

## Minutes of T11.1 HIPPI Ad Hoc Working Group

**August 8-9, 2000  
Seattle, WA**

### 1.0 Opening remarks and introductions

The T11.1 Chairman, Roger Ronald of Power Micro Research, opened this meeting at 1 PM and thanked Tom Lindsay of Vixel for hosting this meeting.

This group is constituted as both the HIPPI Working Group under T11.1, and the High Performance Networking Forum (HNF) - Technical Committee (TC).

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

### 2.0 Review / modify the draft agenda

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

A discussion on processing plans for SCSI over ST was added as section 9.3.

It was noted that a presentation by Ed Cady of FCI would be given under section 6.2.

ST-API document editing plans were added as section 10.2.

These minutes reflect the approved agenda.

### 3.0 Document Distribution

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

### 4.0 Review minutes of previous meeting

The minutes of the June 6-7, 2000, HIPPI Working Meeting in Boise, ID were reviewed.

Don Woelz moved and David Gaskill seconded, to approve the June, 2000 working meeting minutes as written.

The motion passed without objection.

### 5.0 Review old action items

The action items from the June 6-7, 2000, HIPPI Working Meeting in Boise, ID were reviewed.

1. Aman Singla to collect information for an "ST FAQ" html document. **(done)**
2. Aman Singla to forward the current information for an "ST FAQ" html document to Roger Ronald for posting on the web site. **(done)**
3. FCI to finalize characterization of the SCSI connector proposed for GSN use. **(done)**
4. SGI to allow inclusion of their connector design in the HIPPI-6400-PH standard. **(done)**
5. FCI to send Don Tolmie information and drawings on the new SGI cable configuration. (when allowed by the completion of action item #4) **(carryover)**
6. Don Tolmie to update the HIPPI-6400-PH amendment to include the new SGI cable configuration (when possible after the completion of action item #5) **(carryover)**
7. Christopher Lindahl to research crosstalk issues and report back on any status that might be pertinent to modification of HIPPI-6400-PH **(carryover)**
8. Brad Allen to update the version of the HIPPI-800 to Ethernet bridging RFC **(carryover)**
9. Don Woelz to update the SST document **(done)**
10. Aman Singla to send an updated ST-API to Roger Ronald for posting on the web site **(overcome by events)**

11. Everyone to consider the need for changes to HIPPI-6400 HARP and to determine who might be willing to edit the document (**carry-over**)
12. Roger Ronald to post the last ST-API version on the web site. (**done**)
13. Roger Ronald to post the last SCSI over ST version on the web site. (**done**)
14. Roger Ronald to post the last HIPPI to Ethernet Bridging document on the web site. (**done**)
15. The Chair (Roger Ronald) to produce the minutes for the June, 2000 meeting. (**done**)

## 6.0 HIPPI-6400-PH (ref: Rev 2.5)

### 6.1 EMI and Cable problems

Chris Lindahl of SGI indicated that SGI will release their HIPPI-6400 adapter in its current state. They believe that it does pass EMI regulations and that no further work is needed.

There had also been an SGI concern over crosstalk. FCI was working on making a few connector changes that might resolve any crosstalk concerns. The chair noted that there did not seem to be any crosstalk related failures and that the current standard did not appear to have a problem.

### 6.2 PCI/Cables/Connectors

There has been an desire to support connectors (board side) and cable ends that will properly mate in a PCI form factor.

The current consensus is that existing connector variants have no chance to pass FCC test in a PCI slot. SGI proposed that a new connector should be searched out and adopted.

The only new connector proposal came from FCI. They suggested the possibility of using the same connector that ultraSCSI is using for its highest performance/speed connections. This connector is shown on the FCI web site.

Ed Cady and Scott Cohen of FCI presented charts showing the feasibility of using the ultra SCSI connector for GSN. These charts will be added to the web site as soon as they are available.

Don Woelz and others expressed concern about the possibility of connector proliferation. There appeared to be a consensus that the current

HIPPI-6400-PH standard should not be delayed to include a new connector. It also appears that any further work towards using a new copper connector is probably contingent on finding a champion who would use it in products. None of the GSN vendors in attendance were excited over using a new connector type, so long as optical components worked.

### 6.3 Draft Amendment

No changes occurred in the draft amendment.

### 6.4 Draft Amendment Processing Plans

Don Tolmie is ready and willing to update the draft amendment. So far, the amendment material has not been available (with the modified GSN connector assembly that SGI has pioneered). However, Chris Lindahl indicated that SGI would share this design and presented a patent release draft that would shortly be sent to ANSI. With this hurdle cleared, the amendment should be able to move forward.

Chris Lindahl indicated that the connector information would be sent to Don Tolmie shortly.

## 7.0 Scheduled Transfer (Rev 3.6)

### 7.1 Processing Status

Scheduled Transfer was forwarded by T11.1 to T11 at the December, 1999 meeting.

T11 initiated a letter ballot at that meeting and the ballot closed on 1/21/00. The document passed with no comments and it has been forwarded to NCITS for further processing and public review. The public review period closed on 6/5/00.

No comments were received and the document is now being processed through the balance of the NCITS process. Note that ANSI editing is already complete and that the process should be faster than we have seen on previous projects.

## 8.0 HIPPI-LE (reference Rev 3.8)

### 8.1 Processing Status

HIPPI-LE, revision 3.8 was voted forward to T11 at the February 16th T11.1 plenary. T11 initiated a letter ballot which concluded on 4/1/00.

The document was approved without substantive comments and has been forwarded to NCITS for

public review. The public review period ended on 7/3/00. No comments were received. All ANSI editing is complete. The document should move forward as a revision to the standard in the next few months.

## 9.0 SCSI on ST Mapping (revision 04)

### 9.1 Document Review

The latest version of SCSI on ST (SST) from Don Woelz was reviewed. There was not a lot of technical change.

A complete read-thru of the document was done to catch any technical or grammatical errors.

### 9.2 Tabular requirements matrix

The group felt that a table of requirements, similar to the tables in ST-RTP would be a valuable addition to SST. Don Woelz added these tables and they were reviewed at this meeting.

### 9.3 Processing Plans

Don expressed a desire to try and forward the document at the next meeting.

## 10.0 ST API Proposal (revision 06)

### 10.1 Document Review

At the April meeting Aman Singla accepted an action item to update the document.

However, Aman has resigned from SGI and the action was not completed.

### 10.2 Document editing plans

Don Woelz noted that the current approach to collecting ST-API information without a move to codify the information as a standard was unlikely to force conformity. After some discussion, there was no feeling that making the ST-API a standard would change anything.

Chris Lindahl accepted an action item to investigate SGI's plans for the ST-API and to see if an editor can be identified.

## 11.0 ST Reliable Transfer Profile (ST-RTP) (revision 0.6) Processing Status

At the June plenary meeting, T11.1 voted to forward ST-RTP to T11 for further processing. The ballot closed on July 29.

Only one comment was received.

From Boeing: *I am under the understanding that ANSI does not allow profiles to be standards. Should this be a technical report?*

I contacted Kate McMillan of the Information Technology Industry Council:

*In years past X3S3 (Data Communications) commonly wrote standards that consisted of choosing from the options listed in the international standard (for the various national bodies) the ones that would apply in the US. They actually pointed to the IS and said from here, use this, from there, use that, etc.*

*We started using the term profiles for the same kind of thing done across standards (International Standardized Profiles).*

*So my answer is "standard" is more appropriate than "technical report."*

Therefore, the chair recommends that we reject this comment and request that T11 forward ST-RTP to NCITS for further processing. A motion will be made during the plenary session to answer this comment.

## 12.0 Recommendation for HIPPI-PH ISO renewal

ISO renewal time has arrived for the venerable HIPPI-PH (800 not 6400) standard. We need to recommend approval for five years as-is, revision, or withdrawal of the standard.

We must answer five questions (working group recommendations shown in bold).

### Question 1

Are you in favour of

- **confirmation of the International Standard for a further period of five years?**
- revision of the International Standard? If

YES, please give reasons.

- withdrawal of the International Standard? If YES, please give reasons.

### Question 2

If the voting results show a need to revise the standard, are you prepared to participate in the development of the project?

- YES
- NO

### Question 3

Has this ISO standard been implemented as a national standard or is it used per se by your national industry?

- YES
- NO

### Question 4

If the response to question 3 is affirmative, is the standard implemented or used without change?

- YES
- NO

In case of modifications, please identify the changes on a separate sheet.

### Question 5 (optional)

Please indicate the number of the corresponding national standard: ***ANSI X3.183-1991 (R1996), Information Systems - High-Performance Parallel Interface - Mechanical, Electrical, and Signalling Protocol Specification (HIPPI-PH)***

## 13.0 HARP

### 13.1 ARP and IP Broadcast over HIPPI-800

This document has been published as RFC 2834 and will be dropped from future agendas.

### 13.2 IP and ARP over HIPPI-6400 (GSN)

The IETF has published the first version of our IP and ARP over HIPPI-6400 as RFC 2835.

Jeff Young had proposed changing HIPPI-6400 ARP to promote code efficiency during the February meeting. The group decided to give Jeff some leeway to make changes if he was willing to do what was needed in the documentation realm. Jeff

agreed and provided a new version of the HIPPI-6400 ARP RFC for the April meeting.

Jeff had planned some fairly substantial format changes, but the group questioned any need to improve code efficiency and ease on applications that were already complete. The group also reiterated their desire to see a "stock" Ethernet ARP packet format on HIPPI-6400.

Jeff Young collected comments from the group in April and accepted several action items that resulted in a new draft of the RFC for the June meeting. However, the source of the funding for this work appears to have been terminated and Jeff was not able to attend this meeting.

Roger Ronald accepted an action item to put Jeff Young in touch with Craig Davidson (who might be willing to support the document work). Roger also noted that Jeff might be able to attend in December.

## 14.0 Other HIPPI items

Roger noted that Ben Segal of CERN had applied for a PPP encapsulation type for Scheduled Transfer. This would allow encapsulating ST over SONET/SDH in the same way as used for IP Packet over SONET (POS).

There was general support for this, however there were a few questions about whether a distinct encapsulation was needed versus the option to add an IP header to the packet and use POS.

### 14.1 Bridging to HIPPI-800

Brad Allen was not in attendance, so there was no new version of the HIPPI to Ethernet Bridging document. Jay Bhat indicated that Brad would be able to attend at the next meeting.

### 14.2 MIBS

The only MIB of general interest seemed to be a HIPPI-6400 switch MIB. In October, 1999, Roger Ronald accepted an action item to put PMR developers in touch with Essential/ODS and Genroco to see if any coordination could happen. Essential responded and will be moving forward in this area with PMR.

Nothing new at this meeting.

## 15.0 Future meeting schedule

### 15.1 Meeting Schedule Changes

The chair initiated discussions on a change in meeting schedule. start our meetings on Wednesday and end them at noon on Thursday. The exact schedule would be:

Working group: Wednesday, 8AM to 6PM

Optical: Thursday, 8 AM to 10 AM

Plenary: Thursday, 10 AM to noon

This schedule should allow shorter travel for almost everyone who attends these meetings. For those who only attend T11.1 meetings, you will be able to leave on Thursday afternoon after spending a day and a half. If you attend the T11 plenary meeting, you'll still have to stay Thursday afternoon, but you will be able to start one day later.

Only one person has emailed to comment against this new schedule and several have spoken in favor.

Note that this schedule change was subsequently approved in the T11.1 plenary meeting and will be used from now on (starting in Nashua in October).

### 15.2 Plenary week, October 4-5, Nashua, NH

The October Plenary week location is in Nashua, NH. The hotel information is available on the [www.hippi.org](http://www.hippi.org) web site. The tentative schedule is as follows. Note that the times for each session (optical, working, and plenary) are **changed**.

Wednesday 10/4	8 AM - 6 PM	HIPPI ad hoc
Thursday 10/5	8 AM - 10 AM	HIPPI Optical
Thursday 10/5	10 AM - noon	T11.1 Plenary

### 15.3 Future meeting dates and locations

#### 2000

Oct 2-6	Nashua, NH	Hitachi
Dec 4-8	Austin, TX	Crossroads

#### 2001

Feb 5-9	Huntington Beach, CA	Qlogic
---------	----------------------	--------

Apr 5-9	San Diego, CA	Brocade
Jun 4-8	Chicago, IL	Ancor
Aug 6-10	Honolulu, HI	Solution Tech
Oct 8-12	San Diego, CA	JNI
Dec 3-7	Austin, TX	Crossroads

## 16.0 Review action items

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

1. FCI to send Don Tolmie information and drawings on the new SGI cable configuration.
2. Ed Cady to supply his PCI connector presentation to Roger Ronald for posting on the web site.
3. Ed Cady to investigate simpler cable construction for use with the VHDCI connector.
4. Don Tolmie to update the HIPPI-6400-PH amendment to include the new SGI cable configuration (when possible after the completion of action item #1)
5. Christopher Lindahl to research crosstalk issues and report back on any status that might be pertinent to modification of HIPPI-6400-PH
6. Christopher Lindahl to research SGI's plans for the ST-API and to suggest an editor for the document.
7. Brad Allen to update the version of the HIPPI-800 to Ethernet bridging RFC
8. Don Woelz to update the SST document
9. Everyone to consider the need for changes to HIPPI-6400 HARP and to determine who might be willing to edit the document
10. Roger Ronald to put Jeff Young in touch with Craig Davidson to discuss completion of the HARP document.
11. Christopher Lindahl to see if SGI is interested in the HARP document update.
12. Christopher Lindahl to check on Anthony Voellm's plan for adding an ST option.
13. The Chair (Roger Ronald) to produce the minutes for the August, 2000 meeting.

## 17.0 Adjournment

Don Woelz moved and David Gaskill seconded a motion to adjourn the meeting at 12:54 PM on the 9th of August. There were no objections.

## Attendance

<b>Name</b>	<b>Status</b>	<b>Company</b>	<b>Phone</b>	<b>E_mail</b>
David Hyer	A	Compaq Computer Corp.	508-467-4550	david.hyer@compaq.com
Sean M Rieb	P	Cray, Inc	206-701-2164	srieb@cray.com
Jay Bhat	A	Essential	505-344-0080	jbhat@esscom.com
David Gaskill	O	Essential	505-344-0080 x340	dgaskill@esscom.com
Ed Cady	P	FCI	503-359-4556	edcady@aol.com
Scott Cohen	O	FCI	562-356-2540	scohen@fciconnect.com
Jerry Potochnik	O	FCI	972-929-3722	jpotochnik@fciconnect.com
Roger Ritchie	O	FCI	562-356-2582	ritchire@bergelect.com
Barbara Weber	O	FCI	510-683-0700	weberbl@bergelect.com
Steven Wong	O	FCI	562-356-2527	wongsy@bergelect.com
Donald Woelz	P	Genroco, Inc.	414-644-2505	don@genroco.com
Tan Truong	P	IBM	512-838-7813	truongtm@us.ibm.com
Jeff Hay	A	Los Alamos National Lab	505-665-4953	jrhay@lanl.gov
Christopher Lindahl	P	SGI	715-726-8309	lindahl@sgi.com
Roger Ronald	P	Vieo, Inc.	972-437-9461	rronald@vieo.com