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4	**iSCSI Common Features**				
		Feature	**Reference**	**Status**	**Value**
4.1	Access Control and Authorization				
4.1.1		Support access control by iSCSI Initiator Name		O	
4.1.2		Supports access control by iSCSI Target Name		O	
4.2	iSCSI Data Integrity				
4.2.1		Support Some Header Digest Scheme	8.1.3	M	
4.2.2		Support Header Digest - None	A.01	M	
4.2.3		Support Header Digest - CRC-32C	A.01	M	
4.2.4		Support Header Digest - Other	A.01	O	other method
4.2.5		Support Some Data Digest Scheme	8.1.3	M	
4.2.6		Support Data Digest - None	A.01	M	
4.2.7		Support Data Digest - CRC-32C	A.01	M	
4.2.8		Support Data Digest - Other	A.01	O	other method
4.3	PDU Formats				
4.3.1		Support Additional Header Segment	2.2.3	O	
4.3.2		Support Extended CDB	2.2.4	O	
4.3.3		Support Bi-Directional Data Transfer	2.2.4	O	
4.3.4		Set all undefined and reserved bits to zero	2	M	
4.3.5		Set P/F bit to 0 on PDUs where it is not used	2.2.2.4	M	
4.3.6		Uses LUN field for other purpose	2.2.2.7	O	purpose
4.3.7		Task tags are unique over session	2.2.2.8	M	
4.4	Data Transfer Mechanism				
4.4.1		Support Unsolicited Data	1.2.5	O	
4.4.2		Support Immediate Data	1.2.5	O	

4.4.3		Support Bi-directional data	2.3.5,2.7.7	O
4.4.4		Support piggybacking of status in Final Data PDU	2.7.7	O
4.4.6		Ready to Transfer (Data Flow)	2.17	M
4.4.7		Deliver commands in CmdSN order	1.2.2.1	M
4.4.8		Support DataSN	1.2.2.3	M
4.4.9		Support Response Numbering (StatSN)	1.2.2.2	M
4.4.10		Use same StatSN on retried responses as original PDU	2.4.8	M
4.4.11		Non-immediate commands always use CmdSN values between ExpCmdSN and MaxCmdSN	1.2.2.1	M
4.4.12	(target)	Silently ignors commands outside CmdSN range or duplicates within range that don't have X-bit set	1.2.2.1	M
4.4.13	(target)	Never issues more than 2^32-1 R2Ts for any given write command	1.2.2.3	M
4.4.14		Set F-bit=1 when Expected Data Transfer Length and length of immediate data are the same	2.3.5	M
4.4.15	(target)	Support and enable autosense	2.4.5	M
4.4.16		When target transfer tag is provided, LUN field is valid and same as original command	2.7.2	M
4.4.17		Only include StatSN when S-bit=1	2.7.2	M
4.4.18	(target)	Returns data in increasing buffer offset order when EMDP mode is selected	2.7.5	M

4.4.19		(initiator)	Delivers all data within a burst in increasing buffer offset order	2.7.5	M
4.4.20		(target)	Upon successful completion, returns status in last SCSI Data Packet	2.7.7	O
4.4.21		(target)	If command completes with an error, response and status is sent is SCSI Response PDU	2.7.7	M
4.4.22		(target)	Requests chunks of data from initiator using R2T in any order	2.17.3	O
4.5	Sync & Steering				
4.5.1			Support Sync & Steering	1.2.8	O
4.5.2			Retain buffer offsets and end addresses of each iSCSI PDU	1.2.8.2	M:4.6
4.5.3			Include steering information in PDU independent of other layers	1.2.8.2	M:4.6
4.5.4			Map outgoing stream addresses to TCP stream sequence numbers	1.2.8.2	M:4.6
4.5.5			Restricts certain transformations by Upper Functional Layers	1.2.8.3	O
4.5.6			Use Marker Protocol for Sync and Steering	D.00	O
4.5.7			Markers indicate the offset to a 4-byte word boundary	D.06	M:4.5.6
4.6	MIB Support				
4.6.1			Support iSCSI MIB	MIB	M
4.7	Lower Layer Protocol Features [e.g. IPSec, Keep Alive, Data Integrity]				
4.7.1			Use TCP keep-alive option to enable early link failure detection	6.5	O
4.7.2			Support graceful connection shutdown by sending TCP FINs once there are no outstanding tasks with allegiance to the connection	1.2.6	M

4.7.3		Respond to TCP FINs by closing target half of connection after concluding all outstanding commands and sending status	1.2.6	O		
4.7.4		Use IPSec for Data Integrity		O		
4.8	Discovery [e.g. Send Targets support, SLP, etc]					
4.8.1		Supports/Uses SendTargets command		O		
4.8.2		Supports/Uses SLP		O		
4.8.3		Supports other discovery mechanism		O	other mechanism	
4.8.4		Sends/Uses async messages for new targets		O		
4.8.5		Sends/Uses async messages for new LUNs		O		
4.9	Naming [e.g. scope of iSCSI name (per port or per device]]					
4.9.1		Supports manufacterer-named iSCSI name (may be based on user configuration)		M	naming authority	
4.9.2		Supports user-configurable iSCSI name(s)		O		
4.9.3		Generates names with Unicode characters		O		
4.9.4		Supports user-configurable iSCSI alias(es)		O		
4.9.5		Full Unicode Support (names & aliases can be configured using Unicode)		O		
4.9.6		Unicode Comparison Support (names using Unicode can be compared)		M		
4.9.7	(initiator)	Supports common iSCSI name across NIC/HBA interfaces				

4.9.8		(initiator)	NIC/HBA iSCSI name settable via API			
4.9.9		(initiator)	NIC/HBA ISID range settable via API			
4.9.10			Support IPv4 Address Format	1.2.7	M	
4.9.11			Support Fully Qualified DNS names	1.2.7	O	
4.9.12			Support/Use Port field in TargetAddress	1.2.7	O	
4.10	Text Mode Negotiation					
4.10.1			Use keyword "none" to indicate missing function	1.2.4	M	
4.10.2			Returns keyword "none"	1.2.4	O	
4.10.3			Use keyword "reject" to indicate unsupported or unallowed options	1.2.4	O	
4.10.4		(initiator)	Uses same Initiator Task Tag on all Text commands sent as part of a negotiation sequence	2.8.2	M	
4.10.5			Negotiates operation parameters outside of login phase	4, 4.3	O	
4.10.6			When using security, negotiate all other iSCSI parameters after security is established	4.2	O?	
4.10.7		(initiator)	Negotiates proprietary options	4.2	O	values
4.10.8			Terminate text negotiation during login with Login Response with F-bit=1	4.3	M	
5	**iSCSI Target Features**					
			Feature	**Reference**	**Status**	**Value**
5.1	Login Features Supported					
5.1.1			Require Initiator name during login	1.2.7	M	
5.1.2			Require Target name during login	1.2.7	M	
5.1.3			Send Target Alias during login		O	
5.1.4			Never sets F-bit=1 when status is "accept login" and login command had F-bit=0	2.11.4	M	

5.1.5		Sets F-bity when login negoiation is complete		M	
5.1.6		Support Partial Login Response		M	
5.1.7					
5.2	Authentication Methods Supported.				
5.2.1		Support some authentication method	B.01	M	
5.2.2		Support authentication method - None	B.01	M	
5.2.3		Support authentication method - CHAP	B.01	O	
5.2.4		Support authentication method - SRP	B.01	M	
5.2.5		Support authentication method - Kerberos5	B.01	O	
5.2.6		Support authentication method - SPKM-1/2	B.01	O	
5.2.7		Support authentication method - Other	B.01	O	other method
5.2.8		Support authentication via Ipsec	B.01		
5.3	Asynchronous Message Used				
5.3.1		Send Async-event to initiators when target is reset	2.18.1	O	
5.3.2		Send Async-event to initiators to request logout	2.18.1	O	
5.3.3		Send Async-event to initiators to notify connection drop	2.18.1	O	
5.3.4		Send Async-event to initiators to notify all connections dropped	2.18.1	O	
5.3.5		Send Async-event to initiators to notify session termination	2.18.1	O	
5.4	Error Handling				
5.4.1	Error Detection				
5.4.1.1		Format Errors Detection	6.1	M	

5.4.1.2		Digest Error Detection	6.2	M
5.4.1.3		Sequence Error Detection	6.3	M
5.4.1.4		Protocol Error Detection	6.4	M
5.4.1.4.1		Detect protocol error if PDU other than login or text is received before full feature phase	1.2.3	M
5.4.1.5		Error Detection via NOP-ins	2.12	O
5.4.1.6		Send Reject PDU on header digest	2.20	M
5.4.1.7		Send Reject PDU on data digest	2.20	M
5.4.1.8		Send Reject PDU on protocol error	1.2.3	O
5.4.2	Error Recovery Features Supported			
5.4.2.1		Negotiation Recovery	6.7.4	M
5.4.2.2		Issue R2T for error recovery	2.17	O
5.4.2.3		Accept Command with X Bit set	2.2.2.1	O
5.4.2.4		Reject Command with X Bit set	2.2.2.1	O
5.4.2.5		Issue NOP-in to recover Status	2.13,1.2.2	O
5.4.2.6		Issue NOP-in recovery to Data/Cmds	2.13	O
5.4.2.7		Issue Status PDU if SNACK-Status received	2.16	O
5.4.2.8		Issue Data PDU if SNACK-Data received	2.16	O
5.4.2.9		Issue R2T PDU if SNACK-R2T received	2.16	O
5.4.2.10		Issue Reject if SNACK-Data received	2.16	O
5.4.2.11		Issue Reject if SNACK-R2T received	2.16	O
5.4.2.12		Issue Async on connection termination	2.18.1	O
5.4.2.13		Issue Async on session termination	2.18.1	O

5.5	Session Aggregation Used [e.g. Connection Aggregation, Multiple Sessions, Session Spanning]			
5.5.1		Support use of common aggregation tag in different TargetAddress fields of SendTargets response	NDT	M:5.5.1
5.5.2		Support Multiple Session per Target		
5.5.3		Support Multiple Targets		
5.5.4		Support Multiple Service Portals		
5.5.5		Support multiple sessions from same initiator		O
5.5.6		Support connection allegience	1.2.5	M
5.5.7		Supports linked commands spanned over multiple connections	1.2.5	O
5.5.8		Supports interleaved unrelated SCSI commands over session	1.2.5	O
5.5.9		Support opening multiple connections for purpose of clean-up (I.e. non-full feature phase)	2.10.1	O
5.5.10		Ignores iSCSI Target name on login of additional connections	4.1	O
5.5.11		Issues Async message to request removal of connection from session		
5.6	Reboot Behaviour [e.g. Use of Asynchronous Messages]			
5.6.1		Sends async message when about to reboot, shut down, or fail over to another device		

5.7	Session Management Features Supported [e.g. Includes features such as whether the target sends Redirect status]			
5.7.1		Returns "Target Moved Temporarily"	2.11.4	O
5.7.2		Returns "Target Moved Permanently"	2.11.4	O
5.7.3		Returns "Proxy Required"	2.11.4	O
5.7.4		Returns "Target Removed"	2.11.4	O
5.7.5		Returns "Target Conflict"	2.11.4	O
5.7.6		Closes connection specified in CID after logout	2.15	M
5.7.7		Duplicates up to first 4096 bytes of data in NOP-Out	2.13	O
5.7.8		When initiating a NOP-In, initiator tag = 0xffffffff and target tag != 0xffffffff	2.13.1	M
5.7.9		Valid LUN field is included when P-bit=1	2.13.3	M
5.8	iSCSI Task Management			
5.8.1		Returns Initiator Task Tag in all SCSI Task Management responses	2.5.1	M
5.8.2		On Clear Task Set, enters a Unit Attention Condition for all other attached initiators	2.5.1	M
5.8.3		On Target Warm Reset and Target Cold Reset, enters a Unit Attention Condition for all attached initiators	2.5.1, 2.6.1	M
5.8.4		On Target Cold Reset, terminates all TCP conections to all initiators	2.5.1, 2.6.1	M

5.8.5		On Target Warm Reset, enters ACA state on all sessions and LUs where Unit Attention was reported when enabled by EnableACA	2.5.1	M	
6	**iSCSI Initiator Features**				
		Feature	**Reference**	**Status**	**Value**
6.1	Login Features Supported				
6.1.1		Send Initiator name during login	1.2.7	M	
6.1.2		Send Target name during login	1.2.7	M	
6.1.3		Send Initiator Alias during login		O	
6.1.4		Sets F-bit when login negoiation is complete		M	
6.1.5		Accept Partial Login Response		M	
6.1.6		Support authentication method - None	B.01	M	
6.1.7		Support authentication method - CHAP	B.01	O	
6.1.8		Support authentication method - SRP	B.01	M	
6.1.9		Support authentication method - Kerberos5	B.01	O	
6.1.10		Support authentication method - SPKM-1/2	B.01	O	
6.1.11		Support authentication method - Other	B.01	O	other method
6.1.12		Support authentication via Ipsec	B.01		
6.1.13		Supports authenticating target	1.2.3	O	
6.1.14		Never issues a Login Command more than once on same TCP connection	2.10	M	
6.3	Asynchronous Message Support				
6.3.1		Handle Async-event to initiators when target is reset	2.18.1	O	

6.3.2		Handle Async-event to initiators to request logout	2.18.1	O
6.3.3		Handle Async-event to initiators to notify connection drop	2.18.1	O
6.3.4		Handle Async-event to initiators to notify all connections dropped	2.18.1	O
6.3.5		Handle Async-event to initiators to notify session termination	2.18.1	O
6.4	Error Handling			
6.4.1	Error Detection			
6.4.1.1		Format Errors Detection	6.1	M
6.4.1.2		Digest Error Detection	6.2	M
6.4.1.3		Sequence Error Detection	6.3	M
6.4.1.4		Protocol Error Detection	6.4	M
6.4.1.6		Error Detection via NOP-outs		
6.4.2.2		Recovery Within-connection	6.7.2	O
6.4.2.3		Recovery Within-session	6.7.3	O
6.4.2.4		Negotiation Recovery (To be renamed)	6.7.4	M
6.4.2.5		Session Recovery	6.7.5	O
6.4.2.6		Accept R2T for error recovery	2.17	O
6.4.2.7		Issue SNACK Request (for Status)	2.16	O
6.4.2.8		Issue SNACK Request (for Data)	2.16	O
6.4.2.9		Issue SNACK Request (for R2T)	2.16	O
6.4.2.10		Issue Command with X Bit set	2.2.2.1	O
6.4.2.11		Accept NOP-in to recover Status	2.13	O
6.4.2.12		Accept NOP-in recovery to Data/Cmds	2.13	O
6.4.2.13		Resend Data PDU if SACK received	6.3	O
6.5	Session Aggregation Used [e.g. Connection Aggregation, Multiple Sessions, Session Spanning]			
6.5.1		Supports single session to span multiple TCP connections		O

6.5.2		Supports single session to span multiple TCP addresses		O
6.5.3		Support use of aggregation tag in SendTargets response		M:5.5
6.5.4		Support use of common aggregation tag in different TargetAddress fields of SendTargets response		M:5.5.1
6.5.5		Creates multiple sessions to same target		O
6.5.6		Support connection allegience	1.2.5	M
6.5.7		Sends linked commands over multiple connections	1.2.5	O
6.5.8		Interleaves unrelated SCSI commands over session	1.2.5	O
6.5.9		Supports opening multiple connections for purpose of clean-up (I.e. non-full feature phase)	2.10.1	O
6.5.10		Uses ISID and TSID of existing session during login on connections to be added to same session	2.10.6	M:6.5
6.5.11		Uses Logout command to remove a connection from a session	2.14	O
6.5.12		Closes connection specified in CID after logout	2.15	M
6.5.13		Does NOT specify the following text parameter on login over new connections to existing sessions: MaxConnections, TargetName, InitiatorName, DataOrder	E.0	M
6.6	Reboot Behaviour [e.g. Use of Logout]			
6.6.1		Sends logout command to targets during shutdown or reboot		O?
6.6.2		Logs out of target when idle		O

6.7	Session Management Features Supported [e.g.Login/Logout Including Handling of the various status code]				
6.7.1		Closes connection specified in CID after logout	2.15	M	
6.7.2		Uses immediate delivery for NOP-Out	2.12	O	
6.7.3		Uses in-order delivery for NOP-Out	2.12	O	
6.7.4		Include Initiator Tag when P-bit=1	2.12.2	M	
6.7.5		Returns Target Tag in response to NOP-In	2.12.3	M	
6.7.6		Includes valid LUN field when Target Tag is set	2.12.3	M	
6.7.7		Sends less than 4096 bytes of data	2.12.4	O	
6.8	iSCSI Task Management				
6.8.1		Uses Abort Task	2.5.1	O	
6.8.2		Uses Abort Task Set	2.5.1	O	
6.8.3		Uses Clear ACA	2.5.1	O	
6.8.4		Uses Clear Task Set	2.5.1	O	
6.8.5		Uses Logical Unit Reset	2.5.1	O	
6.8.6		Uses Target Warm Reset	2.5.1	O	
6.8.7		Uses Target Cold Reset	2.5.1	O	
7	**Target iSCSI Maximum and Minimum Values**			**Min**	**Max**
7.1		Number of Sessions			
7.2		Number of Sessions Per Target			
7.3		Number of Sessions Per Initiator			
7.4		Number of Targets			
7.5		Number of Service Ports Per Device			
7.6		Text Command Size			
7.7		Text Value Size			
7.8		NOP-in Data Size			

7.9		NOP-out Data Size			
7.10		Within-task Recovery Timeout			
8	**Initiator iSCSI Maximum and Minimum Values**			**Min**	**Max**
8.1		Number of Sessions			
8.2		Number of Sessions Per Target			
8.3		Number of Targets			
8.4		Number of Service Ports Per Device			
8.5		Text Command Size			
8.6		Text Value Size			
8.7		NOP-in Data Size			
8.8		NOP-out Data Size			
8.9		Within-task Recovery Timeout			
8.10					
9	**Target Text Parameters**		**Reference**	**Status**	**Value/Range**
9.1		MaxConnections	E-08	O	
9.2		TargetName	E-09	O	
9.3		InitiatorName	E-10	O	
9.4		TargetAlias	E-11	O	
9.5		InitiatorAlias	E-12	O	
9.6.1		TargetAddress (DNS)	E-13	O	
9.6.2		TargetAddress (IPv4)	E-13	O	
9.7		SendTargets	E-14	O	
9.8		AccessID	E-15	O	
9.9		FMarker	E-16	O	
9.10		RFMarkInt	E-17	O	
9.11		SFMarkInt	E-18	O	
9.12		IFMarkInt	E-19	O	
9.13		InitialR2T	E-20	O	
9.14		BidiInitialR2T	E-21	O	
9.15		ImmediateData	E-22	O	
9.16		DataPDULength(Data Digests on)	E-23	O	
9.17		DataPDULength(Data Digests off)	E-24	O	
9.18		FirstBurstSize	E-25	O	

9.19	LogoutLoginMinTime	E-26	O	
9.20	LogoutLoginMaxTime	E-27	O	
9.21	EnableACA	E-28	O	
9.22	MaxOutstandingR2T	E-29	O	
9.23	DataOrder	E-30	O	
9.24	BootSession	E-31	O	
9.25	The Glen-Turner Vendor Specific Key	E-32	O	

10	**Initiator Text Parameters**	**Reference**	**Status**	**Value/Range**
10.1	MaxConnections	E-08	O	
10.2	TargetName	E-09	O	
10.3	InitiatorName	E-10	O	
10.4	TargetAlias	E-11	O	
10.5	InitiatorAlias	E-12	O	
10.6.1	TargetAddress (DNS)	E-13	O	
10.6.2	TargetAddress (IPv4)	E-13	O	
10.7	SendTargets	E-14	O	
10.8	AccessID	E-15	O	
10.9	FMarker	E-16	O	
10.10	RFMarkInt	E-17	O	
10.11	SFMarkInt	E-18	O	
10.12	IFMarkInt	E-19	O	
10.13	InitialR2T	E-20	O	
10.14	BidiInitialR2T	E-21	O	
10.15	ImmediateData	E-22	O	
10.16	DataPDULength(Data Digests on)	E-23	O	
10.17	DataPDULength(Data Digests off)	E-24	O	
10.18	FirstBurstSize	E-25	O	
10.19	LogoutLoginMinTime	E-26	O	
10.20	LogoutLoginMaxTime	E-27	O	
10.21	EnableACA	E-28	O	
10.22	MaxOutstandingR2T	E-29	O	
10.23	DataOrder	E-30	O	
10.24	BootSession	E-31	O	
10.25	The Glen-Turner Vendor Specific Key	E-32	O	