



# OpenFabrics Alliance

## Interoperability Working Group (OFA-IWG)

### December 2008 Logo Event Report

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

Johann George  
 Qlogic Corporation  
 2071 Stierlin Court  
 Mountain View, CA 94043

December 23, 2008  
 Report Rev1.02  
 Ofed Version: 1.4

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

*QLogic QLE7140 HCA*  
*QLogic QLE7280 HCA*  
*QLogic QLE7240 HCA*

The test suite referenced in this report is available at the OFA website, at test time release 1.22 (August 29, 2008 DRAFT) was used:

<http://www.iol.unh.edu/services/testing/ofa/testplan.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
<a href="#">10.1: IB Link Initialization</a>	<b>Mandatory</b>	Passed – see comments
<a href="#">10.2: IB Fabric Initialization</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.3: IB IPoIB Connected Mode</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.9: TI iSER</a>	<b>Mandatory</b>	Not Available
<a href="#">10.10: SRP</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.11: SDP</a>	<b>Mandatory</b>	Passed – no issues seen

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 12/23/2008

Nickolas Wood  
[ndv2@iol.unh.edu](mailto:ndv2@iol.unh.edu)



Review Completed 01/23/2009

Bob Noseworthy  
[ren@iol.unh.edu](mailto:ren@iol.unh.edu)

## Table 1: Result Summary

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

Test Procedures	IWG Test Status	Result/Notes
<a href="#">10.1: IB Link Initialization</a>	<b>Mandatory</b>	Passed – see comments
<a href="#">10.2: IB Fabric Initialization</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.3: IB IPoIB Connected Mode</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.4: IB IPoIB Datagram Mode</a>	Beta	Passed – no issues seen
<a href="#">10.9: TI iSER</a>	<b>Mandatory</b>	Not Available
<a href="#">10.10: SRP</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.11: SDP</a>	<b>Mandatory</b>	Passed – no issues seen
<a href="#">10.12: IB SM Failover and Handover</a>	Beta	Not Tested
<a href="#">10.13: TI MPI - OSU</a>	Beta	<b>Informative</b>
<a href="#">10.14: TI MPI - Intel</a>	Beta	<b>Informative</b>
<a href="#">10.15: HP MPI - HP</a>	Beta	<b>Informative</b>
<a href="#">10.16: TI MPI - Open</a>	Beta	<b>Informative</b>
<a href="#">10.17: TI uDAPL</a>	Beta	Passed – no issues seen
<a href="#">10.19: IB FibreChannel Gateway</a>	Beta	Not applicable to DUT
<a href="#">10.20: IB Ethernet Gateway</a>	Beta	Not applicable to DUT
<a href="#">10.21: IB Reliable Datagram Sockets</a>	Beta	Not Tested
<a href="#">10.22-23: TI Basic RDMA Interoperability</a>	Beta	Not Tested
<a href="#">10.24-25: TI RDMA Operations over Interconnect Components</a>	Beta	Not Tested

### *Digital Signature Information*

This document was created using an Adobe digital signature. A digital signature helps to ensure the authenticity of the document, but only in this digital format. For information on how to verify this document's integrity proceed to the following site:

[http://www.iol.unh.edu/certifyDoc/certificates\\_and\\_fingerprints.php](http://www.iol.unh.edu/certifyDoc/certificates_and_fingerprints.php)

If the document status still indicates “Validity of author NOT confirmed”, then please contact the UNH-IOL to confirm the document's authenticity. To further validate the certificate integrity, Adobe 6.0 should report the following fingerprint information:

MD5 Fingerprint: F6E2 1B99 28AD 0D25 E77E ADE5 479A 1E05

SHA-1 Fingerprint: AD30 8B08 DD3B B2E3 9362 46E9 3427 BE47 1D49 890B

## Report Revision History

- v1.0 Initial Release
- v1.01 Added Firmware and Hardware Revision Numbers
- v1.02 Editorial Changes

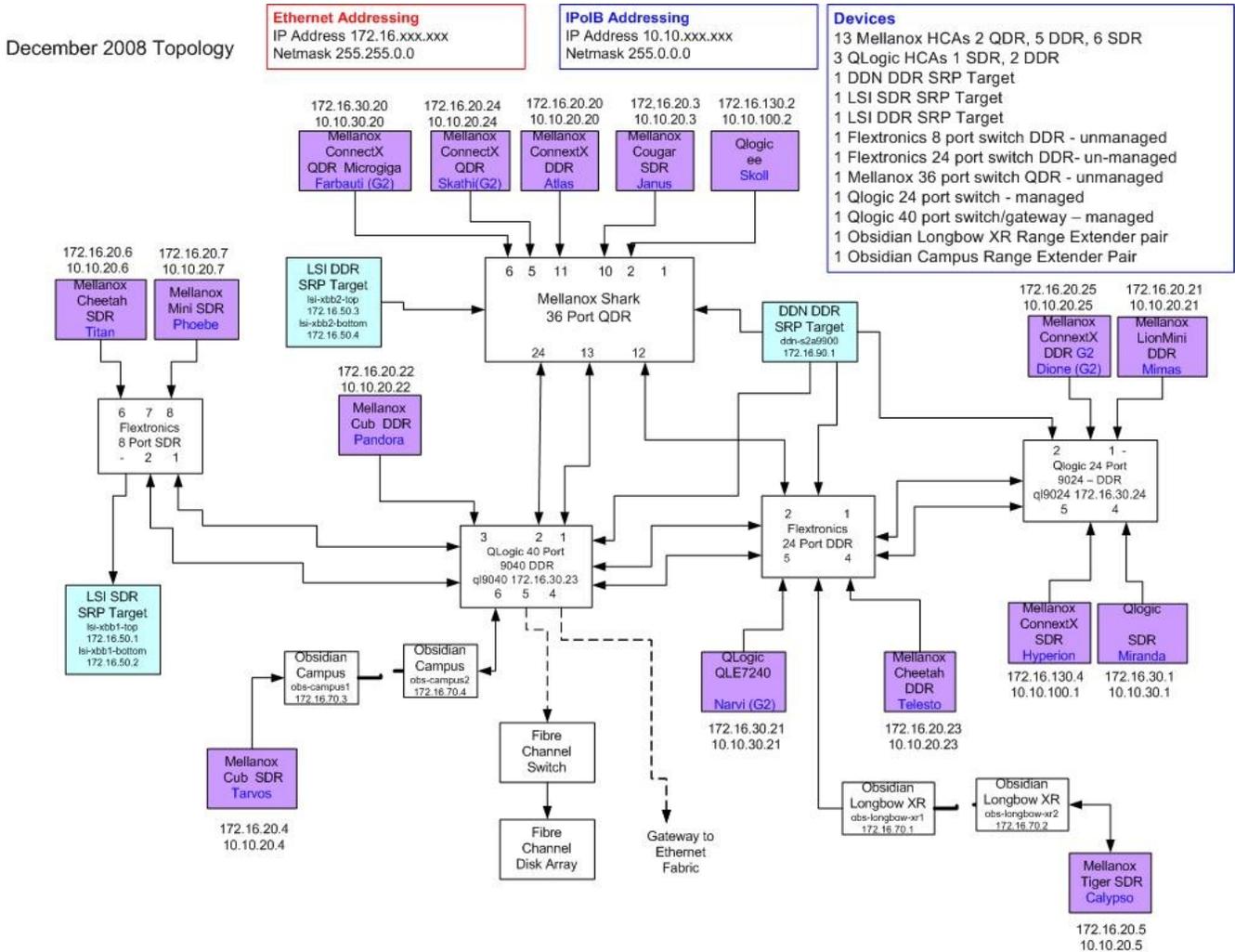
## Table 2: Result Key

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, such as due to time limitations only a portion of the testing was performed.
<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 specified 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.

**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	QLogic Corporation	Firmware Rev	N/A
Model	QLE7140	Hardware Rev	2
Speed	SDR 4x	IP Address in Fabric	10.10.30.1
Additional Comments/Notes			

DUT #1 Details			
Manufacturer	QLogic Corporation	Firmware Rev	N/A
Model	QLE7280	Hardware Rev	2
Speed	DDR 4x	IP Address in Fabric	10.10.30.21
Additional Comments/Notes			

<b>DUT #1 Details</b>			
Manufacturer	QLogic Corporation	Firmware Rev	N/A
Model	QLE7240	Hardware Rev	2
Speed	DDR 4x	IP Address in Fabric	10.10.100.2
<b>Additional Comments/Notes</b>			

## Mandatory Tests - IB Device Test Summary Results:

The following tables detail results for tests identified by the OFA-IWG as mandatory tests for the OFA Interoperability Logo Program (OFILP) per the OFA-IWG Interoperability Test Plan Release 1.22 (August 29, 2008 DRAFT)

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 1: IB Link Initialize	Test #1:	QLE7140	<b>PASS with Comments</b>
		QLE7280	<b>PASS</b>
		QLE7240	<b>PASS</b>

### Discussion: Test #1: Phy link up all ports

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 call for testing of link speed, the next version will, and logo testing in the 2<sup>nd</sup> half of 2009 will require proper link speed between all link combinations. Narvi and Skoll only link at SDR speeds to all Mellanox DDR/QDR HCA's even though they are DDR cards themselves. This is due to Mellanox's proprietary link negotiation algorithm and this behavior will not currently be considered a fail for these devices.

Link Partner Device	QLE7140	QLE7280	QLE7240
QLogic SilverStorm 9024 (Switch)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
QLogic SilverStorm 9040 (Switch)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Flextronics F-X430066 (Switch)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Flextronics F-X430044 (Switch)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Mellanox MTS3600 (Switch)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Obsidian Longbow-XR (Range Extender)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Obsidian Longbow-XR (Range Extender)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Obsidian Longbow Campus (Range Extender)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Obsidian Longbow Campus (Range Extender)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
LSI XBB1 (SRP Target)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
LSI XBB2 (SRP Target)	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>
DataDirect Networks (SRP Target)	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Miranda HCA: QLogic QLE7140 SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Tarvos HCA: Mellanox LionCub SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Hyperion HCA: Mellanox Connectx SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Janus HCA: Mellanox Cougar SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Phoebe HCA: Mellanox LionMini SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Titan HCA: Mellanox Cheetah SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Calypso HCA: Mellanox Tiger SDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Skathi, G2 PCI Express HCA: Mellanox Connectx QDR	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>

Host: Farbauti, G2 PCI Express HCA: Mellanox Connectx QDR	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>
Host: Narvi, G2 PCI Express HCA: QLogic QLE7280 DDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Atlas HCA: Mellanox Connectx DDR	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>
Host: Telesto HCA: Mellanox Cheetah DDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Dione, G2 PCI Express HCA: Mellanox Connectx DDR	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>
Host: Mimas HCA: Mellanox LionMini DDR	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>
Host: Skoll HCA: QLogic QLE7240 DDR	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Pandora HCA: Mellanox LionCub DDR	<b>PASS</b>	<b>PASS with Comments</b>	<b>PASS with Comments</b>

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
<b>Group 2: IB Fabric Initialization</b>	Test #1:	Port is Active with all SMs	<b>PASS</b>
<b>Discussion: Test #1: Verify all SMs configure fabric</b>			
<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 SilverStorm 9024 (Managed Switch)</i>, <i>QLogic SilverStorm 9040 (Managed Switch)</i></p>			

For each SM listed above	All ports Armed/Active	No Dup GUIDs	No Port errors
Host: Miranda HCA: QLE7140	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 3: IPoIB Connected Mode	Test #1-3	Tests completed without errors	<b>PASS</b>
<b>Discussion: Test #1</b>			
An automated test script was used to send ICMP Echo Request packets with payloads of specific sizes between all hosts on the configured fabric. This procedure was repeated with each subnet manager independently managing the fabric.			
<b>Discussion: Test #2</b>			
An HCA was disconnected from the fabric and reconnected in a different location; the ICMP Echo Reply packets ceased while the HCA was disconnected, and then resumed when it was reconnected. This procedure was repeated once with each subnet manager independently managing the fabric.			
<b>Discussion: Test #3</b>			
An automated test script was used to transfer a 4MB file using the SFTP protocol between all hosts on the configured fabric. The file was transferred four times in each direction between all hosts, and the contents of the file was verified after each transfer. This procedure was repeated with each subnet manager independently managing the fabric.			
For all test cases, SMs tested include: <i>OFED OpenSM (SM Only)</i> , <i>QLogic SilverStorm 9024 (Managed Switch)</i> , <i>QLogic SilverStorm 9040</i>			

For each SM listed above	Test 1	Test 2	Test 3
Host: Miranda HCA: QLE7140	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 9: TI iSER	Test #1-4	Not Available	<b>Not Available</b>
<b>Discussion: Test #1-4</b>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 10: IB SRP	Test #1:	Automated Test Script	<b>PASS</b>
<b>Discussion: Test Result</b>			
<p>The automated test script was revised since the version published in the test document. The automated test script runs the operations in the test plan with every available host and logs the results. The test logs show that the data transfer operation completed for each host to each available volume on each target, in both the read and write directions. The test was repeated with the three available SM's; <i>OFED OpenSM (SM Only)</i>, <i>QLogic SilverStorm 9024 (Managed Switch)</i>, <i>QLogic SilverStorm 9040 (Managed Switch)</i></p>			

For DataDirect Networks S2A 9900	Test #1
Host: Miranda HCA: QLE7140	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>

For LSI XBB2-IB (Dual Controller SRP Storage System)	Test #1
Host: Miranda HCA: QLE7140	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>

For LSI Engenio 0825 (SRP Storage System)	Test #1
Host: Miranda HCA: QLE7140	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 11: TI SDP	Test #1: Netperf	Test Completed without errors	<b>PASS</b>
	Test #2: FTP	Test Completed without errors	<b>PASS</b>
	Test #3: SCP	Test Completed without errors	<b>PASS</b>

**Discussion: Test #1-3**

The automated test script used in the last event was used again during this event with the addition of a wrapper program to control the cluster environment and facilitate better logging. The automated test script runs the three parts of the SDP procedure between every possible pair of hosts without the hosts connecting to themselves and records the results to a log. The test logs show that no issues were seen with the procedures. Every operation completed for each pair. However, some hosts were noted to run significantly slower than others during the transfers. This is not a failure as per the current test plan, but it should be noted that this could become a topic of focus in future revisions of the Test Plan.

	Test 1	Test 2	Test 3
Host: Miranda HCA: QLE7140	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

## Beta Tests - IB Device Test Results:

The following table details results for tests identified by the OFA-IWG as beta tests for the OFA Interoperability Logo Program (OFILP) per the OFA-IWG Interoperability Test Plan Release 1.22 (August 29, 2008 DRAFT)

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 4: IPoIB Datagram Mode	Test #1-3	Tests succeeded between all IPoIB devices	<b>PASS</b>
<b>Discussion: Test #1</b>			
An automated test script was used to send ICMP Echo Request packets with payloads of specific sizes between all hosts on the configured fabric. This procedure was repeated with each subnet manager independently managing the fabric.			
<b>Discussion: Test #2</b>			
An HCA was disconnected from the fabric and reconnected in a different location; the ICMP Echo Reply packets ceased while the HCA was disconnected, and then resumed when it was reconnected. This procedure was repeated once with each subnet manager independently managing the fabric.			
<b>Discussion: Test #3</b>			
An automated test script was used to transfer a 4MB file using the SFTP protocol between all hosts on the configured fabric. The file was transferred four times in each direction between all hosts, and the contents of the file was verified after each transfer. This procedure was repeated with each subnet manager independently managing the fabric.			
For all test cases, SMs tested include: <i>OFED OpenSM (SM Only)</i> , <i>QLogic SilverStorm 9024 (Managed Switch)</i> , <i>QLogic SilverStorm 9040</i>			

For each SM listed above	Test 1	Test 2	Test 3
Host: Miranda HCA: QLE7140	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Narvi, G2 PCI Express HCA: QLE7280	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>
Host: Skoll, G2 PCI Express HCA: QLE7240	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 12: IB SM Failover and Handover	Test #1-4		<b>Not Tested</b>
<b>Discussion: Test Results</b>			
Not tested due to time constraints			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 13: TI MPI – Ohio State Univ.	Test #1 PingPing and PingPong	Test Completed without errors	<b>PASS</b>
	Test #2 All	Test failed	<b>Informative</b>

**Discussion: Mvapich1, test #2**

The following error was observed in the log files for the “AllGather 62 process” benchmark.

Exit code -3 signaled from titan-ib  
Killing remote processes...Abort signaled by rank 61: [miranda.ofa:61] Got completion with error  
IBV\_WC\_RETRY\_EXC\_ERR, code=12, dest rank=29

MPI process terminated unexpectedly

**Discussion: Mvapich2, test #2**

The following error was observed in the log files for the “Gather 62 process” benchmark.

send desc error  
[60] Abort: [] Got completion with error 12, vendor code=0, dest rank=28  
at line 553 in file ibv\_channel\_manager.c  
MPI process terminated unexpectedly  
Exit code -5 signaled from titan-ib

	Test 1	Test 2
Mvapich1	<b>PASS</b>	<b>Informative</b>
Mvapich2	<b>PASS</b>	<b>Informative</b>

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 14: MPI – Intel	Test #1 PingPing and PingPong	Test Completed without errors	<b>PASS</b>
	Test #2 All	Test failed	<b>Informative</b>

**Discussion: Test #2 Results**

The following error was observed in the log files for the “AllGather 62 process” benchmark.

mpiexec\_janus.ofa (handle\_sig\_occurred 1982): job ending due to env var MPIEXEC\_TIMEOUT=360

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 15: MPI – Hewlett-Packard	Test #1 Defaults	No Errors	<b>PASS</b>
	Test # 2 ExitPath	No Errors	<b>PASS</b>
	Test # 3 IMB -IBV -rdma mode	Test failed	<b>Informative</b>
	Test # 4 IMB -IBV -srq mode	Test failed	<b>Informative</b>
	Test # 5 IMB -UDAPL -rdma mode	Test failed	<b>Informative</b>
	Test # 6 fork -IBV -rdma mode	Test failed	<b>Informative</b>
	Test # 7 fork -IBV -srq mode	Test failed	<b>Informative</b>
	Test # 8 fork -UDAPL -rdma mode	Test failed	<b>Informative</b>
	Test # 9 rings2 - IBV -rdma mode	Test failed	<b>Informative</b>
	Test # 10 rings2 -IBV -srq mode	Test failed	<b>Informative</b>
	Test # 11 rings2 -UDAPL -rdma mode	Test failed	<b>Informative</b>
<b>Discussion: Test #1 Defaults</b>			
IBV was auto-detected on all DUTs.			
<b>Discussion: Test #2 ExitPath</b>			
Each DUT has the ability to be torn down abnormally while remaining stable.			
<b>Discussion: Test # 3 IMB -IBV -rdma mode</b>			
The following error was observed in the log files for the “Exchange 62 process” benchmark.			
<pre> hmpitest.x: Rank 0:51: MPI_Recv: IBV connection to 52 on card 0 is broken hmpitest.x: Rank 0:51: MPI_Recv: ibv_poll_cq(): bad status 12 hmpitest.x: Rank 0:51: MPI_Recv: self calypso.ofa peer skull-ib.ofa (rank: 52) hmpitest.x: Rank 0:51: MPI_Recv: error message: transport retry exceeded error hmpitest.x: Rank 0:51: MPI_Recv: Internal MPI error MPI Application rank 51 exited before MPI_Finalize() with status 16 </pre>			
<b>Discussion: Test # 4 IMB -IBV -srq mode</b>			
The following error was observed in the log files for the “Allgatherv 62 process” benchmark.			
<pre> MPI Application rank 8 killed before MPI_Finalize() with signal 9 MPI Application rank 20 killed before MPI_Finalize() with signal 9 MPI Application rank 36 killed before MPI_Finalize() with signal 9 MPI Application rank 24 killed before MPI_Finalize() with signal 9 MPI Application rank 48 killed before MPI_Finalize() with signal 9 MPI Application rank 28 killed before MPI_Finalize() with signal 9 </pre>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
MPI Application rank 32 killed before MPI_Finalize() with signal 9			
<b>Discussion: Test # 5 IMB -UDAPL -rdma mode</b>			
The following error was observed in the log files for the “Allgatherv 62 process” benchmark.			
Memory allocation failed. code position: set_buf 1. tried to alloc. 520093696 bytes MPI Application rank 15 killed before MPI_Finalize() with signal 11 Memory allocation failed. code position: set_buf 1. tried to alloc. 520093696 bytes MPI Application rank 0 killed before MPI_Finalize() with signal 11 Memory allocation failed. code position: set_buf 1. tried to alloc. 520093696 bytes MPI Application rank 17 killed before MPI_Finalize() with signal 11			
<b>Discussion: Test # 6 fork -IBV -rdma mode</b>			
No usable data in the log files.			
<b>Discussion: Test # 7 fork -IBV -srq mode</b>			
No usable data in the log files.			
<b>Discussion: Test # 8 fork -UDAPL -rdma mode</b>			
No usable data in the log files.			
<b>Discussion: Test # 9 rings2 -IBV -rdma mode</b>			
The following error was observed in the log files for the “Ring 19” test.			
phase 1 part 1 (loop(i){loop(r){isend;recv;wait}}) c-int chk [st:n/a] hpmpitest.x: Rank 0:56: MPI_Waitall: IBV connection to 9 on card 0 is broken hpmpitest.x: Rank 0:56: MPI_Waitall: ibv_poll_cq(): bad status 12 hpmpitest.x: Rank 0:57: MPI_Waitall: IBV connection to 10 on card 0 is broken hpmpitest.x: Rank 0:57: MPI_Waitall: ibv_poll_cq(): bad status 12 hpmpitest.x: Rank 0:56: MPI_Waitall: self miranda.ofa peer mimas-ib.ofa (rank: 9) hpmpitest.x: Rank 0:56: MPI_Waitall: error message: transport retry exceeded error hpmpitest.x: Rank 0:56: MPI_Waitall: Internal MPI error hpmpitest.x: Rank 0:57: MPI_Waitall: self miranda.ofa peer mimas-ib.ofa (rank: 10) hpmpitest.x: Rank 0:57: MPI_Waitall: error message: transport retry exceeded error hpmpitest.x: Rank 0:57: MPI_Waitall: Internal MPI error MPI Application rank 56 exited before MPI_Finalize() with status 16			
<b>Discussion: Test # 10 rings2 -IBV -srq mode</b>			
The following error was observed in the log files for the “Ring 19” test.			
phase 1 part 1 (loop(i){loop(r){isend;recv;wait}}) c-int chk [st:n/a] hpmpitest.x: Rank 0:57: MPI_Recv: IBV connection to 51 on card 0 is broken hpmpitest.x: Rank 0:57: MPI_Recv: ibv_poll_cq(): bad status 12 hpmpitest.x: Rank 0:57: MPI_Recv: self miranda.ofa peer calypso-ib.ofa (rank: 51) hpmpitest.x: Rank 0:57: MPI_Recv: error message: transport retry exceeded error hpmpitest.x: Rank 0:57: MPI_Recv: Internal MPI error MPI Application rank 57 exited before MPI_Finalize() with status 16			
<b>Discussion: Test # 11 rings2 -UDAPL -rdma mode</b>			
The following error was observed in the log files for the “Ring 19” test.			
phase 1 part 1 (loop(i){loop(r){isend;recv;wait}}) c-int chk [st:n/a] miranda.ofa:5924: DTO completion ERR: status 12, op OP_RDMA_WRITE, vendor_err 0x0 - 0.0.0.0 hpmpitest.x: Rank 0:56: MPI_Waitall: dat_evd_wait: bad status: 8 hpmpitest.x: Rank 0:56: MPI_Waitall: Internal MPI error MPI Application rank 56 exited before MPI_Finalize() with status 16			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 16: MPI – Open	Test #1	Test Completed without errors	<b>PASS</b>
	Test #2	Test failed	<b>Informative</b>
<b>Discussion: Test #2 Results</b>			
<p>The following error was observed in the log files for the “Sendrecv 62 process” benchmark.</p> <p>mpirun noticed that job rank 0 with PID 6489 on node atlas-ib exited on signal 15 (Terminated).  60 additional processes aborted (not shown)</p>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 17: TI uDAPL	Test #1	Automated script used	<b>PASS</b>
<b>Discussion: Test Results</b>			
<p>The automated test script provided in the test plan was used. This script's output was captured to a log file and parsed. No errors were found.</p>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 19: IB FibreChannel Gateway	Test #1-10	Not applicable to DUT	<b>Not Applicable</b>
<b>Discussion: Test Results</b>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 20: IB Ethernet Gateway	Test #1-10	Not applicable to DUT	<b>Not Applicable</b>
<b>Discussion: Test Results</b>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 21: IB Reliable Datagram Sockets	Test #1-10	Not tested	<b>Not Tested</b>
<b>Discussion: Test Results</b>			
<p>Not tested due to time constraints</p>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 22-23: TI Basic RDMA Interoperability	Test #1-10	Not tested	<b>Not Tested</b>
<b>Discussion: Test Results</b>			
<p>Not tested due to time constraints</p>			

Test Number and Name	Part(s)	Summary Note(s)	Result(s)
Group 24-25: TI RDMA Operations over Interconnect Components	Test #1-10	Not tested	<b>Not Tested</b>
<b>Discussion: Test Results</b>			
<p>Not tested due to time constraints</p>			