

## T11.1 Plenary Meeting Minutes

**April 14, 1999**  
**Palm Springs, CA**

### 1.0 Opening remarks and introductions

The T11.1 Chairman, Roger Ronald of Power Micro Research, opened this meeting at 6:00 PM and thanked Jeff Stai and Brocade for hosting this meeting.

These minutes are separate from both the HIPPI Working Group minutes and the HIPPI Optical Working Group minutes. Roger volunteered to record and produce these minutes.

Roger lead a round of introductions. The list of attendees is at the end of these minutes.

### 2.0 Review / modify the draft agenda

Draft agendas were distributed via the web site ([www.hippi.org](http://www.hippi.org)) before the meeting.

Roger announced that item 13.1 was modified from a "call for chair" to "chair appointment".

An item was added to the agenda for action and recommendation on international standards (in the ISO Liaison section).

These minutes reflect the approved agenda.

### 3.0 Attendance and membership

The membership and voting rules were reviewed. See the web page at <http://www.x3.org/>, look under Standing Documents, then SD2, for our operating procedures including a detailed explanation of the membership rules.

DPT was in jeopardy for failure to attend meetings. Since DPT was present, no companies lost their membership.

T11.1 has 12 member organizations. The only organizations in jeopardy of loosing their membership from lack of attendance if they are not present at the June T11.1 will be FCI-Berg.

Roger noted that NCITS had sent a document regarding lack of payment by four members and that he had sent e-mails to contact those claimed to be in default. Three of these four were members (Genroco, LANL, and Raytheon). Don Tolmie was listed, but probably in error as he was only present as an observer. As a result of follow-up communication with NCITS on the 8th and 9th, it appeared that Raytheon had paid, Genroco's money was on the way, and LANL had not paid. However, Ian Philp disclosed that he had spoken with Judy Gales and that she had told him that their payment had been received. In light of the confusion about payment status, any changes in membership based on non-payment will be deferred until June.

Nicolas Droux (as principle) and Jay Bhat (as alternate) now represent Essential/ODS. They replace Michael McGowen and John Gibbon.

Don Woelz of Genroco become principle (replacing Carl Pick) with Steph Bailey becoming the alternate.

### 4.0 Document distribution

Roger described the HIPPI web page at [www.hippi.org](http://www.hippi.org). Meeting documents will be placed there and people are encouraged to pick up the documents before the meeting as extra documents are generally not available at the meeting.

### 5.0 Review minutes of previous meeting

The minutes of the February 10th T11.1 Plenary meeting in Huntington Beach, California, were reviewed.

Don Woelz moved and Jeff Young seconded, to approve the February 10th T11.1 Plenary minutes as written. Motion passed unanimously.

## 6.0 Review action items

The action items from the February 10th meeting were reviewed.

The following action items were carryovers or were added at this meeting.

1. Roger Ronald to produce the minutes for this meeting. **(done)**
2. Roger Ronald to forward the project proposal for an amendment to HIPPI-6400-PH to T11 for further processing. **(done)**
3. Anyone with a proposed change to HIPPI-6400-PH to present a written proposal to T11.1, or its working groups, by the April 14, 1999, T11.1 Plenary **(carryover to June)**.

## 7.0 Liaison Reports

### 7.1 T11 LIAISON REPORT- February, 1999

Roger Cummings presented the liaison report, standing in for Ed Grivna.

The membership of T11, in Huntington Beach, stood at 72 prior to the meeting.

- FCI, Honeywell, Transoft, Troika and Vitesse not represented, and so lost membership.
- Transcendata became a new member

New officer appointments by NCITS:

- - Jeff Stai: Chair, T11.3 Task Group
- - Roger Ronald: Chair, T11.1 Task Group

T11 Projects and actions post March, 1999 NCITS meeting:

- Approval of project proposals  
Amendment to HIPPI-6400-PH  
FC-GS-3  
FC-SB-2
- NCITS letter ballot for final approval  
HIPPI-6400-SC  
FC-10KCR  
FC-PH:DAM-2
- FC-SW: Approved as NCITS 321:1998, and is presently published.
- FC-AE: changed from standard to Technical Report

Instructions to IR.

- Motion to instruct the IR to take the appropriate actions to withdraw ISO action on FC-SB passed: Done
- Motion to instruct the IR to take the appropriate actions to withdraw ISO action on standardization of FC-AL: Done

Motions:

- Roger Ronald moved on behalf of the T11.1 to approve draft amendment to HIPPI-6400-PH and forward it to NCITS for further processing. The motion carried 45 for, 0 opposed, with 0 Abstaining and 27 not Voting.
- Shelto Van Doorn moved on behalf of T11.2 that item 4 of the scope of the SD-3 for FC-PI be changed to: "The sufficient definition of the following four connectors: duplex SC, MT-RJ, LC and SG"  
The roll call vote failed to meet two-thirds rule with 32 for, 21 opposed, with 0 abstaining and 23 not voting
- Jeff Stai moved on behalf of the T11.3 that the public review comments be accepted as editorial comments to draft amendments to FC-PH-DAM2, incorporated in a new draft and be forwarded to NCITS for further processing  
The motion carried 46 for, 0 opposed, with 26 not voting.
- Ed lee, on behalf of T11.4 asked the chair to conduct a letter ballot on FC-VI: Done

A new item to the T11 Plenary agenda was introduced to establish Technology Road map with input from industry trade associations and end users to use it as a guideline for future T11 projects

### 7.2 HNF

Don Woelz reported about the HNF GSN marketing trip in Hawaii, Japan, and Europe.

Around 15 companies attended and the general reception was very positive.

There was also a brief mention of "GSN-lite", a 1/2 speed GSN variant that the HNF was interested in developing. It was noted that this topic was also addressed during the T11.1 working session.

### 7.3 ISO report

Although there was no formal ISO report, Roger Ronald reported that Gene Milligan had noted three items needing attention.

1. Draft International Standard HIPPI-SC (11518-6:199x) required a T11 vote on approval and a recommendation from T11.1 was requested. Jeff Young moved and Don Woelz seconded a motion to recommend that T11 approve HIPPI-SC as an international standard. A roll call vote was taken:

Compaq Computer Corp.	Y
DPT	Y
Essential/ODS	Y
FCI-Berg	Y
Genroco	Y
IBM	NP
Los Alamos National Lab	Y
PMR	Y
Raytheon E-Systems	Y
Silicon Graphics / Cray	Y
Tensolite	Y
Tera Computer	NP

The motion passed with 10 votes yes, zero votes no, and two organizations not voting.

2. Draft International Standard HIPPI-FP (11518-2:199x) required a T11 vote on approval and a recommendation from T11.1 was requested. Jeff Young moved and Dave Hyer seconded a motion to recommend that T11 approve HIPPI-FP as an international standard. A roll call vote was taken:

Compaq Computer Corp.	Y
DPT	Y
Essential/ODS	Y
FCI-Berg	Y
Genroco	Y
IBM	NP
Los Alamos National Lab	Y
PMR	Y
Raytheon E-Systems	Y
Silicon Graphics / Cray	Y
Tensolite	Y
Tera Computer	NP

The motion passed with 10 votes yes, zero votes no, and two organizations not voting.

3. ISO/IEC HIPPI-PH (11518-1:1995) was up for its 5-year review. T11.1 was requested to provide a recommendation to renew, revise, or withdraw the standard. Jeff Young moved and Dave Hyer seconded a motion to recommend that ISO/IEC HIPPI-PH be renewed, without change, as an international standard. A roll call vote was taken:

Compaq Computer Corp.	Y
DPT	Y
Essential/ODS	Y
FCI-Berg	NP
Genroco	Y
IBM	NP
Los Alamos National Lab	Y
PMR	Y
Raytheon E-Systems	Y
Silicon Graphics / Cray	Y
Tensolite	Y
Tera Computer	NP

The motion passed with 9 votes yes, zero votes no, and three organizations not voting.

### 7.4 Other liaison reports

None.

### 8.0 Call for patents

Roger issued a call for disclosure of the existence of patents required to implement the results of any and all HIPPI standards. It is necessary for the patent holders to agree to license those patents in conformance with the ANSI patent policy if the project on which they apply is to proceed. T11 and its Task Groups are not involved in this process at all other than to issue the call and forward paperwork.

The contact at ANSI is the General Counsel, Ms. Amy Marasco - (212) 642-4954 or [amarasco@ansi.org](mailto:amarasco@ansi.org). A patent policy description is at [www.ansi.org/proctbl.html](http://www.ansi.org/proctbl.html), section 1.2.11.

No new patent claims were made at this meeting.

## 9.0 Review and act on projects in ANSI development phase

### 9.1 Scheduled Transfer Protocol

Rev 2.9 was reviewed at the March meeting. Changes to correct and refine the document continue.

The tenor of changes indicated that the ST protocol was maturing and that forwarding within the next few months seemed realistic.

### 9.2 HIPPI-6400-OPT (T11.2 - Physical Variant) activity

Rev 1.0 was reviewed at the April 13th HIPPI-6400 Optical working meeting. There were very few changes. Most of the changes were accepted as written.

The major technical revelation of the meeting was that the jitter calculations needed to be reworked using the 'root of the sum of the squares' for random jitter, which should help efforts to create a workable jitter budget.

The gating factor on concluding optical work still appears to be the characterization of the SuMAC at 1 Gbaud.

### 9.3 HIPPI-LE

HIPPI-LE was updated to Rev 3.6 by removing the ARP text, Introduction, and Alphabetical Index. We are now waiting for the "ARP and IP Broadcast over HIPPI-800" to be assigned an RFC number so that we can reference it in HIPPI-LE. Once complete, HIPPI-LE should be ready to forward for public review and final processing. Rev 3.6 was reviewed at the November working meeting, and the changes accepted.

It is expected that we will receive a RFC number in the next two months.

No additional changes were proposed at this meeting.

### 9.4 ST-API

Discussions continued on SCSI over ST, bridging to other media, and on a low level API.

Participants have continued discussions, and some document editing has started. Roger Ronald has supplied both Jim Pinkerton and Greg Chesson with a boilerplate document this month to get the

ball rolling but the project still needs the active participation of an editor.

## 10.0 Review projects in approval phase

### 10.1 HIPPI-6400-PH processing status

HIPPI-6400-PH Rev 2.3 was approved as ANSI standard "ANSI NCITS 323-1998, Information Technology - High-Performance Parallel Interface - 6400 Mbit/s Physical Layer (HIPPI-6400-PH)" on November 20, 1998. It has now also been published and can be purchased from ANSI.

At the September working meeting Greg Chesson reported that the pin assignments in HIPPI-6400-PH did not match the SuMAC implementation. At that meeting we agreed to change the document, but to continue processing the present document, albeit incorrect, as an American National Standard before making the changes. The changes to match the SuMAC were reviewed at the November ad hoc meeting and accepted.

A Project Proposal for an amendment to NCITS 323-1998 was drafted and approved at the February meeting, both by this group and by T11. A draft document has also been started by Don Tolmie.

The pinout change is the reason for the amendment, but other proposed changes will be considered. It appears as though changes will be needed to support passing the RFI/EMI testing required for commercial products.

One new change that appears desirable is a loosening of restrictions on the use of VC2. Certain flow control situations may cause VCs to congest and allowing VC2 usage may reduce the problem.

Anyone with other proposed changes was given an action item to making formal proposals to the committee as soon as possible.

### 10.2 HIPPI-6400-SC Public Review status

HIPPI-6400-SC Rev 2.5 passed its second public review on November 24, 1998, with no comments. Unfortunately, it missed the NCITS meeting cycle and had to wait for the March 30, 1999 NCITS meeting to complete its management review.

HIPPI-6400-SC finally passed NCITS management review on March 30th. It will conclude an NCITS letter ballot on May 13th. It's quite possible that HIPPI-6400-SC will be approved prior to the next plenary session.

Roger Ronald has attempted to contact the ANSI editor to obtain the pre-edits so that a clean copy can be used for the NCITS Letter Ballot. Roger reported that the Harvey Rosenfeld, the ANSI editor, indicated that it was unlikely that they would be able to get to the document before the NCITS letter ballot. This isn't a problem, it just means that all of the edits will need to be made after it is an approved standard.

## 11.0 Review other HIPPI-related items

### 11.1 ARP over HIPPI-800 and HIPPI-6400

During the February working group meeting, it was reported that Jean-Michel Pittet had forwarded "IP and ARP over HIPPI-6400" to the IETF. At the March working group meeting, there was some discussion that indicated:

- that some changes had been made in the version sent to IETF that the working group had not reviewed; and
- that a new philosophy for dealing with bridging ARP to HIPPI-800 was desired. This approach would not have HIPPI-6400 provide native support for HIPPI-800 packet formats

At this meeting, Jean-Michel returned to argue against any immediate changes in the current HARP documents. He noted that the offending "extra" packet formats could easily be removed per IETF rules at a later date, but that adding the format back would be difficult if it were really needed.

After a long discussion, the group agreed to avoid changes at this time.

### 11.2 Others

There were no actions required by T11.1, or any action taken, on any of the following activities:

- HIPPI end-point MIB
- HIPPI switch MIB
- HIPPI-6400 MIB
- IEEE Tutorial for HIPPI-6400 ULA usage

It was noted that these are not without hope; Mark Doppke is working on the HIPPI Switch MIB and the HIPPI-6400 ARP and IP RFC will be a subset of the HIPPI-800 one.

## 12.0 New business and new technical items

None.

## 13.0 Administrative matters

### 13.1 T11.1 Chair

As of April 1, Roger Ronald has been appointed and now is the Chair for the T11.1 committee. Don Woelz continues as the Vice-Chair.

### 13.2 Interim meeting authorizations

The T11.1 Chairman, Roger Ronald authorized the following T11.1 interim working meetings and will chair these meetings. Only the June dates include HIPPI-6400 Optical working meetings.

- May 13-14 Milwaukee, Wisconsin
- June 8-9 Minneapolis, MN

## 14.0 Future meeting schedule

### 14.1 June 9, Minneapolis, MN

The next T11.1 plenary meeting will be held June 9th from 6-9 PM (during the June Plenary week in Minneapolis, MN.) The hotel information is available at the [www.hippi.org](http://www.hippi.org) web site.

### 14.2 Future meeting dates and locations

The Optical working group will continue to meet on Tuesday evening during the T11 Plenary week, following the HIPPI working meetings.

### 1999

May 13-14	Interim	Milwaukee, WI	Genroco
Jun 7-11	Plenary	Minneapolis, MN	Ancor
Jul 13-14	Interim	Seattle, WA	Tera
Aug 2-6	Plenary	Rochester, MN	ENDL
Oct 4-8	Plenary	<u>Miami Beach, FL</u>	<u>Jaycor</u>
Dec 6-10	Plenary	Reno, NV	Solution

### 2000

Feb 7-11	Plenary	Huntington Beach, CA	Qlogic
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## T11.1 Plenary Meeting Minutes April 14, 1999

Apr 3-7	Plenary	Palm Springs, CA	Brocade	1. Roger Ronald to produce the minutes for this meeting.
Jun 5-9	Plenary	Boise, ID	HP	2. Anyone with a proposed change to HIPPI-6400-PH to present a written proposal to T11.1, or its working groups, by the June T11.1 Plenary.
Aug 7-11	Plenary	** open **	?	
Oct 2-6	Plenary	Manchester, NH	Hitachi	
Dec 4-8	Plenary	Austin, TX	Crossroads	

### 2001

Feb 5-9	Plenary	So. California	Qlogic
Apr 9-13	Plenary	Palm Springs, CA	Brocade

### 16.0 Adjournment

Jeff Young moved and Don Woelz seconded to adjourn at 6:33 PM on April 14th. There were no objections.

### 15.0 Review action items

The following action items were carryovers or were added at this meeting.

## Attendance

Name	Status	Company	Phone	E_mail
David Hyer	A	Compaq Computer Corp.	978-493-6139	david.hyer@digital.com
Roger Cummings	P	DPT	407-830-5322 x348	cummings_roger@dpt.com
Nicolas Droux	P	Essential / ODS	505-344-0080	droux@esscom.com
Donald Woelz	A	Genroco, Inc.	414-644-2505	don@genroco.com
Ian Philp	P	Los Alamos National Lab	505-667-4305	philp@lanl.gov
Roger Ronald	P	Power Micro Research	972-437-9461	rronald@pmr.com
Walter R. Smith	P	Raytheon Systems Co.	972-205-5378	wrsmith@gar.esys.com
Jeff Young	A	SGI/Cray Research	651-683-5536	jsy@cray.com
Albert F. Kelley	P	Tensolite Co.	904-829-5600 x281	akelley@tensolite.com