

DRAFT MINUTES OF THE 22nd FAIS AD HOC MEETING

The twenty-second meeting of the T11.5 FAIS Ad Hoc group took place at the Westin Hotel in Ottawa, Ontario, on August 10, 2005.

The following people were present:

AGILENT	Roy Elsbernd	roy_elsbernd@agilent.com
ASTUTE NETWORKS	Robert Johnson	robert@astutenetworks.com
BROCADE	Ed McClanahan	edmc@brocade.com
CISCO	Claudio DeSanti	cds@cisco.com
EMC	Greg Golubski	golubski_greg@emc.com
EMULEX	Ken Hirata	ken.hirata@emulex.com
HITACHI	Hidehisa Shitomi	hidehisa.shitomi@hds.com
INCIPIENT	Danny Arnon	danny.arnon@incipient.com
INTEL	Ramamurthy Krithivas	ramamurthy.krithivas@intel.com
IVIVITY	Eddy Quicksall	eddyquicksall@ivivity.com
MCDATA	Larry Hofer	larry.hofer@mcddata.com
MICROSOFT	Jeff Mastro	jmastro@microsoft.com
QLOGIC	Craig W. Carlson	craig.carlson@qlogic.com
SYMANTEC	Roger Cummings	roger.cummings@veritas.com
TROIKA NETWORKS	William Chow	wchow@troikanetworks.com
TRUE FOCUS	Horst Truedtedt	hotrues@attglobal.net
UNH-IOL	Mikkel Hagen	mhagen@iol.unh.edu

A total of 17 people from 17 organizations.

1. Opening remarks and introductions

The Chairman of FAIS, Claudio DeSanti of Cisco, called the meeting to order and welcomed the attendees, and led a round of introductions.

2. Administrivia

2.1 Approval of minutes

The minutes of the June FAIS Ad Hoc meeting had been uploaded to www.t11.org by William Chow of Troika Networks as 05-434v0. Also, minutes for conference call on 7/1/2005 was uploaded as 05-523v0.

Larry noted that his attendance was not recorded in 05-523v0. Pursuant to these changes, Ed moved to approve both sets of minutes; Larry seconded. The motion passed by acclamation.

2.2 Approval of this agenda

Claudio had distributed a draft agenda for this meeting as 05-534v0 via the T11 Web site.

Changes were noted. Claudio moved to approve the agenda; Ed seconded. The agenda was approved unanimously.

3. Call for Patents

Claudio stated that this Working Group operates under the INCITS procedures, which are available on the web at <http://www.incits.org/>. Amongst these procedures are the ANSI patent policies. He directed persons to forward any patent related issue to the T11.5 and T11 Plenary meetings.

4. Review of old FAIS action items

Old action items were reviewed.

Their status was updated as follows:

AI 9: Ed McClanahan will propose an approach for supporting failover in the event of CPP failure. (Opened 1/13/2004)

Deferred to phase 2. EM said this is blocked behind 04-402 completion as he needs to understand the Provider state that must be managed during failover. Target: ??? meeting.

AI 22: Ed McClanahan will propose a draft for chapter 1 and 2. (Opened 5/8/2004)

Partially completed (only chapter 2). Still open. Target: August. Closed by 05-509v0.

AI 49: Ed McClanahan to incorporate 05-114v0 and 05-131v0 into the draft. (Opened 2/3/2005)

Open. Partially completed (131v0 already incorporated into 115v1). Target: 1st draft. Closed.

AI 52: William Chow and Anshul Chadda will propose modifications to enhance processing of front-end commands. (Opened 3/4/2005)

Deferred to phase 2.

- AI 54: Maurilio Cometto to propose how Control event for XMAP would be supported. (Opened 3/14/2005)
Deferred to phase 2.
- AI 55: Ed McClanahan will incorporate the latest object model diagram into the draft standard. (Opened 4/6/2005)
Open. Target: August. Closed by 05-115v2.
- AI 58: William Chow and Anshul Chadda will separate Client handling of control-path I/Os from faulted data-path I/Os. (Opened 4/6/2005)
Deferred to phase 2.
- AI 59: Ed McClanahan to make a proposal on how to make the conventions section consistent in the draft. (Opened 4/25/05)
Open. Closed by 05-115v2.
- AI 60: Anshul Chadda and Ed McClanahan to address the creation or not of the BIT in the combined API proposal. (Opened 4/25/05)
Open. Closed by 05-008v8.
- AI 63: Anshul Chadda will update 05-008 to specify how BITLSet policies and their corresponding BITL-specific weights are used. (Opened 6/8/2005)
Open. Closed by 05-008v8.
- AI 64: Ed McClanahan will incorporate 05-404 into the draft standard. (Opened 6/8/2005)
Open. Closed by 05-115v3.
- AI 65: Ed McClanahan and William Chow and Anshul Chadda will resolve whether a struct member can use the typedef of the containing struct. (Opened 6/8/2005)
Open. Closed by 05-008v8.
- AI 66: Ed McClanahan will add entries for “transport port” (using 1.4.2.11.2 text) and “transport protocol” (editor’s discretion) in chapter 3 definitions. (Opened 6/8/2005)
Open. Closed by 05-115v2.
- AI 67: Anshul Chadda will incorporate 05-405 into 05-008. (Opened 6/8/2005)
Open. Closed by 05-008v8.
- AI 68: Ed McClanahan will incorporate 05-310 into the draft standard. (Opened 6/8/2005)
Open. Closed by 05-115v3.
- AI 69: William Chow and Ed McClanahan **and Anshul Chadda** will propose modifications to 05-008 that supports FAIS_SCSI_Ports which can function as both initiator and target. (Opened 6/8/2005)
Open. Closed by 05-008v8.
- AI 70: Anshul will update the API Proposal (05-008) to reflect the changes in 05-480v0. (Opened 7/1/2005)
Open. Closed by 05-008v8.
- AI 71: Ed McClanahan will update chapter 5 in the draft specification to reflect the changes in 05-480v0. (Opened 7/1/2005)
Open. Closed by 05-115v3.

5. Old business

There was no old business at this meeting.

6. Scheduled FAIS business

6.1 Current Draft Specification (05-115v3) Ed McClanahan (Brocade)

Ed indicated that he updated section 5.3 with the object model from 05-480v1. He noted that the FAIS_SCSI_Port is still present and that there are pending proposals to remove it (i.e. 05-480v2 and 05-008v8).

Ed was actioned to remove all editor's comments.

6.2 FAIS_SCSI_Port Support in Object Model (05-480v2) Ed McClanahan (Brocade)

Eddy asked about the term "portal". He suggested naming this FAIS_Portal; this also means anything else with "portal" should have "SCSI" removed from the term. There was consensus for this. Ed will add a definition for FAIS_Portal.

Ed suggested renaming FAIS_SCSI_Port to FAIS_SCSIPort. William asked about the naming convention w.r.t. FAIS_SCSI_Port. Ed responded that the convention section only excludes consecutive acronyms, not acronyms with non-acronyms. Greg noted that there is significant reference to FAIS_SCSI_Port. Claudio suggested keeping terms as they are and leaving it for the letter ballot comments.

Ed noted that FAIS_SCSIPortName has no underscores. Claudio suggested changing this to FAIS_PortName. This was agreed.

Ed noted that the FIT and BIT do not know anything about Portals.

William suggested adding characteristic to FAIS_PortName to allow sharing b/t FT and BI. This was agreed.

William noted that the discovery of Regions is in scope for FAIS, so the restriction in 5.4.9.3 should be removed. This was agreed.

Ed noted that the generic "add child to vdev" method uses "params" for aggregation elements. To make BITL a first-class object, he noted that 05-008v8 uses a "BITL param" that includes a weight and the BITL handle. He noted that BITL probably then should not have a weight. This was agreed.

Ed moved to incorporate 05-480v2, as modified, into the draft; Gregg seconded. This passed by acclamation. Ed is actioned to post 05-480v3.

6.3 FAIS API Proposal (05-008v8) Greg Golubski (EMC)

William asked about termination and encoding of strings (in ProviderInfo). He suggested that using SPC's convention for the standard Inquiry data, which specifies "X bytes of ASCII data".

Greg then noted that this implies removal of the “+1” from the array lengths. William suggested changing these to FAIS_XXXX_LEN. This was agreed.

Greg noted that most changes were uint-related.

William asked why IPv4 and IPv6 are not encapsulated into a union. Greg noted that this was a new structure. Claudio said an iSCSI connection differs between the two, i.e. separate Portals. This means they should be a union. Ed noted that we need another field to differentiate. This was agreed.

Ed noted that FAIS_REGION_T doesn't exist any more. He noted that this primarily supported current and max FAIS_SCSI_Ports, and the current value is already covered by Region_GetStatus. William noted that Region_GetDetails can cover the max.

William asked about the naming convention for functions. He noted that most have the class followed by an underscore. Ed will change all in 1.5 Port Services for this. He will also rename fais_RegionsQuery to fais_Region_Enumerate.

Eddy noted several minor changes. He also noted that 1.4 puts client handles ahead of object handles in the function structures, but this is reversed from 1.5 and others. Ed will reverse the order in 1.4.

Eddy said the description of FT_Activate is problematic. William suggested fixing this to ensure clarity about the use of this function. A new version was suggested and it was agreed that this would be applied to all Activate functions.

William suggested fixing the Deactivate functions to use an inversed definition derived from the Activate functions.

Eddy asked about other attributes to the FIT_GetStatus, such as the FAIS_PortalId and a “connected” status. Ed suggested that this should be punted as there are provider-specific dependencies.

Ed noted that per previous presentation, the weights in BITL should be removed.

William noted that there is no way to enumerate FTs and BIs. He noted that this is primarily an issue when FTs and BIs are not yet activated (i.e. virtual N_port, such as switch-based models), since activated FTs/BIs can be enumerated thru the Regions and Portals. Ed noted that we really need Enumerate functions for other things, including FITs, BITs, FITLs, etcs, and that the GetStatus should provide all associations so that relationships can be traversed. William asked whether we can defer this and handle it via letter ballot comments. Claudio responded yes.

Ed noted that there is no child param for Concat Vdevs, which has no attributes beyond those for any other Vdev. It was noted that the generic Vdev attributes are specified within the function argument structures.

Ed noted that per the previous presentation, BITLParam needs to be changed to BITLSetEntry.

Ed noted that VDEV_GetStatus should support continuation, e.g. many XmapEntries. It was agreed to add a generic "child offset".

William noted that permissions cannot be specified in FITL_Create. It was agreed to add this, instead of having to agree on any default values.

Ed moved that 05-008v8, as modified per this meeting, be incorporated into the draft specification; Larry seconded. Yes=11, no=0, abstentions=1; motion carries. Greg is actioned to post 05-008v9 and provide source to Ed.

Claudio proposed the following for incorporating 05-008v9 the draft specification:

- Put all editor's notes in chapter 3 should go in chapter 4.
- Put overview from API proposal (section 1.1) in chapter 4.
- Put general services and constants from API proposal (section 1.3 and 1.2, respectively) in chapter 6 (named General Services).
- Make 1.4, 1.5, 1.6, and 1.7 as individual top-level chapters.

This was agreed.

6.4 Draft Specification Chapters 1 and 2 (05-509v0) Ed McClanahan (Brocade)

Ed described the largely minor changes, including updated references to ANSI documents.

Ed moved that 05-509v0 be incorporated into the draft specification; Claudio seconded. The motion passed by acclamation.

6.5 Draft Specification Chapter 3 (05-512v0) Ed McClanahan (Brocade)

Ed noted that we decided to stay with FAIS_SCSI_Port (i.e. rename FAIS_SCSIPort).

Greg noted that a definition is needed for FAIS_Portal. Ed will take this from 05-008v8 comments.

Ed moved that 05-512v0, as modified, to be incorporated into the draft specification; Claudio seconded. The motion was passed by acclamation. Ed is actioned to post 05-512v1.

Ed is actioned to post a new version of the draft, based on the incorporation of 05-008v9, 05-509v0, and 05-512v1, no less than 1 month prior to the october meeting.

6.6 FLIP Proposal (05-527v0) Roger Cummings (Symantec)

He said the basis for this proposal is that currently, the discovery, installation, and configuration of FAIS_clients is overly burdensome for an ISV. He noted T11 is not chartered to specify any IP-based protocols.

William asked whether there are companies interested and ready to support working on such an effort. Roger said this came up about 3 weeks ago internally within Symantec, and they are ready to support this effort. He said that he doesn't know yet whether there are any platform vendors ready to support this.

Roger noted that there are possible dependencies/overlap with existing IP-based technologies, such as "netconf" and DNS records. William asked whether we could define the RPC layer without defining the transport-specific mapping. Roger said this would be ok.

7. **Unscheduled FAIS business**

There was no unscheduled business.

8. **Review of FAIS action items**

New action items were reviewed. The list was updated as follows:

AI 72: Ed McClanahan will remove all editor's comments from 05-113v3.

New.

AI 73: Ed McClanahan will update 05-480v2 per the modifications from the 8/10 meeting.

New.

AI 74: Greg Golubski will update 05-008v8 per the modifications from the 8/10 meeting and provide the source to the editor.

New.

AI 75: Ed McClanahan will update 05-512v0 per the modifications from the 8/10 meeting.

New.

AI 76: Ed McClanahan will post a new version of the draft, based on the incorporation of 05-008v9, 05-509v0, and 05-512v1, no less than 1 month prior to the october meeting.

New.

9. **Deferred FAIS action items**

The following action items have been deferred until a future version of FAIS:

AI 9: Ed McClanahan will propose an approach for supporting failover in the event of CPP failure. (Opened 1/13/2004)

Deferred to phase 2. EM said this is blocked behind 04-402 completion as he needs to understand the Provider state that must be managed during failover. Target: ??? meeting.

AI 52: William Chow and Anshul Chadda will propose modifications to enhance processing of front-end commands.(Opened 3/4/2005)

Deferred to phase 2.

AI 54: Maurilio Cometto to propose how Control event for XMAP would be supported. (Opened 3/14/2005)

Deferred to phase 2.

AI 58: William Chow and Anshul Chadda will separate Client handling of control-path I/Os from faulted data-path I/Os. (Opened 4/6/2005)

Deferred to phase 2.

10. Next meeting schedule

Claudio noted that we cannot enter letter ballot until the next meeting. He recommended adding enumeration functions as soon as possible. He said we should try to have the draft as currently defined (i.e. not including the enumeration functionality) at 1 month prior to october meeting.

Greg was actioned to propose enumeration functions. Claudio suggested a 1-hour conference call in September to discuss the enumeration proposal. He proposed a call during the week of Sep 5th. It was noted that Labor Day is 9/5, so he suggested 9/8 or 9/9 at 11am PST.

Claudio noted that we won't need very much time for the next meeting, since we will primarily just be taking a vote on the draft, so he will ask for 3 hours. He will also try to make this the same day as the plenary meetings (i.e. thursday morning).

11. Adjournment

A motion to adjourn the meeting was passed unanimously.