

FC-BB-5 Revision 1.03 Letter Ballot Comments Database (09-010vA)								
Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Broadcom-001	T	5	Fig 4	Why is FCIP in the drawing? It shouldn't be part of the FC-BB-E model	Remove FCIP		AinP	C
Cisco-008	T	5	Figure 4	Figure 4 is wrong	Make it right	Use figure (a) of 09-200v1.	AinP	C
EMC-019	T	5	Figure 4	Figure 4 is a copy of the FCIP Figure	Redraw as FCoE figure		AinP	C
EMC-020	T	8	2.5	Need IETF references for pseudo-wire.	Add IETF references when available.		AinP	C
Broadcom-003	T	8	2.6	The bridge (switch) standard should also be referenced.	Add reference for IEEE 802.1Q-2005		A	C
EMC-080	T	9	3.1	Definition for FC-BB_E is missing.	Suggest: 3.1.10 FC-BB_E: The protocol mapping defined by FC-BB_E is referred to as Fibre Channel over Ethernet (FCoE) and requires the underlying Ethernet layer to be full duplex and lossless (i.e., to be composed only of full duplex links and to provide a lossless behavior when carrying Fibre Channel frames). (see Figure 25)	3.1.10 FC-BB_E: A protocol mapping defined by this standard in order to transport Fibre Channel over a Lossless Ethernet network.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-002	T	13	3.5	Several new terms are widely used but not defined.	<p>Add definitions to the glossary section for</p> <p>Enode: a Fiber Channel Platform that contains one or more lossless Ethernet MACs enabled to support FC-BB_E.</p> <p>Enode MAC: A lossless Ethernet MAC that is enabled to support FC-BB_E in an Enode.</p> <p>FCF-MAC: A lossless Ethernet MAC that is enabled to support FC-BB_E in an FCF.</p> <p>FC-MAP: In a Fabric Provided MAC Address, the required value for the upper 24 bits of every MAC address assigned to a VN_Port.</p> <p>Platform: A container for one or more Fibre Channel nodes and one or more LCFs. Frames received at a Platform are not forwarded to another Platform.</p>	<p>Add definitions to the glossary section for</p> <p>Vendor_ID: An 8-byte ASCII string, the value of which shall be assigned by INCITS Technical Committee T10 (see http://www.t10.org/lists/2vid.htm), used to uniquely identify an organizational entity.</p> <p>See 09-021v0 for the other definitions.</p>	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-003	T	13	3.5	The terms of the form "Vx_Port/FCoE_LEP pair" have been found to be ambiguous (e.g., in the first unordered list of 7.3, the term VN_Port/FCoE_LEP pair could be construed as the pairing of a local VN_Port/FCoE_LEP and a remote VN_Port/FCoE_LEP, or as the pairing of one VN_Port and one FCoE_LEP at the local end).	Add definitions to the glossary section for VE_Port/FCoE_LEP pair: a VE_Port and its associated FCoE_LEP. VF_Port/FCoE_LEP pair: a VF_Port and one of its associated FCoE_LEPs. VF_Port/FCoE_LEP pair: a VN_Port and its associated FCoE_LEP.	See 09-021v0.	AinP	C
Emulex-004	T	13	3.5.1	The definition of Enode MAC address is worded so as to imply all FCoE MACs use the same MAC address for FIP	Change the definition of Enode MAC address from The MAC address used by the ENode during the FCoE Initialization Protocol (FIP). To The MAC address used by one FCoE Controller for the FCoE Initialization Protocol (FIP) on one lossless Ethernet MAC .	See 09-021v0.	AinP	C
QLogic-000	T	14	3.5.11	The definition of "Lossles Ethernet" is too vague.	Add a definiton that mentions the IEEE 802.1 DCB standards (8021.Qau, 802.1Qaz, 802.1Qbb, and the IETF standard TRILL).	See 09-021v0.	AinP	C
IBM-064	T	14	3.5.12	SPMA definition indicates that the MAC addresses are world-wide unique. There is no requirement for this to be the case. The addresses could be locally administered.	Delete "and is world-wide unique" from the definition.	See 08-676v1.	AinP	C
Emulex-005	T	14	3.5.17	In 3.5.17, a pair of MAC addresses are claimed to be sufficient to identify a Virtual Link. This may not be true for SPMA.	???	See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-021	T	14	3.5.17	Virtual Link is not identified solely by MACs - the FCID of the VN_Port is part of a VN-VF Virtual Link in order to avoid crosstalk. SPMA also needs this to uniquely identify the virtual link.	Expand definition so that FCID of VN_Port is part of VN-VF virtual link. See slides 18 and 19 of 08-556v1	See 09-021v0.	AinP	C
BLADE-002	T	15	3.5.18	The statement "The term virtual indicates the use of a non Fibre Channel link connecting a VN_Port to a VF_Port." assumes a VN_Port to a VF_Port virtual link. There could be a VN_Port to VN_Port virtual link.	Detailed in a proposal to be presented later.	Closed by the updated definition in 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-006	T	19	4.1	The first paragraph of of 4.1 is ambiguous about whether FC-BB_E defines equipment capable of extending FC over WAN media.	Change the two sentences of 4.1 from FC-BB-5 models (i.e., FC-BB_IP, FC-BB_GFPT, and FC-BB_PW), specified in this standard, define equipment capable of extending Fibre Channel switched networks and/or links over Wide Area Network infrastructures and over distance. One important distinction among the models discussed in this standard is the emphasis placed on the WAN type. to This standard specifies several WAN models (i.e., FC-BB_IP, FC-BB_GFPT, and FC-BB_PW) capable of extending Fibre Channel switched networks and/or links over Wide Area Network infrastructures and over distance. One important distinction among the WAN models discussed in this standard is the emphasis placed on the WAN type.	See 08-726v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-007	T	19	4.1	4.1 does not reference FC-BB_E	<p>At the end of 4.1 add this new paragraph:</p> <p>This standard also specifies the FC-BB-E model, capable of extending Fibre Channel switched networks and/or links over IEEE 802.3 (i.e., Ethernet) infrastructures that may be concurrently used for other applications (e.g., Internet traffic). The FC-BB_E model presumes use of IEEE 802.3 variants that provide lossless behavior. When used concurrently with other applications, it may benefit from 802.3 variants that also provide categories of quality of service based on traffic classification.</p>	See 08-726v1.	AinP	C
NetApp-2R	T	19	4.1	The first sentence - "...define ...extending FC over WAN... and over distance." This section talks about FC mapping for WAN protocols.	The section must be updated to also accommodate inclusion of FC_BB_E.	See 08-726v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-008	T	19	4.2	4.2 does not introduce FC-BB_E	Change the first paragraph of 4.2 from FC-BB-5 defines reference models corresponding to the FC-BB_IP, FC-BB_GFPT, and FC-BB_PWmodels. These reference models are shown in figure 5, figure 6, and figure 7 respectively. To FC-BB-5 defines reference models corresponding to the FC-BB_IP, FC-BB_GFPT, FC-BB_PW, and FC-BB_E models. These reference models are shown in figure 5, figure 6, figure 7, and figure 8 respectively.	See 08-726v1.	AinP	C
NetApp-4R	T	19	4.2	First paragraph does not mention FC-BB-E	Add FC_BB_E.	See 08-726v1.	AinP	C
IBM-003	T	22	4.2	FC_BB_E reference model needs to be added, per editor's note.		See 08-726v1.	AinP	C
Emulex-009	T	22	4.2	There is no figure 8 at figure 8.	Replace the Editor's Note at the end of 4.2 with a reference diagram for FC-BB-E.	See 08-726v1.	AinP	C
Broadcom-004	T	22	Fig 8	The figure is missing.	Add figure for FC-BB-E reference model	See 08-726v1.	AinP	C
EMC-022	T	22	Figure 8	Figure 8 is missing	Draw and add it.	See 08-726v1.	AinP	C
IBM-004	T	24	4.3.4	FC_BB_E "model" needs to be added.		See 08-726v1.	AinP	C
Emulex-010	T	24	4.3.4	A TBD lurks there	Replace the TBD in 4.3.4 with an overview of the FC-BB_E model. The first two paragraphs of 4.3.3, with a few tweaks, might suffice.	See 08-726v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Broadcom-005	T	24	4.3.4	The clause says: The FC-BB-E model...TBD. Also FC-BB-E content for 4.4.2.3, 4.4.3, 4.4.4, 4.4.5, 4.4.6	Add the necessary content.	See 08-726v1.	AinP	C
EMC-023	T	24	4.3.4	Section missing	Write and add text	See 08-726v1.	AinP	C
NetApp-6F	T	24	4.3.4	FC-BB_E model is missing	Add FC-BB_E model.	See 08-726v1.	AinP	C
IBM-019	T	24	4.4.1 Fibre Channel Class support	The draft does not state how an FCF will represent support for class 2 service by the fabric when responding to an FLOGI. Since an FCoE fabric can have Ethernet bridges, class 2 support cannot be guaranteed. However, since class 2 support is required by FC-SB-3 and other existing protocols, a statement needs to be made regarding this support.	Add a statement in 4.4.1 (or in 7.2 or both) that states "Indication for support for class 2 service by setting the class validity bit (word 0, bit 31) in the class 2 service parameters in the LS_ACC response to a FLOGI request is a representation of support by the FC aware components of the fabric (e.g., fibre channel switches and FCFs). Class 2 service cannot be provided by Ethernet bridges in the fabric and configurations should be managed accordingly."	Add in 4.4.1. NOTE - A Lossless Ethernet network configuration that includes Lossless Ethernet bridges may not provide sufficient functionality to support all aspects of Class 2 service. FCFs and ENodes may indicate support for Class 2 service in the presence of Lossless Ethernet bridges, but such a configuration should be managed accordingly.	AinP	C
IBM-005	T	25	4.4.2.3	FC_BB_E text for "payload transparency" needs to be added, per editor's note.		See 08-726v1.	AinP	C
Emulex-011	T	25	4.4.2.3	An Editor's Note remains where a descriptive paragraph is needed	???	See 08-726v1.	AinP	C
EMC-024	T	25	4.4.2.3	Section missing	Write and add text	See 08-726v1.	AinP	C
NetApp-7F	T	25	4.4.2.3	FC_BB-E text is missing	Add FC-BB_E text	See 08-726v1.	AinP	C
IBM-006	T	25	4.4.3	FC_BB_E text for "latency delay and timeout value" needs to be added, per editor's note.		See 08-726v1.	AinP	C
Emulex-012	T	25	4.4.3	An Editor's Note remains where a descriptive paragraph is needed	???	See 08-726v1.	AinP	C
EMC-025	T	25	4.4.3	FC_BB_E placeholder	Add FC_BB_E timeout text.	See 08-726v1.	AinP	C
NetApp-8F	T	25	4.4.3	FC-BB_E text is missing	Add FC-BB_E text	See 08-726v1.	AinP	C
IBM-007	T	25	4.4.4	FC_BB_E text for "QoS and bandwidth" needs to be added, per editor's note.		See 08-726v1.	AinP	C
Emulex-013	T	25	4.4.4	An Editor's Note remains where a descriptive paragraph is needed	???	See 08-726v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-026	T	25	4.4.4	FC_BB_E placeholder	Add FC_BB_E QoS and bandwidth text.	See 08-726v1.	AinP	C
NetApp-9F	T	25	4.4.4	FC-BB_E text is missing	Add FC-BB_E text - Ethernet PFC/ETS	See 08-726v1.	AinP	C
IBM-008	T	26	4.4.5	FC_BB_E text for "in-order delivery" needs to be added, per editor's note.	New text should include that in-order delivery is required for BB_E and that support is indicated at fabric login by the sequential delivery bit in the service parameters.	See 08-726v1.	AinP	C
Emulex-014	T	26	4.4.5	An Editor's Note remains where a descriptive paragraph is needed	???	See 08-726v1.	AinP	C
EMC-027	T	26	4.4.5	FC_BB_E placeholder	Add FC_BB_E In-order delivery text.	See 08-726v1.	AinP	C
NetApp-10F	T	26	4.4.5	FC-BB_E text is missing	Add FC-BB_E text.	See 08-726v1.	AinP	C
IBM-009	T	26	4.4.6	FC_BB_E text for "flow control" needs to be added, per editor's note.		See 08-726v1.	AinP	C
Emulex-015	T	26	4.4.6	An Editor's Note remains where a descriptive paragraph is needed	???	See 08-726v1.	AinP	C
EMC-028	T	26	4.4.6	FC_BB_E placeholder	Add FC_BB_E flow control text.	See 08-726v1.	AinP	C
NetApp-11F	T	26	4.4.6	FC-BB_E text is missing	Add FC-BB_E text. Requires PAUSE or PFC, recommends PFC; plus other CEE features?	See 08-726v1.	AinP	C
Solution Technology-017	T	28	3.5.10	The definition of Lossless Ethernet MAC makes jumbo frame support a requirement (this definition is further referenced elsewhere). There is no functional reason that jumbo frames should be required and the reference to jumbo frames should be deleted. We can limit the size of the encapsulated FC frame using existing FC mechanisms (i.e., Receive Data Field Size in FLOGI, PLOGI and ELP.	Remove the requirement for jumbo frames.	See 09-021v0.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-003	T	81	7	The term "Lossless Ethernet" is used many times in this Clause, but is not sufficiently defined (the definition in 3.5.11 is too vague).	Add a definition that mentions the IEEE 802.1 DCB standards (802.1Qau, 802.1Qaz, 802.1Qbb, and the IETF standard TRILL).	Change definition of Lossless Ethernet bridging element to "An Ethernet bridging function operating across Lossless Ethernet MACs.". See 09-021v0. Action to Craig to provide an informative annex with additional information	AinP	C
BLADE-007	T	81	7.2	In the paragraph below figure 25, include some text about the importance of supporting PFC.	Standard PAUSE mechanism is a MUST implement for FCoE networks. However, the FCoE standard should have some text explaining the importance of PFC for fabric convergence and make a recommendation about implementations supporting PFC. PFC should not be mandated though.	The current text is good as is. This standard defines an upper layer protocol, not how to do fabric convergence.	R	C
EMC-001	T	81	7.2	The phrase "and requires the underlying Ethernet layer to be" misuses the term "require". A lossless Ethernet will outperform a lossy one, but there's no requirement and no way to enforce such a requirement.	Replace the phrase with "and performs optimally when the underlying Ethernet layer is".	Replace "and requires the underlying Ethernet layer to be full duplex and lossless" with "and shall use an underlying Lossless Ethernet layer". See 09-021v0.	R	C
QLogic-001	T	81	7.2, 1st paragraph	Mentions Flow Control, this is not an aspect of FCoE, but is handled at a lower level (i.e., in IEEE).	Remove "Flow Control".	See 09-021v0.	A	C
QLogic-002	T	81	7.2, 3rd para, 2nd sentence	Says "requires the underlying". Requires sounds like a requirement.	Remove the word "requirement" and replace with something that sounds less like a keyword .	See EMC-001	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-012	T	82	7.2	The draft does not state how an FCF will represent support for fabric binding and insistent domain ID fabric wide security policies when responding to an QSA ELS (See FC-SP). Since an FCoE fabric can have Ethernet bridges, this support cannot be guaranteed (There is no way to detect a new switch joining the fabric when it plugs into a bridge). However, this support is required by FC-SB-3, a statement needs to be made regarding this support.	Add a statement in 7.2 that states "Indication for support for fabric wide security policies in the LS_ACC response to a QSA ELS Request (See FC-SP) is a representation of support by the FC aware components of the fabric (e.g., fibre channel switches and FCFs). Fabric wide security policies may not be enforceable when Ethernet bridges are present in the fabric and configurations should be managed accordingly."	Keep text as is.	R	C
Emulex-016	T	82	7.2	At the top of page 82, a pair of MAC addresses are claimed to be sufficient to identify a Virtual Link. This may not be true for SPMA.	???	See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-017	T	82	7.2	The specification of FC-BB-E leads to several important functional variations from the functions of native Fibre Channel, but these variations are nowhere summarized.	After the first paragraph fragment at the top of page 82, add the new paragraph Although the FC-BB-E model replicates most of the functionality of FC-FS-3 and FC-SW-5, it does not support Connection-based classes of service (i.e., Class 1 service and Class 6 service). The FC-BB_E model also enables some additional features: a) An Enode may concurrently login using different N_Port_Names with multiple FCFs on the same Fabric through a single lossless Ethernet MAC; b) An FCF may accept logins from multiple Enodes through a single lossless Ethernet MAC without use of the Arbitrated Loop protocols; and c) An FCF may establish Inter-Switch Links with multiple other FCFs through a single lossless Ethernet MAC.	See 09-021v0	AinP	C
EMC-029	T	82	7.2	"An FCoE Virtual Link is identified by the pair of MAC addresses of the two link end-points." No it's not - need FCID of VN_Port, see comment 3 above	Add FCID of VN_Port.	See Emulex-16	AinP	C
EMC-002	T	82	Figure 26	It's not clear that how VN_Ports are associated with H1 and H2.	Put one box around H1 and its two VN_Ports and one box around H2 and its VN_Ports.	See 09-021v0	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-003	T	82	Figure 26	Each FCF shows only one network connection, but multiple fabric connections. According to Note 16 on page 104, an FCF may have multiple network connections.	Add a second network port to FCF A and to FCF B.	Figure 26 is an example, figure 29 shows that multiple MACs are allowed in an FCF.	R	C
Emulex-018	T	83	7.3	The second sentence of the first paragraph of 7.3 can easily be understood to mean only one of the lossless Ethernet MACs is "the ENode's MAC, and that all the lossless Ethernet MACs are operated by a single FCoE Controller.	Change the second sentence of the first paragraph of 7.3 from An ENode is functionally composed of at least one Lossless Ethernet MAC (i.e., the ENode's MAC), coupled with an FCoE Controller function. To An ENode is functionally composed of at least one Lossless Ethernet MAC with FC-BB_E enabled (i.e., an ENode MAC), and one FCoE Controller for each ENode MAC.	See 09-021v0	AinP	C
IBM-026	T	84	7.3	Indicate that c) is optional (NPIV) is not mandatory)		See 09-021v0	A	C
Emulex-019	T	84	7.3	The first unordered list in 7.3 did not mention that ENode FCoE controller initiates FIP LOGO Exchanges.	In the first unordered list in 7.3, add a new line after current line c: d) initiates FIP LOGO Exchanges when explicit Fabric logout is needed;	See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-020	T	84	7.3	Item g of the first unordered list in 7.3 strains grammar to identify the VF_Ports that are monitored.	In item g of the first unordered list in 7.3, change monitors the status of VF_Ports the instantiated VN_Ports are logged in with to monitors the status of VF_Ports to which it has instantiated Virtual Links	See 09-021v0	AinP	C
Emulex-021	T	84	7.3	The first unordered list in 7.3 did not mention that ENode FCoE controller monitors FIP Clear Virtual Link request from FCF.	In the first unordered list in 7.3, add a new line after current line g: h) de-instantiates the indicated VN_Port/FCoE_LEP pairs on receiving FIP Clear Virtual Link requests.	See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-022	T	84	7.3	The first paragraph after the first unordered list in 7.3 is ambiguous if the FCoE Controller for an ENode MAC logs into multiple VF_Ports.	<p>Change the first paragraph after the first unordered list in 7.3 from</p> <p>VN_Ports instantiated by an ENode MAC on successful completion of FIP NPIV FDISC Exchanges are all associated to the same VF_Port, instantiated by the VF_Port capable FCF-MAC on successful completion of a FIP FLOGI Exchange</p> <p>to</p> <p>The FCoE Controller for an ENode MAC may perform Fabric Login with more than one VF_Port concurrently. After an FCoE Controller for an ENode MAC has completed Fabric Login with a VF_Port, the FCoE Controller may instantiate additional VN_Ports associated with the same VF_Port by successful completion of FIP NPIV FDISC Exchanges with the that VF_Port.</p>	See 09-021v0	AinP	C
EMC-005	T	84	7.3	To make an FCoE network correctly emulate an FC fabric, it is required that an ENode's FCoE controller only log into one VF_Port at a time. Otherwise, an SPMA-only ENode would present the same MAC address to two different FCF_MACs, which would make routing very interesting.	After the "VN_Ports instantiated by" paragraph, add a sentence prohibiting an the FCoE controller from sending a FIP FLOGI while it already has a VN_Port open. This language should prohibit sending a second FLOGI to the same FCF_MAC, as well as to a different one.	Ethernet does not have a problem in this case. FCoE Virtual links are disambiguated by the FCFs having different MAC addresses.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-030	T	84	7.3	"An FCoE_LEP operates according to the two parameters defining the Virtual Link, the MAC address of the local link end-point, and the MAC address of the remote link end-point." No, it doesn't - FCID of the VN_Port is needed, see slides 18 and 19 of 08-556v1.	Add FCID of VN_Port. It's needed for a security check that includes the MAC addresses, and hence has to be made in the LEP.	See 09-021v0	AinP	C
NetApp-16R	T	84	7.3	Sentence 1 says "An Enode MAC shall support instantiation of VN_Ports." but sentence 2 says "The FCoE Controller...instantiates VN_Ports..."	The roles of the Enode MAC vs the FCoE Controller are not clear; add more clarity - does the MAC or the FCoE Controller do the instantiation?	See 09-021v0	AinP	C
NetApp-17R	T	84	7.3	In the functional model proposed, which component demultiplexes incoming frames into various VN_Port/FCoE_LEP pair, when if there is 1:n association of MAC address with VN_Port/FCoE_LEP pairs? It seems obvious, but worth mentioning.	The Lossless Ethernet MAC is the functional entity that performs de-multiplexing of incoming frames into various FCoE_LEP/VN_Port pairs.	See 09-021v0	AinP	C
Broadcom-007	T	84	Figure 28	Why are there two stacks per Ethernet MAC - we don't have two port types like the FCF so there should be just one stack.	Delete one FC-4, FC-3, VN_port and FCoE LEP stack per MAC.	Each stack represent a connection with a different FCF-MAC. See 09-021v0.	R	C
NetApp-15R	T	84	Figure 28	Enode is a Fibre Channel Node. Since the VN_Port_Name is being shown, it makes sense to also indicate Node Name being associated with Enode in Fig. 28.	Indicate where the Node Name is associated with Enode in figure 28. Is it the 3 green entities that share the same FC3/4s? or the 6 green things that share the Lossloss Ethernet MAC? or is it all 6+[6]+[...] green things that are the ENODE in total? Where is the WWNN boundary for FCoE? Is there a boundary defined at all?	Nodes, Node_Names, VN_Ports and N_Port_Names are now all defined in FC-FS-3. The updated pictures in 09-021v0 do not need Name_Identifiers anymore.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-024	T	85	7.3	The last paragraph in 7.3, including its unordered list, attempts to restate a lot that is specified in FC-FS-3 and FC-LS-2. This is not necessary. It is also somewhat incorrect (e.g., VN_Ports don't emulate N_Ports, they are N_Ports, VN_Ports never have anything to do with BB_Credit.).	Change the last paragraph in 7.3, including its unordered list to An FCoE VN_Port is a VN_Port for which the PN_Port is an FCoE_LEP. FCoE VN_Ports have all the characteristics and behavior of Fibre Channel VN_Ports (see FC-FS-3 and FC-LS-2), except that: a) they are instantiated and removed by ELSs using a different framing protocol (i.e., FIP) than their native protocol (i.e., FCoE); and b) they do not support Connection-oriented classes of service.	See 09-021v0	AinP	C
EMC-031	T	85	7.3	FCoE_LEP Decapsulation checks are insufficient. Sentence starts at bottom of p.84	Change "should verify that the source address" to "shall verify that the source address".	The group decided this is really important. Accepted as is. In two places, 7.3 and 7.4.	A	C
EMC-032	T	85	7.3	Missing FCoE_LEP FCF decapsulation check	Add a requirement to check the S_ID. It's not enough to check the two MACs, the VN_Port's S_ID has to be checked by the VF_Port, and the check must be of the triple, as checking the MACs, stripping the Ethernet header and then checking the S_ID can open a security hole. See p.18 of 08-556v1.	The check is in 7.4, not in 7.3. See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-033	T	85	7.3	Missing FCoE_LEP ENode decapsulation check	Add a requirement to check the D_ID. Checking the MACs is not enough if more than one VN_Port MAC is in use at the ENode. The requirement has to be to check the triple, as checking the MACs, stripping the Ethernet header and then checking the D_ID can open a security hole. See p.19 of 08-556v1.	See 09-021v0	AinP	C
QLogic-004	T	85	7.3, last paragraph	The phrase "A VN_Port is the data forwarding component of an FC Entity that emulates an N_Port" is inaccurate. A VN_Port does not emulate a N_Port, it IS an N_Port on a different transport.	Change to "provides the functionality of an N_Port as specified in FC-FS-3".	See 09-021v0	AinP	C
Emulex-025	T	86	7.4	The first ordered list in 7.4 looks like it should be an unordered list.	make it so.	See 09-021v0	A	C
Broadcom-006	T	86	7.4	"allowed, but not recommended" I'm not sure what the syntax here means. Does it mean that it is recommended that you don't use the same port for both or is it simply making a neutral statement that there isn't a recommendation to use the same port for both. Why isn't it recommended?	Please clarify.	See EMC-035	AinP	C
EMC-035	T	86	7.4	Use of same MAC for two different types of FC ports is a bad idea and a security risk.	Change "Support for both VE_Ports and VF_Ports on the same FCF-MAC is allowed, but not recommended." to "... on the same FCF-MAC is prohibited."	See 09-021v0	A	C
NetApp-18F	T	86	7.4	Same as NetApp-16R - FCF-MAC Instantiates the Vx_Ports vs. the FCoE Controller instantiates the Vx_Ports?	Clarify	See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-006	T	86	7.4, first paragraph on page	The statement "Support for both VE_Ports and VF_Ports on the same FCF-MAC is allowed, but not recommended." adds nothing useful to the discussion.	Remove it.	See EMC-035	AinP	C
Brocade-024	T	86	Editor's note	The bridging element should not be part, but if we are showing it, then we should also show the model where a single bridge spans all the lossless MACs.		The bridging element stays to show that multiple FCF ports may share the same MAC address, and is an optional component. The note allows other configurations, including the one proposed in this comment, that however would make ambiguous which MAC address is used on each FCF port.	R	C
QLogic-005	T	86	Editor's Note.	The editor's note needs to be resolved/removed before publication.	I agree with the sentiment in the editor's note. Lossless ethernet is at a different level than FCoE. It's OK to mention in an FCoE discussion, but it should not be part of this model.	The commenter is satisfied by the updated definitions of lossless ethernet. Keep the figure as is and add the sentence "When an FCF includes Lossless Ethernet bridging elements, an FCF-MAC address may be used by multiple Ethernet ports of the FCF." See 09-021v0.	AinP	C
EMC-034	T	86	Figure 29	Editor's Note about removing Ethernet bridging element makes figure inconsistent.	Either leave figure as is, or remove FC Fabric Interface, FC Switching Element and Lossless Ethernet Bridging Elements. Leaving figure as is the preferred resolution.	Keep the figure as is. See Qlogic-005 and 09-021v0.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-19F	T	86	Figure 29	The Yellow MAC Address FCF-MAC[1] block indicates that each Ethernet_Port has only 1 MAC address, and that each MAC address (exhibited by MAC Address FCF-MAC[n]) has it's own Ethernet_Port	Clarify the MAC address to Ethernet_Port relationship.	Yellow blocks removed. See 09-021v0.	AinP	C
NetApp-20F	T	86	Figure 29	MAC Address FCF-MAC[1] points to the Ethernet_Port; but MAC Address FCF-MAC[n] points to the Lossless Ethernet MAC (not the Ethernet_Port). Which is it?	Clarify	Yellow blocks removed. See 09-021v0.	AinP	C
IBM-018	T	87	7.4	For item (7), suggest that the value of 90 seconds be a variable or a multiple of FKA_ADV_PERIOD.	Fix here and all other occurrences of "90 Seconds" to use a timer variable or a multiple of FKA_ADV_PERIOD	Define the symbolic constant FKA_VN_PERIOD for this in table 45 and use it. Add a note to table 45 to explain why 90 seconds is the proper value. See 09-118v1.	AinP	C
IBM-030	T	87	7.4	When stating that the MAC address of the remote LEP is the MAC address associated with the logged in VN_Port, a statement should be added to say that the MAC address may be the same for each additional FCoE_LEP instantiated using FIP NPIV FDISC when using SPMA (so that it is understood that 2 virtual links could be defined by the same 2 MAC addresses). (This brings up questions, later, about the need for FKA on each virtual link, when the addresses are the same)		See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-026	T	87	7.4	The first ordered list in 7.4 does not mention that for a VE_Port capable FCF_MAC, FCoE Controller is responsible for "transmitting periodic FIP Disc_Adv every FKA_ADV_PERIOD to ALL_FCF_MACs" and "initiating FIP Clear_Virtual_Link to tear down the VE_Port - VE_Port bindings."	Add two items to the first ordered list in 7.4: - advertising its status to remote VE_Ports by transmitting periodic FIP Discovery Advertisements to the ALL_FCF_MACS address every FKA_ADV_PERIOD; - initiating FIP Clear_Virtual_Link as necessary to terminate Virtual Links to other VE_Ports;	See 09-021v0	AinP	C
Emulex-027	T	87	7.4	The second ordered list in 7.4 does not mention that for a VF_Port capable FCF_MAC, FCoE Controller is responsible for "transmitting periodic FIP Disc_Adv every FKA_ADV_PERIOD to ALL_ENODE_MACs" and "initiating FIP Clear_Virtual_Link to tear down the VF_Port - VN_Port bindings."	Add two items to the second ordered list in 7.4: - advertising its status to remote VN_Ports by transmitting periodic FIP Discovery Advertisements to the ALL_ENODE_MACS address every FKA_ADV_PERIOD; - initiating FIP Clear_Virtual_Link as necessary to terminate Virtual Links to VN_Ports;	See 09-021v0	AinP	C
Emulex-029	T	87	7.4	The second ordered list in 7.4 looks like it should be an unordered list.	make it so.	See 09-021v0	A	C
Emulex-031	T	87	7.4	The first paragraph after the second ordered list in 7.4 duplicates the first paragraph after the first unordered list in 7.3.	Delete the first paragraph after the second ordered list in 7.4	It is better to keep it in both places.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-032	T	87	7.4	The second and third paragraphs from the end of 7.4, together with their unordered lists, attempt to restate a lot that is specified in FC-SW-5 and FC-LS-2. This is not necessary. It is also somewhat incorrect (e.g., VF_Ports don't emulate F_Ports, and VF_Ports never have anything to do with BB_Credit).	<p>Replace the second and third paragraphs from the end of 7.4, together with their unordered lists with</p> <p>An FCoE VE_Port is a VE_Port for which the PE_Port is an FCoE_LEP. FCoE VE_Ports have all the characteristics and behavior of Fibre Channel VE_Ports (see FC-SW-5), except that:</p> <ul style="list-style-type: none"> a) they are instantiated and removed by ELPs using a different framing protocol (i.e., FIP) than their native protocol (i.e., FCoE); and b) they do not support Connection-oriented classes of service. <p>An FCoE VF_Port is a VF_Port for which the PF_Port is an FCoE_LEP. FCoE VF_Ports have all the characteristics and behavior of Fibre Channel VF_Ports (see FC-SW-5 and FC-LS-2), except that:</p> <ul style="list-style-type: none"> a) they are instantiated and removed by ELSs using a different framing protocol (i.e., 	See 09-021v0	AinP	C
EMC-036	T	87	7.4	"An FCoE_LEP operates according to the two parameters defining the Virtual Link, the MAC address of the local link end-point, and the MAC address of the remote link end-point." No, it doesn't - FCID of the VN_Port is needed, see slides 18 and 19 of 08-556v1.	Add FCID of VN_Port.	See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-007	T	87	7.4, third paragraph on page.	Paragraph beginning "The FCoE_LEP is the functional entity performing the encapsulation of FC frames into FCoE frames in transmission and the decapsulation of FCoE frames into FC frames in reception." seems to be repeating what is defined earlier in clause 7.3.	Remove repeated text.	It is better to keep it in both places.	R	C
Brocade-025	T	87	line 3	Bullet 3. Elaborate on what the "appropriate" scenarios are for this.		See 09-021v0	AinP	C
Brocade-026	T	87	p2	a) What does the 3rd bullet involve for SPMA? b) Need to mention somewhere that FKA_ADV_PERIOD can be configured to be 0 in which case no KA's are sent in either bullet 6 or 7.		See 09-021v0 for a). See Brocade-20 for b)	A	C
EMC-037	T	88	7.5	VN-VF virtual link discussion is incomplete.	Add statement that FCID is assigned to the VN_Port as part of instantiating a virtual link. Add text about VN_Port MAC address for both FPMA and SPMA cases.	See 09-021v0	AinP	C
NetApp-28R	T	88	7.5	It would be nice to specify assignment of MAC addresses for FCoE. - One MAC addresse per VN_Port/FCoE_LEP or one MAC address shared between more than one VN_Port/FCoE_LEP - One MAC addresses per VF_Port/FCoE_LEP or one MAC address shared between more than one VF_Port/FCoE_LEP	Clarify	See 09-021v0	AinP	C
Brocade-027	T	88	last paragraph	Same LEP issue for SPMA.		See 09-021v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-29F	T	89	7.5	<p>Figure 31 shows the Virtual Links end-points, that are the MAC addresses of the two involved VE_Port capable FCF-MACs (i.e., FCF-MAC(1) and FCF-MAC(2)).</p> <p>Are Virtual Link end-points equivalent to MAC addresses? This makes it sound like they are.</p>	<p>Figure 31 shows the Virtual Links end-points, that are represented by the MAC addresses of the two involved VE_Port capable FCF-MACs (i.e., FCF-MAC(1) and FCF-MAC(2)).</p>	<p>Add "example" to the caption. See 09-021v0.</p>	AinP	C
Emulex-033	T	89	7.6	<p>The first paragraph of 7.6 says that additional IEEE 802.1 tags may be present in an FCoE frame. Then table 21 describes an FCoE frame to begin with the EtherType field. This is misleading, since the optional tags can not appear within that range, only before it. A restatement similar to that used to describe FIP frames (page 94) might capture this better.</p>	<p>Change the first paragraph of 7.6 from</p> <p>The format of an FCoE frame is specified in table 21. The use of an 802.1Q tag header is optional and additional IEEE 802.1 defined tags may be present in an FCoE frame.</p> <p>To</p> <p>All Ethernet frames that encapsulate FCoE frames shall be formatted in accordance with 802.3-2005 and the MAC Client Data field within the 802.3 frame shall contain the encapsulated FCoE frame. The use of an 802.1Q tag header is optional and additional IEEE 802.1 defined tags may be present in the Ethernet frame prior to the FCoE frame.</p> <p>The format of an encapsulated FCoE frame is specified in table 21.</p>	<p>Accepted as is. Add a reference to annex B. Modified by 09-251v1.</p>	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-31R	T	89	Table 21	FCoE frame format can be shown in the context of Ethernet frame format. There is mention of 802.1Q but Table 21 does not show it.	Add reference to Appendix B.2 that does contain this information.	See Emulex-033	AinP	C
EMC-038	T	90	7.7	Much of Section 7 on FIP written descriptively, making FIP functionality appear to be optional. Normative keywords appear to be used sporadically.	Add normative keywords, e.g., "shall" to entire section, including subsections to make FIP and its functionality normative.	See 09-201v0	AinP	C
Cisco-016	T	90	7.6.	What does it mean "the SOF field shall be compliant with FC-FS-3"?	remove the sentence (twice)	Replace the SOF paragraph with "The SOF field specifies the SOF delimiter for the encapsulated frame. The value of the SOF field shall be as specified in table 22." and add a reference to FC-FS-3 in the "Description" heading of the table. Apply the same fix to the EOF paragraph.	AinP	C
Cisco-017	T	90	7.7.	Add VLAN discovery, as per 08-564v0		Accepted by motion at the December meeting.	A	C
Cisco-018	T	90	7.7.	Add FIP Errors handling, as per 08-578v1		Accepted 08-578v2. Incorporated in 09-118v1.	AinP	C
Cisco-019	T	90	7.7.1	"frame format" should be "ethertype"	replace twice	Replace the paragraph with "The FIP Ethertype (see 7.7.5.1) is different than the FCoE Ethertype (see 7.6) to enable the distinction of discovery, initialization, and maintenance traffic from other FCoE traffic." See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-032	T	91	7.7.2.1	3rd to last paragraph.. When discussing the "A" bit, we need to state what the affect of the A bit being set to 0 has on existing logins. The answer, I assume, is nothing, but this needs to be stated.	Add a statement indicating that the A bit setting does not have any affect on existing logins.	Add to the paragraph the following statement: "The A bit is informational and shall have no effect on existing logins." See 09-118v1.	AinP	C
Cisco-021	T	91	7.7.2.1	Specify that existing Logins are not affected by the A bit		See IBM-032	A	C
Cisco-022	T	91	7.7.2.1	What does it mean "shall remain valid" in the last sentence?		See NetApp-37F	AinP	C
EMC-040	T	91	7.7.2.1	It is not clear how "b) Available for Login" is set.	Explain how to set the value of this flag.	Replace the explanations with: "reflects the value of the A bit provided by the most recently received Discovery Advertisement from that FCF-MAC." See 09-118v1.	AinP	C
NetApp-35F	T	91	7.7.2.1	b)Available for Login - set to one when the FCF is able to accept additional FIP FLOGI/FDISC requests, set to zero otherwise.	b)Available for Login - set to one when the FCF is may be able to accept additional FIP FLOGI/FDISC requests, set to zero otherwise if the FCF may not be able to accept additional FIP FLOGI/FDISC requests. This bit is advisory at best. The condition it represents may change the instant the message is sent (or even queued to be sent).	See IBM-032 and EMC-040.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-36F	T	91	7.7.2.1	The periodic reception of multicast Discovery Advertisements allow ENode FCoE Controllers to continuously verify FCF-MAC connectivity. The Available for Login (A) bit in received Discovery Advertisements provides the information that the transmitting FCF-MAC is available for FIP FLOGI/FDISC, and this information is updated in the FCF list and FCF Login Set on reception of Discovery Advertisements.	The periodic reception of multicast Discovery Advertisements allow ENode FCoE Controllers to continuously verify FCF-MAC connectivity. The Available for Login (A) bit in received Discovery Advertisements provides the information that the transmitting FCF-MAC is may be available for FIP FLOGI/FDISC, and this information is updated in the FCF list and FCF Login Set on reception of Discovery Advertisements.	See IBM-032 and EMC-040.	AinP	
NetApp-37F	T	91	7.7.2.1	The last sentence of this clause mentions the MAC address with no reference to SPMA or FPMA. Is the statement about "all FIP operations" true, or is it all FIP operations used during the FIP Discovery Protocol?		Remove the sentence from this subclause. Add the following sentence to subclause 7.7.1: "On ENodes the ENode MAC address shall be used for all FIP operation. On FCF the FCF-MAC address shall be used for all FIP operations." See 09-118v1.	AinP	C
NetApp-40F	T	91	7.7.2.1	The FCoE Controller for a VF_Port capable FCF-MAC shall periodically transmit multicast Advertisements to the All-ENode-MACS group address every FKA_ADV_PERIOD.	The FCoE Controller for a VF_Port capable FCF-MAC shall periodically transmit multicast Discovery Advertisements to the All-ENode-MACS group address every FKA_ADV_PERIOD. Everyother reference is to "multicase Discovery Advertisements".	Add the word "discovery". See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-023	T	92	7.7.2.2	Specify that existing ELPs are not affected by the A bit		Add to the paragraph the following statement: "The A bit is informational and shall have no effect on existing VE_Port to VE_Port Virtual Links." See 09-118v1.	A	C
EMC-043	T	92	7.7.2.2	It is not clear how "b) Available for ELP" is set.	Explain how to set the value of this flag.	Replace the explanations with: "reflects the value of the A bit provided by the most recently received Discovery Advertisement from that FCF-MAC." See 09-118v1.	A	C
NetApp-38F	T	92	7.7.2.2	b)Available for ELP - set to one when the FCF is able to accept additional FIP ELP requests, set to zero otherwise.	b)Available for ELP - set to one when the FCF is may be able to accept additional FIP ELP requests, set to zero otherwise if the FCF may not be able to accept additional FIP FLOGI/FDISC requests.	See EMC-043.	AinP	C
NetApp-39F	T	92	7.7.2.2	The Available for Login (A) bit in received Discovery Advertisements provides the information that the transmitting FCF-MAC is available for FIP ELP, and this information is updated in the FCF list on reception of Advertisements.	The Available for Login (A) bit in received Discovery Advertisements provides the information that the transmitting FCF-MAC is may be available for FIP ELP, and this information is updated in the FCF list on reception of Advertisements.	See Cisco-023.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-034	T	92	7.7.3.1	7.7.3.1 discusses Virtual Link instantiation, also introduces FIP LOGO, which de-instantiates a Virtual Link. It does not mention FIP Clear Virtual Links. On the other hand, 7.7.4.1 discusses both, lacking only a few details about FIP LOGO. It seems that the subclause on instantiation is not the best place to partially describe LOGO (de-instantiation), anyway.	<p>Remove the last two paragraphs from 7.7.3.1.</p> <p>After the second to last paragraph of 7.7.4.1 add a paragraph:</p> <p>A FIP Fabric Logout (i.e., LOGO) shall be performed by an ENode using the FIP frame format (see table 24) and the associated FIP descriptor type (see table 29). Fabric logout shall not be performed using the FCoE frame format. Acceptance of FIP Fabric Logout from a VN_Port by an FCF shall cause the FCF to log out that VN_Port from the Fabric, de-instantiate its Virtual Link , and release its MAC address if assigned using FPMA.</p> <p>Change the first sentence of the last paragraph of 7.7.4.1 from</p> <p>A FIP Clear Virtual Links message transmitted to an ENode MAC provides the list of VN_Ports to be removed.</p>	<p>Add this sentence at the beginning of the third paragraph of 7.7.3.1:</p> <p>"Explicit VN_Port to VF_Port Virtual Link de-instantiation is performed by an ENode MAC by performing Fabric logout."</p> <p>Replace the second but last paragraph of 7.7.4.1 with "Explicit VN_Port to VF_Port Virtual Link de-instantiation is performed by a VF_Port capable FCF-MAC by transmitting a FIP Clear Virtual Links message." See 09-118v1.</p>	AinP	C
Emulex-035	T	93	7.7.3.2	The last paragraph of 7.7.3.2 says FIP ELP can assign a MAC address to a VE_Port. The description of the FIP ELP request/response instead specifies the MAC address shall be the FCF-MAC address.	Delete the last paragraph of 7.7.3.2.	Change "assign a" to "communicate the" See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-037	T	93	7.7.4.1	When virtual links are de-instantiated due to missing advertisements or missing FKA, we need to state that the appropriate Fibre Channel recovery is performed at the VN_Port or the VF_Port and need to state what that recovery is in terms of Fibre Channel protocol such as Link Failure, Implicit logout, etc. Do we send an explicit LOGO?		Detecting a Virtual Link failure through missing keep alives should be equivalent to detecting a link failure in native Fibre Channel. This includes implicit de-instantiation of VN_Port/FCoE_LEP pairs and of FCoE_LEPs on the FCF-MAC. Explicit de-instantiation should be allowed, may be even recommended, through Clear Virtual Links and/or LOGO. Consider the case of unidirectional link failures. Resolved in 09-118v1.	AinP	C
IBM-038	T	93	7.7.4.1	Paragraph 5 states that there is a difference between FKA from the Enode and its VN_Ports and that difference is determined by the source MAC address. For SPMA, they are all the same.	Remove (i.e., those having the VN_Port MAC address as the source address) and add a statement that says a FKA from the Enode's N_Ports contains a Vx_Port Identification descriptor.	See 09-118v1.	AinP	C
IBM-040	T	93	7.7.4.1	"Three" missing FKAs is too much. It should be model dependant and more than one (stated in terms of comment IBM-074)		See IBM-066	AinP	C
IBM-041	T	93	7.7.4.1	The 2nd to last paragraph defines explicit virtual link de-instantiation. Need to state "when" explicit virtual Link de-enstantiation is required to be performed		See IBM-037	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-066	T	93	7.7.4.1	Text reads "After three missing VN_Port FIP Keep Alive messages...", how does an entity know how many it has missed? Should be specified in terms of elapsed time instead of number of misses	Change "After three missing VN_Port FIP Keep Alive messages" to "If no VN_Port FIP Keep Alive messages are received within at least 2xFKA_ADV_PERIOD"	make it 2.5 * FKA_ADV_PERIOD. Change the text accordingly. See 09-118v1.	AinP	C
IBM-067	T	93	7.7.4.1	Text reads "After three missing ENode FIP Keep Alive messages...", how does an entity know how many it has missed? Should be specified in terms of elapsed time instead of number of misses	Change "After three missing ENode FIP Keep Alive messages" to "If no ENode FIP Keep Alive messages are received within at least 2xFKA_ADV_PERIOD"	See IBM-066	AinP	C
IBM-070	T	93	7.7.4.1	Text says "...all associated VN_Port to VF_Port Virtual Links shall be de-instantiated". Should it require explicit de-instantiation?	State explicit recovery actions to be performed including LOGO, Clear Virtual Links, RSCNs, Nameserver updates, etc.	See IBM-037	AinP	C
IBM-071	T	93	7.7.4.1	Action taken in response to FIP Clear Virtual Link? Should the links be de-instantiated? Explicitly?		See IBM-037	AinP	C
Cisco-024	T	93	7.7.4.1	Specify "unicast" FIP Keep Alive (twice)		See 09-118v1.	A	C
Cisco-025	T	93	7.7.4.1	third paragraph, there is no definitive way to know exactly three FIP keepalives were missed.	Change to "The Enode MAC FCoE Controller monitors the status of a VF_Port that is has VN_Ports logged in by verifying receipt of FIP Discover Advertisements. If no FIP discovery advertisements are received from the VF_Port during a period of 3 x FKA_ADV_PERIOD, all of the VN_Port to VF_Port Virtual Links ..."	See IBM-066	AinP	C
Cisco-026	T	93	7.7.4.1	Sixth paragraph, no definitive method to know three keep alives were missed.	Reword to indicate no keep alives received within 270 second	225 s, based on the symbol. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-038	T	93	7.7.4.1	The first sentence of the last paragraph of 7.7.4.1 provides a nice discussion that is never reflected normatively.	Change the first sentence of the last paragraph of 7.7.4.1 from A FIP Clear Virtual Links message transmitted to an ENode MAC provides the list of VN_Ports to be removed. To A FIP Clear Virtual Links message transmitted to an ENode MAC provides the list of VN_Ports to be logged out from the Fabric. For each VN_Port correctly identified in the list, the ENode MAC FCoE Controller shall implicitly log out that VN_Port from the Fabric, de-instantiate its Virtual Link , and release its MAC address if assigned using FPMA.	See 09-201v0 and EMC-038.	AinP	C
EMC-010	T	93	7.7.4.1	The next-to-last paragraph says de-instantiating a link requires two messages, one from the ENode and one from the FCF.	Replace "and by transmitting a FIP Clear Virtual Links" with "or by transmitting a FIP Clear Virtual Links.	Changed by previous Emulex comments. See 09-118v1.	AinP	C
EMC-044	T	93	7.7.4.1	2nd paragraph: FKA_ADV_PERIOD is symbolic for the ENode MAC, but 90 seconds is explicit for the VN_Port MAC. Should both be symbolic? What if the VN_Port MAC is the same as the ENode MAC?	Use symbols for both time periods. Clarify what happens when same MAC used for both purposes; based on Note 13, it looks like both types of keep alives have to be sent.	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-045	T	93	7.7.4.1	3rd paragraph: The VN_Port has to verify that advertisements are received within every period, but only the consequence of missing three is stated. What's the consequence of missing one?	This should just be a rephrase to say that the period between successive advertisements is monitored. The advertisements should show up once every period - if four times that period elapses, then take action.	See IBM-066	AinP	C
EMC-046	T	93	7.7.4.1	3rd paragraph: ENode has to listen to All-ENode-MACs group address.	Add this requirement and state that this is where the advertisements will be received (i.e., not on the ENode's individual MAC).	Add three more generic requirements to 7.7.1: - ENodes shall listen to All-ENode-MACs; - FCFs shall listen to All-FCF-MACs; - both Enodes and FCFs shall listen to All-FCoE-MACs. See 09-118v1.	AinP	C
EMC-047	T	93	7.7.4.1	6th paragraph: Requirement expressed in terms of missing messages.	State requirement in terms of time elapsed between messages - at 4 times the expected inter-message time, take action.	See IBM-066	AinP	C
EMC-048	T	93	7.7.4.1	Size limit on link clear message is weak ("should"). In addition to switches, ENodes may rely on this.	Strengthen to "shall not exceed 1500 bytes".	as is. See 09-118v1.	A	C
NetApp-44F	T	93	7.7.4.1	Note 13 and the paragraphs around it: There is no indication of a relationship between Virtual Link de-instantiation and RSCN.	Is there a connection somewhere else, or should there be some indication of a relationship between de-instantiation of Virtual Links to RSCNs?	See IBM-037.	AinP	C
IBM-042	T	94	7.7.4.1	Virtual link maintenance should include de-instantiation when detectable ethernet physical link failures occur (however they may be defined), thus providing a faster detection mechanism for link failures than missing LKAs for simple configurations.	The rules for this should be stated.	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-027	T	94	7.7.4.2	2nd paragraph, no definitive method to know three keep alives were missed.	Reword to indicate no keep alives received within 3xFKA_ADV_PERIOD	See IBM-066	AinP	C
EMC-049	T	94	7.7.4.2	2nd paragraph: The VE_Port has to verify that advertisements are received within every period, but only the consequence of missing three is stated. What's the consequence of missing one?	This should just be a rephrase to say that the period between successive advertisements is monitored. The advertisements should show up once every period - if four times that period elapses, then take action.	See IBM-066	AinP	C
NetApp-45F	T	94	7.7.4.2	A FIP Clear Virtual Links message transmitted to a VE_Port capable FCF-MAC provides the destination FCF-MAC address. I'm not sure what this means? All message provide a destination MAC address. What is special about this one? If the destination address is special enough to mention specifically, what about the source MAC address? Why isn't that mentioned?	I'm not sure? Delete the sentence? Add a Source Address sentence; clarify something that I'm missing in what's there?	The sentence is referring to the payload. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-039b	T	94	7.7.5.1	The first paragraph of 7.7.5.1 says that additional IEEE 802.1 tags may be present in a FIP frame. Then table 24 describes a FIP frame to begin with the EtherType field. This is misleading, since the optional tags can not appear within that range, only before it.	<p>Change the first paragraph of 7.7.5.1 from</p> <p>All FIP frames shall be formatted in accordance with 802.3-2005 and the MAC Client Data field within the 802.3 frame shall contain the encapsulated FIP operation. The use of an 802.1Q tag header is optional and additional IEEE 802.1 defined tags may be present in an FIP frame.</p> <p>To</p> <p>All Ethernet frames that encapsulate FIP frames shall be formatted in accordance with 802.3-2005 and the MAC Client Data field within the 802.3 frame shall contain the encapsulated FIP frame. The use of an 802.1Q tag header is optional and additional IEEE 802.1 defined tags may be present in the Ethernet frame prior to the encapsulated FIP frame.</p>	See 09-118v1 and subsequently modified by 09-251v1.	A	C
IBM-045	T	94	7.7.5.2	Table 25 last row "n+m+2" should be just "n+2"		Actually, it should be "n-1". See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-040	T	94	7.7.5.2	It is unfortunate that the information needed to maintain ACLs is buried in a field in a Descriptor in the Encapsulated FIP operation in the Ethernet frame.	<p>In table 25, add flags</p> <p>word 1 bit 13: CL word 1 bit 12: DL</p> <p>After table 27 add the paragraphs</p> <p>The CL bit shall be set to one if the encapsulated FIP operation causes one or more Virtual Links to be created. The CL bit shall be set to zero if the encapsulated FIP operation does not cause one or more Virtual Links to be created.</p> <p>The DL bit shall be set to one if the encapsulated FIP operation causes one or more Virtual Links to be deleted. The DL bit shall be set to zero if the encapsulated FIP operation does not cause one or more Virtual Links to be deleted.</p>	Adding these bits does not ease the maintenance of ACLs, because the FIP frames have to be analyzed in any case and instead creates opportunities for inconsistent frames.	R	C
NetApp-46R	T	94	Table 25	FCoE frame format can be shown in the context of Ethernet frame format. There is mention of 802.1Q but Table 25 does not show it.	Add reference to Appendix B.2 that does contain this information.		AinP	C
Solution Technology-034	T	95	7.2, 3rd Paragraph	This paragraph does not mention a requirement for jumbo frames as was required earlier in the definition of a lossless ethernet network		jumbo frames requirement removed from the definition. See 09-021v0.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Brocade-029	T	95	last paragraph	Not sure what we get by using the solicited bit. All the unsolicited messages go to multicast addresses while the solicited ones go to a unicast address (i.e., unsolicited advertisements are sent to the ALL-ENODE-MACS multicast address, if the MAC DA is unicast, then it is known to be a solicited advertisement).		The MAC address may not be available at the upper layer where the FIP message is processed. S=1 implies the frame is padded, while S=0 implies the frame is not padded. S=1 implies the frame is sent in response to a solicitation, S=0 implies the frame is unsolicited. Add some additional explanation. See 09-118v1.	AinP	C
Cisco-029	T	95	Table 27	Set to 0 if SPMA is granted	Replace with "Set to zero if FPMA is not granted" Same with SPMA later	as is. See 09-118v1.	A	C
Emulex-041	T	95	table 27	In table 27, the settings for the the FP bit in an FLOGI Request and an FDISC_NPIV Request say that the bit is set to 1 of FPMA is requested, but do not say that it is not set to 1 if FPMA is not requested (this may sound obvious, but the standards have a scattering of bits for which one setting tells something, and the other does not). The settings for the SP bit have the same problem.	In table 27 in the row for FP FLOGI Request/FDISC_NPIV Request, after the first line of the settings cell, add "Set to 0 if FPMA is not requested". In table 27 in the row for SP FLOGI Request/FDISC_NPIV Request, after the first line of the settings cell, add "Set to 0 if SPMA is not requested".	as is. See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-051	T	95	Table 27	No SP or FP requirements on Discovery	Apply table footnote "a" to Discovery Solicitation and Discovery Advertisement.	Add note b) for Solicitations and Advertisements: b) Solicitation or Advertisement messages with the FP and SP bits both set to 0 should not generated and the messages shall be ignored on reception. Add two other rows to this table, indicating that FP and SP are reserved for other FIP operations. See 09-118v1.	AinP	C
Solution Technology-036	T	96	7.2, Last Sentence on page	The N_Port to F_Port Fibre Channel protocols do not operate unchanged. The Primitive Sequence protocols and Buffer-to-buffer credit protocol do not apply to FC-BB_E.		See 09-021v0	AinP	C
IBM-072	T	96	7.7.5.2	Text indicates that LOGO is a Link Instantiation request. Text also indicates that Available bit indicates an FCFs availability to process link instantiation requests. So, can a LOGO be sent to an FCF with Available bit of 0? Have to be able to LOGO always.	Clarify the definition and use of the A bit to be specific to new FLOGI request (actually containing an FLOGI) and FDISC requests.	See 09-118v1.	AinP	C
EMC-011	T	96	7.7.5.2	Need to specify the use of FIP_Pad by frames other than solicited Discovery Advertisements.	Add a sentence requiring the FIP_Pad field to be of zero length in all other FIP frames (or at least in multicast advertisement and all solicitations).	See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-47F	T	96	7.7.5.2	<p>The Available for Login (A) bit shall be set to 1 in a Discovery Advertisement if the originating FCF is available to process Virtual Link instantiation requests. The A bit shall be set to 0 in a Discovery Advertisement if the originating FCF is not available to process Virtual Link instantiation requests. The A bit is reserved for all other FIP operations.</p> <p>This bit is advisory at best, it can not be guaranteed to be synchronized with the other end.</p>	<p>The Available for Login (A) bit shall be set to 1 in a Discovery Advertisement if the originating FCF is may be available to process Virtual Link instantiation requests. The A bit shall be set to 0 in a Discovery Advertisement if the originating FCF is may not available to process Virtual Link instantiation requests. The A bit is reserved for all other FIP operations.</p>	as before!!!	R	C
NetApp-48F	T	96	7.7.5.2	<p>The FIP_Pad field is used in solicited Discovery Advertisements to extend the frame length to indicate the maximum frame length supported by the originator (see 7.7.6.3).</p> <p>This field does not "indicate the maximum frame length supported by the originator".</p>	<p>The FIP_Pad field is used in solicited Discovery Advertisements to extend the frame length with the intention to indicate the maximum frame length supported by the originator (see 7.7.6.3).</p> <p>or</p> <p>The FIP_Pad field is used in when transmitting a solicited Discovery Advertisements to extend the frame length to indicate the maximum frame length supported by the originator (see 7.7.6.3).</p>	<p>Replace "The FIP_Pad field is used in solicited Discovery Advertisements to extend the frame length to indicate the maximum frame length supported by the originator (see 7.7.6.3)." with "The FIP_Pad field is used in solicited Discovery Advertisements to extend the frame length to the value requested by the originator of the Solicitation to which the Advertisement is responding (see 7.7.6.3)." See 09-118v1.</p>	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-047	T	96	7.7.5.3.1	The notion of critical vs. non-critical descriptors is not clear to me. How would you ever add a critical descriptor to expand the use of a FIP operation? The FIP message would get discarded by older implementations. What happens when there is a "missing" critical descriptor vs. an unknown critical descriptor.		How a missing descriptor is dealt with is defined in the FIP message definition. The definition of critical and not critical descriptor allows safe definition of non backward compatible changes. Ensure that the definition of FIP operations says what to do in case of a missing descriptor or in case of a not needed critical descriptor: discard the message in all cases. Specified in 09-118v1.	AinP	C
EMC-053	T	96	Table 28	Use of ranges for critical vs. non-critical allows two opcodes to differ only in what appears to be the critical bit.	Reformat so the MSB is the critical/non-critical bit and the remaining 7 bits are the opcode, with vendor-specific opcodes required to be non-critical. This cuts the opcode space in half, hence needs careful thought.	Keep as is.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-043	T	97	7.7.5.3	Every descriptor defined in 7.7.5.3 includes a list of the messages in which it is used. So does table 44. This leaves an opportunity for the two to differ. Guess what? Compare 7.7.5.3.5 with the row of table 44 for FIP Clear Virtual Links.	<p>At the end of 7.7.5.3.1, add a paragraph</p> <p>The usage of descriptors in FIP messages is specified in table 44.</p> <p>Change the first sentence of the first paragraph of 7.7.5.3.2 from</p> <p>The FIP Priority descriptor is used in Discovery Advertisements originated by an FCF to indicate a priority to an ENode when multiple Discovery Advertisements are received.</p> <p>to</p> <p>The FIP Priority descriptor is used to indicate a priority to an ENode when multiple Discovery Advertisements are received.</p> <p>Delete the first paragraph of each subclause from 7.7.5.3.3 through 7.7.5.3.14</p>	<p>Remove the definition of the descriptor usages from each subclause and keep only table 44, adding a reference to table 44.</p> <p>Also change the first sentence of 7.7.5.3.2 to "An ENode may use the value provided in the Priority descriptor of received Discovery Advertisements to select the FCF-MAC to which to perform FIP FLOGI." See 09-118v1.</p>	A	C
NetApp-50F	T	97	7.7.5.3.2	<p>The FIP Priority descriptor is used in Discovery Advertisements originated by an FCF to indicate a priority to an ENode when multiple Discovery Advertisements are received.</p> <p>The priority descriptor is sent in the discovery advertisement, and used by an ENode when it receives multiple discovery advertisements.</p>	<p>The FIP Priority descriptor is used [transmitted contained sent] in Discovery Advertisements originated by an FCF to indicate a priority to an ENode. The FIP priority descriptor is used by the ENode when multiple Discovery Advertisements are received.</p>	See Emulex-043	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-52F	T	97	7.7.5.3.4	The FC-MAP concept hasn't been described anywhere yet; not even the definitions.	Add a cross reference to where it is discussed (There is a section where it is discussed - one of those earlier still TBD sections I assume? - If so, this comment can then be ignored).	Define what an FC-MAP is and how it is used. See 09-118v1.	AinP	C
NetApp-53F	T	97	7.7.5.3.5	The FIP Name_Identifier concept hasn't been described anywhere yet.	See comment 52	Add "(see FC-FS-3)" See 09-118v1.	AinP	C
QLogic-010	T	97	Table 30	Need a description of the individual fields in this table (Type, Length, Priority).	Add descriptions.	See 09-118v1	AinP	C
Solution Technology-042	T	98	7.3, List item a)	The FCoE Controller 'may' initiate the FIP discovery protocol. It may also simply wait to receive an Advertisement from an FCF.		as is. See 09-021v0.	A	C
EMC-054	T	98	7.7.5.3.3	What MAC address does the MAC descriptor contain?	Use a different descriptor with a different Type value for each type of MAC address that can be passed in FIP. It looks like there are ENode, FCF, VN and VE port MAC addresses used in various FIP messages. This reduces opportunities to use a MAC address for the wrong purpose.	MAC address function is inferred from FIP operations.	R	C
QLogic-012	T	98	Table 31	Need a description of the individual fields in this table (Type, Length, MAC address).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-013	T	98	Table 32	Need a description of the individual fields in this table (Type, Length, FC-MAP).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-014	T	98	Table 33	Need a description of the individual fields in this table (Type, Length, Name_Identifier).	Add descriptions.	See Qlogic-010	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-030	T	98	various tables	What [0], [1], etc mean in the MAC address, FC-MAP, etc fields?		Change the enumerated fields (MAC address and FC-MAP) to be single bigger fields. Add MSB and LSB. See 09-118v1.	AinP	C
Solution Technology-045	T	99	7.3, Item a in the list just before 7.4	In FC-FS, the PN_Port has a number of functions (e.g., buffer-to-buffer flow control, link-level protocols (e.g., LR) that are not performed by a VN_Port). Can VN_Port as used here be brought into alignment with VN_Port as used in FC-FS-3? If so, BB flow control is not a function of the VN_Port. If not, then there are other functions that a VN_Port does not do.		See 09-021v0	AinP	C
Solution Technology-044	T	99	7.3, List just before 7.4	There is a behavior in FC-FS-2 (9.5.1) for N_Ports prior to acquiring an N_Port ID. This behavior does not exist for FCoE VN_Ports. This same behavior in FC-FS-3 (9.5.1) for PN_Ports prior to acquiring an N_Port ID.		See 09-021v0	AinP	C
NetApp-69F	T	99	7.7.5.3.6	Table 34	Is VF_ID a well known thing? There is no definition, no reference, no text describing what it is. Add something to explain what this is.	Yes it is! Add a reference to FC-FS-3. See 09-118v1.	AinP	C
Cisco-031	T	99	7.7.5.3.7	Specify that Max_FCoE_Size is expressed in bytes		as is. See 09-118v1.	A	C
Emulex-046	T	99	7.7.5.3.7	Max_FCoE_Size??? Size of what? In what units?	In 7.7.5.3.7, after table 35 add The Max_FCoE_Size field shall be set to the length in bytes of the largest Ethernet frame that the sender of the descriptor is able to receive.	See Cisco-031	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-047	T	99	7.7.5.3.8	I can not find a description of how ELSs/ELPs are represented in a FIP descriptor. I had to count words, do arithmetic, and guess.	<p>After the last paragraphs of the specifications of the FIP FLOGI descriptor (7.7.5.3.8), FIP FDISC_NPIV descriptor (7.7.5.3.9), FIP LOGO descriptor (7.7.5.3.10), and FIP ELP descriptor (7.7.5.3.11), add unambiguous descriptions of the content, e.g.,</p> <p>An FLOGI Request, FLOGI LS_ACC, or FLOGI LS_RJT shall be a complete Fibre Channel frame with a Fibre Channel Frame_Header and an ELS payload but without a CRC field. In an FLOGI Request or FLOGI LS_ACC, the Payload bit shall be set to zero.</p>	Additional description is correct. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-048	T	99	7.7.5.3.8	Although use of Virtual Fabrics within a single VLAN is discouraged for security considerations, it is not prohibited. However, the fixed lengths specified for each of the ELS-bearing descriptors prevents inclusion of a VF_Header. How is VF accomplished?	Remove the fixed lengths specified for the FIP FLOGI descriptor (7.7.5.3.8), FIP FDISC_NPIV descriptor (7.7.5.3.9), FIP LOGO descriptor (7.7.5.3.10), and FIP ELP descriptor (7.7.5.3.11). Replace them with unambiguous descriptions of the content, e.g., An FLOGI Request, FLOGI LS_ACC, or FLOGI LS_RJT shall be a complete Fibre Channel frame optionally including a VF_Header, including a Fibre Channel Frame_Header and an ELS payload, but without a CRC field. In an FLOGI Request or FLOGI LS_ACC, the Payload bit shall be set to zero.	Deferred to FC-BB-6. Keep the text as is.	R	C
EMC-012	T	99	7.7.5.3.8	"FIP Fabric login requests and replies" aren't defined anywhere.	Clarify that the phrase refers to some line or lines in Table 44, which is four pages ahead. Fix the first sentences of 7.7.5.3.9 thru 7.7.5.3.11, too.	See 09-118v1.	AinP	C
EMC-013	T	99	7.7.5.3.8	Why is the Length set to 36 for an FLOGI Request? Table 149 in FC-LS-2 shows FLOGI can be either 29 or 64 words long.	Explain.	See Emulex-046.	AinP	C
EMC-055	T	99	7.7.5.3.8	Use separate descriptors for FLOGI and response	Define a separate descriptor for the FLOGI LS_* response	FIP Subcode distinguishes Requests from Responses.	R	C
QLogic-015	T	99	Table 34	Need a description of the individual fields in this table (Type, Length, FC-MAP, Fabric_Name).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-016	T	99	Table 35	Need a description of the individual fields in this table (Type, Length, Max_FCoE_Size).	Add descriptions.	See Qlogic-010	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-017	T	99	Table 36	Need a description of the individual fields in this table (Type, Length, FLOGI Request...).	Add descriptions.	See Qlogic-010	AinP	C
Emulex-049	T	100	7.7.5.3.10	In the last paragraph of 7.7.5.3.10, the length of a FIP LOGO descriptor carrying a LOGO LS_ACC is specified as 10; however, a LOGO LS_ACC is one word, and together with a six-word Frame_Header and a one-word descriptor header, adds up to only 8 words.	In the last paragraph of 7.7.5.3.10, change 10 to 8	as is. See 09-118v1.	A	C
EMC-057	T	100	7.7.5.3.10	Use separate descriptors for LOGO and response	Define a separate descriptor for the LOGO LS_* response	FIP Subcode distinguishes Requests from Responses.	R	C
EMC-058	T	100	7.7.5.3.11	Use separate descriptors for ELP and response	Define a separate descriptor for the ELP SW_* response	FIP Subcode distinguishes Requests from Responses.	R	C
EMC-056	T	100	7.7.5.3.9	Use separate descriptors for FDISC and response	Define a separate descriptor for the FDISC LS_* response	FIP Subcode distinguishes Requests from Responses.	R	C
QLogic-018	T	100	Table 37	Need a description of the individual fields in this table (Type, Length, NPIV FDISC...).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-019	T	100	Table 38	Need a description of the individual fields in this table (Type, Length, LOGO...).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-022	T	100	Table 38	issue in the descriptor length for a LOGO LS_ACC. Length should be 8, but spec lists it as 10.		See Emulex-049	A	C
QLogic-020	T	100	Table 39	Need a description of the individual fields in this table (Type, Length, ELP...).	Add descriptions.	See Qlogic-010	AinP	C
Emulex-050	T	101	7.7.5.3.12	In table 40, the word numbering is wrong.	In table 40, change word numbering from 1, 2, 2, 3 to 1, 2, 3, 4.	Good catch! See 09-118v1.	A	C
Cisco-032	T	101	7.7.5.3.13	Specify that FKA_ADV_PERIOD is expressed in milliseconds		as is, for uniformity with R_A_TOV. See 09-118v1.	A	C
QLogic-026	T	101	FKA_ADV_PERIOD	Using a 4 byte field for this value appears to be excessive for any practical application.	Suggest this field be 16 bits resulting in a maximum value of 65535 (65.535 seconds!).	See Cisco-032	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-023	T	101	Table 40	Need a description of the individual fields in this table (Type, Length, ...).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-024	T	101	Table 41	Need a description of the individual fields in this table (Type, Length, FKA_ADV_PERIOD).	Add descriptions.	See Qlogic-010	AinP	C
QLogic-025	T	101	Table 42	Need a description of the individual fields in this table (Type, Length, Vendor_ID).	Add descriptions.	See Qlogic-010	AinP	C
Solution Technology-052	T	102	7.4, Last paragraph on page	The sentence ending 'and the FCoE Controller of a VF_Port capable FCF-MAC instantiates an additional FCoE_LEP to the instantiated VF_Port.' is only true if a unique MAC address is used for the VN_Port. If using SPMA and a single MAC address is used for all VN_Ports, this statement is not true.		See 09-021v0	R	C
EMC-059	T	102	7.7.3.5.15	Last sentence is too weak	Say that a device "shall not be required to provide or understand" a vendor specific descriptor for normal operation. Might want to say "operation in accordance with this standard" instead of "normal operation".	See Emulex-051	AinP	C
Emulex-051	T	102	7.7.5.3.15	I do not believe the last paragraph of 7.7.5.3.15 is stated completely, and it should be normative.	Change the last paragraph of 7.7.5.3.15 from An FC-BB_E device is not required to provide a FIP Vendor Specific descriptor for normal operation. To An FC-BB_E device shall not require use of a FIP Vendor Specific descriptor in order to operate in compliance with this standard.	Accepted. Change to "An FC-BB_E device shall not require use of a FIP Vendor Specific descriptor in order to operate in accordance with this standard." See 09-118v1. Add "required" to the list of keywords of this standard in section 3.9.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-060	T	102	7.7.6	FIP Operations specification does not include message format checks	Add recipient instructions on acceptable payload combinations wrt discovery/instantiation state with a clear "shall" requirement on rejecting badly formed FIP messages without processing any of their payloads.	Table 44 already contains 80% of the response! See 09-118v1 for the rest!	AinP	C
EMC-061	T	102	7.7.6	FIP Operations specification does not include errors	Add specification of FIP errors, including error codes, what causes them, how they're reported and to what entities they are reported. Use clear "shall" requirements for error reporting.	No error reporting needed. See 09-118v1 for correctness checks. In 7.4, replace "A VE_Port is an instance of the FC-2V sublevel of Fibre Channel that operates as an E_Port (see FC-SW-4)" with "A VE_Port is an instance of the FC-2V sublevel of Fibre Channel that operates as an E_Port in accordance with FC-SW-5" and "A VF_Port is an instance of the FC-2V sublevel of Fibre Channel that operates as an F_Port (see FC-SW-4)" with "A VF_Port is an instance of the FC-2V sublevel of Fibre Channel that operates as an F_Port in accordance with FC-SW-5".	AinP	C
Cisco-034	T	102	7.7.6.1	Somewhere (this seems like a good place) we need to specify what to do if a FIP operation is missing required TLVs (discard the operation) and if it has unexpected additional required TLVs (again, discard the operation).	Add these "shalls' where needed	See EMC-060	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-053	T	102	7.7.6.1	In the first paragraph of 7.7.6.1 appears the text "...the order in that they should be encapsulated...". I prefer the flexibility that this offers (apart from the FIP Virtual Link Instantiation requests), but I thought we had agreed to a "shall", and the first sentence includes ordering under a "shall".	I'd be happier if you changed the first sentence to make descriptor ordering a "should". 8-)	Replace the first two sentences with "Table 44 specifies the FIP descriptors required in each FIP operation and the recommended order in which they should be encapsulated by a transmitting FCoE Controller. In certain cases, as indicated, strict ordering is required." See 09-118v1.	AinP	C
Broadcom-010	T	102	7.7.6.1	Conflicting information. First sentence says "shall contain...with...order as specified in table 44." Next sentence says "order that they should be encapsulated" and note a on Table 44 indicates that strict ordering is required for some but not all FIP operations.	Clearly state that strict ordering is required for all payloads. Remove note a.	See Emulex-053	R	C
Cisco-035	T	102	note 14	add "in any order" after "FIP descriptors"		as is. See 09-118v1.	A	C
QLogic-029	T	102	Section 7.7.6.1	"specifies the FIP descriptors required in each FIP operation and the order in that they should be encapsulated by a transmitting FCoE Controller." and "Unless otherwise specified (e.g., for a FIP FLOGI Request), a receiving FCoE Controller shall be able to process the FIP descriptors in any order." Order should be fixed and received in transmitted order.	Replace "should" with "shall" in sentence "...they should be encapsulated" and add a sentence "FIP descriptors shall be received in the order transmitted".	See Emulex-053	R	C
QLogic-027	T	102	Table 43	Need a description of the individual fields in this table (Type, Length, Vendor_ID, Vendor Specific Information).	Add descriptions.	See Qlogic-010	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-036	T	102	Table 44	Clarify the note by adding "in transmission. A receiving FCoE controller is not required to be able to process these FIP operations in any order other than that specified here."		as is. See 09-118v1.	A	C
QLogic-028	T	102	Table 44	Payload names should have a more detailed description.	Add a more detailed description, or a reference to where the detailed description can be found for each entry in the payload field.	Add references. See 09-118v1.	AinP	C
Solution Technology-054	T	103	7.6	the structure shown in Table 21 is not a frame. It is a portion of an Ethernet frame. Furthermore, within the items shown, it is not possible to have additional 802.1 tags because they would precede this structure.		See Emulex-033	AinP	C
Solution Technology-053	T	103	7.4, First paragraph on page	The sentence ending 'and the FCoE Controller of a VF_Port capable FCF-MAC instantiates an additional FCoE_LEP to the instantiated VF_Port.' is only true if a unique MAC address is used for the VN_Port. If using SPMA and a single MAC address is used for all VN_Ports, this statement is not true.		See 09-021v0	R	C
IBM-051	T	103	7.7.6.1	Table 44 - add a footnote for Vx_Port Identification on the FIP Keep Alive to indicate that it is only provided when FKA is sent for a VN_Port.		See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-054	T	103	7.7.6.1	In table 44, the row for FIP Keepalive unconditionally requires a Vx_Port Identification descriptor. While this descriptor is present in a VN_Port FIP Keepalive, it is not present in a MAC Address FIP Keepalive. See 7.7.6.5.	In table 44, add a new footnote "Shall not be present for a FIP Keepalive message using the Enode MAC Address as source address". In the cell for FIP Keepalive payload, after the Vx_Port Identification descriptor, add a reference to the footnote.	See IBM-051.	AinP	C
Emulex-055	T	103	7.7.6.1	In the last paragraph of 7.7.6.1, it claims that Enode devices are addressable. First, "Enode device" is not defined. Second, Enodes themselves are not addressable.	In the last paragraph of 7.7.6.1, change "Enode devices" to "Enode MACs".	Remove the last paragraph. See EMC-046. See 09-118v1.	AinP	C
NetApp-64F	T	103	7.7.6.1	The last paragraph (after table 44) doesn't seem to fit here. It references table 45 talking about Two group addresses, but table 45 is really about timers and constants.	Fix the placement of this paragraph and the reference. It almost looks like it belongs in an overview section under 7.7.6.2 (also see comment on table 45 about the reference).	See Emulex-055	AinP	C
Cisco-037	T	103	Table 44	Fabric LOGO should be restricted to ENodes, FCFs use FIP Clear Virtual Links	Update the table	Accept. Add also the table footnote "FCFs are allowed to generate FIP LOGO, however a FIP Clear Virtual Link is the recommended way for an FCF to de-instantiate a Virtual Link, except for the specific cases where LOGO is required (see FC-SP)." See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-052	T	104	7.7.6.2.1	Note 15, Virtual Enodes are required to have their own unique Node Name	Remove note 15.	Change the paragraph and the note to "The Name_Identifier field in the Name_Identifier descriptor shall be set to either the Node_Name of the ENode or to zero. NOTE 15 – The Name_Identifier field may be set to zero if the Node_Name is ambiguous or not yet available when the Solicitation is sent."	R	C
IBM-053	T	104	7.7.6.2.1	Max FCoE Size caclulation refers to an "FCS" in table 21 which does not exist. What is FCS? Appears twice on this page.		Replace "from the Version field, inclusive, to the FCS, exclusive" with "with and including the Version field, up to and including the reserved field following the EOF field" in both cases. See 09-118v1.	AinP	C
Cisco-038	T	104	7.7.6.2.1	Is the last sentence needed?		Keep as is.	AinP	C
IBM-054	T	104	7.7.6.2.2	"For FCF Macs that only support SPMA, the FC-MAP field in the FC_MAP descriptor is reserved." Add a statement that the FC_MAP descriptor still shall be provided. (I believe that is a requirement)		Add the requested information. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-055	T	104	7.7.6.2.2	item b) If FP=1, then the FC_MAP shall match the recipient FCF. If FP=0, then it should not be checked.		Change item b) to: "b) either: A) the FP bit is set to one and the FC-MAP field value in the Discovery Solicitation is the same as the FC-MAP val-ue of the recipient FCF; or B) the FP bit is set to zero, the SP bit is set to one and the FC-MAP field value in the Discovery Solicitation is zero." Change also "For FCF-MACs that only support SPMA, the FC-MAP field in the FC-MAP descriptor is reserved." to "For FCF-MACs that only support SPMA, the FC-MAP field in the FC-MAP descriptor shall be set to zero." See 09-118v1.	AinP	C
Cisco-040	T	104	7.7.6.2.2	In the sentence "After receiving a valid..." replace twice "FCF" with "FCF-MAC"		as is. See 09-118v1.	A	C
NetApp-67F	T	104	7.7.6.3	Discovery Advertisements shall only provide a single Fabric descriptor.	Add reference to 7.7.5.3.6 (Fabric Descriptor)	as is. See 09-118v1.	A	C
EMC-062	T	104	Note 15	This looks dangerous. Could get two links with same MACs.	Where's the check for two links to the same Vx_Port? This is part of why the VN_Port FCID has to be part of the Virtual Link definition.	See 09-021v0	AinP	C
NetApp-65F	T	104	Note 15	Is this Name_Identifier - the "Node_Name" what is commonly known at the WWNN (World Wide Node Name)?		Yes, it is! FC-FS-3 calls it Node_Name. No changes needed.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-66F	T	104	Note 16	NOTE 16 – It is possible for an FCF to receive a Discovery Solicitation that it originated because Discovery Solicitations sent to the All-FCF-MACS group address may be forwarded to other ports on the same FCF by intermediate ethernet bridges. Is it obvious that such a discovery solicitation should be discarded?	Add a sentence that says "Such Discovery Solicitations should be detected and discarded."	This is already there in item a) immediately above.	R	C
Solution Technology-066	T	105	7.7.2.1, 1st paragraph after the list	Regarding the sentence: 'Each FCF-MAC in the FCF Login Set shall be verified for Max FCoE Size support before performing the FIP FLOGI by transmitting a unicast Discovery Solicitation to an FCF-MAC and receiving a unicast Discovery Advertisement in response.' The only requirement is to verify that the path can support a frame large enough to encapsulate a full-sized Fibre Channel frame, not the jumbo frame size of the ENode. If an ENode advertises 12k Jumbo frame support, will it only attempt FLOGI with an FCF that supports 12k? This doesn't make sense.			W	C
Solution Technology-068	T	105	7.7.2.1, Next to last paragraph before 7.7.2.2	Change 'In response to a Discovery Solicitation from an ENode, an FCF transmits a solicited unicast' to 'In response to a Discovery Solicitation from an ENode, an FCF may transmit a solicited unicast'. If the addressing mode is incompatible, it doesn't make sense to send a Discovery Advertisement.		See 09-118v1.	AinP	C
IBM-058	T	105	7.7.6.3	This section should discuss the setting of the FP and SP bits in Discovery advertisements and possibly their relationship to the validity of the FC MAP.		See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-041	T	105	7.7.6.3	In the second paragraph, replace "D_A_TOV" with its value, and remove the timer from table 45		Keep the constant but rename it to something less similar to FS-FS timers.	R	C
Cisco-044	T	105	7.7.6.3	In the sentence "The Priority field" replace "FCF with "FCF-MAC"		as is. See 09-118v1.	A	C
Cisco-045	T	105	7.7.6.3	Add that responses to ENode Solicitations should happen when Fabric configuration is completed		See 09-118v1.	AinP	C
Emulex-057	T	105	7.7.6.3	The fourth paragraph of 7.7.6.3 advises that an Enode MAC FCoE Controller may detect that it has received multiple Discovery Advertisements from the same FCF. It does not advise what to do about it.	After the fourth paragraph of 7.7.6.3, add a new paragraph: An Enode MAC FCoE Controller that receives multiple Discovery Advertisements from different FCFs in the same Fabric or from the same FCF: a) should select FCFs for login based on the values of the Priority descriptors in the Discovery Advertisements; and b) may login using different N_Port_Names with multiple FCFs concurrently.	See 09-118v1.	AinP	C
NetApp-68F	T	105	7.7.6.3	last paragraph: The FIP_Pad field values shall be set to reserved. What is "reserved" and how do I set it?	Does this mean set to zero on transmit, and ignored when received? Does it mean whatever you want on transmit and ignored when received?	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-058	T	105	7.7.6.4.1	The unordered list in 7.7.6.4.1 is inaccurate, as it conflates the FIP payload with the content of the first descriptor.	Change all of 7.7.6.4.1 to FIP Virtual Link Instantiation Requests and Replies shall be transmitted using the FIP frame format (see 7.7.5.1). The first descriptor in the FIP frame shall be one of: a) FIP FLOGI; b) FIP FDISC_NPIV; or c) FIP LOGO. The first descriptor shall contain a single frame ELS Sequence (see FC-LS-2) of the required ELS type, comprising: 1) optionally, a VF_Header; 2) a Frame_Header; 3) optionally, an ESP_Header; 4) an ELS Payload; and 5) optionally, an ESP_Trailer. A Fibre Channel frame CRC shall not be included. If the first descriptor contains an FLOGI, FLOGI LS_ACC, FDISC, or FDISC LS_ACC, the Payload bit in the Common Service Parameters shall be set to zero.	Replace 7.7.6.4.1 with "FIP Virtual Link Instantiation Requests and Replies encapsulates an ELS or an SW_ILS. The encapsulated ELS or SW_ILS shall be a single-frame Sequence." See 09-118v1.	AinP	C
IBM-060	T	106	7.7.6.4.2	Discussion on choosing the MAC address needs to be cleared up.. The dependency on the setting of the FP and SP bits in the reply are not stated. The bottom line should be that the Enode uses the MAC in the FLOGI accept, regardless of what was proposed. What is supposed to happen if the Enode detects a MAC address that is not properly formed?		See IBM-058. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-059	T	106	7.7.6.4.2	The first paragraph of 7.7.6.4.2 would probably be interpreted to forbid advertising different addressing modes on different Enode MACs.	Change the first paragraph of 7.7.6.4.2 from When an ENode transmits a FIP FLOGI Request or NPIV FDISC Request it shall indicate the addressing mode it supports (i.e., FPMA, SPMA, or both). To When an ENode MAC FCoE Controller transmits a FIP FLOGI Request or NPIV FDISC Request it shall indicate the addressing mode it supports (i.e., FPMA, SPMA, or both).	See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-060	T	106	7.7.6.4.2	The fifth paragraph of 7.7.6.4.2 does not sufficiently restrict the value of the proposed MAC address.	<p>Change the fifth paragraph of 7.7.6.4.2 from</p> <p>If an ENode only supports FPMA, the MAC address field in the MAC address descriptor shall be set to the proposed MAC address to use for subsequent FCoE frames, or to all zeroes to indicate no MAC address is proposed.</p> <p>To</p> <p>If an ENode MAC FCoE Controller only supports FPMA, the MAC address field in the MAC address descriptor shall be set to a properly formed FPMA MAC address proposed to be used for subsequent FCoE frames, or to all zeroes to indicate no MAC address is proposed.</p>		R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-061	T	106	7.7.6.4.2	The sixth paragraph of 7.7.6.4.2 incompletely covers both FIP FLOGI and FIP FDISC_NPIV	<p>Change the sixth paragraph of 7.7.6.4.2 from</p> <p>If the ENode only supports SPMA, the MAC address specified in the FIP FLOGI Request or NPIV FDISC Request shall be returned in the FIP FLOGI Reply and shall be used as the VN_Port MAC address for all subsequent FCoE frames.</p> <p>to</p> <p>If the ENode only supports SPMA, the MAC address specified in the FIP Virtual Link Instantiation Request shall be returned in the FIP Virtual Link Instantiation Reply and shall be used as the VN_Port MAC address for all subsequent FCoE frames.</p>	See EMC-066	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-062	T	106	7.7.6.4.2	The seventh paragraph of 7.7.6.4.2 incompletely covers both FIP FLOGI and FIP FDISC_NPIV	<p>Change the seventh paragraph of 7.7.6.4.2 from</p> <p>If the ENode only supports FPMA, the MAC address specified in the FIP FLOGI Reply frame shall be used as the VN_Port MAC address for all subsequent FCoE frames. The assigned MAC address shall be a properly formed FPMA MAC address. In this case, the assigned MAC address should be the MAC address proposed in the FIP FLOGI Request or NPIV FDISC Request, if the proposed MAC address is a properly formed FPMA MAC address.</p> <p>to</p> <p>If the ENode only supports FPMA, the MAC address specified in the FIP Virtual Link Instantiation Reply frame shall be used as the VN_Port MAC address for all subsequent FCoE frames. The assigned MAC address shall be a properly formed</p>	See EMC-066	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-063	T	106	7.7.6.4.2	The eighth paragraph of 7.7.6.4.2 incompletely covers both FIP FLOGI and FIP FDISC_NPIV	<p>Change the eighth paragraph of 7.7.6.4.2 from</p> <p>If the ENode supports both FPMA and SPMA, the assigned MAC address shall be either the MAC address specified in the FIP FLOGI Request or NPIV FDISC Request, or a properly formed FPMA MAC address assigned by the FCF.</p> <p>to</p> <p>If the ENode supports both FPMA and SPMA, the assigned MAC address shall be either the MAC address specified in the FIP Virtual Link Instantiation Request, or a properly formed FPMA MAC address assigned by the FCF.</p>	See EMC-066	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-064	T	106	7.7.6.4.2	The first sentence of the last paragraph of 7.7.6.4.2 is useless, since all FIP requests use the ENode MAC Address of the ENode MAC as SA.	Change the last paragraph of 7.7.6.4.2 from The 802.3 frame source address in a FIP NPIV_FDISC Request shall be the same as the 802.3 frame source address of the prior FIP FLOGI Request associated with the FIP NPIV_FDISC. A successful FIP FLOGI operation creates a VF_Port. Subsequent FIP NPIV_FDISCs with the same 802.3 frame source address as the FIP FLOGI associate additional VN_Ports to the single VF_Port. to A successful FIP FLOGI operation creates a VF_Port. Subsequent FIP NPIV_FDISCs from the same ENode MAC Address as the FIP FLOGI associate additional VN_Ports to the same VF_Port that was created by the FIP FLOGI.	See 09-118v1.	AinP	C
EMC-015	T	106	7.7.6.4.2	This section should explicitly state that the Enode must use the MAC address assigned to it by the FCF. The sixth and seventh paragraphs are explicit, but the others, especially the eighth paragraph, imply that the ENode can choose not to use the proposed address.	State explicitly that the Enode must use the provided MAC address.	This is not what the eighth paragraph says. Section needs a good rewrite. See EMC-066.	R	C
EMC-016	T	106	7.7.6.4.2	The fifth paragraph says the FCF may send an address of all zeroes. In that case, what happens next? Is the login rejected?	Say whether login succeeded and explain what the ENode should do next.	This is the Enode, not the FCF.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-064	T	106	7.7.6.4.2	The interaction of payload type with subcode is bad - the same subcode is used for both FLOGI and FDISC purposes	See previous comments requesting additional payloads - it may be better to sort out the request and responses with different payload types. If this is not done, use subcodes 3 and 4 for FDISC instead of 1 and 2.		R	C
EMC-065	T	106	7.7.6.4.2	5th paragraph: How can an ENode that doesn't know its VN_Port FCID propose an FPMA MAC address??	Specify that the proposed MAC address has to be set to zero if only FPMA is supported.	Remove "to the proposed MAC address to use for subsequent FCoE frames, or". See 09-118v1.	A	C
EMC-067	T	106	7.7.6.4.2	7th -9th paragraphs: "The assigned MAC address ..." That's not a valid requirement on the ENode because the FCF assigns the address.	Rewrite to impose assignment requirements on FCFs.	See 09-118v1.	AinP	C
EMC-068	T	106	7.7.6.4.2	Next to last paragraph: That covers the FC-MAP for this fabric. What about other FC-MAPs?	Do something - There may be a security issue if an FPMA MAC address from fabric A can successfully be used as an SPMA MAC address in fabric B. May need to require all the FCFs to know all the FC-MAPs.	There are no other FC-MAPs in FC-BB-5. Add "all Discovery Advertisements from a FCF in a certain VLAN shall have the same single Fabric descriptor." (or something similar) to the second but last paragraph of 7.7.6.3. See 09-118v1.	AinP	C
NetApp-71F	T	106	7.7.6.4.2	7th + 8th + 9th paragraphs: a properly formed FPMA MAC address.	This needs to be explained somewhere. What makes it properly formed? How do I know if it's properly formed? OR add a reference to where this is defined. OOPS - finally found it - in the 9th paragraph. This should be more prominent (in the overview of the section maybe).	See EMC-066	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-062	T	107	7.7.6.5	The FKA_ADV_PERIOD timer is obtained from the Discovery Advertisements - what do we do if we get different values from different FCFs? We need a statement to cover this. (like use the one from the FCF to which we log in, use the shortest value?)		This is intended to be a fabric constant. If they are different use the ones of the FCF the ENode is logging in to. See 09-118v1.	AinP	C
Emulex-065	T	107	7.7.6.5	The first sentence of the first paragraph of 7.7.6.5 inaccurately uses the architectural terms introduced in the model.	Change the first sentence of the first paragraph of 7.7.6.5 from The FCoE Controller for ENode MACs that are logged in with one or more VF_Port capable FCF-MACs shall generate a FIP Keep Alive message every FKA_ADV_PERIOD to An ENode MAC FCoE Controller shall generate a FIP Keep Alive message every FKA_ADV_PERIOD from its ENode MAC Address to each VF_Port to which it has established Virtual Links.	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-017	T	107	7.7.6.5	Is the FKA_ADV_PERIOD timer for a given link fixed at the time of login, or can a subsequent Discovery Advertisement from the same FCF change it?	Explain.	<p>Add to 7.7.4.1: "The FKA_ADV_PERIOD value may be changed on a FCF under administrative control. When this happens, each FCF-MAC of the FCF shall advertise the updated FKA_ADV_PERIOD in subsequent unsolicited multicast Discovery Advertisements.</p> <p>When the FKA_ADV_PERIOD value is decreased, the FCF shall transmit unsolicited multicast Discovery Advertisements at the interval specified by the updated value but shall not use the updated value for detection of missing ENode FIP Keep Alives until 5 times the old value has elapsed since the transmission of the first updated unsolicited multicast Discovery</p>	AinP	C
QLogic-030	T	107	7.7.6.5 FIP Keep Alive	"shall also generate a FIP Keep Alive message on behalf of each logged in VN_Port every 90 seconds." Should be a define value rather than a "hard" 90 second value.	Add a new definition, for example, FKA_VN_PORT_PERIOD, or state as a multiple of FKA_ADV_PERIOD, for example 10 * FKA_ADV_PERIOD. The latter may be preferred.	See 09-118v1	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-067	T	107	7.7.6.6.1	The wording of 7.7.6.6.1 is a bit unconventional	In 7.7.6.6.1, change "may turn down one or more VN_Port to VF_Port Virtual Links" to "may terminate the Virtual Links to one or more VN_Ports". change "one for each VN_Port the Virtual Link with it is requested to be turned down" to "one for the VN_Port associated with each Virtual Link to be terminated"	See 09-118v1	AinP	C
Emulex-068	T	107	7.7.6.6.1	The last sentence of 7.7.6.6.1 begs the question "what shall be done if an Enode MAC FCoE Controller finds that the three parameters in any Vx_Port Identification descriptor do not all match one of its VN_Ports?"	Ignore that descriptor???	yes! See 09-118v1.	AinP	C
EMC-018	T	107	7.7.6.6.1	What does the phrase "turn down" mean?	Explain.	See 09-118v1	AinP	C
NetApp-78F	T	107	7.7.6.6.1	Not sure what this means:one for each VN_Port the Virtual Link with it is requested to be turned down. What does "with it" mean?	reword There is also a typo in this sentence - "turned down" should be "torn down"	See 09-118v1	AinP	C
Emulex-069	T	107	7.7.6.6.2	The wording of the first sentence of 7.7.6.6.2 is a bit unconventional	In 7.7.6.6.2, change "may turn down a VE_Port to VE_Port Virtual Link" to "may terminate a VE_Port to VE_Port Virtual Link".	See 09-118v1	AinP	C
EMC-071	T	108	7.7.6	No mention of FIP Policy	Add discussion of FCF being allowed to decide whether to form a Virtual Link or not by consulting policy info.	See 09-118v1	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-072	T	108	7.7.6	No mention of multiple FC fabrics on same LAN or VLAN	Need to prohibit these unless more work is done. See slides 15 and 16 in 08-556v1.	State that it is outside the scope of this standard. See 09-118v1.	AinP	C
EMC-073	T	108	7.7.6	No mention of duplicate MAC checks	Add language recommending/requiring some reasonable checks. See slide 20 in 08-556v1.	See 09-201v0.	AinP	C
EMC-074	T	108	7.7.6	Possible VE-VE Link duplication. Need to prohibit use of same MAC pair for two different VE-VE port links.	This may be difficult - if virtual fabrics are in use, may have to adapt an FLOGI/FDISC structure to the multiple ELPs - first fabric does FIP ELP to set up virtual link and turns on VFT header usage, all subsequent fabrics do a native FC ELP in an FCoE frame under the respective VFT header.	Add the magic "out of scope" sentence for multiple VF over the same VLAN in FC-BB-5. Attempting to set up a second VE_Port to VE_Port Virtual Link between the same FCF-MAC pair de-instantiate the first one. See 09-118v1.	AinP	C
EMC-075	T	108	7.7.6	Missing "should" for SPMA MAC address assignment	Say that SPMA MAC addresses should be globally assigned, not locally generated. See slide 23 in 08-556v1.	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-070	T	108	7.7.6.6.2	7.7.6.6.2 is ambiguous about the content of the MAC address descriptor and the Name_Identifier descriptor.	In 7.7.6.6.2, change The MAC address field in the MAC address descriptor shall be set to the FCF-MAC address. The Name_Identifier field in the Name_Identifier descriptor shall be set to the Switch_Name of the FCF to The MAC address field in the MAC address descriptor shall be set to the FCF-MAC address of the local FCF-MAC. The Name_Identifier field in the Name_Identifier descriptor shall be set to the Switch_Name of the local FCF	See 09-118v1.	AinP	C
NetApp-80F	T	108	7.7.6.7	followed by a list of additional descriptors.	I think it is actually followed by the actual additional descriptors, not just a list: ...followed by one or more additional vendor specific descriptors.	"followed by one or more additional descriptors". See 09-118v1.	AinP	C
NetApp-81F	T	108	Table 45	Timers and Constants seems like too broad a grouping for this information.	Create more tables out of this information: Pull out the multi-cast MAC addresses, or maybe all the IEEE layer constants (MAC+FIP/FCoE TYPE), to add some more differentiation between this table of "random other stuff".		R	C
QLogic-031	T	108	Table 45	Some references are missing.	Add missing references.	See 09-118v1.	A	C
Brocade-031	T	108		Can an ENode send a clear virtual links on behalf of a dead VN_Port?		No. Clear Virtual Link is a function of an FCF.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-063	T	109	Table 45	D_A_TOV - I do not understand the description. Explain better what this is for. What I read is that an FCF can only send one discovery advertisement every 4 seconds. Does this only apply to solicited advertisements? This cannot be admin configured because the devices need to know what it is so they know how long to wait.		See 09-118v1. Fix the text to not require an FCF to respond to a Solicitation.	AinP	C
Cisco-048	T	109	Table 45	Remove D_A_TOV. See Cisco-041		See 09-118v1	R	C
QLogic-034	T	109	Table 45	D_A_TOV- there is no means for a CNA to determine the value being used by the FCF.	Add a D_A_TOV descriptor to FCF Advertisements with the time in milliseconds.	An advertisement does not reach the solicitor to tell this timer before the solicitation is sent!	R	C
QLogic-033	T	109	Table 45 and 7.7.6.3	D_A_TOV the default value of 4 seconds is an excessive time for a CNA to wait for response to a Discovery solicitation (as described in 7.7.6.3) especially when added to some transport dependent delay. The CNA may need to wait for all solicited discovery advertisements prior to selecting the highest priority FCF. This will impose an unacceptable delay on fast boot.	The units should be milliseconds and the default should be of the order of 100ms.	Drop to 2000 milliseconds. See 09-118v1.	AinP	C
Cisco-049	T	111	Annex B	Should we put an example of a FIP frame as well?		Do it.	AinP	C
Emulex-074	T	112	C.1	The fourth paragraph of C.1 contains a TBD.	Resolve it.	It is annex D	AinP	C
Solution Technology-087	T	114	7.7.5.3.10, 1st paragraph after Table 38	The Length of the FIP LOGO LS_ACC should be 8, not 10		See 09-118v1.	A	C
Broadcom-016	T	115	C.3.5	What about duplicate addresses when there are virtual fabrics? They can have FC_IDs. Do virtual fabrics on the same FC Fabric get different FC MAPs.	Deal with duplicate FPMA MAC addresses due to FC virtual fabrics. One approach would be FC-MAP per virtual fabric.	case out of scope for FC-BB-5. See 09-133v0.	AinP	C
Broadcom-015	T	116	C.3.5	Should note that this entry needs to be after the entries from C.3.4		correct. See 09-133v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-075	T	117	C.4.1	The potential impacts of spanning tree recalculation on the proposed ACLs for bridge-to-bridge links should be clearly stated.	After the list in C.4.1, add the paragraph Changes in routing (e.g., automatic spanning tree recalculation) may cause the assumptions on which the recommended ACLs are based to become invalid. This may have the result of weaker protection or Virtual Link timeouts requiring relogins.	Add the text as a note. See 09-133v0.	AinP	C
Cisco-052	T	118	Annex C	In note 22, replace "If this cannot be trusted, this ACE should be" with "If this cannot be trusted, this ACE should not be"		Accepted. See 09-133v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-076	T	118	C.4.3	The last sentence note 22 contradicts its first sentence. The last sentence appears to be the incorrect one.	<p>Change note 22 from</p> <p>This ACE should only be included if it is administratively known and trusted that only FCFs will/can inject frames onto the Fabric destined to ALL_ENODE_MACS. Including this ACE enables automatic population of the {FCFs} set. If this cannot be trusted, this ACE should be included which has the side affect of disabling automatic population of the {FCFs} set, thus requiring that the set be populated administratively</p> <p>to</p> <p>This ACE should only be included if it is administratively known and trusted that only FCFs will/can inject frames onto the Fabric destined to ALL_ENODE_MACS. Including this ACE enables automatic population of the {FCFs} set. If this cannot be trusted, this ACE should not</p>	See Cisco-052	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-077	T	118	C.4.4	The ACLs for a bridge-to-bridge link receiving both FCF and ENode frames do not allow for automatic population of the FCFs list. It isn't obvious to me that the risk is different from the risk in the case for traffic known to be only FCF-to-Enode...The condition for its security (in note 22) seems to be met by confidence in establishment of perimeter ACLs as in C.3.	<p>In the ACL list in C.4.4, anywhere before the entry "Type=FIP_TYPE, deny;" add</p> <p>DA=ALL_ENODE_MACS, Type=FIP_TYPE, permit -- see note xx;</p> <p>Add a new note xx like the corrected note 22, or, if your editorial scuples allow, just reference note 22.</p> <p>This ACE should only be included if it is administratively known and trusted that only FCFs will/can inject frames onto the Fabric destined to ALL_ENODE_MACS. Including this ACE enables automatic population of the {FCFs} set. If this cannot be trusted, this ACE should not be included which has the side affect of disabling automatic population of the {FCFs} set, thus requiring that the set be populated administratively</p>	Accepted. See 09-133v0.	AinP	C
Broadcom-017	T	119	C.5	We need to prevent FCoE links from being established on links that are not lossless. FIP and FCoE should be denied if the link isn't enabled for either PAUSE or on the priority for FIP and FCoE for PFC.	Add recommendation to deny on links that lack Pause or PFC.	Add recommendation to use the ACLs to deny FCoE on links that are not known to be lossless. See 09-133v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-097	T	120	7.7.6.4.2, Next to last paragraph on page	The paragraph beginning with 'FCFs shall reject FIP FLOGI Requests and NPV FDISC Requests from ENodes that support only SPMA and propose a MAC address that is not a unicast address.' This paragraph requires LS_RJTs but fails to specify the Reason Code and Reason Code Explanation to be used. The reason for these rejects has no equivalent in native Fibre Channel.		See 09-118v1.	AinP	C
Emulex-079	T	123	D.4	The second regular paragraph of begins by discussing bridge ports connected to Enodes and then gives an e.g. that seems to call them VE_Ports.	In D.4 change the second regular paragraph from To ensure security characteristics comparable to native Fibre Channel, this recommendation should be applied to all bridge ports directly connected to ENodes. If this is not possible (e.g., the bridges connected to the VE_Ports do not provide this filtering capability), enhanced security may still be obtained by applying this filtering to upstream bridge ports, but the security characteristics in this case are significantly weaker. to To ensure security characteristics comparable to native Fibre Channel, this recommendation should be applied to all bridge ports directly connected to ENodes. If this is not possible (e.g., the bridges connected to the VN_Ports do not provide this filtering capability), enhanced	Accepted in principle. Bridges are not connected to VN_Ports, they are connected to Enodes. See 09-135v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-077	T	124	D.5	Editor's Note applies to entire Annex D	Make sure that all the relevant security requirements in Annex D are expressed in normative text in the body of the standard.	Resolved by 09-244v2.	AinP	C
Solution Technology-101	T	125	B.1, Table B.1	This table implies that the IEEE 802.1Q Tag must always be present. I don't believe this is intended to be the case.		Add the text that the IEEE 802.1Q tag is optional. Editor: normative text states that the 802.1Q Tag is optional. The annex provides an example FCoE and FIP frame format. No change made.	AinP	C
Emulex-080	T	125	D.5	In D.5, list item 2 subitem I, the condition does not detect crossovers of MAC addresses among VN_Ports. Item 3 subitem III exemplifies that tests involving FC address identifiers are in scope of this subclause.	In D.5, change list item 2 subitem I from contain a destination MAC address that was not assigned by an FCF to one of the VN_Ports on the ENode; or to contain a destination MAC address/ destination N_Port_ID pair that was not assigned by an FCF to one of the VN_Ports on the ENode; or	Accepted in principle. See 09-135v0	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-053	T	127		The text in red is technically incorrect, (it is incorrect in the proposal from which it was derived also).	Change to: "...should implement ingress filtering that discards all frames containing a source MAC address in which the 24 most significant bits match the FCoE fabric's FC-MAP and in which the source MAC address does not match a valid VN_Port MAC addresses assigned by an FCF to a device connected to that port. This requirement applies regardless of Ethertype."	as is. See 09-135v0.	A	C
EMC-135	T	104	7.7.6.2.2	The particular MACs of VE_Port capable FCF-MACs may be unknown.	Change from: VE_Port capable FCF-MACs may transmit Discovery Solicitations to VE_Port capable FCF-MACs to... to: VE_Port capable FCF-MACs may transmit Discovery Solicitations to ALL-FCF-MACs to...	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-136	T	104	7.7.6.2.2	FCF-MACs should be VE_Port capable FCF-MACs.	Change from: VE_Port capable FCF-MACs may transmit Discovery Solicitations to VE_Port capable FCF-MACs to request the FCF-MACs to reply with a solicited Discovery Advertisement. To: VE_Port capable FCF-MACs may transmit Discovery Solicitations to VE_Port capable FCF-MACs to request the VE_Port capable FCF-MACs to reply with a solicited Discovery Advertisement.	See 09-118v1.	AinP	C
EMC-138	T	104	7.7.6.2.2	item b and reserved fields.	Should we be specifying reserved fields shall be zero or are they undefined and should not be checked?	Reserved is defined in the standard. No need to specify it every time.	AinP	C
EMC-139	T	106	7.7.6.4.2	properly formed FPMA MAC address	Where is this defined?	It is defined, however see Cisco comment to better define it! See 09-118v1.	AinP	C
EMC-151	T	119	C.6	missing ACE?	There was discussion about including text that said since FCFs are trusted entities, that an ACE would be included by default to prevent this attack. Why wasn't this included.	Replace the last sentence with: "the list of FCF MAC addresses may be configured administratively. Doing so with the ACEs provided in this annex prevents a rogue host from impersonating an FCF." See 09-133v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-152	T	119	C.6	Removing old ACEs	Clear Virtual Link message will not work if a port is moved from one bridge to another. A recommendation should be made to remove the FCoE ACLs in the case of a loss of signal, etc (if possible)	Add that ACLs have soft state, i.e., they are removed if FKAs and Advertisements are not seen. See 09-133v0.	AinP	C
EMC-083	T	13	3.3	Definition for Media Access Control (MAC) address is missing.	Media Access Control (MAC) address: an IEEE 802 MAC address.		R	C
EMC-086	T	14	3.5.6	Definition of FCF	The acronym FCF needs to stand for Fibre Channel Forwarder in order to remain consistent throughout the rest of the standard. Otherwise, you should change FCoE Link End-Point to (FC_LEP) and this cannot be done as it will be confused with Fibre Channel instead of FCoE. Whatever the change, apply it globally.	That would be an FC switch!	R	C
Cisco-012	T	19..27	Clause 4	Clause 4 needs significant rewrite for FCoE		See 08-726v1.	AinP	C
EMC-092	T	22	4.2	FC-BB_E reference model is missing.	Insert FC-BB_E reference model and remove editors note.	See 08-726v1.	AinP	C
EMC-093	T	24	4.3.4	FC-BB_E reference model text is missing.	Insert FC-BB_E reference model text and remove editors note.	See 08-726v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-094	T	24	4.4.1	Requiring class F support	Change from: Class F shall be supported to: Class F may be supported... For FC-BB_E devices that provide an FCF function but do so by passing the FLOGI request to the Fabric (think NPIV gateway), this shall is too restrictive.	See 08-726v1.	AinP	C
EMC-095	T	25	4.4.2.3	FC-BB_E text is missing	Insert FC-BB_E text and remove editors note.	See 08-726v1.	AinP	C
EMC-096	T	25	4.4.3	FC-BB_E text is missing	Insert FC-BB_E text and remove editors note.	See 08-726v1.	AinP	C
EMC-097	T	25	4.4.4	FC-BB_E text is missing	Insert FC-BB_E text and remove editors note.	See 08-726v1.	AinP	C
EMC-098	T	26	4.4.5	FC-BB_E text is missing	Insert FC-BB_E text and remove editors note.	See 08-726v1.	AinP	C
EMC-099	T	26	4.4.6	FC-BB_E text is missing	Insert FC-BB_E text and remove editors note.	See 08-726v1.	AinP	C
EMC-101	T	81	7.2	Replace the word similar with equivalent.	Change from: allows a full duplex Ethernet link to provide a lossless behavior similar to the one provided by the buffer to buffer credit mechanism in native Fibre Channel. To: allows a full duplex Ethernet link to provide a lossless behavior equivalent to the one provided by the buffer to buffer credit mechanism in native Fibre Channel.	See 09-021v0.	AinP	C
IBM-010	T	81, third paragraph from bottom	7.2	Add that the Ethernet layer provides sequential delivery of FCoE frames.		See 09-021v0.	A	C
Cisco-013	T	81..89	7.1 to 7.5	Should be updated per the new FC-FS-3 and FC-SW-5 models		See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-013	T	82, last sentence	7.2	The last sentence on the page says Fibre Channel Protocols are able to operate "unchanged". Some FC protocols are not supported on virtual links, such as BB_credit, etc.	Remove the word "unchanged" Should specify a complete list of FC protocols not supported on virtual links; including class 2 limitations (see IBM-xxx), BB Credit, RSCNs in some cases, fabric wide security policies (QSA) (see IBM-012), LESB, Link Incident Definitions, Link failure detection, Primitive sequences, etc.	Remove the word "unchanged" in two places. Note that these are the Vx_Port to Vx_Port protocols.	AinP	C
QLogic-036	T	84, 87, 91, 93, 94, 104, 105, 107	FKA_ADV_PE RIOD references.	"FIP Discovery Advertisements are received within every FKA_ADV_PERIOD." "shall periodically transmit multicast Advertisements to the All-ENode-MACS group address every FKA_ADV_PERIOD" "ENode MAC address as the source address) are expected to be received within every FKA_ADV_PERIOD." "The period shall be FKA_ADV_PERIOD and randomized with a random delay uniformly distributed between 0 and 100 ms to avoid". How can the frame be received within FKA_ADV_PERIOD if it is transmitted every FKA_ADV_PERIOD? 0 time on the wire?	Specify the transmission as FKA_ADV_PERIOD, however then define the expected receipt time using FKA_ADV_PERIOD + R_A_TOV (or some ethernet equivalent) as there may be one or more intermediate ethernet switches between the ENode and the FCF?	A delay in the network does not change the period. Fixed in 09-118v1.	AinP	C
EMC-110	T	85	7.4	Missing requirement	Add a requirement that FCFs need to validate the S_ID for received FC Frames. The S_ID must equal the S_ID assigned to the VN_Port.	See 09-021v0.	AinP	C
EMC-111	T	86	7.4	Text "but not recommended"	Suggest deleting this as the reasoning for this is not clear. Else, explain why.	See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-017	T	86,87	7.4	The lists on these pages should include that FIP Discovery Advertisements are periodically transmitted.		See 09-021v0.	AinP	C
EMC-112	T	87	7.4 (item 3)	"when appropriate"	When appropriate needs to be defined.	See 09-021v0.	AinP	C
Cisco-010	T	9..15	Definitions	Definitions need to be updated		See 09-021v0.	AinP	C
EMC-118	T	91	7.7.2.1	"Each"	<p>The text: "Each FCF-MAC in the FCF Login Set shall be verified for Max FCoE Size support before performing the FIP FLOGI by transmitting a unicast Discovery Solicitation to an FCF-MAC and receiving a unicast Discovery Advertisement in response."</p> <p>could be interpreted to mean that all FCFs in the FCF set need to be responsive in order for discovery to proceed.</p> <p>suggest replacing with: An FCF-MAC in the FCF Login Set shall be verified for Max FCoE Size support before performing the FIP FLOGI by transmitting a unicast Discovery Solicitation to an FCF-MAC and receiving a unicast Discovery Advertisement in response.</p>	See 09-118v1.	AinP	C
IBM-068	T	91, 92	7.7.2.1, 7.7.2.2	Are FCFs to be removed from the FCF list if no Advertisement is seen from them for some period of time?	State recovery conditions that cause the FCF to be removed from the table of available FCFs.	See 09-118v1.	AinP	C
IBM-069	T	91, 92	7.7.2.1, 7.7.2.2	How is the Max FCoE Size verified flag ever cleared? Changes in the ethernet network could invalidate the setting of the flag.	State recovery conditions that cause the Size Verified Flag to be cleared.	09-118v1 solves the problem.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-033	T	91,92	7.7.2.1, 7.7.2.2	2nd to last paragraph needs a statement that in this case of an Enode discovering FCFs using multicast, a unicast discovery solicitation to the FCF is not required to verify the Max FCoE Size before login as stated 2 paragraphs above.	Add a statement describing that unicast discovery solicitation is not required in this case. Add the same statement in section 7.7.2.2	See 09-118v1.	AinP	C
EMC-119	T	92	7.7.2.2	"Each"	<p>The text: "Each FCF-MAC in the FCF list shall be verified for Max FCoE Size support before performing a FIP ELP with that FCF-MAC by transmitting a unicast Discovery Solicitation to that FCF-MAC and receiving a unicast Discovery Advertisement in response."</p> <p>could be interpreted to mean that all FCFs in the FCF set need to be responsive in order for discovery to proceed.</p> <p>Suggest replacing with: "An FCF-MAC in the FCF list shall be verified for Max FCoE Size support before performing a FIP ELP with that FCF-MAC by transmitting a unicast Discovery Solicitation to that FCF-MAC and receiving a unicast Discovery Advertisement in response."</p>	See 09-118v1.	AinP	C
IBM-065	T	93, 94	7.7.4.1, 7.7.4.2	Text reads "After three missing Discovery Advertisements...", how does an entity know how many it has missed? Should be specified in terms of elapsed time instead of number of misses	Change "After three missing Discovery Advertisements" to "If no Discovery Advertisements are received within at least 2xFKA_ADV_PERIOD"	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-120	T	97	Table 29	Add additional columns	Additional columns should be added to specify if the descriptor is supported by FCF, enode or both.	Add a sentence before the table saying where to see how they are used. See 09-118v1.	AinP	C
NetApp-54F	T	97 + 98	7.7.5.3.6	FIP Fabric descriptor not previously discussed	See comment 52	See 09-118v1.	AinP	C
BLADE-008	T	General	General	Standard should include direct attach configurations - CNA-Native FCoE Target and CNA-CEE capable Ethernet Switch-Native FCoE Target. It essentially would require definition of VN_Port to VN_Port virtual links.	Detailed in a proposal to be presented later.	Deferred to FC-BB-6.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-081	T	global	global	The current definition of a Virtual Link identifies it by the MAC addresses of its end points, but the architecture also indicates that there are only two Vx_Ports on a Virtual Link. This is inconsistent with the possibility raised by SPMA that multiple VN_Ports may share the same MAC address.	???	In subclause 7.2, replace "An FCoE Virtual Link is identified by the pair of MAC addresses of the two link end-points. FCoE supports VN_Port to VF_Port Virtual Links and VE_Port to VE_Port Virtual Links." with "FCoE supports VE_Port to VE_Port Virtual Links and VN_Port to VF_Port Virtual Links. A VE_Port to VE_Port Virtual Link is identified by the pair of MAC addresses of the two link end-points. A VN_Port to VF_Port Virtual Link is identified in general by the pair of MAC addresses of the two link end-points and by the N_Port_ID assigned to the VN_Port. When VN_Port MAC addresses are unique per VN_Port (e.g., when FPMAs are used, see 7.5a), the pair of MAC addresses of the	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-082	T	global	global	<p>In many places, actions are attributed to Enodes or to Enode MACs. Neither of these entities take an active part in FIP or FCoE. Usually, the intended actor is the FCoE Controller for the Enode MAC.</p> <p>In many other places, the proper distinction is made, but several terminologies are used (e.g., "ENode FCoE Controller", "ENode MAC FCoE Controller", "the FCoE Controller for the ENode MAC")</p>	<p>In the glossary, add the term Enode MAC FCoE Controller: The FCoE controller associated with a specific Enode MAC.</p> <p>Globally, review usage of Enode and Enode MAC as actors and use Enode MAC FCoE Controller when it is correct.</p>	See 09-021v0.	AinP	C
QLogic-037	T	Many	Many	FC-SW-4 is mentioned.	Change to FC-SW-5.		A	C
QLogic-038	T	Many	Many	FC-FS-2 is mentioned.	Change to FC-FS-3.		A	C
QLogic-039	T	Many	Many	FC-LS is mentioned.	Change to FC-LS-2.		A	C
Emulex-001	T	viii	Intro	Paragraph one of the introduction does not account for FCoE	<p>Change paragraph one of the Introduction from</p> <p>FC-BB-5 specifies mechanisms that allow extension of Fibre Channel links and/or switched networks across Wide Area Networks. FC-BB-5 defines three distinct Fibre Channel backbone mappings: FC over TCP/IP, FC over GFPT, and FC over MPLS.</p> <p>to</p> <p>FC-BB-5 specifies mechanisms that allow extension of Fibre Channel links and/or switched networks across Wide Area Networks. FC-BB-5 defines four distinct Fibre Channel backbone mappings: FC over TCP/IP, FC over GFPT, FC over MPLS, and FC over Ethernet .</p>	Change to: "FC-BB-5 defines mappings for transporting Fibre Channel over different network technologies. FC-BB-5 defines four distinct Fibre Channel mappings: FC over TCP/IP, FC over GFPT, FC over MPLS, and FC over Ethernet."	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Brocade-022	T		7.2	There is no mention of VLANs. We need to say something about VLANs. All validations are performed only using MAC address. So I believe the assumption is that all of this is happening within the context of a VLAN. This should be mentioned explicitly in the introduction.		See 09-118v1.	AinP	C
Intel-016	T		7.3	items e and f for FCoE controller, these separate items would lead one to think a periodic FIP keep alive is required for the controller itself and every instantiated VN_PORT. Later sections detailing FIP support this. Is it possible to reduce this? In cases of extreme virtualization this constant overhead would add up when having to provide such messages for every active VN_PORT.	Proposal: Such a keep alive only required for every VN_PORT created via FLOGI, not those created via FDISC. This provides a keep alive for each instantiated VF_PORT at the FCF for the VN_PORT set at the ENODE that share common service parameters. On not receiving keep alive from this main VN_PORT within 3 timeout periods, then VF_PORT can be terminated at the FCF for all VN_PORTS.	The proposal does not work.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Brocade-037	T		7.7.2.1 ENode/FCF discovery	<p>The Priority descriptor and Login Availability do not appear to be of much value in Unsolicited Advertisements. The Priority and Login Availability an FCF wants to convey may vary from Enode to Enode. The priority an FCF wants to indicate to an Enode may vary based on a number of metrics (switch locality, hop count, primary versus hot standby, etc.)</p> <p>Require that an Enode initially shall transmit a Discovery Solicitation to All_FCF_MACS, and use the resulting advertisements to build and prioritize the FCF list. The FCFs would then respond with unicast advertisements with priority information specific to that Enode. The Enode would then only have FCFs in the list that would allow that Enode to login and need not perform unicast solicitations.</p> <p>Unsolicited Advertisements should only be used to as notification of a new FCF becoming available and for the Virtual Link maintenance.</p>		They are valid also for unsolicited advertisements. Per Enode MAC processing is obviously possible only for solicited Advertisements. Change to requirement for initial solicitations from "may" to "should". Fixed in 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Intel-010	T		7.7.3.1	Talks about during FIP LOGO as a means to de-assign MAC address. What impact occurs in cases of Enode reset where such LOGO does not occur? Can we assume standard policy such that if FLOGI is received at FCF from ENode believed to be still active that it accepts the FLOGI but potentially invalidates any instantiated FCF FCoE_LEPs that may have been created as result of previous FDISC operations? There is no requirement that explicit logout is sent before any subsequent FLOGI.		Yes, all behaves as normal FC. See 09-118v1.	AinP	C
Brocade-028	T		7.7.4.1	a) Regarding timeouts. It's mentioned as 3 missing messages. Normally, for OSPF and others, its mentioned as lack of messages for 3.5 or 4 intervals. I think this should also be reworded. b) What happens if a clear virtual links message is lost? Since they are not sent periodically, it's not clear what the impact is of losing one. I assume the state just stays around, but will it ever time out?		See 09-118v1.	AinP	C
Intel-011	T		7.7.4.1	related to above, can we assume standard FC explicit state invalidation occurs on FCF receiving an FLOGI for Enode that was thought to already be active (Same VN_PORT MAC address)? FC_LS section 6.4.5 'The Effects of FLOGI, FDISC and LOGO.		Yes, all behaves as normal FC. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Intel-013	T		7.7.5.2	Indicates at end of this section that the FIP_Pad is only used in discovery advertisements. So this implies that it is not used by Enode in unicast discovery solicitation to verify maximum frame length supported as indicated in FIP descriptor to FCF? Enodes to indicate maximum frame length via FIP descriptor only?		Yes, FIP_Pad is used in Advertisements only.	AinP	C
Intel-001	T		7.7.5.3	VLAN descriptor is not listed in spec yet. We assume descriptor 14 will be for VLAN.	Descriptor 14 for VLAN	See 08-564v0.	AinP	C
Intel-012	T		7.7.5.3.15	FIP operation code values for vendor specific descriptors. Is this range too limited? Only allows for 7 different vendor specific FIP message class categories. Increase range to something wider but not exceeding F000-FFFE? (Table 26 lists Vendor specific opcodes as only from FFF8-FFFE.)		They are more than enough for now. We will change them later if needed.	R	C
Intel-004	T		7.7.5.3.6	Can reader assume VF_ID in this descriptor is a numeric value for the overall fabric and is not a means to identify an individual VSAN within a fabric? If so, this provides means for the Enode to identify opportunities to maintain concurrent FLOGI sessions with multiple distinct fabrics.		VF_ID is a fully defined term in FC-FS-3. Added reference in 09-118v1.	AinP	C
Brocade-030	T		7.7.6.3	The randomization should be "should" rather than a "shall" as it appears to be now.		Randomization is required to avoid synchronization among FCFs.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Brocade-023	T		Figure 28	Not clear what distinguishes one VN_Port from another in the case of SPMA. All of the FCoE_LEP parameters are going to be the same for all VN_Ports instantiated by FLOGI & subsequent FDISC. This should be pointed out. The picture becomes inaccurate for SPMA, not sure how to fix it.		See 09-021v0.	AinP	C
Brocade-010	T		Figure 29	Is the and/or in the VE_Port/VF_Port functional model correct given the FCoE security discussion?		See 09-021v0.	AinP	C
Intel-002	T		General	Can VLAN discovery via FIP be disabled to allow manual configurations?	Allow manual configuration	No change required.	AinP	C
Intel-003	T		General	Does FIP need to be defaulted to VLAN0? Need spec clarification.		No. See 09-118v1.	AinP	C
Intel-005	T		General	Specification indicates that use of VLAN tag is optional. But is there not a requirement that if during FIP discovery an ENode indicates association of FCoE on a specific VLAN via inclusion of this tag that the FCF will honor that VLAN on subsequent traffic to that resulting VN_PORT by including the VLAN tag? This is not asking for anything like VLAN/VSAN convergence, but purely honoring Ethernet VLAN traffic isolation. (This is from AR 080604-8 from August meeting)		All operations are per VLAN. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Intel-006	T		General	General comment: Is there a mechanism that causes the FIP discovery phase to be retriggered from the FCF? There are new DCBX messages being defined for logical link status that would trigger re-discovery after link reestablishment. Does it make sense to have a similar message within FIP maintenance to indicate logical link status? The spec should be more clear on how FIP mechanism handles Fibre Channel link status and does FIP Keep Alive indicate not only healthy logical link status within Ethernet subnet, but also physical link status within FCF?		A "link down" is triggered by a FIP Clear Virtual Link message. A "link up" is indicated by unsolicited Advertisements.	AinP	C
Intel-007	T		General	Where does FC-SP and FC-AP fit within FIP discovery? Does it occur after FIP but before FLOGI? Or should it occur after FLOGI? Please clarify.		FC-SP is orthogonal to FIP. The encapsulated FLOGI payload in a FIP FLOGI is processed according to Fibre Channel standards.	AinP	C
Intel-018	T		General	Is there anything needed in the specification to discuss Ethernet bridge aspects of LAN teaming support that would impact FCoE? The aspects LBFO at the switch, and learning, concurrently with FCoE virtual link use?		Out of scope.	AinP	C
IBM-074	T		General FIP	There are no statements that indicate that the entire FC Frame is contained in the FIP descriptors that carry ELSs or that these FIP operations follow the fibre channel rules for sending ELSs and receiving responses. (exchanges used to correlate responses with requests, timeouts values, etc.)	Add statements that reflect the fact that FIP operations that carry ELS commands and responses follow the FC-LS protocol for their corresponding ELSs. Also state what the recovery is for a timeout (there is no FIP ABTS)	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-078	T		Placeholder	IETF is in the process of splitting the IETF portion of the FC pseudowire specification into two separate documents. This is a placeholder comment to cover any FC-BB-5 changes needed as a result.	Align FC-BB-5 FC pseudowire text (and probably references) with IETF outcome.	Implemented in rev 1.05.	AinP	C
EMC-079	T		Placeholder	EMC profoundly objects to use of LLDP for VLAN discovery.	Don't add material on use of LLDP for VLAN discovery. If FIP is viewed as inadequate for all situations, consider DHCP.	See 08-564v0.	A	C
Brocade-043	T		table 44	Use the Fabric descriptor to replace the FC-MAP descriptor in a Discovery Solicitation from an FCF.		Keep the FC-MAP descriptor. A Fabric descriptor is very likely to bring useless information in a solicitation from an FCF before Fabric configuration completes.	R	C
Brocade-001	T			Specify the response to a FIP message shall use the same VLAN on which the message was received.		See 09-118v1.	AinP	C
Brocade-002	T			Specify a Fabric Configuration should be completed before processing Discovery Solicitations.		See 09-118v1.	AinP	C
Brocade-003	T			Specify the behavior when duplicate TLV(s) are received.		See 09-118v1.	AinP	C
Brocade-004	T			Should the FIP Keep Alive period be dynamically configurable? If so, how is the Keep Alive period changed? Is a Clear Virtual Links transmitted first?		See EMC-017.	A	C
Brocade-005	T			Specify for SPMA the IP (i.e., the MAC for non-FCoE traffic) and FCoE MAC addresses should be different.		See 09-118v1.	AinP	C
Brocade-006	T			Specify the address mode should be the same for FLOGI and subsequent FDISCs.		See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Brocade-009	T			Specify FIP is not used for N_Port Login (PLOGI).		N_Port login is never mentioned. Why do we need to mention it? Everything not explicitly mentioned as encapsulated in FIP is not.	R	C
Brocade-011	T			Review FIP protocol error behavior and processing.		See 08-578v2.	AinP	C
Brocade-012	T			Review Class 2 support requirements.		See IBM-019.	AinP	C
Brocade-013	T			Specify the behavior if other FIP descriptors are included in a message.		See 09-118v1.	AinP	C
Brocade-014	T			Specify that mini-jumbo, PFC, ETS, and DCBX support is required.		They are not required.	R	C
Brocade-015	T			Should FCoE and FIP be transmitted using different priority levels?		Deployment model dependent. Nothing to say in the standard.	R	C
Brocade-016	T			Should FCoE and FIP be transmitted using different VLANs?		NO! See 09-118v1.	R	C
Brocade-017	T			Specify/clarify that a single VN_Port may be specified in a Clear Virtual Links message.		See 09-118v1.	AinP	C
Brocade-018	T			The ACL annex must be updated for SPMA usage.		It already includes SPMA usage.	AinP	C
Brocade-019	T			Non-FIP discovery should be included and specified as the default discovery mechanism.	Have an informative annex documenting the existing pre-FIP implementation.	Resolved by 09-277v1.	AinP	C
Brocade-020	T			Specify FIP_FKA_PERIOD may be set to zero indicating no ENode or VN_Port Keep Alives are to be sent (also see Brocade-026).		Setting FKA_ADV_PERIOD to zero does not work. Zero is now also an invalid value. Resolved by 09-278v1.	AinP	C
Brocade-021	T			Clarify that a FIP LOGO may be transmitted by a VF_Port (or not).		See 09-118v1.	AinP	C
Brocade-039	T			Add a FIP error message descriptor, see T11/08-717v0.		Not clear to do what.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Brocade-040	T			<p>The viability of the 'A' bit is questionable.</p> <p>The 'A' bit is only valid in a unicast advertisement. There is no value in an FCF sending advertisements to the ALL_ENodes_MAC group address if it does not intend to all any Enodes to login. It should just remain silent.</p> <p>A value in the priority descriptor in the unicast advertisement can be used to indicate if login is not permitted (0 or 0xFF, whichever is lowest priority). The advertisement's "login available" indication should only indicate "not available" if the Enode is not permitted login due to administrative policy. If login is not allowed because of FCF resource exhaustion, but policy otherwise allows the Enode to login, FC already has reject reason codes to handle this at login time. Resource exhaustion state could change between discovery and login, so the Enode must handle this condition at login time anyway.</p> <p>IOW, the discovery advertisement login available indication should say to the Enode –</p>		No, the A bit is especially valid in multicast advertisements, that are sent as keep alives messages and provide information on the capability of the FCF to process additional FIP FLOGI or FDISC requests. However it is an informational bit. Fixed in 09-118v1.	AinP	C
Brocade-041	T			The 'A' bit and priority descriptor is not applicable in an unsolicited Discovery Advertisement.		See Brocade-40	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-020	T			The draft does not define the content of the Link Error Status Block (LESB - see FC-FS-2 20.8) based on the physical layer of an Ethernet Port and, therefore, does not provide support for the RLS Extended Link Service which is used by FC-SB-3 and for link fault detection and isolation functions such as Bit error Rate Thresholding and link incident reporting (see FC-FS-2 20.3.4)	Provide a mapping of ethernet link statistics to and guidance for management of the following existing counters in the LESB. (see FC-FS-2 Annex E) LESB -- Link Failure Count -- Loss-of-Synchronization Count -- Loss-of-Signal Count -- Primitive Sequence Protocol Error -- Invalid Transmission Word -- Invalid CRC Count (IBM has an action item to provide this mapping - We need some help from an ethernet expert.)	Roger Hathorn to provide a proposal based on RFC 3635 and other data as applicable. See 09-204v0. Editor: Resolved by 09-262v2.	A	C
IBM-021	T			The draft does not provide definitions for ethernet based link incident codes to replace those currently available based on the Fibre Channel physical layer. These are necessary to support the Link Incident Reporting procedure using the RLIR ELS (see FC-LS 4.3.32)	Provide a definition of the Link Failures (NOS, Loss of light/sync) for the Ethernet physical layer and possibly new ones for FCoE (e.g., LKA failure, missing advertisements) and a mapping into the currently used incident codes. Indicate which incident codes are not applicable for FCoE.	Roger Hathorn to provide a proposal. See 09-204v0 and 09-264v0. Editor: Resolved by 09-274v1.	A	C
IBM-022	T			The draft does not provide a link initialization protocol for a Direct Point to Point physical connection between two E_Nodes with no switches in-between (VN_Port to VN_Port virtual links).	Include the proposed protocol in the draft (TBD).	Deferred to FC-BB-6.	R	C
Cisco-055	T			Add the FCoE MIB, as per 08-427v1, as Annex E		Incorporate 09-067v2 as a normative annex.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-21F	E	87	7.4	VN_Ports instantiated by an ENode MAC on successful completion of FIP NPIV FDISC Exchanges are all associated to the same VF_Port, instantiated by the VF_Port capable FCF-MAC on successful completion of a FIP FLOGI Exchange.	VN_Ports instantiated by an ENode MAC on successful completion of FIP NPIV FDISC Exchanges are all associated to the same VF_Port that was instantiated by the VF_Port capable FCF-MAC on successful completion of a FIP FLOGI Exchange.	See 09-021v0.	AinP	C
NetApp-23F	E/T	84 + 87	7.3 + 7.4	These lists (7.3 for the ENode FCoE controller, and 7.4 for E/F port FCoE controllers) are numbered differently. The 7.3 list is an a/b/c list (no order for VN_Ports), but the 7.4 lists are 1/2/3 lists (ordered) for the VE/F_Ports.	It seems they would be the same - either unordered (a/b/c) or ordered (1/2/3). Make them the same (which appears to be unordered).	See 09-021v0.	AinP	C
Cisco-006	E	1	Scope	The scope needs to be updated to include FCoE			A	C
Cisco-007	E	1	Table 1	Remove Annex A from FC-BB_IP, add Annex D to FC-BB_E			A	C
BLADE-001	E	5	Figure 4	FC-BB_E model diagram is the same as Figure 1 (FC-BB_IP) model.	Include the right diagram for FC-BB_E model.		A	C
Broadcom-002	E	8	2.6	Current revision is IEEE 802.3-2008	update		A	C
IBM-001	E	10	3.2.5	"encapsulated" should be "Encapsulated"			R	C
EMC-081	E	13	3.3	Definition for SW_ACC is incorrect.	Suggest changing the definition to "Switch Fabric Link Service Accept" to be consistent with FC-SW-5.	Editor: Revised and move general FC terms and definition to the common subclauses (e.g., PLOGI, LS_ACC, LS_RJT).	AinP	C
IBM-002	E	13	3.5.1	Add a definition of for "Enode" to 3.5.1	Copy or replace definition of FCoE Node	See 09-021v0.	AinP	C
BLADE-006	E	14	3.5.10	In the parenthesis, include PFC 802.1Qbb.		Change the parenthesis to "(e.g., the Pause mechanism, see 802.3-2008, or the Priority-based Flow Control mechanism, see 802.1Qbb)."	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-001	E	15	Clause 1	Editor's Note referencing non-existing figure for FC-BB_E	Remove the Editor's Note		A	C
Cisco-011	E	17	FC-BB_E	AFL is not used	remove		A	C
BLADE-003	E	19	4.1	"FC-BB-5 models (i.e., FC-BB_IP, FC-BB_GFPT, and FC-BB_PW)" statement does not have FC-BB_E.	Include FC-BB_E.	See 08-726v1.	AinP	C
BLADE-004	E	19	4.1	FC-BB_E introduction is missing.	Add FC-BB_E introduction just like other FC-BB-5 models.	See 08-726v1.	AinP	C
NetApp-1F	E	19	4.1	FC_BB_E is missing from the ie list.	Add FC_BB_E to the ie list	See 08-726v1.	AinP	C
NetApp-3F	E	19	4.1	The list in the first sentence does not include FC_BB_E, or a reference to figure 8.	Add FC_BB_E to the list, and the reference to figure 8 in the second sentence.	See 08-726v1.	AinP	C
BLADE-005	E	19	4.2	The first and second paragraphs don't not talk about FC-BB_E.	Include FC-BB_E in the first two paragraphs.	See 08-726v1.	AinP	C
Solution Technology-002	E	21	2.3	Missing reference to FC-FS-3	add reference		A	C
Solution Technology-003	E	21	2.3	The paragraph 'For electronic copies of references under development by the Internet Engineering Task Force (IETF), see www.ietf.org.' should be outdented to the same level and the one regarding T11.			A	C
Solution Technology-004	E	22	2.6	This document references the Ethernet frame format described in 802.3-2005, Part 1	Add reference to IEEE 802.3-2005, Part 1 that contains the Frame format.	Change the reference to IEEE 802.3-2008	AinP	C
NetApp-5F	E	23	4.3.2	Last Sentence of 2nd paragraph says "...strictly separated and distinct..."	Should it say "...strictly separate and distinct...?"	Change to "separate and distinct" (remove "strictly")	AinP	C
Solution Technology-005	E	26	3.2.24	Virtual E_Port is defined in both FC-BB_IP and FC-BB_E with similar, but somewhat different definitions	combine the two definitions and move them to the common definitions section (3.1)	The commenter is welcome to bring a proposal to rewrite FC-BB_IP to this extent in FC-BB-6.	R	C
Solution Technology-006	E	26	3.2.25	VE_Port_Name is used by both FC-BB_IP and FC-BB_E but only defined in the FC-BB_IP section of the definitions	move the definition to the common section (3.1)	No, it is now defined only for FC-BB_IP.	R	C
Solution Technology-010	E	26	3.3.12	ISL is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1)	Not used in FC-BB_E	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-011	E	26	3.3.14	LS_ACC is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1) and delete the word frame from the definition.	The editor decides	A	C
Solution Technology-007	E	26	3.3.3	ELP is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1)	The editor decides	A	C
Solution Technology-008	E	26	3.3.4	FLOGI is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1)	The editor decides	A	C
Solution Technology-009	E	26	3.3.5	F_BSY is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1)	The editor decides	A	C
Solution Technology-012	E	27	3.3.15	LS_RJT is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1) and remove the word frame from the definition.	The editor decides	A	C
Solution Technology-013	E	27	3.3.19	PLOGI is a common FC term, but defined in the FC-BB_IP section.	move the definition to the common section (3.1)	The editor decides	A	C
Solution Technology-014	E	27	3.3.20	P_BSY is a common FC term, but defined in the FC-BB_IP section.	move the definition to the common section (3.1)	The editor decides	A	C
Solution Technology-015	E	27	3.3.22	SW_ACC is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1) and remove the word frame from the definition.	The editor decides	A	C
Solution Technology-016	E	27	3.3.23	SW_RJT is used by both FC-BB_IP and FC-BB_E, but only defined in the FC-BB_IP section.	move the definition to the common section (3.1) and remove the word frame from the definition.	The editor decides	A	C
Solution Technology-018	E	28	3.5.13	Move VE_Port_Name to the common definitions section (3.1)		Definitions removed.	R	C
Solution Technology-019	E	28	3.5.14	Move VF_Port_Name to the common definitions section (3.1)		Definitions removed.	R	C
Solution Technology-020	E	29	3.5.19	Move VN_Port_Name to the common definitions section (3.1)		Definitions removed.	R	C
Solution Technology-021	E	31	3.7.5	No entry for PHY add entry for PHY to either 3.7.1 or 3.7.5		Add entry to 3.7.5	A	C
Solution Technology-022	E	31	3.7.5	No entry for LAN add entry for LAN to either 3.7.1 or 3.7.5		Add entry to 3.7.5	A	C
Solution Technology-023	E	34	4.2, Table 2	Under FC-BB_E, the ports are highlighted in color. Remove the color		See 08-726v1.	AinP	C
Solution Technology-024	E	36	4.2	The paragraph preceding the Editor's Note is in blue.	remove the color highlighting.	See 08-726v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-025	E	36	4.2	Editor's note	add reference model and/or delete Editor's Note	See 08-726v1.	AinP	C
Solution Technology-026	E	38	4.3.4	This section is missing		See 08-726v1.	AinP	C
Solution Technology-027	E	39	4.4.3	Editor's Note indicates missing text for this sub-clause		See 08-726v1.	AinP	C
Solution Technology-028	E	39	4.4.4	Editor's Note indicates missing text for this sub-clause		See 08-726v1.	AinP	C
Solution Technology-029	E	40	4.4.5	Editor's Note indicates missing text regarding in-order delivery for FCoE	add text specifying that FC-BB_E requires in-order frame delivery.	See 08-726v1.	AinP	C
Solution Technology-030	E	40	4.4.6	Editor's Note indicates missing text regarding flow control.	add text regarding FC-BB_E utilizing Ethernet flow control (e.g., Pause).	See 08-726v1.	AinP	C
IBM-024	E	81	7.2	Should figure 25 be somehow indicate that the left side represents an FCF and the right side represents an Enode Port?		See 09-021v0.	AinP	C
NetApp-12R	E	81	7.2	Opening paragraph "This clause discusses further .." can drop "further" i.e there is no previous overview to continue from.		See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-13R	E	81	Text immediately after Figure 26	Each of the two ENodes H1 and H2 depicted in figure 26 has a single physical Ethernet connection to the Lossless Ethernet network, as well as each of the two FCFs, FCF A and B.	The first part of the sentence is correct (just needs 2 added commas around ,H1 and H2,) - Each ENODE has a single physical connection to the lossless ethernet network. The second part of the sentence is wrong. Each ENODE does not "as well" have a single physical ethernet to each of the 2 FCFs. Break into 2 sentences: Each of the two ENodes, H1 and H2, depicted in figure 26 has a single physical Ethernet connection to the Lossless Ethernet network. In addition, each of the two FCFs, FCF A and FCF B has a single physical Ethernet connection to the Lossless Ethernet network.	See 09-021v0.	AinP	C
NetApp-14F	E	83	7.2 under figure 27	"...multi-access Lossless Ethernet network..." - Lossless is defined just above, but is a multi-access ethernet network a well understood concept? Is it somehow different than a regular ethernet network - like lossless is different than regular ethernet network?		Remove "multi-access"	AinP	C
IBM-025	E	84	7.3	Be consistent with the use of FIP NPIV FDISC (see item c where it just says FIP FDISC)	Use FIP NPIV FDISC or FIP FDISC_NPIV consistently throughout the doc.	Replace "FIP FDISC" with "FIP NPIV FDISC" in the VN_Port definition (section 3), in 7.3 (two occurrences), and in 7.5 (two occurrences). See 09-118v1 for the rest.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-027	E	84	7.3	Item d) should state specifically that the VN_Port is logged out "from the fabric, or with the VF_Port"		add "from the Fabric" to item d).	AinP	C
EMC-004	E	84	7.3	In the last paragraph, 2nd sentence, fix the punctuation to make it clear what the two parameters are.	Change punctuation to "...two parameters defining the Virtual Link: the MAC address of the local link end-point and the MAC address of the remote link end-point."	See 09-021v0.	AinP	C
EMC-007	E	84	7.3	In the second sentence of the paragraph that begins "The FCoE_LEP is", fix the punctuation to make it clear what the two parameters are.	Change punctuation to "...two parameters defining the Virtual Link: the MAC address of the local link end-point and the MAC address of the remote link end-point."	See 09-021v0.	AinP	C
NetApp-22F	E	84	7.3	VN_Ports instantiated by an ENode MAC on successful completion of FIP NPIV FDISC Exchanges are all associated to the same VF_Port, instantiated by the VF_Port capable FCF-MAC on successful completion of a FIP FLOGI Exchange.	VN_Ports instantiated by an ENode MAC on successful completion of FIP NPIV FDISC Exchanges are all associated to the same VF_Port that was instantiated by the VF_Port capable FCF-MAC on successful completion of a FIP FLOGI Exchange.	See 09-021v0.	AinP	C
NetApp-25F	E	84	7.3	When encapsulating FC frames into FCoE frames, the MAC address of the local link end-point shall be used as source address and the MAC address of the remote link end-point shall be used as destination address of the generated FCoE frame	When encapsulating FC frames into FCoE frames, the MAC address of the local link end-point shall be used as the source address and the MAC address of the remote link end-point shall be used as the destination address of the generated FCoE frame	See 09-021v0.	AinP	C
Emulex-023	E	85	7.3	In the next to last regular paragraph in 7.3, the word "associtated" appears.	change associated to associated	See 09-021v0.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-27F	E	85	7.3 (next to last paragraph)	A VN_Port is uniquely identified by a VN_Port_Name Name_Identifier and is addressed by the address identifier the Fabric assigned to it.	A VN_Port is uniquely identified by a VN_Port_Name Name_Identifier and is addressed by the <FCID> address identifier the Fabric assigned to it. Put in the name of the address identifier	address identifier is the proper FC-FS-3 term.	R	C
Emulex-028	E	86	7.4	In item 1 of the first ordered list in 7.4, "discovers other VE_Port capable FCF-MACs...", VE_Port should be plural	make it so.	No, FCF-MACs is plural.	R	C
NetApp-26F	E	86	Editors Note for Figure 29	Optional components should not be part of PORT functional model (neither the FC Fabric Interface nor the Lossless Ethernet Bridging Element).	Create 2 pictures - 1 for just the E/F port functional model, and a second picture showing the E/F_Port WITH optional components (maybe create this second one as an example). It may be possible to remove the lossless ethernet bridging element completely, just like in Figure 28 - where it could be optional as well, but is not shown at all.	See 09-021v0.	R	C
Cisco-014	E	86		Remove the editor note and keep the model as is		See 09-021v0.	AinP	C
IBM-029	E	87	7.4	first item 3) de-instantiates a VE_Port/FCoE_LEP pair when appropriate; When appropriate is vague.	Be specific on when is "appropriate" by stating it here or referring to applicable text.	See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-030	E	87	7.4	In item 7 of the second ordered list in 7.4, it is inconsistent practice to use an in-line value ("90 seconds") rather than a named constant evaluated in subclause 7.8.	In item 7 of the second ordered list in 7.4, replace "90 seconds" by "FKA_VNKA_PERIOD". In table 45, add a row after FKA_ADV_PERIOD: FKA_VNKA_PERIOD / 90 / The interval in seconds between FIP Keep Alive messages sent by an FCoE Controller in behalf of each of the VN_Ports it has instantiated. / 7.7.6.5	See 09-021v0.	AinP	C
EMC-006	E	87	7.4	In the second bullet labeled "4)", the first referent of the word "and" is ambiguous. Does it mean "that VN_Port and the corresponding VF_Port" or "the FCoE_LEP . . . and the corresponding VF_Port" ?	Replace the phrase "and the corresponding VF_Port" with "and de-instantiates the corresponding VF_Port".	See 09-021v0.	AinP	C
NetApp-24F	E	87	7.4	When encapsulating FC frames into FCoE frames, the MAC address of the local link end-point shall be used as source address and the MAC address of the remote link end-point shall be used as destination address of the generated FCoE frame.	When encapsulating FC frames into FCoE frames, the MAC address of the local link end-point shall be used as the source address and the MAC address of the remote link end-point shall be used as the destination address of the generated FCoE frame.	See 09-021v0.	AinP	C
Cisco-015	E	87		In the second paragraph under the list, "An FCoE_LEP operates according to two parameters..." It uses these parameters but does not operate in accordance with them	Change to "An FCoE_LEP uses two parameters defining..."	See 09-021v0.	AinP	C
Broadcom-008	E	89	7.5	"Figure 31 shows how the model...model VE_port to VE_port Virutal Links"	subject verb agreement - the second "model" should be "models"	See 09-021v0.	A	C
NetApp-30F	E	89	7.6	The use of an 802.1Q tag header	Add reference to IEEE doc that contains this.		A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-015	E	89	Table 21	"4" should be "4 .. n-3"	Update	Editor: Added another row for the Encapsulated FC Frame field starting from word 4 to n+3.	AinP	C
NetApp-32F	E	90	7.6	The SOF field specifies the SOF Ordered Set that is associated with encapsulated frame	The SOF field specifies the SOF Ordered Set that is associated with the encapsulated frame		AinP	C
NetApp-33F	E	90	7.6	The EOF field specifies the EOF Ordered Set that is associated with encapsulated frame.	The EOF field specifies the EOF Ordered Set that is associated with the encapsulated frame.		AinP	C
IBM-031	E	90	7.7.1	"....to enable the detection of discovery..... from normal FCoE traffic"	change "discovery" to "distinction".	change "detection" to "distinction". See 09-118v1.	AinP	C
EMC-008	E	90	7.7.1	In the first sentence, replace "function" with "functions".		See 09-118v1.	A	C
NetApp-34F	E	90	7.7.1	The FIP frame format (see 7.7.5.1) is different than the FCoE frame format (see 7.6) to enable the detection of discovery, initialization, and maintenance traffic from normal FCoE traffic.	The FIP frame format (see 7.7.5.1) is different than the FCoE frame format (see 7.6) to enable the detection differentiation of discovery, initialization, and maintenance traffic from normal FCoE traffic.	See 09-118v1.	AinP	C
EMC-009	E	90	7.7.2	The second paragraph incorrectly implies that FIP traffic is part of normal FCoE traffic.	Replace "enable the detection of" with "enable the isolation of".	See 09-118v1.	AinP	C
Broadcom-009	E	91	7.7.2.1	subject verb agreement	"periodic reception...allow" should be "allows"	See 09-118v1.	A	C
EMC-039	E	91	7.7.2.1	"Each entry in the FCF list has the following flags:" is ambiguous	What FCF list? Try "list of FCF-MACs maintained by the ENode".	defined in the previous sentence.	R	C
EMC-041	E	91	7.7.2.1	"ENode FCoE Controllers select a subset of the Available FCF-MACs" - What are the "Available FCF MACs"? Also "subset" may be confusing as it implies a single login that spans FCFs.	Define "Available FCF MACs" earlier in this subsection. Change "a subset of the" to "an".	See 09-118v1. Editor: not sure this has been resolved.	AinP	C
EMC-042	E	91	7.7.2.2	"Each entry in the FCF list has the following flags:" is ambiguous	What FCF list? Try "list of FCF-MACs maintained by the ENode".	defined in the previous sentence.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
IBM-034	E	92	7.7.2.2	item b) says "Available for ELP". It should say "Available for Login"		This is the name of a flag for VE_Port to VE_Port Virtual Links.	R	C
IBM-035	E	92	7.7.2.2	3rd paragraph "verify the FCF MACs reachability" should be "verify the FCF MACs connectivity".	Change "reachability" to "connectivity"	See 09-118v1.	A	C
IBM-036	E	93	7.7.4.1	Be consistent with "The Enode MAC FCoE Controller" or "The FCoE Controller for an Enode MAC"	Use the latter.	See 09-118v1.	AinP	C
IBM-039	E	93	7.7.4.1	Note 13 - change "fast response time" to "faster response time"		See 09-118v1.	AinP	C
Emulex-036	E	93	7.7.4.1	In two places in 7.7.4.1, it is inconsistent practice to use an in-line value ("90 seconds") rather than a named constant evaluated in subclause 7.8.	At the end of the second paragraph in 7.7.4.1, replace "90 seconds" by "FKA_VNKA_PERIOD". In the middle of the sixth paragraph in 7.7.4.1, replace "90 seconds" by "FKA_VNKA_PERIOD". In table 45, add a row after FKA_ADV_PERIOD: FKA_VNKA_PERIOD - 90 - The interval in seconds between FIP Keep Alive messages sent by an FCoE Controller in behalf of each of the VN_Ports it has instantiated. - 7.7.6.5	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-037	E	93	7.7.4.1	In three places in 7.7.4.1, it is inconsistent practice to use an in-line value ("three") rather than a named constant evaluated in subclause 7.8.	<p>In the middle of the third paragraph in 7.7.4.1, replace "three" by "FKA_RETRY_COUNT".</p> <p>In the sixth paragraph in 7.7.4.1, replace "three" by "FKA_RETRY_COUNT" in two places.</p> <p>In table 45, add a row after FKA_ADV_PERIOD:</p> <p>FKA_RETRY_COUNT / 3 / The number of successive periods during which periodic FIP Discovery Advertisements or FIP Keepalive messages are absent that cause an FCoE Controller to terminate the associated Virtual Link(s). / 7.7.4</p>	See 09-118v1.	AinP	C
NetApp-41F	E	93	7.7.4.1	In addition, the ENode MAC FCoE Controller shall transmit, for each VN_Port, a FIP Keep Alive message with the VN_Port's MAC address as source MAC address to the VF_Port capable FCF-MAC that the VN_Port is logged in.	In addition, the ENode MAC FCoE Controller shall transmit, for each VN_Port, a FIP Keep Alive message with the VN_Port's MAC address as source MAC address to the VF_Port capable FCF-MAC that to which the VN_Port is logged in.	See 09-118v1.	AinP	C
NetApp-42F	E	93	7.7.4.1	third paragraph: The ENode MAC FCoE Controller shall monitor the status of a VF_Port that it has VN_Ports logged in with by verifying the FIP Discovery Advertisements....	The ENode MAC FCoE Controller shall monitor the status of a VF_Port that to which it has VN_Ports logged in with by verifying the FIP Discovery Advertisements	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-43F	E	93	7.7.4.1	first sentence, second paragraph: The ENode MAC FCoE Controller shall transmit a FIP Keep Alive message with the ENode MAC address as source MAC address to each VF_Port capable FCF-MAC that it has VN_Ports logged in with.	The ENode MAC FCoE Controller shall transmit a FIP Keep Alive message with the ENode MAC address as source MAC address to each VF_Port capable FCF-MAC that with which it has VN_Ports logged in with.	See 09-118v1.	AinP	C
QLogic-008	E	93	7.7.4.1	Red Text!	Remove the red text in this clause (red "within").	See 09-118v1.	AinP	C
Brocade-035	E	93		"should not exceed standard Ethernet size" -> "should not exceed standard Ethernet payload size"			A	C
Emulex-039a	E	94	7.7.4.2	In the fourth paragraph of 7.7.4.2, it is inconsistent practice to use an in-line value ("three") rather than a named constant evaluated in subclause 7.8.	In the fourth paragraph of 7.7.4.2, replace "three" by "FKA_RETRY_COUNT" in two places. In table 45, add a row after FKA_ADV_PERIOD: FKA_RETRY_COUNT / 3 / The number of successive periods during which periodic FIP Discovery Advertisements or FIP Keepalive messages are absent that cause an FCoE Controller to terminate the associated Virtual Link(s). / 7.7.4	See 09-118v1.	AinP	C
QLogic-009	E	94	7.7.4.2	Red Text!	Remove the red text in this clause (red "within").	See 09-118v1.	AinP	C
IBM-043	E	94	7.7.5.1	Does the statement at the beginning of this section about 802.3 frame format apply to section 7.6 (FCoE frames) too?	add the statement to 7.6 if it applies.		A	C
IBM-044	E	94	7.7.5.1	"ether header" should be "ethernet header"		See 09-118v1.	A	C
Cisco-028	E	94	7.7.5.1	"an FIP"	Replace with "a FIP"	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-050	E	94	Table 25	Meanings of bits is unclear.	Provide an expansion of the names of the 5 bits (FP, SP, A, S, F) immediately below the table.	They are all defined in that section.	R	C
Solution Technology-033	E	95	7.2	This clause does not address functions of the 'logical PN_Port' equivalent (e.g., error counters).		See IBM-020.	AinP	C
Solution Technology-031	E	95	Clause 7	Are there any SCSI impacts as a result of FCoE? e.g., protocol-specific mode pages, ??? How about interface-specific log pages?		No impact.	AinP	C
Solution Technology-032	E	95	Clause 7	What was the concern with Class-2?? Was it the discarding of undeliverable frames by an Ethernet switch or the lack of a timely F_RJT due to a failed link?		See IBM-019	AinP	
Solution Technology-037	E	96	7.2	If the VN_Port and VF_Port terminology is aligned with FC-FS-3 and FC-SW-5, most of the references to the differences between N_Port behavior and VN_Port behavior and F_Port and VF_Port behavior go away (the differences are then essentially confined to the PN_Port and PF_Port).		See 09-021v0.	AinP	C
Solution Technology-035	E	96	7.2, Paragraph under Figure 26	Remove 'multi-access'			A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-042	E	96	7.7.5.2	In the third paragraph before the end of 7.7.5.2, the A bit is described as relating to "Virtual Link instantiation requests". This is probably wrong, since Fabric LOGO is also a "Virtual Link instantiation request". In 7.7.2.1, it is related more specifically to "FIP FLOGI/FDISC requests". A FIP Discovery Advertisement with the A bit set may be received by an ENode MAC FCoE Controller that already has VN_Ports, and we would not want to discourage it from logging OUT 8-)	In the third paragraph before the end of 7.7.5.2, change "Virtual Link instantiation requests" to "FIP FLOGI/FDISC requests" in two places.	See 09-118v1.	AinP	C
EMC-052	E	96	7.7.5.2	The "A" bit description needs to cross reference use in FCF lists maintained for discovery	Add a cross reference to 7.7.2 .	See 09-118v1.	A	C
IBM-046	E	96	7.7.5.3.1	"TLV format" should be "TLV Type"			R	C
NetApp-49F	E	96	7.7.5.3.1	FIP descriptors are specified using a TLV format (i.e., Type Length, Value). missing a "," between "type" and "length" in the i.e. list	FIP descriptors are specified using a TLV format (i.e., Type, Length, Value).	See 09-118v1.	A	C
Solution Technology-039	E	97	7.2, Last sentence of 1st par.	The E_Port to E_Port Fibre Channel protocols do not operate unchanged. If the FC-BB_E terminology is aligned with FC-SW-5 regarding VE_Port behavior, I think that most of the differences are confined to the PE_Port behavior.		See 09-021v0.	AinP	C
Solution Technology-038	E	97	7.2, Paragraph under Figure 27	Delete the words 'multi-access'			A	C
Solution Technology-040	E	97	7.3, 2nd Paragraph	Delete 'The FC-BB_E VN_Port/ENode functional model is specified in figure 28.' This is already stated in the first paragraph of the subclause.		See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-51F	E	97	7.7.5.3.*	Global in this section - The FIP ... descriptor is used in this has nothing to do with usage, or how something is used. The word "used" should be changed.	The FIP descriptor is [contained sent received] in	See 09-118v1.	AinP	C
IBM-048	E	97	Table 29	Why is non-critical 255 Reserved?		Common practice.	AinP	C
QLogic-011	E	97	Table 29	Type 5 descriptor is named "Fabric"	Should be "Fabric_Name"	No, it is Fabric.	R	C
Solution Technology-041	E	98	7.3, Figure 28	In Figure 28, the offset green boxes appears that multiple FCoE and FC Entities may be present. I think what is intended is that multiple VN_Ports may be associated with the same FCoE_LEP, something that is not clear from the figure.		See 09-021v0.	AinP	C
Solution Technology-043	E	98	7.3, List	Another item should be added to the list to include 'de-instantiates a VN_Port/FCoE_Lep pair upon receipt of a FIP Clear Virtual Link message.'		See 09-021v0.	AinP	C
IBM-049	E	98	7.7.5.3	Do we really want to list the full set of FIP messages that use each descriptor? This is redundant to what is in table 44 and will be a maintenance nightmare as new FIP operations are added.		See 09-118v1.	AinP	C
Emulex-044	E	98	7.7.5.3.3	Table 31 leaves an opportunity for bit-order confusion in the expected mixed audience of Ethernet and FC backgrounds.	present the MAC address bytes as was done in FC-FS-20 Table 67 - NAA IEEE 48-bit Address Name_Identifier format (i.e., explicitly show the location of the U/L and I/G bits)	See 09-118v1.	AinP	C
Emulex-045	E	98	7.7.5.3.4	In the second paragraph of 7.7.5.3.4 is a reference to the wrong table.	In the second paragraph of 7.7.5.3.4 change "table 31" to "table 32" (by correcting the cross-reference link, of course)	See 09-118v1.	A	C
Broadcom-011	E	98	7.7.5.3.6	Name is not consistant- FIP Fabric descriptor in title and some places. FIP Fabric_Name descriptor in table 34 title	Make consistant	See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-046	E	99	7.4, 1st paragraph	Remove the following sentence: 'Each FCF-MAC may be coupled with a Lossless Ethernet bridging element.'		See 09-021v0.	R	C
NetApp-55F	E	99	7.7.5.3.7	FIP Max FCoE Size descriptor	Add a reference to 7.7.6.3 (FIP Discovery Advertisements) - The FIP Max FCoE Size descriptor is used in Discovery Solicitations (see 7.7.6.2 and 7.7.6.3) originated by an ENode or FCF.	See 09-118v1.	AinP	C
NetApp-56F	E	99	7.7.5.3.8	No reference to usage	Add reference to 7.7.6.4.2 The FIP FLOGI descriptor is used in FIP Fabric login (see 7.7.6.4.2) requests and replies.	See 09-118v1.	AinP	C
NetApp-57F	E	99	7.7.5.3.9	No reference to usage	Add reference to 7.7.6.4.2 The FIP FDISC_NPIV descriptor is used in FIP NPIV based Fabric login (see 7.7.6.4.2) requests and replies.	See 09-118v1.	AinP	C
Solution Technology-048	E	100	7.4, Editor's Note under Figure 29	Resolve this note. Either remove the lossless Ethernet Bridging element, or add it to the ENode model.	It is technically not part of the FCoE-defined behavior and should be removed.	See 09-021v0.	R	C
Solution Technology-047	E	100	7.4, Figure 29	In Figure 29, the offset green boxes appears that multiple FCoE and FC Entities may be present. I think what is intended is that multiple VF_Ports or VE_Ports may be associated with the same FCoE_LEP, something that is not clear from the figure.		See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-58F	E	100	7.7.5.3.10	No reference to usage	Add reference to 7.7.6.4.3 The FIP LOGO descriptor is used for FIP Fabric logout (see 7.7.6.4.3) requests and replies.	See 09-118v1.	AinP	C
QLogic-021	E	100	7.7.5.3.10 FIP LOGO Descriptor	"10 for a LOGO LS_ACC" should be "8 for a LOGO LS_ACC"	Replace "10" with "8"	See 09-118v1.	A	C
NetApp-59F	E	100	7.7.5.3.11	No reference to usage	Add reference to 7.7.6.4.4 The FIP ELP descriptor is used in FIP Exchange Link Parameter (see 7.7.6.4.3) requests and replies.	See 09-118v1.	AinP	C
NetApp-60F	E	100	7.7.5.3.12	No reference to usage	Add reference to 7.7.6.6 The FIP Vx_Port Identification descriptor is used in FIP Clear Virtual Links (see 7.7.6.6) messages.	See 09-118v1.	AinP	C
Solution Technology-050	E	101	7.4, List item a)	There are other things a VE_Port does not do, such as the Primitive Sequence Protocols (Link Initialization, Link Reset, etc..)		See 09-021v0.	AinP	C
Solution Technology-049	E	101	7.4, Paragraph following item 7 in the list	Enclose the phrase after the comma in parenthesis for clarity. As it is, the second instantiated is confusing in regard to what is instantiated.		See 09-021v0.	AinP	C
NetApp-61F	E	101	7.7.5.3.13	No reference to usage	The FIP FKA_ADV_Period descriptor is used in Discovery Advertisements (see 7.7.6.3).	See 09-118v1.	AinP	C
Solution Technology-051	E	102	7.4, List item a)	See earlier comments about other things that a VF_Port does not do.		See 09-021v0.	AinP	C
Cisco-033	E	102	7.7.5.3.15	last sentence, replace "a FIP", with "any FIP"		See 09-118v1.	A	C
IBM-050	E	102	7.7.6.1	Note 14 - The ability to process FIP descriptors "in any order" is to provide.....	Add "in any order"	See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-052	E	102	7.7.6.1	In the first paragraph of 7.7.6.1 appears the text "...the order in that they should be encapsulated...". "in that"??? This must have been an innocent victim of a which-hunt.	In the first paragraph of 7.7.6.1 change "in that" to "in which".	See 09-118v1.	A	C
NetApp-63F	E	102	7.7.6.1	Each FIP operation shall contain one or more FIP descriptors with the payload and order as specified in table 44. Table 44 specifies the FIP descriptors required in each FIP operation and the order in that they should be encapsulated by a transmitting FCoE Controller.	Each FIP operation shall contain one or more FIP descriptors with the payload and order as specified in table 44. Table 44 specifies the FIP descriptors required in each FIP operation and the order in that which they should be encapsulated by a transmitting FCoE Controller.	See 09-118v1.	A	C
EMC-014	E	102	Table 44	The first column of Table 44 is confusing. For the first three rows and last three rows, in contains the name of a FIP operation in Table 26. For the other rows, I'm guessing it represents a Virtual Link Instantiation request or reply.	Make the "FIP Operation" column mean the same thing in Table 44 as it does in Table 26.	Changed table 26. See 09-118v1.	AinP	C
Solution Technology-055	E	103	7.6	Consider using EtherType rather than Type. EtherType seems to be an acceptable alternative and removes confusion with the FC TYPE field.		Accepted Editor: The context is clear to me that we are referring to the Ethernet Type field, not the FC TYPE field. That said, we can use EtherType and add a definition/reference to 802.3-2008.	AinP Editor to review all uses of EtherType and EtherType.	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-056	E	103	7.6, Table 21, Word 4	In this table, change 'FC Frame' to 'FC Frame Content'. Per FC-FS-3, an FC Frame also consists of the SOF and EOF (the Frame Content is contained between the SOF and EOF).		Accepted Editor: The Encapsulated FC Frame field is clearly specified, but there is no explicit text stating the FC SOF and EOF are not part of the Encapsulated FC Frame, but is certainly implied .	AinP	C
Solution Technology-057	E	104	7.6	The sentence beginning with 'The value of the SOF field shall be compliant with FC-FS-3' is confusing. The values in Table 22 are not compliant with the values for SOFs as shown in FC-FS-3. Can this be reworded to clarify?			AinP	C
Solution Technology-059	E	104	7.6	The sentence beginning with 'The value of the EOF field shall be compliant with FC-FS-3' is confusing. The values in Table 23 are not compliant with the values for EOFs as shown in FC-FS-3. Can this be reworded to clarify?			AinP	C
Solution Technology-058	E	104	7.6, 1st paragraph following Table 22	Change 'FC Frame field' to 'FC Frame Content field'			A	C
Solution Technology-060	E	104	7.7.1	In the sentence beginning with 'The FCoE Initialization Protocol (FIP) is used to perform the function', change function to functions (plural)		See 09-118v1.	A	C
Cisco-039	E	104	7.7.6.2.1, 7.7.6.2.2	inclusive, exclusive	Replace with included, excluded?	See 09-118v1.	AinP	C
EMC-063	E	104	7.7.6.2.2	6th paragraph: State minimum FCoE length	State the value required to accommodate an FC frame with a max 2112 byte payload. Say that the operational value used should (shall?) be at least this large.	Agreed to not put "illegal" requirements in the standard. See 09-118v1.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-064	E	105	7.7.2.1, 1st paragraph after the list	Change 'Available FCF-MACs for Login' to 'FCF-MACs Available for Login'. Also, it the capitalization intended to signify a FC-BB specific usage or is the intent normal English. If the former, then the term needs a formal definition.		See 09-118v1.	AinP	C
Solution Technology-065	E	105	7.7.2.1, 1st paragraph after the list	FCF Login Set is not a defined term. Is the intended term FCF List?		It is defined in the previous sentence.	AinP	C
Solution Technology-061	E	105	7.7.2.1, 2nd paragraph	This is actually a global comment regarding the use of the word 'on'. It seems that this should really be 'upon'.		Can someone explain the difference between the two to an Italian?	R	C
Solution Technology-069	E	105	7.7.2.1, Last paragraph before 7.7.2.2	What does 'shall remain valid' mean? Can the requirement be clarified?		See 09-118v1.	AinP	C
Solution Technology-062	E	105	7.7.2.1, List item a)	'Max FCoE Size verified' should be 'Max FCoE Size Verified' and formally defined as a flag. It should also be added to the definitions in 3.5		Capitalization changed, see 09-118v1.	AinP	C
Solution Technology-063	E	105	7.7.2.1, List item a)	Change 'unicast jumbo Discovery Advertisement ' to 'jumbo Discovery Advertisement ' (delete the word 'jumbo')		See 09-118v1.	AinP	C
Solution Technology-067	E	105	7.7.2.1, Next to last paragraph before 7.7.2.2	Change 'that is may perform FIP FLOGI with' to 'with which it may perform FIP FLOGI'		See 09-118v1.	AinP	C
IBM-056	E	105	7.7.6.3	Last paragraph says "the FIP_Pad field shall be set to the length required" It should read "shall contain enough bytes required... " or something like that. It is not "set to the length"		See 09-118v1.	AinP	C
IBM-057	E	105	7.7.6.3	"shall be set to reserved" should be "shall be set to zero" I don't know how to set something to "reserved"		See 09-118v1.	AinP	C
Cisco-042	E	105	7.7.6.3	Replace "seperate" with "separate"		See 09-118v1.	AinP	C
Cisco-043	E	105	7.7.6.3	Replace "Advertisements" with "Advertisement" in the last sentence		See 09-118v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Emulex-056	E	105	7.7.6.3	In the fourth paragraph of 7.7.6.3 appears the nonword "seperate"	In the fourth paragraph of 7.7.6.3 change "seperate" to "separate".	See 09-118v1.	AinP	C
IBM-059	E	105	7.7.6.4.1	Add a list item d) with FIP Operation Code set to '0002' since we specify the setting of the subcodes in subsequent text.		See 09-118v1.	AinP	C
Broadcom-012	E	105	7.7.6.4.1	"If applicable" doesn't make sense for something that is not being sent. The frame is always sent without Login Extension data whether applicable or not.	Delete "if applicable"	See 09-118v1.	AinP	C
Solution Technology-071	E	106	7.7.2.2, Last paragraph before 7.7.3	Change 'a VE_Port capable FCF-MAC transmits a solicited unicast Discovery Advertisement' to 'a VE_Port capable FCF-MAC may transmit a solicited unicast Discovery Advertisement.' What if the addressing modes are incompatible?		Addressing modes do not apply to VE_Port to VE_Port Virtual Links. See 09-118v1.	AinP	C
Solution Technology-070	E	106	7.7.2.2, List item a)	Change 'when a unicast jumbo Discovery Advertisement is received' to 'when a unicast Discovery Advertisement is received'. (Remove 'jumbo'). Otherwise, define what a 'jumbo Discovery Advertisement' is.		See 09-118v1.	AinP	C
Solution Technology-072	E	106	7.7.3.1, Last paragraph before 7.7.3.2	is deassign a word?		See 09-118v1.	AinP	C
Solution Technology-073	E	106	7.7.3.2, 1st paragraph	should 'following' be 'upon'? if following, is there an time requirement?		See 09-118v1.	AinP	C
Cisco-046	E	106	7.7.6.4.2	Change "FLOGI Reply" to "FLOGI LS_ACC" in the seventh paragraph		See 09-118v1.	AinP	C
EMC-066	E	106	7.7.6.4.2	7th paragraph: This is confused - suddenly the text jumps to login reply processing without explaining what the FCF does	Restructure section to describe events in order.	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-70F	E	106	7.7.6.4.2	second and third paragraphs have a list: FIP subcode field set to 1 for... 2 for.... This should be a real list.	FIP subcode field shall be set to: a) 01h for FLOGI Request... b) 02h for an FLOGI LS_ACC... same for both paragraphs.	See 09-118v1.	AinP	C
NetApp-72F	E	106	7.7.6.4.2	Finally, if the FCF supports both FPMA and SPMA and the ENode supports only SPMA,.....	Remove the word "finally," Finally, if the FCF supports both FPMA and SPMA and the ENode supports only SPMA,.....	See 09-118v1.	A	C
NetApp-73F	E	106	7.7.6.4.2	last paragraph: A successful FIP FLOGI operation creates a VF_Port. I'm not sure this is strictly true.	A successful FLOGI creates a (relationship or connection, or nexus, or Virtual Link , or something) between a VN_Port and a VF_Port; but it doesn't create a VF_Port. Reword	See 09-118v1.	AinP	C
NetApp-74F	E	106	7.7.6.4.2	last sentence of page: Subsequent FIP NPIV FDISCs with the same 802.3 frame source address as the FIP FLOGI associate additional VN_Ports to the single VF_Port.	Subsequent FIP NPIV FDISCs with the same 802.3 frame source address as the FIP FLOGI associate additional VN_Ports to the single with the same VF_Port associated with the FIP FLOGI.	See 09-118v1.	AinP	C
Solution Technology-074	E	107	7.7.4.1, 2nd paragraph	The sentence 'The ENode MAC FCoE Controller shall transmit a FIP Keep Alive message with the ENode MAC address as source MAC address to each VF_Port capable FCF-MAC that it has VN_Ports logged in with.' is awkward.	Change to: 'The ENode's MAC FCoE Controller shall transmit a FIP Keep Alive message to each FCF-MAC with which it has logged-in VN_Ports. The ENode shall use its ENode MAC address as source MAC address.'	See 09-118v1.	AinP	C
Solution Technology-075	E	107	7.7.4.1, Last paragraph before 7.7.4.2	Regarding the sentence beginning 'A FIP Clear Virtual Links message...' What is the meaning of 'message'?	I think that a FIP message should be formally defined to include the FIP Header and associated FIP Descriptors.	See 7.7.6.1 in 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-076	E	107	7.7.4.1, Last paragraph before 7.7.4.2	Regarding the sentence 'The size of a FIP Clear Virtual Links message should not exceed the standard Ethernet size (i.e., 1500 bytes).' The size specified is not correct unless 'message' is defined to mean FIP header and associated descriptors.	formally define 'FIP Message' to mean the FIP Header and associated FIP Descriptors.	See 09-118v1.	AinP	C
Solution Technology-077	E	107	7.7.4.1, Last paragraph before 7.7.4.2	Change 'multiple frames' to 'multiple FIP Messages'		See 09-118v1.	A	C
NetApp-75F	E	107	7.7.6.4.3	a list is imbedded in a sentence, create a real list.	The FIP subcode field shall be set to: a) 01h for a b) 02h for a Fabric	See 09-118v1.	AinP	C
NetApp-76F	E	107	7.7.6.4.4	imbedded list create a real list	See comment 75	See 09-118v1.	AinP	C
IBM-061	E	107	7.7.6.5	This section uses the term Enode's MAC Address. Since an Enode can have more than one MAC, this is not clear.		See 09-118v1.	AinP	C
Emulex-066	E	107	7.7.6.5	In the second paragraph of 7.7.6.5, it is inconsistent practice to use an in-line value ("90 seconds") rather than a named constant evaluated in subclause 7.8.	In the second paragraph of 7.7.6.5, replace "90 seconds" by "FKA_VNKA_PERIOD". In table 45, add a row after FKA_ADV_PERIOD: FKA_VNKA_PERIOD - 90 - The interval in seconds between FIP Keep Alive messages sent by an FCoE Controller in behalf of each of the VN_Ports it has instantiated. - 7.7.6.5	See 09-118v1.	AinP	C
EMC-069	E	107	7.7.6.6.1	I don't know how to "turn down" a link.	First line: "turn down" -> "tear down"	See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
NetApp-77F	E	107	7.7.6.6.1	first sentence: The FCoE Controller for a VF_Port capable FCF-MAC may turn down one or more VN_Port to.... Wrong word used	Typo: change "turn down" to "tear down"	See 09-118v1.	AinP	C
IBM-073	E	107	7.7.6.6.1, 7.7.6.6.2	What does "turn down" a virtual link mean?	change to de-instantiate	See 09-118v1.	AinP	C
EMC-070	E	107	7.7.6.6.2	I don't know how to "turn down" a link.	First line: "turn down" -> "tear down"	See 09-118v1.	AinP	C
NetApp-79F	E	107	7.7.6.6.2	The FCoE Controller for a VE_Port capable FCF-MAC may turn down a VE_Port to VE_Port Virtual	TYPO: replace "turn down" with "tear down"	See 09-118v1.	AinP	C
Solution Technology-078	E	108	7.7.5.1, 1st paragraph (and more)	I don't think we have FIP frames. I think we have Ethernet frames carrying the FIP protocol.		See 09-118v1.	AinP	C
Solution Technology-080	E	108	7.7.5.1, Last paragraph before 7.7.5.2	Change the sentence to read 'If an Ethernet frame has the EtherType field set to FIP and does not contain a FIP operation, the frame shall be discarded.'		See 09-118v1.	AinP	C
Solution Technology-079	E	108	7.7.5.1, Table 24	This table does not define a FIP frame. It defines a portion of the Ethernet header and some FIP content.	Change the figure to show an Ethernet frame with FIP content. Combine Table 24 with Table 25 and change all references to FIP frames to FIP Messages.	It defines an "encapsulated FIP frame", not a FIP frame.	R	C
Cisco-047	E	108	7.7.6.7	Same as Cisco-033		See 09-118v1.	A	C
Emulex-071	E	108	table 45	Is there a reason that in its very first instantiation, FIP_FRAME_VER is 1 rather than 0?	In table 45, change the value of FIP_FRAME_VER from 0001b to 0000b	Not many people would be happy...	R	C
Emulex-072	E	108	table 45	The constant value All-FCoE-MACS is not used. Is it here to protect it from other use in the event we find a need for it?		See 09-118v1.	AinP	C
Solution Technology-081	E	109	7.7.5.2, Table 26	This table does not include the 'FIP VLAN Request' or 'FIP VLAN Reply' messages. Were these approved to be included?		They are now included.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-032	E	109	Table 45	D_A_TOV description appear to reflect the the advertisement period described by FKA_ADV_PERIOD	Replace with something like: "The default value that specifies the the maximum number of seconds for an FCF to transmit a solicited discovery advertisement."	See 09-118v1.	AinP	C
Solution Technology-082	E	110	7.7.5.2, Last paragraph before 7.7.5.3	Fix the wording on this to reflect the 'Max FCoE Size' parameter. Also change 'to indicate' to 'to equal'	The FIP_Pad field is used in solicited Discovery Advertisements to extend the frame size to equal the Max FCoE Size value contained in the Discovery Solicitation.'	See 09-118v1.	AinP	C
Solution Technology-083	E	111	7.7.5.3.1, Table 29	The VN_Port Identification descriptor should be called the Vx_Port Identification descriptor.		See 09-118v1.	A	C
NetApp-82F	E	111	B.2	Add an example format for FIP Ethernet frame			A	C
Solution Technology-084	E	112	7.7.5.3.6	The FIP Fabric descriptor is called the 'FIP Fabric' descriptor in the title and text and 'FIP Fabric Name' descriptor in the Table 34 title.			A	C
Emulex-073	E	112	C	Most of the lists in annex C are improperly formatted. There are errors in both enumeration and trailing punctuation.	As a probable overgeneralization, change all ACL lists to ISO ordered lists, and all the rest of the lists to ISO unordered lists.	See 09-133v0.	AinP	C
Broadcom-014	E	112	C	Annex C and Annex D have the same titlle	Should Annex D be FC-BB_E Security Considerations or Threat Assessment?	Should be "FCoE Security Considerations" (not "IFCoE!").	A	C
Broadcom-013	E	112	C.1	Annex TBD	This Annex or Annex D?	Annex D	A	C
Solution Technology-085	E	113	7.7.5.3.7	What happens if an administrator dynamically changes the jumbo frame size? There is no defined behavior or way to signal this. What should happen?		Theoretical case, decided to be outside of scope of FC-BB-5.	AinP	C
Solution Technology-086	E	113	7.7.5.3.9	Change 'is used in FIP NPIV based Fabric login requests and replies.' to 'is used in FIP NPIV requests and replies.' NPIV FDISC is not a Fabric Login.		See 09-118v1.	AinP	C
Cisco-050	E	113	Annex C	Annex TBD should be Annex D.	Change it to Annex D		A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
QLogic-035	E	115	j)	"assigned FCoE source address is only used for FCoE traffic". 90 second FIP FKA uses assigned source address!	Insert "(and FIP traffic)" at the end of sentence.	See 09-133v0.	AinP	C
Solution Technology-088	E	116	7.7.6.1, Note 14	The wording of this note is awkward. Can it be reworded to clean up the grammar?		See 09-118v1.	AinP	C
Solution Technology-089	E	116	7.7.6.1, Table 44	In Proposal T11 08-450v3.pdf, the Discovery Advertisement had a Fabric List. Table 44 shows just a single fabric descriptor. How is information about multiple virtual fabrics communicated to the ENode?		Multiple Virtual Fabrics are outside the scope of FC-BB-5.	AinP	C
Solution Technology-090	E	118	7.7.6.2.1, Last para before 7.7.6.2.2	Change 'then the Discovery Solicitation shall be discarded.' to 'the Discovery Solicitation shall be discarded.'(delete the word 'then')		See 09-118v1.	AinP	C
Solution Technology-092	E	119	7.7.6.3, Last para before 7.7.6.4	Kind of a minor nit, but Ethernet frames do not have a payload, they have a Data field. Change 'an 802.3 frame with a payload length...' to 'an 802.3 frame with an Ethernet Data field length ...'		See 09-118v1.	AinP	C
Solution Technology-091	E	119	7.7.6.3, Last paragraph before 7.7.6.4	The Discovery Advertisement should only be padded to verify support for encapsulated FC frames. If an ENode supports 12k and intervening Ethernet switches support 9k bytes, this will fail, even though it has no implications for proper FCoE operations.		See 09-118v1.	AinP	C
Solution Technology-093	E	120	7.7.6.4.2, 3rd paragraph (global?)	NPIV FDISC is not a Fabric login. While both result in the instantiation of VN_Ports, FLOGI and NPIV FDISC perform different functions.	Reword the Sub-clause title. Reword the 1st sentence to say 'For an NPIV FDISC,...'	See 09-118v1.	AinP	C
Solution Technology-094	E	120	7.7.6.4.2, 6th paragraph	Change 'FIP FLOGI Reply' to 'FIP FLOGI LS_ACC Reply'. This is not true in the event of an LS_RJT reply.		See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-095	E	120	7.7.6.4.2, 7th paragraph	Change 'FIP FLOGI Reply' to 'FIP FLOGI LS_ACC Reply'. This is not true in the event of an LS_RJT reply.		See 09-118v1	AinP	C
Solution Technology-096	E	120	7.7.6.4.2, 7th paragraph	An NPIV FDISC must have a source address of 00:00:00h. How can you propose a properly formed FPMA MAC address and be consistent with the FC addressing requirement? This whole paragraph seems a bit circular and confusing.		See 09-118v1	AinP	C
Solution Technology-098	E	121	7.7.6.6.1, 1st para	In the first sentence, 'may turn down one or more VN_Port to VF_Port Virtual Links...' it is unclear what 'may turn down a Virtual Link' really means.	change wording in the first sentence to 'may force an implicit Fabric Logout of one or more VN_Ports by transmitting a FIP Clear Virtual Links...' Change the wording in the second sentence to 'one for each VN_Port being implicitly logged out.'	See 09-118v1.	AinP	C
Solution Technology-099	E	121	7.7.6.6.2, 1st para	In the first sentence, 'may turn down one or more VE_Port to VE_Port Virtual Links...' it is unclear what 'may turn down a Virtual Link' really means. You are really removing the VE_Port ELP session, but not necessarily affecting the state of the Virtual Link.		See 09-118v1.	AinP	C
Cisco-051	E	122	Annex D	Title of Annex D is incorrect.	Change to: "FCoE Security Recommendations (Informative)"	"FCoE", not "IFCoE"...	A	C
EMC-076	E	122	Annex D	Annexes C and D have the same name	Rename Annex D - it's a broader section on recommendations for deployment.	See Cisco-051	AinP	C
Emulex-078	E	122	D	Annex D has the same title as annex C.	Annex D is not specified in terms of ACLs, so its title should change. Maybe "Traffic Control Rules to Increase FC-BB-E Robustness"?	See Cisco-051	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-100	E	123	7.8, Table 45	D_A_TOV. The description in Table 45 differs from that in 7.7.6.3 that states 'The solicited Discovery Advertisement shall be transmitted within D_A_TOV (see table 45) seconds upon reception of the Discovery Solicitation.' The description in Table 45 seems to imply a periodic transmission rate.		See 09-118v1.	AinP	C
Solution Technology-102	E	126	C.1	Annex C and D have exactly the same title. I believe that Annex C has the correct title.		See Cisco-051.	AinP	C
Solution Technology-103	E	126	C.1, 4th paragraph	Resolve the TBD - I think it should reference Annex D		See Cisco-50	AinP	C
Solution Technology-104	E	126	C.1, next to last paragraph	Change 'via FIP snooping' to 'by examining FIP messages'		See 09-133v0	A	C
Solution Technology-105	E	129	C.3.2, ■ 2nd sentence	Change 'This is necessary to prevent various of address learning and ACL spoofing attacks.' to 'This is necessary to prevent address learning and FCF impersonation attacks.' This cleans up the wording and removes the only use of the word 'spoofing'.		See 09-133v0	A	C
Solution Technology-106	E	132	C.4.5	Change the title to just 'Additional FCF protection' (delete the word crosstalk as this is not used in the normal sense of the word and crosstalk is not used anywhere else in the document.		See 09-133v0	A	C
Solution Technology-107	E	134	C.8, ■ 1st Para.	In the second sentence, change '...ACEs that are generated in response to snooping the FIP FLO _i GI/FDISC accepts.' to '...ACEs that are generated as a result of examining the FIP FLO _i GI/FDISC accepts.'		See 09-133v0	A	C
Solution Technology-108	E	136	Annex D	I think this annex should be titled 'Deployment/Implementation considerations', not Access Control Lists.		See Cisco-051.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Solution Technology-109	E	136	D.2, 4th paragraph	grammar: change 'if duplication VN_Port MAC addresses occur' to 'if duplicate VN_Port MAC addresses occur'		See 09-135v0.	AinP	C
Solution Technology-110	E	138	D.2, List item 6	add 'except as required to meet R_A_TOV requirements.' Ethernet bridges, like Fibre Channel switches, must eventually discard frames to meet the R_A_TOV requirements.		Current text recommends no discard due to congestion. All other reasons to discard still apply, including frame max lifetime.	R	C
Solution Technology-111	E	138	D.5	Has it been verified that the recommendations cited by the Editor's note are in fact included in the main body of the draft?		See EMC-077	AinP	C
Brocade-038	E	141	D.6 item 1)	Clarify: Bridge ports, except those known to be connected to FCFs, to other bridge ports, or are to be explicitly prohibited from carrying FCoE/FIP traffic, should implement ingress filtering that discards all frames containing a Source MAC address in which the 24 most significant bits do not match the FCoE fabric's FC_MAP (regardless of Ethertype).		See Cisco-053	AinP	C
Solution Technology-112	E	141	D.6, List item 1	Unless there is some reason for it to be red, change the text for list item 1 to black.		See Cisco-053	AinP	C
EMC-121	E	100	7.7.5.3.12	FIP Vx_Port Identification descriptor	This is called VN_Port Identification in table 29.	See 09-118v1.	AinP	C
EMC-122	E	102	Table 44	FIP FLOGI Request	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-123	E	102	Table 44	FIP FLOGI LS_ACC	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-124	E	102	Table 44	Footnote a	Is listed on both pages 102 and 103, is this necessary?	yes, this is the proper format for footnotes in ANSI standards.	AinP	C
EMC-125	E	103	Table 44	FIP FLOGI LS_RJT	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-126	E	103	Table 44	FIP NPIV FDISC Request	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-127	E	103	Table 44	FIP NPIV FDISC LS_ACC	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-128	E	103	Table 44	FIP NPIV FDISC LS_RJT	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-129	E	103	Table 44	FIP Fabric LOGO	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-130	E	103	Table 44	FIP Fabric LOGO LS_ACC	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-131	E	103	Table 44	FIP Fabric LOGO LS_RJT	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-132	E	103	Table 44	FIP ELP Request	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-133	E	103	Table 44	FIP ELP SW_ACC	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-134	E	103	Table 44	FIP ELP SW_RJT	Add to table 26 as FIP Operations.	Changed table 26. See 09-118v1.	R	C
EMC-137	E	104	7.7.6.2.2	item b should be broken down into FPMA and SPMA sub-bullets	Break FPMA and SPMA into sub-bullets	See 09-118v1.	AinP	C
EMC-140	E	107	7.7.6.6.1	wording "turn down"	replace with remove	See 09-118v1.	AinP	C
EMC-141	E	107	7.7.6.6.1	wording "turned down"	replace with removed	See 09-118v1.	AinP	C
EMC-142	E	107	7.7.6.6.2	wording "turn down"	replace with remove	See 09-118v1.	AinP	C
EMC-143	E	112	C.1	TBD	replace with correct reference.	See Cisco-050	AinP	C
EMC-144	E	114	C.3	item e)	becomes a)	See 09-133v0	A	C
EMC-145	E	114	C.3	item f)	becomes b)	See 09-133v0	A	C
EMC-146	E	114	C.3	item g)	becomes c)	See 09-133v0	A	C
EMC-147	E	114	C.3	item h)	becomes d)	See 09-133v0	A	C
EMC-148	E	114	C.3	item i)	becomes e)	See 09-133v0	A	C
EMC-149	E	115	C.3	item j)	becomes f)	See 09-133v0	A	C
EMC-150	E	115	C.3	item k)	becomes g)	See 09-133v0	A	C
EMC-153	E	122	Annex D	Duplicate name used for Annex C and D	Rename Annex D	See Cisco-051.	AinP	C
EMC-154	E	122	D.2	Wording	Replace: Finally, FCoE Fabrics may be subjected to various forms of catastrophic failure if duplication VN_Port with: Finally, FCoE Fabrics may be subjected to various forms of catastrophic failure if the duplication of VN_Port	See 09-135v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-082	E	13	3.3	Definition for SW_RJT is incorrect	Suggest changing the definition to "Switch Fabric Link Service Reject" to be consistent with FC-SW-5.		A	C
EMC-084	E	13	3.5.1	First use of MAC before it's defined	Suggest changing definition of 3.5.1 from: Enode MAC address: The MAC address used by the Enode during the FCoE Initialization Protocol (FIP) to: Enode MAC address: The Media Access Control (MAC) address used by the Enode during the FCoE Initialization Protocol (FIP)	See 09-021v0.	AinP	C
EMC-090	E	14	3.5.17	The words "link end-point" are used.	Global replace with either FCoE Link End-Point or FCoE_LEP.	See 09-021v0.	AinP	C
EMC-085	E	14	3.5.2	First use of FCF before it's defined	Suggest changing definition of 3.5.2 from: Fabric Provided MAC Address (FPMA): A MAC address that is assigned by an FCF and is fabric-wide unique. To: Fabric Provided MAC Address (FPMA): A MAC address that is assigned by a Fibre Channel Forwarder (FCF) and is fabric-wide unique.	See 08-676v1.	AinP	C
EMC-087	E	14	3.5.6	Definition of FCF	Include a reference to figure 29.	See 09-021v0.	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-088	E	14	3.5.6	Definition of FCF should include FCoE_LEP	The definition for FCF provides a list of the components contained within an FCF and one missing was at least one FCoE_LEP.	See 09-021v0.	R	C
EMC-089	E	14	3.5.8	The words "Fibre Channel Node" are used with a reference to FC-FS-3.	There is no such definition in FC-FS-3. I would suggest defining it in FC-BB-5.	It is defined in FC-FS-3 3.1.88.	R	C
EMC-091	E	19	4.1	There is no mention of FC-BB_E in this backbone mappings section.	A section describing FC-BB_E at this high level will be needed.	See 08-726v1.	AinP	C
EMC-100	E	27	Table 4	Reference to FC-LS	Replace with FC-LS-2		A	C
Cisco-009	E	6.8	References	References need to be updated. FC-FS-3 and IEEE 802.1Q are missing. Is the sonet reference still needed?		Keep the sonet reference.	AinP	C
EMC-102	E	81	7.2	Reference to FC-SW-4	Replace with FC-SW-5		A	C
EMC-104	E	82	7.2	Text needs to be cleaned up	Replace: Each of the two ENodes H1 and H2 depicted in figure 26 has a single physical Ethernet connection to the Lossless Ethernet network, as well as each of the two FCFs, FCF A and B. with: Each of the two ENodes (i.e., H1 and H2) as well as each of the two FCFs (i.e., FCF A and B) depicted in figure 26 have a single physical Ethernet connection to the Lossless Ethernet network.	See 09-021v0.	AinP	C
EMC-103	E	82	Figure 26	Diagram is very hard to read.	Suggest increasing font size for text and eliminating the use of color.	See 09-021v0.	AinP	C
EMC-106	E	83	7.3	FC_BB_E is incorrect	Replace with FC-BB_E	See 09-021v0.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-107	E	83	7.3	FC-BB_E text is missing FCoE_LEP	What about the FCoE_LEP, etc.. I realize they do not exist until instantiated, but they must be able to be instantiated and should be included.	See 09-021v0.	AinP	C
EMC-105	E	83	Figure 27	Diagram is very hard to read.	Suggest increasing font size for text and eliminating the use of color.	See 09-021v0.	AinP	C
IBM-023	E	84, 87	7.3, 7.4	In item g), "within every FKA_ADV_PERIOD" is vague (too simple). Rather than specify details here, it is enough here to say that the messages are periodic and refer to the section 7.7.4 for details on how it is checked.	Remove "within every FKA_ADV_PERIOD" and add reference to 7.7.4 (Virtual link maintenance protocol) Also make the same changes to section 7.4 lists.	See 09-021v0.	AinP	C
EMC-108	E	85	7.4	FC_BB_E is incorrect in section title is incorrect.	Replace with FC-BB_E	See 09-021v0.	AinP	C
EMC-109	E	85	7.4	Add (FCF) to section title	Suggest replacing: FC_BB_E VE_Port/VF_Port functional model with: FC-BB_E VE_Port/VF_Port (FCF) functional model	See 09-021v0.	AinP	C
IBM-028	E	85,86	7.4	Figure 29 is the "functional model of an FCF". The section title should be FC_BB_E FCF (VE_Port/VF_Port) functional model	Change section title and title of figure 29 to reflect that it is an FCF model.	See 09-021v0.	AinP	C
IBM-016	E	86,87	7.4	The lists on these pages should be unordered per the list on page 84.	change to unordered list	See 09-021v0.	AinP	C
EMC-113	E	88	Figure 30	Diagram is very hard to read.	Suggest increasing font size for text and eliminating the use of color.	See 09-021v0.	AinP	C
EMC-115	E	89	7.6	Add reference	Add a reference to Annex B.	See 09-021v0.	AinP	C
EMC-114	E	89	Figure 31	Diagram is very hard to read.	Suggest increasing font size for text and eliminating the use of color.	See 09-021v0.	AinP	C
EMC-116	E	90	Table 22	List is out of order.	put into ascending order.	It is logically ordered by the description column	R	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
EMC-117	E	91	7.7.2.1	Add "Discovery"	Suggest replacing: The FCoE Controller for a VF_Port capable FCF-MAC shall periodically transmit multicast Advertisements to the All-ENode-MACS group address every FKA_ADV_PERIOD. With: The FCoE Controller for a VF_Port capable FCF-MAC shall periodically transmit multicast Discovery Advertisements to the All-ENode-MACS group address every FKA_ADV_PERIOD.	See 09-118v1.	A	C
NetApp-62F	E	97-101	7.7.5.3.*	Global in this section - Each section should have a reference to where the usage is described.	Several are listed above in comments 55-61; this is just a general comment to cover the ones I might have missed	See 09-118v1.	AinP	C
Dell-001	E	global	global	The scope of FC-BB-5 in the FC-BB-5 project proposal is limited to FC over Ethernet. However, this document covers FC over all non-FC physical networks (i.e. FC over TCP/IP, FC over GFPT, FC over MPLS in addition to FC over Ethernet)	If the scope needs to be limited only to FCoE, then update the document globally to remove details for FC over wide area networks (i.e. FC_BB_IP, FC_BB_GFPT, FC_BB_PW). Add details of FC_BB_E (FCoE) to the specific sections already tagged with Editor note (e.g. section 4.3.4, 4.4.2.3, 4.4.4, 4.4.5,)	FC-BB-5 adds support for FCoE to the existing mappings defined by the FC-BB-x series of standards. See Cisco-005.	R	C
Cisco-001	E	i		Are fax numbers still used?	Delete it for cds	Delete all fax numbers! Fix Craig Carlson address as well!	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Cisco-002	E	iii	Abstract	FCoE is not a WAN technology	Rephrase the abstract as "This standard defines the functions and mappings necessary to carry Fibre Channel over different technologies."	Rephrase as "This standard defines the functions and mappings for transporting Fibre Channel over different network technologies."	AinP	C
Cisco-054	E	many	Annex C, Annex D	These annexes need quite a bit of editorial work...		See 09-133v0 and 09-135v0.	AinP	C
Cisco-020	E	many	many	correct spelling of constants and parameters as follows: - All-FCF-MACs - All-ENode-MACs - FC-MAP	global replace		A	C
Cisco-003	E	v	Foreword	The first sentence is incorrect	Rephrase it as per Cisco-002		A	C
Cisco-004	E	vii		The current T11.3 secretary is Landon	Update		A	C
Cisco-005	E	viii	Introduction	The first paragraph is incorrect	Rephrase as: "This standard defines the functions and mappings necessary to carry Fibre Channel over different technologies. FC-BB-5 defines four distinct Fibre Channel mappings: FC over TCP/IP, FC over GFPT, FC over MPLS, and FC over Ethernet."	See Emulex-001	A	C
Brocade-032	E		7.2	Pause -> PAUSE			A	
Brocade-045	E		5.5.1.2	Remove the period in the Connection Nonce sentence.			A	
Brocade-046	E		6.4.8.2.1, p2	Fix spelling of Orderd and remove red strikeout text.			A	
Brocade-033	E		7.2 last line	"supporting Lossless Ethernet MACs" -> "over a lossless Ethernet network."			A	
Intel-008	E		7.7.5.3.1	Table 29, FIP descriptor type 11 is listed as VN_Port, but everywhere else on the document is listed as Vx_Port. Should be changed to VN_Port.		Change VN_Port to Vx_Port. See 09-118v1.	AinP	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Intel-009	E		7.7.5.3.12	Current spec states FIP Vx_Port Identification descriptor is used in FIP Clear Virtual Links messages. Spec should add it is also used in FIP keep alive for Vx_Port.		See 09-118v1.	AinP	C
Intel-014	E		7.7.5.3.3	Assume the MAC address shall be included and transferred in Big-Endian or Network Byte Order? This is not clear given the subscripting for each byte in the descriptor. Example where this info is indicated, in table 33, showing MSB/LSB byte order indication.		See 09-118v1.	AinP	C
Brocade-008	E		7.7.6.6.1	Fix "turned down" text.		See 09-118v1.	A	C
Intel-019	E		Annex C & D	Annex C & D have the same title		See Brocade-044	A	C
Brocade-044	E		Annex D	The title is not correct. Change to FCoE Security Recommendations.			A	C
Brocade-034	E		figure 26	Put the ports inside the ENode as you do for the FCF.		See 09-021v0.	A	C
Intel-017	E		Figure 30	Figure 30 is not trying to indicate that each VN_PORT has a unique Mac address is it (ex. MAC VN_PORT(1), MAC VN_PORT(2), etc? It should have a unique address identifier as result of FLOGI/FDISC, but all VN_PORTS on the Enode would/could share the same MAC address as in the case of SPMA. Can a comment be added to say this is only true for FPMA?	Add comment that this is only for FPMA	See 09-021v0.	AinP	C
Intel-015	E		General	The early sections (before 7) that show FC-BB_E figures or details are incomplete.		See 08-726v1.	AinP	C
Brocade-036	E		global	Sometimes Ethernet is used, and sometimes 802.3. Replace 802.3 -> Ethernet.			A	C
Brocade-047	E		Note 14	The sentence is incomplete.		See 09-118v1.	AinP	C
Brocade-042	E		table 34	Fabric_Name descriptor should be Fabric descriptor.			A	C
Brocade-048	E		table 43	Change Type to Type (13)		See 09-118v1.	R	C
Brocade-007	E			Fix figure 4.			A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Late-001	T			Clarify the FIP LOGO behavior to be the same as specified by FC-LS		See 09-118v1.	AinP	C
Late-002	E			Ensure every occurrence of Lossless as keyword is capitalized.		Editor: every occurrence of Lossless Ethernet is capitalized.	A	C
QLogic-late-001	T		7.7.1	All FIP protocols are performed on a per-VLAN basis.	Does this prevent FIP with VID=0 in IEEE 802.1Q tag? Definitions of 802.1Q Tag VID field = 0 means frame doesn't belong to any VLAN. 802.1Q tag is optional for FIP & FCoE frames according to the specification.	Priority-tagged frames belong to a VLAN even with VID=0. If VID=0 the frame belongs to the VLAN identified by PVID (the Port VID).	AinP	C
QLogic-late-002	T			We request that the FCoE Ver field in the frame get incremented with the final revision of FC-BB-5.		During the discussion Craig clarified this is coming from some perceived interoperability issues. Rejected, because nothing has changed in the FCoE frame format.	R	C
QLogic-late-003	T			We request that the FIP Ver field in the frame get incremented with the final revision of FC-BB-5.		During the discussion Craig clarified this is coming from some perceived interoperability issues. Changing the Ver field does not solve this problem and would break any existing implementation instead. The proper way to fix the perceived problem is through formal plug-fests.	R	C
EMC-late-001	T			The standard does not provide clear direction as to when the VLAN Discovery protocol should be performed relative to other protocols.		AinP Resolved by 09-291v1.	A	C

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
Qlogic-late-004	T			Text has been added to describe the effect of a change in the FKA_ADV_PERIOD in unsolicited advertisements for an established VN_Port to VF_Port connection, however, there is no description of the effect of changes in other unsolicited advertisement fields. *Can this be clarified in the specification?*		The reason we describe what happens when the FKA_ADV_PERIOD timer changes is that the Virtual Link maintenance protocol relies heavily on that parameter. The other parameters do not affect directly any protocol. In particular: - the Priority is specified as just taken from the advertisement and put in the FCF list. If the value changes, that is what continues to happen, no difference; - Name_Identifier descriptor change: it means that a Fibre Channel switch is changing its Switch_Name!!! Do we specify somewhere what happens in this case? This is not an FCoE issue; and - Fabric and Fabric_Name changes: again, what happens if the Fabric_Name of an FC Fabric changes?	R	C
Color Key:								
Red - editor to research or working group needs to								
Yellow - working group action item								
Pink - editor to incorporate								
Purple - complete								
					Keys:			
Summary			698	All	O	Open: An action has been identified and is not complete		

Company number	Tech/Edit	Page	Sec/table/fig locator	Comment	Proposed Solution	Resolution	Key	Status
			0	All Open	A	Accepted: The issue has been resolved and the resolution indicates any necessary changes		
			134	All Accepted	R	Rejected: The issue has been rejected, and the resolution indicates the reason. The resolution may also indicate changes found useful to improve the readability of the standard		
			91	All Rejected	W	Withdrawn: The commenter has withdrawn the comment.		
			1	All Withdrawn		Not considered yet		
			470	All Accepted in Principle	AinP	Accepted in Principle: The comment issue has been accepted in principle and the resolution indicates any necessary changes		
			0	All Not Processed				
			389	All Technical				
			0	All Open Technical				
			0	All Accepted Technical				
			0	All Rejected Technical				
			0	All Withdrawn Technical				
			0	All Not Processed Technical				
			307	All Editorial				
			0	All Open Editorial				
			0	All Accepted Editorial				
			0	All Rejected Editorial				
			0	All Withdrawn Editorial				
			0	All Not Processed Editorial				