

# Draft Minutes

## T11.3 Fabric Expansion Study Group Meeting

### 7 June 2004 - 1 PM to 6 PM

### Chicago IL

A Meeting of the Fabric Expansion Study Group of INCITS Technical Committee T11 Task Group T11.3 was held at Chicago IL on 7 June 2004, hosted by Tartan Technologies. Attendance at this Meeting was 29 people from 20 companies and is tabulated at the end of this document.

Minutes were taken by Bob Nixon (bob.nixon@emulex.com). Please report any corrections by email to the T11.3 reflector at T11\_3@mail.T11.org.

#### 1 Opening remarks and introductions

John Scheible

Chairperson John Scheible opened the meeting Monday, 7 June 2004 at 1:41 PM. He thanked our host company, Tartan Technologies, and led a round of introductions.

##### 1.1 Attendance and Membership

John Scheible stated that all persons present are considered members of this meeting and may vote on questions, limited to one vote per company present. Attendance at this meeting does not count toward attendance at the plenaries of T11 and its task groups (i.e., being here will not get you out or keep you out of membership jeopardy).

##### 1.2 Patents

John Scheible indicated that among the rules and policies under which this working group operates is the ANSI patent policy. He directed persons wishing to make statements or ask questions relevant to this policy to do so at the T11.3 or T11 plenary meeting.

##### 1.3 Antitrust

John Scheible indicated that among the rules and policies under which this working group operates is the INCITS Antitrust Guidelines. Any member of the meeting is responsible for objecting if he believes discussion in the meeting violates those guidelines.

#### 2 Call for changes to minutes

2.1 Minutes of FabExp meeting 6 April 2004      04-268v0      All

*It was moved by Bob Nixon and seconded by John Scheible to accept 04-268v0 as the minutes of the Fabric Expansion Study Group meeting on 6 April 2004. Approved unanimously.*

2.2 FabExp report to T11.3 Plenary 8 April 2004      04-266v0      All

*It was moved by John Scheible and seconded by Bob Nixon to accept 04-266v0 as the Fabric Expansion Study Group report to T11.3 Plenary 8 April 2004. Approved unanimously.*

### 3 Approval of This Agenda

04-378v0

John Scheible

Mike O'Donnell requested time to present a proposal on interfabric routing

Bob Snively requested time for him, Silvano Gai, and Joe Gruba to present proposals on fabric routing headers.

***It was moved by John Scheible and seconded by Bob Nixon to accept 04-378v0 with the changes noted above as the agenda for this meeting. Approved unanimously.***

### 4 Review of Old Action Items

Bob Nixon

- 4.1 Claudio DeSanti to modify 04-243v0 and take to FC-FS-2 for consideration (CLOSED by 04-243v1 and 04-379v0).
- 4.2 Claudio DeSanti to modify 04-242v0 and take to FC-FS-2 for consideration (CLOSED by 04-242v1 and 04-379v0).

### 5 Scheduled Business

#### 5.1 Fabric Expansion approved list

04-377v0

John Scheible

John's document describes the documents that are recommended by this group for inclusion in draft standards or technical reports. He intends to maintain it to reflect document approvals as listed in meeting minutes.

#### 5.2 Fabric Expansion requirements

04-073v2

Bob Nixon

Agreed to make the revision to subclause 2.3.2.4 recommended in the proposal.

Agreed to change the "i.e." to an "e.g." in revised subclause 2.3.2.4.

Agreed to change "iSCSI Bridging" to "other backbone technologies" in revised subclause 2.3.2.4.

Agreed to correct the spelling of "Presense" in 2.3.3.1.

Agreed to make the deletion from subclause 2.3.5 recommended in the proposal.

Agreed to make the deletion of subclause 2.3.9 recommended in the proposal.

***It was moved by Bob Nixon and seconded by John Scheible to accept 04-073v3, reflecting 04-073v2 and the changes agreed at the Fabric Expansion Study Group meeting 7 June 2004 as the requirements for fabric expansion. Approved unanimously.***

**ACTION: Bob Nixon to publish 04-073v3, reflecting 04-073v2 and the changes agreed at the Fabric Expansion Study Group meeting 7 June 2004.**

#### 5.3 Interfabric Routing

04-408v0

Mike O'Donnell

This presentation is a survey of issues and approaches to interfabric routing.

It was agreed that although it shall be possible for an end device to rely on interfabric routing without being aware of it, an end device may be aware of fabric routing and act based on that awareness.

This proposal allows a port WWN to appear in more than one fabric. There was concern that there may be applications that would not tolerate it. SMI was a possible example. David Black believed this was not a problem for SMI, and that the alternative, creating distinct WWNs for a single device, would be a disaster.

It was observed that gateways on the same fabric, in order to conduct their routing discovery, need to be able to converse via that fabric in a way that is transparent to the elements of that fabric.

It was agreed that load balancing among multiple paths between a pair of fabrics shall be possible, but that administration may prevent it. Details are not yet (and may never be) specified in standards.

It was agreed there shall be a way to administratively prevent a fabric from being used in a route between other fabrics. This appeared to be covered already.

#### **5.4 Interfabric routing headers**

**04-404v1**

**Bob Snively**

This presentation contains both an architecture overview and a header specification.

Key architecture issues include

- a) network address translation is not a hard requirement;
- b) FS-compatible encapsulation is a separable header not integral with the frame routing header; and
- c) certain combinations of VFT, FR, and encapsulation headers for which no immediate need is seen are nevertheless allowed for possible use.

#### **5.5 Interfabric routing slides**

**04-413v0**

**Silvano Gai**

After viewing the first slide, Silvano deferred to the next presentation, since it seemed to better expose some key issues.

#### **5.6 Interfabric routing slides**

**04-421v0**

**Bob Snively**

This presentation gave examples of use of some of the fabric routing header combinations that 04-404v1 attempts to allow for future use.

It was posed that use of some combinations may require negotiation to assure proper use (or nonuse) of legacy fabrics as transports, and that the negotiation may lead to new modes of failure.

There appears to be no convergence on the issue of whether the header for the encapsulation function should be isolated from the header for the frame routing function or not.

**ACTION: Bob Nixon to email the T11.3 and T11.5 reflectors to solicit vendor preference whether the encapsulation header should be integrated with the frame routing header or not.**

### **6 Review of Action Items**

**Bob Nixon**

- 6.1 Bob Nixon to publish 04-073v3, reflecting 04-073v2 and the changes agreed at the Fabric Expansion Study Group meeting 7 June 2004.  
(Opened 7 June 2004) (CLOSED by 04-073v3)
- 6.2 Bob Nixon to email the T11.3 and T11.5 reflectors to solicit vendor preference whether the encapsulation header should be integrated with the frame routing header or not.  
(Opened 7 June 2004)

## 7 Meeting Schedule

John Scheible

Request 5 hours at the T11 Plenary Week, the week of August 2 in Keystone CO.

## 8 Adjournment

*It was moved by John Scheible and seconded by Bob Nixon to adjourn. Approved unanimously.*

The meeting was adjourned at 5:13 PM on 7 June 2004.

## 9 Documents Approved for Fabric Expansion Study Group

None.

## 10 Attendance

Name	Organization Represented	E-mail
Vinod Bhat	HEWLETT PACKARD	vinod.bhat@hp.com
David Black	EMC	black_david@emc.com
James Coomes	SEAGATE TECHNOLOGY	jim.coomes@seagate.com
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James McTigue	LIGHTSAND	
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