



University of New Hampshire  
InterOperability  
Laboratory

21 MADBURY RD, SUITE 100 DURHAM, NH 03824 +1-603-862-0090

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# TARGET LOGIN PHASE SAMPLE TEST REPORT

COMPANY REP  
COMPANY NAME  
EMAIL ADDRESS

DEVICE AND TEST PLAN INFORMATION	
Device Under Test (DUT)	Insert DUT name
Test Specification/Suite	Insert Test Suite name
UNH-IOL Test Result ID	#####
This testing pertains to a set of standard requirements, put forth in RFC 7143, 3720, 5048, and 4171.	

CONTACT INFORMATION		
iSCSI Consortium		<a href="mailto:iscsilab@iol.unh.edu">iscsilab@iol.unh.edu</a>
Testing Completed by	Tester name	@iol.unh.edu
Report Created by	Reporter name	@iol.unh.edu
Report Reviewed by	Reviewer name	@iol.unh.edu

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**SUMMARY OF RESULTS**

The following table contains a summary of results other than PASS. The definition of result types can be found in the [Result Key](#).

TEST NUMBER & LABEL	RESULTS
List everything that didn't pass here	

## TESTING NOTES

The following table contains any notes on the testing process or on general DUT behavior.

NOTES
Insert any notes about the testing, DUT, etc.

## REVISION HISTORY

The following table contains a revision history for this report.

Revision	Date	Author	Explanation
1.0	Date	Reporter name	Initial version

## DEVICE UNDER TEST AND INITIALIZATION INFORMATION

The following table contains the state of the DUT during testing.

COMPONENT	DESCRIPTION
UNH-IOL Device Identification Number	#####
Speed and Media Type	Example: 10 Gigabit Ethernet
Hardware Version	Hardware Version
Firmware Version	Firmware Version
Software Version	Software Version
Port Tested	Port Number (list both ports if using a switch)

## SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE

Product Category	Host
MAC Address	00:11:22:33:44:55
Additional Information	Ports used, any configuration info, Driver OS, etc

## TEST TOOL AND ENVIRONMENT INFORMATION

The following table contains the test tool and test suite versions used during testing.

TOOL	VERSION
IOL QTestor	
Wireshark	
Test Script	3.0
Test Specification	Target Login Phase

## TARGET DEVICE / INTEROP PARTNER INFORMATION

DEVICE	DESCRIPTION
Company	Company name
Hardware Version:	Version
MAC:	MAC address

## TEST SETUP

Describe the test setup as in-depth as possible (switch, computers, VMs, connections, etc.)

## APPENDICES

### APPENDIX 1: RESULT KEY

The following table contains possible results and their meanings.

RESULT	MEANING	INTERPRETATION
<b>PASS</b>	Pass	The Device Under Test (DUT) was observed to exhibit conformant behavior.
<b>PWC</b>	Pass With Comments	The Device Under Test (DUT) was observed to exhibit conformant behavior, however changes were made to the normal test procedure or the behavior observed requires additional comments.
<b>FAIL</b>	Fail	The Device Under Test (DUT) was observed to exhibit non-conformant behavior.
<b>RTC</b>	Refer to Comments	From the observations, a valid pass or fail was not determined. An additional explanation of the situation is included.
<b>INFO</b>	Informative	Test is designed for informational purposes only. The results may help ensure the interoperability of the DUT, but are not standards requirements.
<b>WARN</b>	Warning	The DUT was observed to exhibit behavior that is not recommended.
<b>N/A</b>	Not Applicable	This test does not apply to the device type or is not applicable to the testing program selected.
<b>N/S</b>	Not Supported	The Device Under Test (DUT) was not observed to support the necessary functionality required to perform these tests or the requirement is optional and not supported by this device.
<b>N/T</b>	Not Tested	This test was not performed and therefore this is not a complete test report. Please see the comments for additional reasons.
<b>UA</b>	Unavailable	The test was not performed due to limitation of the test tool(s) or interoperable systems, or the test methodology is still under development.

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## Appendix 2: DIGITAL SIGNATURE INFORMATION

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

If the document status still indicates "Validity of author NOT confirmed", then please contact the UNH-IOL to confirm the document's authenticity.

## DETAILED TEST RESULTS

TEST	RESULTS
#1.1: Standard Login Key Negotiation	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly uses the following: Opcode, TSIH, CID, CmdSN, StatSN, TargetPortalGroupTag, InitialR2T, Immediate Data, MaxRecvDataSegmentLength, MaxBurstSize, FirstBurstSize, DefaultTime2Wait, DefaultTime2Retain, MaxOutstandingR2T, DataPDUInOrder, DataSequenceInOrder, ErrorRecoveryLevel. To verify that the DUT includes all pertinent information in its Final Response.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	
The DUT was observed to...According to XYZ Standard section...Therefore, the DUT should have....	

TEST	RESULTS
#1.2: Standard Login ITT and Version	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly uses the InitiatorTaskTag, Version Max, and Version Active fields.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
#2.1: CmdSN	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT uses the CmdSN field properly.	

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OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

TEST	RESULTS
<b>#3.1: Version Active</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT sets the Version Active field properly.	
OBSERVED BEHAVIOR & ADDITIONAL COMMENTS	

TEST	RESULTS
<b>#4.1: T Bit Login Extension</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT does attempt to prompt a stage transition, and also that the DUT does not offer parameters for further negotiation while at the same time approving a stage transition prompted by the initiator.	
OBSERVED BEHAVIOR & ADDITIONAL COMMENTS	

TEST	RESULTS
<b>#4.2: T Bit NSG Combinations</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT uses the T Bit when determining whether the NSG field is reserved or not.	
OBSERVED BEHAVIOR & ADDITIONAL COMMENTS	

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TEST	RESULTS
<b>#4.3: T Bit Stage Transition Paths</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT is able to make all of the allowable stage transitions and does so when prompted by a Login Request with T=1.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#4.4: T Bit No Parameters</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT will accept a Login Request which contains no parameters for negotiation.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#5.1: ExpStatSN</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT ignores the ExpStatSN field when it is reserved.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

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TEST	RESULTS
<b>#6.1: Negotiate Once Standard Login</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT only transmits a given key=value pair once during the Login Phase negotiations, and that key=value pairs are properly followed by one null character.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#6.2: Negotiate Once Boolean Key</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT only allows a given key=value pair to appear once during the Login Phase negotiations.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#6.3: Negotiate Once Integer Key</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT only allows a given key=value pair to appear once during the Login Phase negotiations.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

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TEST	RESULTS
<b>#6.4: Negotiate Once List Key</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT only allows a given key=value pair to appear once during the Login Phase negotiations.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#6.5: Negotiate Once Same PDU</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT only allows a given key=value pair to appear once during the Login Phase negotiations.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#7.1: Login Partial Response Standard Request</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT constructs a Login Partial Response correctly.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS

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<b>#7.2: Login Partial Response Option Selection</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT responds to list negotiations properly with a Login Partial Response.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

<b>TEST</b>	<b>RESULTS</b>
<b>#7.3: Login Partial Response Unsupported Values</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT responds to list negotiations properly with a Login Partial Response.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

<b>TEST</b>	<b>RESULTS</b>
<b>#7.4: Login Partial Response Large Values</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT handles inadmissible values correctly during Login.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

<b>TEST</b>	<b>RESULTS</b>
<b>#7.5.1: Login Partial Response ImmediateData</b>	<b>PASS</b>

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PURPOSE
To verify that the DUT constructs a Login Partial Response correctly.
OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

TEST	RESULTS
<b>#7.5.2: Login Partial Response DataPDUInOrder</b>	<b>PASS</b>
PURPOSE	
To verify that the DUT constructs a Login Partial Response correctly.	
OBSERVED BEHAVIOR & ADDITIONAL COMMENTS	

TEST	RESULTS
<b>#7.6: Login Partial Response Invalid Key</b>	<b>PASS</b>
PURPOSE	
To verify that the DUT handles inappropriate keys properly during negotiation.	
OBSERVED BEHAVIOR & ADDITIONAL COMMENTS	

TEST	RESULTS
<b>#8.1: Status Detail</b>	<b>PASS</b>
PURPOSE	

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To verify that the DUT sends a Login Response with appropriate Status Detail codes.
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>

TEST	RESULTS
<b>#9.1: Invalid PDU During Login</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT can identify an Invalid PDU during the Login Phase.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#9.2: Invalid PDU Before Login</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT can identify an Invalid PDU before the Login Phase begins.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#10.1: Parameter Names</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly formats all key=value pairs.	

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OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

TEST	RESULTS
<b>#11.1: AuthMethod</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that if the DUT supports any AuthMethod, it supports CHAP.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#12.1: Header and Data Digest Default Values</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates values for Header and Data Digests.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#12.2: Header and Data Digest Proprietary Values</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates values for Header and Data Digests. Even if the response will be 'None' the DUT must transmit a response.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

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TEST	RESULTS
<b>#12.3: Header and Data Digest Support CRC32C</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT supports CRC32C for both Header Digest and Data Digest.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#13.1: MaxConnections</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates a value for MaxConnections.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#14.1: TargetAlias</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly offers a value for TargetAlias.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

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TEST	RESULTS
<b>#15.1: Marker Negotiation</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly handles deprecated keys: OFMarker, IFMarker, OFMarkInt, IFMarkInt.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#16.1: FirstBurstLength Exceeds MaxBurstLength</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates values for FirstBurstLength and MaxBurstLength.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#16.2: FirstBurstLength Within MaxBurstLength</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates values for FirstBurstLength and MaxBurstLength.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS

SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE

<b>#16.3: FirstBurstLength Default Exceeds MaxBurstLength</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates values for FirstBurstLength and MaxBurstLength. Intended to be informative only.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

<b>T<sub>EST</sub></b>	<b>R<sub>ESULTS</sub></b>
<b>#16.4: FirstBurstLength Exceeds Default MaxBurstLength</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates values for FirstBurstLength and MaxBurstLength. Intended to be informative only.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

<b>T<sub>EST</sub></b>	<b>R<sub>ESULTS</sub></b>
<b>#17.1: SessionType</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly handles the SessionType key.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

<b>T<sub>EST</sub></b>	<b>R<sub>ESULTS</sub></b>
<b>#18.1: C Bit</b>	<b>PASS</b>

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<b>PURPOSE</b>
To verify that the DUT properly handles a Login Request PDU with the C bit set.
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>

TEST	RESULTS
<b>#19.1: Errors Invalid Keys</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT recognizes keys that are invalid for an initiator to transmit.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#19.2.1: Errors X Keys NotUnderstood</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly responds to received X keys.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#19.2.2: Errors X Keys Too Long (Informative)</b>	<b>PASS</b>
<b>PURPOSE</b>	

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To verify that the DUT properly responds to received X keys.
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>

TEST	RESULTS
<b>#19.3.1: Errors Big Values Simple Value</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly recognizes values that exceed the 255-byte limit for values.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#19.3.2: Errors Big Values Declared Value (Informative)</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly recognizes values that exceed the 255 byte limit for values. This is an informative test.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#19.4: Errors Inquire Value</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly recognizes invalid values.	

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OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

TEST	RESULTS
#20.1: TargetPortalGroupTag Normal	PASS

PURPOSE

To see if the DUT properly includes the TargetPortalGroupTag key during the Login Phase.

OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

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TEST	RESULTS
#21.1: Irrelevant Keys	PASS

PURPOSE

To see if the DUT properly handles keys which are irrelevant during a Discovery Session.

OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

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TEST	RESULTS
#22.1: Error Recovery for Discovery Sessions	PASS

PURPOSE

To verify that the DUT properly handles the ErrorRecoveryLevel key in a discovery session.

OBSERVED BEHAVIOR & ADDITIONAL COMMENTS

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TEST	RESULTS
<b>#23.1: NotUnderstood for Required Keys</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT treats a response of NotUnderstood as a protocol error for keys defined in RFC3720.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#24.1: TaskReporting</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates the TaskReporting key=value pair.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#25.1: iSCSIProtocolLevel (Informative)</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly negotiates the iSCSIProtocolLevel key=value pair.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

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TEST	RESULTS
<b>#26.1 Public Extension Keys (Informative)</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT no longer uses the X#, Y#, or Z# prefixes for new public keys, new digest extensions, or new authentication method extensions.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	

TEST	RESULTS
<b>#27.1 Receive Limit During Login</b>	<b>PASS</b>
<b>PURPOSE</b>	
To verify that the DUT properly handles a Login Request PDU with more than 8K of data attached.	
<b>OBSERVED BEHAVIOR &amp; ADDITIONAL COMMENTS</b>	