OpenFabrics Interoperability Logo Program (OFILP).

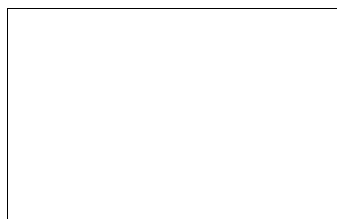
Mandatory Test Procedures	IWG Test Status	Result/Notes
10.1: IB Link Initialization	Mandatory	PASS with Comments
10.2: IB Fabric Initialization	Mandatory	PASS
10.3: IB IPoIB Connected Mode	Mandatory	Not Applicable
10.4: IB IPoIB Datagram Mode	Mandatory	Not Applicable
10.6: IB SRP	Mandatory	PASS
12.1: TI iSER	Mandatory	Not Applicable
12.4: TI SDP	Mandatory	Not Applicable

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

Summary of all results follows on the second page of this report.

Testing Completed 06/19/09

Nickolas Wood
 ndv2@iol.unh.edu



Review Completed 08/12/2009

Bob Noseworthy
 ren@iol.unh.edu

Table 1: Result Summary

The following table summarizes all results from the event pertinent to an IB device.

Note: **Failing a beta test does not necessarily indicate a failure of the device under test.** There are several reasons that a device might fail a beta test that are beyond the control of the device manufacturer. Such reasons include unresolved problems with the OFED software, with other vendors' devices, and with the test plan procedures.

Test Procedures	IWG Test Status	Result/Notes
10.1: IB Link Initialization	Mandatory	PASS with Comments
10.2: IB Fabric Initialization	Mandatory	PASS
10.3: IB IPoIB Connected Mode	Mandatory	Not Applicable
10.4: IB IPoIB Datagram Mode	Mandatory	Not Applicable
10.5: IB SM Failover and Handover	Beta	Not Applicable
10.6: IB SRP	Mandatory	PASS
10.7: IB Ethernet Gateway	Beta	Not Applicable
10.8: IB FibreChannel Gateway	Beta	Not Applicable
12.1: TI iSER	Mandatory	Not Applicable
12.10: HP MPI - HP	Beta	Not Applicable
12.11: TI MPI - Intel	Beta	Not Applicable
12.12: TI MPI - Open	Beta	Not Applicable
12.13: TI MPI - OSU	Beta	Not Applicable
12.3: TI Reliable Datagram Service	Beta	Not Applicable
12.4: TI SDP	Mandatory	Not Applicable
12.5: TI uDAPL	Beta	Not Applicable
12.6-7: TI Basic RDMA Interoperability	Beta	Not Applicable
12.8-9: TI RDMA Operations.	Beta	Not Applicable

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Report Revision History

- v1.0 Initial working copy
- v1.1 Fixed device names and topology
- v1.2 Fixed topology and device names. Corrected firmware version. Added note about beta tests in results summary.
- V1.3 Changed topology Diagram

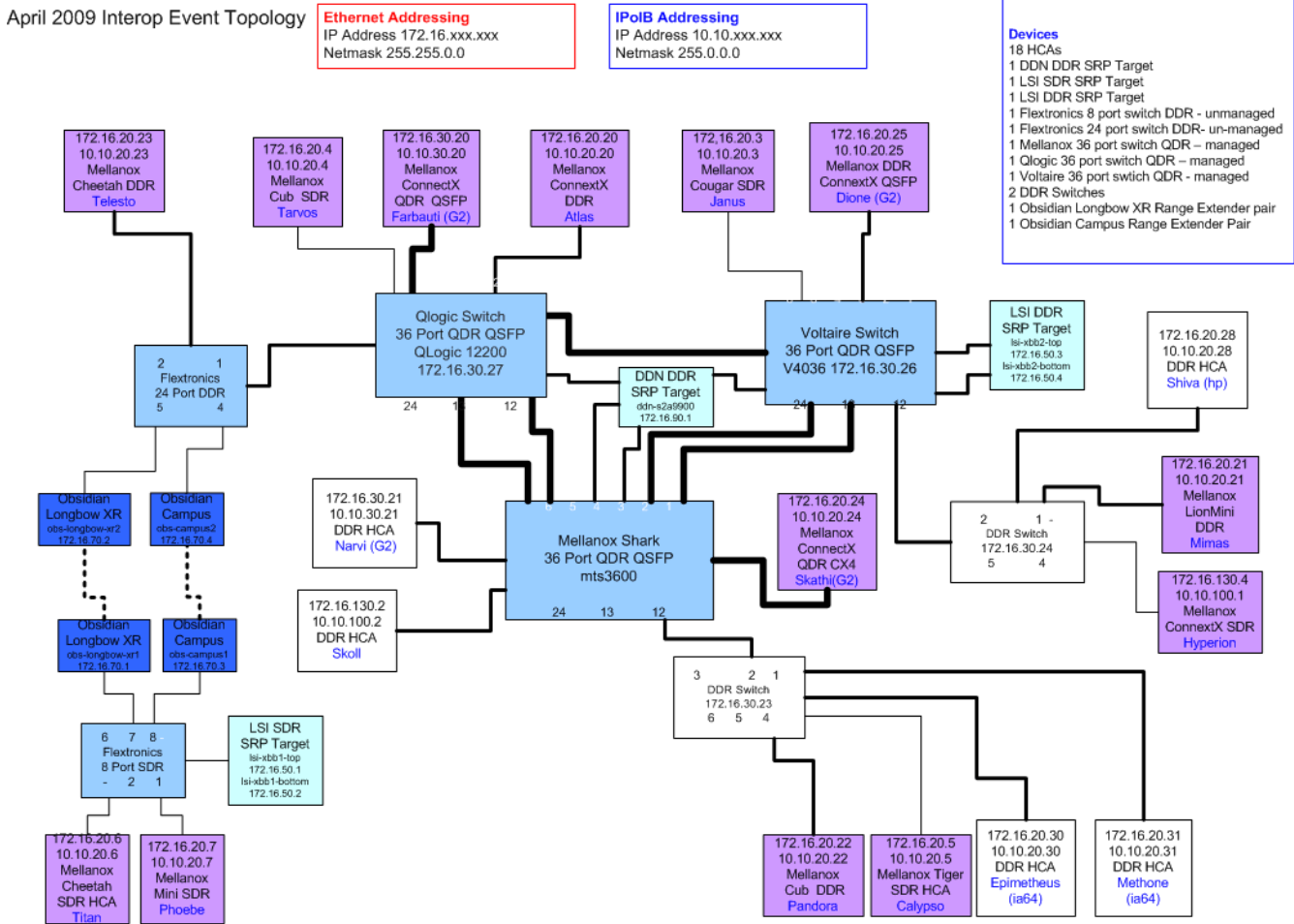
Table 2: Result Key

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, such as due to time limitations only a portion of the testing was performed.
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 specified parameters are valid at one extreme and invalid at the other.
Not Tested	Not tested due to the time constraints of the test period.

Table 3: 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 Rev	5.06
Model	S2A 9900	Hardware Rev	N/A
Speed	DDR 4x	IP Address in Fabric	N/A
Additional Comments/Notes			
DataDirect Networks S2A 9900 (InfiniBand SRP Target Connected Storage System)			

Mandatory Tests - IB Device Test Summary Results:

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.1: IB Link Initialize	Test #1	Phy link is established	PASS with Comments
Discussion:			
Physical link initialization was verified between this device and every other device in the fabric. Link status was observed visually via status lights on the device. Port width and link speed was verified via ibdiagnet.			
This version of the test plan does not explicitly demand a link to be at the proper speed, the next version will. Logo testing in the 2 nd half of 2009 will require proper link speed between all link combinations. Narvi, Skoll, and the 12200 switch only link at SDR speeds even though they are rated to perform at speeds higher then SDR and this is a DDR target.			

Link Partner Device	S2A 9900
Qlogic 12200 (Switch)	PASS with Comments
Flextronics F-X430066 (Switch)	PASS
Flextronics F-X430044 (Switch)	PASS
Mellanox MTS3600 (Switch)	PASS
Voltaire v4036 (Switch)	PASS
Obsidian Longbow-XR (Range Extender)	PASS
Obsidian Longbow-XR (Range Extender)	PASS
Obsidian Longbow Campus (Range Extender)	PASS
Obsidian Longbow Campus (Range Extender)	PASS
LSI XBB1 (SRP Target)	N/A
LSI XBB2 (SRP Target)	N/A
DataDirect Networks (SRP Target)	N/A
Host: Dione, G2 PCI e	HCA: Mellanox ConnectX DDR
Host: Hyperion	HCA: Mellanox LionCub DDR
Host: Skoll	HCA: DDR HCA
Host: Narvi, G2 PCI e	HCA: DDR HCA
Host: Telesto	HCA: Mellanox Cheetah DDR
Host: Pandora	HCA: Mellanox ConnectX SDR
Host: Titan	HCA: SDR HCA
Host: Phoebe	HCA: Mellanox Lion Mini SDR
Host: Calypso	HCA: SDR HCA
Host: Skathi	HCA: Mellanox ConnectX QDR
Host: Janus	HCA: Mellanox Cougar SDR
Host: Tarvos	HCA: Mellanox Lion Cub SDR
Host: Farbauti, G2 PCI e	HCA: Mellanox ConnectX QDR
Host: Atlas	HCA: Mellanox ConnectX DDR
Host: Mimas	HCA: Mellanox Lion Mini DDR
Host: Shiva	HCA: Mellanox ConnectX DDR
Host: Methone, IA_64	HCA: Mellanox InfiniHost III DDR
Host: Epimetheus, IA_64	HCA: Mellanox InfiniHost III DDR

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.2: IB Fabric Initialization	Test #1:	Port is Active with all SMs	PASS
Discussion:			
<p>The fabric configuration shown in Figure 1 was used for this test. 'ibdiagnet -c 1000' showed no Port error counters increment. Only one SM is run at a time. All switches are power cycled between SM trials. All links are validated via use of 'ibdiagnet' and 'ibchecknet' was used to verify that there were no duplicate guides. Refer to the table below for SM details.</p> <p>SMs tested include: <i>OFED OpenSM (SM Only)</i>, <i>QLogic Q112200 (Managed Switch)</i>, <i>Mellanox MTS3600 (Managed Switch)</i> and <i>Voltaire v4036 (Managed Switch)</i></p>			

For DataDirect Networks S2A 9900	All ports Armed/Active	No Dup GUIDs	No Port errors
OFED OpenSM (SM only)	PASS	PASS	PASS
QLogic Q112200 (Managed Switch)	PASS	PASS	PASS
Mellanox MTS3600 (Managed Switch)	PASS	PASS	PASS
Voltaire v4036 (Managed Switch)	PASS	PASS	PASS

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.3: IPoIB Connected Mode	Test #1-3	Not Applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.4: IPoIB Datagram Mode	Test #1-3	Not Applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.6: IB SRP	Test #1:	Automated Test Script	PASS
Discussion:			
No SRP issues were observed with this SRP target.			

Link Partner Device	S2A 9900
Host: Dione, G2 PCI Express HCA: Mellanox ConnetX DDR	PASS
Host: Hyperion HCA: Mellanox LionCub SDR	PASS
Host: Skoll HCA: DDR HCA	PASS
Host: Narvi, G2 PCI Express HCA: DDR HCA	PASS
Host: Telesto HCA: Mellanox Cheetah DDR	PASS
Host: Pandora HCA: Mellanox connectX SDR	PASS
Host: Titan HCA: Mellanox Cheetah SDR	PASS
Host: Phoebe HCA: Mellanox Lion Mini SDR	PASS
Host: Calypso HCA: Mellanox Tiger SDR	PASS
Host: Skathi HCA: Mellanox ConnectX QDR	PASS
Host: Janus HCA: Mellanox Cougar SDR	PASS
Host: Tarvos HCA: Mellanox Lion Cub SDR	PASS
Host: Farbauti, G2 PCI Express HCA: Mellanox connectX QDR	PASS
Host: Atlas HCA: Mellanox connectX DDR	PASS
Host: Mimas HCA: Mellanox Lion Mini DDR	PASS
Host: Shiva HCA: Mellanox ConnectX DDR	PASS
Host: Methone, IA_64 HCA: Mellanox Infinihost III DDR	PASS
Host: Epimetheus, IA_64 HCA: Infinihost III DDR	PASS

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.1: TI iSER	Test #1-4	Not Applicable to DUT	Not Applicable

Discussion:

The OFA Logo Program does not require these tests for an SRP Target under test.

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.4: TI SDP	Test #1-3	Not Applicable to DUT	Not Applicable

Discussion:

The OFA Logo Program does not require these tests for an SRP Target under test.

Beta Tests - IB Device Test Results:

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.5: IB SM Failover and Handover	Test #1-4	Not Applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.7: IB Ethernet Gateway	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10.8: IB FibreChannel Gateway	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.3: TI Reliable Datagram Service	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.5: TI uDAPL	Test #1	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.6: TI Basic RDMA Interoperability – Using XanStorm	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.7: TI Basic RDMA Interoperability – Using Command Line	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.8: TI RDMA Operations. Using XANStorm	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.9: TI RDMA Operations. Using Command Line	Test #1-10	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.10: MPI – Hewlett-Packard	Test #1-21	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.11: TI MPI – Intel	Test #1 PingPing and PingPong	Not applicable to DUT	Not Applicable
	Test #2 All	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.12: TI MPI – Open	Test #1 PingPing and PingPong	Not applicable to DUT	Not Applicable
	Test #2 All	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.13: TI MPI – Mvapich1	Test #1 PingPing and PingPong	Not applicable to DUT	Not Applicable
	Test #2 All	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12.13: TI MPI – Mvapich2	Test #1 PingPing and PingPong	Not applicable to DUT	Not Applicable
	Test #2 All	Not applicable to DUT	Not Applicable
Discussion:			
The OFA Logo Program does not require these tests for an SRP Target under test.			