

Minutes of T11.1 HIPPI Ad Hoc Working Group

October 4, 2000

Nashua, NH

1.0 Opening remarks and introductions

The T11.1 Chairman, Roger Ronald of VIEO, opened this meeting at 8 AM and thanked Zane Daggett of Hitachi 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 web site before the meeting.

There were no changes.

These minutes reflect the approved agenda.

3.0 Document Distribution

Roger described the HIPPI web page at 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 August 8-9, 2000, HIPPI Working Meeting in Seattle, WA were reviewed.

Bob Willard moved and David Gaskill seconded, to approve the August, 2000 working meeting minutes as written.

The motion passed without objection.

5.0 Review old action items

The action items from the August 8-9, 2000, HIPPI Working Meeting in Seattle, WA were reviewed.

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

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

6.1 EMI/RFI problems

Chris Lindahl of SGI indicated that SGI has released their HIPPI-6400 adapter. No further EMI work is needed or planned.

There had also been an SGI concern over crosstalk. FCI was working on making a few connector changes that might resolve any crosstalk concerns. Although the group would be happy to close out this action item (believing that there is no problem in this area), Chris Lindahl asked that it be left over for one more meeting.

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. The existing connector also does not provide a good fit into the PCI form factor.

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. There is a presentation about this connector on the web site. Previously, none of the GSN vendors were excited over using a new connector type, so long as optical components worked. However, optics have encountered a supply problem, so there was new interest in the connector issue.

After some period of discussion, there was an agreement that the FCI VHDCI connector should be added to the standard. Several vendors have an immediate need for PCI form factor adapters and optics are not an option if they aren't available.

Robert Clarkson was given an action item to make up a pin assignment for the VHDCI connector.

6.3 Draft Amendment

The group made some major decisions on how to amend HIPPI-6400-PH. The general consensus was that revision 2.4 should be the starting point for these modifications (rev 2.5 had some incorrect statements about the purpose for the new connector).

- The existing connector information should be replaced with the latest and greatest material that SGI/FCI have been working on. No one is using the version shown in the standard. Several vendors have used an intermediate version, but the group all agreed on documenting the latest version completely and documenting the previous versions in another form (see next bullet).
- A summary level documentation of older connectors and cables is needed. This will include some drawings that emphasize the differences between revisions and a table that shows compatibility between the various types.
- The new VHDCI connector will be added and fully documented.

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, early connector information was sent to Don Tolmie during the last few weeks and updates are promised.

7.0 Scheduled Transfer (Rev 3.6)

7.1 Processing Status

Scheduled Transfer was approved on 8/24/00 as American National Standard for Information Technology: ANSI NCITS 337-2000, Scheduled Transfer Protocol (ST).

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 05)

9.1 Document Review

The latest version of SCSI on ST (SST) from Don Woelz was reviewed. There were only two minor technical changes, but a fair number of editorial corrections.

9.2 Processing Plans

Don expressed a desire to try and forward the document at the this meeting. However, T10 had also desired a pass at the document and that had created some concern about changes made after the working group was "done".

It appears that this will not be a problem as there were several changes required and the document will need to make at least one more pass through our group.

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. Chris Lindahl accepted an action item to investigate SGI's plans in this area.

Fortunately, Anthony Voellm from SGI was in attendance and indicated that SGI would be maintaining the document in conjunction with implementations (both by SGI and by other organizations).

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.

At the last meeting, we rejected the lone comment that questioned the use of a standard for a profile. A motion was made and approved during the T11.1 plenary session to reject the comment and request that T11 forward ST-RTP to NCITS for further processing. T11 approved a similar motion and ST-RTP has been forwarded to NCITS for further processing.

12.0 HARP

12.1 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.

At this meeting Sean Murphy of SGI showed up and walked through a list of differences between the version of HARP that was "pre-Jeff" and "post-Jeff". The changes were considered worthwhile and Sean took an action item to continue the document editing.

13.0 Other HIPPI items

13.1 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.

13.2 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.

13.3 PPP Encapsulation

Roger noted at the previous meeting 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.

During this meeting, Roger reported that Ben had received the following from Michelle Schipper, the IANA Administrator:

We have assigned the following PPP-Numbers with you as the point of contact:

020b STP - Scheduled Transfer Protocol [Segal]

820b STP - Control Protocol [Segal]

These numbers should be archived somewhere. Roger Ronald took an action item to create a HIPPI "assigned numbers" page on the www.hippi.org web site.

14.0 Future meeting schedule

14.1 Plenary week, December 6-7, 2000- Austin, TX

The December Plenary week location is in Austin, TX. The hotel information is available on the www.hippi.org web site. The tentative schedule is as follows. Note that the start times for the working session is **changed** to 9 AM.

Wednesday 12/6	9 AM - 6 PM	HIPPI ad hoc
Thursday 12/7	8 AM - 10 AM	HIPPI Optical
Thursday 12/7	10 AM - noon	T11.1 Plenary

14.2 Future meeting dates and locations

2000

Dec 4-8	Austin, TX	Crossroads
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2001

Feb 5-9	Huntington Beach, CA	Qlogic
Apr 9-13	Toronto, ON	Brocade
Jun 4-8	Minneapolis, MN	Ancor

Aug 6-10	Hawaii, HI	Solution Tech
Oct 8-12	San Diego, CA	JNI
Dec 3-7	Austin, TX	Crossroads

15.0 Review action items

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

1. FCI to send Don Tolmie updated information and drawings on the new SGI cable configuration
2. Don Tolmie to update the HIPPI-6400-PH amendment to include the new SGI cable configuration
3. Christopher Lindahl to research crosstalk issues and report back on any status that might be pertinent to modification of HIPPI-6400-PH
4. Brad Allen to update the version of the HIPPI-800 to Ethernet bridging RFC
5. Don Woelz to update the SST document
6. The Chair (Roger Ronald) to produce the minutes for the October, 2000 meeting
7. Sean Murphy to work with Jeff Young to update the HIPPI-6400 HARP document
8. Roger Ronald to create a HIPPI "assigned numbers" page on the www.hippi.org web site
9. Robert Clarkson to propose a VHDCI pinout
10. Roger Ronald to document Anthony Voellm's proposal for an IP Address option code under ST on a web page.
11. Roger Ronald to send a copy of the SGI patent statement to Gene Milligan
12. Don Woelz to validate that targets never send option payloads
13. Anthony Voellm to update the ST-API
14. Chris Lindahl to provide pinout changes related to different grounding schemes in the new connector

16.0 Adjournment

Craig Davidson moved and Don Woelz seconded a motion to adjourn the meeting at 4:20 PM on the 4th of October. There were no objections.

Attendance

Name	Company	Phone	E_mail
David Hyer	Compaq Computer Corp.	508-467-4550	david.hyer@compaq.com
Bob Willard	Compaq Computer Corp.	508-467-5875	bob.willard@compaq.com
Sean M Rieb	Cray, Inc	206-701-2164	srieb@cray.com
Jay Bhat	Essential	505-344-0080	jbhat@esscom.com
David Gaskill	Essential	505-344-0080 x340	dgaskill@esscom.com
Ed Cady	FCI	503-359-4556	edcady@aol.com
Alberto Guglielmi	Genroco	41 22 767 1411	alberto@genroco.com
Donald Woelz	Genroco, Inc.	414-644-2505	don@genroco.com
Tan Truong	IBM	512-838-7813	truongtm@us.ibm.com
Craig Davidson	Raytheon Systems Co.	972-205-4166	craig_davidson@raytheon.com
Gene Milligan	Seagate	405-324-3070	gene.milligan@seagate.com
Christopher Lindahl	SGI	715-726-8309	lindahl@sgi.com
Sean Murphy	SGI	301-595-2468	smurphy@sgi.com
Anthony Voellm	SGI	703-227-8527	voellm@sgi.com
Roger Ronald	Vieo, Inc.	972-437-9461	rronald@vieo.com