

HIGH-PERFORMANCE PARALLEL INTERFACE –
ENCAPSULATION OF ISO 8802-2 (IEEE Std 802.2) LOGICAL LINK CONTROL
PROTOCOL DATA UNITS (HIPPI-LE) Revision

1 IDENTIFICATION OF PROPOSED PROJECT

1.1 TITLE: High-Performance Parallel Interface – Encapsulation of ISO 8802-2 (IEEE Std 802.2) Logical Link Control Protocol Data Units (HIPPI-LE) Revised

1.2 PROPOSER: T11

1.3 DATE SUBMITTED: June 11, 1998

1.4 PROJECT TYPE: D - Development done within NCITS.

2 JUSTIFICATION OF PROPOSED STANDARD

2.1 NEEDS:

ANSI X3.218-1993, High-Performance Parallel Interface – Encapsulation of ISO 8802-2 (IEEE Std 802.2) Logical Link Control Protocol Data Units (HIPPI-LE), is due for reaffirmation, revision, or withdrawal, in 1998. The major portion of the standard is still in use, but part of the standard is being superceded by "ARP and IP Broadcast over HIPPI-800", being developed as an IETF RFC.

The major goal of the revision is to remove the portions of the standard being superceded to avoid confusing the users of the standards.

2.2 RECOMMENDED SCOPE OF STANDARD:

This proposal recommends a revision of ANSI X3.218-1993, HIPPI-LE, with:

- (a) replacement of specifications being superceded by references to the new standard;
- (b) incorporation of editorial changes suggested by the ISO editor;
- (c) other changes as necessary;

The revised standard will not invalidate any existing ANSI X3.218 implementations.

2.3 EXISTING PRACTICE IN AREA OF PROPOSED STANDARD:

There are existing implementations of ANSI X3.218-1993, HIPPI-LE. No known implementation depend on the text proposed to be removed, but a call has been issued to confirm this before removing the text.

2.4 EXPECTED STABILITY OF PROPOSED STANDARD WITH RESPECT TO CURRENT AND POTENTIAL TECHNOLOGICAL ADVANCES:

ANSI X3.218-1993, HIPPI-LE, has been implemented by numerous users. Other than the text being superceded, no known problems exist with the standard. The revised standard will be

compatible with the address resolution protocol being documented in an IETF RFC, taking advantage of the latest developments. The revised standard will not invalidate existing implementations.

3 DESCRIPTION OF PROPOSED PROJECT

3.1 TYPE OF DOCUMENT (STANDARD OR TECHNICAL REPORT): NCITS Standard

3.2 DEFINITION OF CONCEPTS AND SPECIAL TERMS: None

3.3 EXPECTED RELATIONSHIP WITH APPROVED NCITS REFERENCE MODELS:

All HIPPI standards are intended for use in closed systems.

3.4 RECOMMENDED PROGRAM OF WORK:

(1) Solicit participation by the present HIPPI participants through T11 procedures and new participants through press releases. Invite comments by end-user organizations and invite proposals from HIPPI development organizations and other organizations that may have interest in this proposed standard.

(2) Investigate existing standards and standards projects to determine their applicability to the development effort, and establish liaisons with other standards committees as appropriate.

(3) Prepare a draft standard based on proposals submitted and other information gathered during the investigations.

(4) Test the standard through the voluntary and cooperative efforts of T11 members.

(5) Submit the draft proposed standard to NCITS for further processing.

3.5 RESOURCES - INDIVIDUALS AND ORGANIZATIONS COMPETENT IN SUBJECT MATTER:

The current membership of T11 consists of representatives from all parts of the computer industry including semiconductor chip manufacturers, computer and peripheral system manufacturers and Government agencies. Members of T11 have expressed their desire to participate and cooperate in the development of this proposed standard.

There are sufficient resources to complete the definition of this standard without delaying work on other T11 standards and projects.

3.6 RECOMMENDED NCITS DEVELOPMENT TECHNICAL COMMITTEE:

It is recommended that this project be assigned to TC T11, in order that the project be coordinated with work on other HIPPI standards and projects.

3.7 ANTICIPATED FREQUENCY AND DURATION OF MEETINGS:

This project will make use of the regularly-scheduled bimonthly T11 plenary meetings. Informal working groups will be organized on an ad-hoc basis to discuss specific subjects where appropriate.

3.8 TARGET DATE FOR INITIAL PUBLIC REVIEW (MILESTONE 4):

October, 1998.

3.9 ESTIMATED USEFUL LIFE OF STANDARD:

It is anticipated that this standard will have a useful life of 10 years.

4 IMPLEMENTATION IMPACTS

4.1 IMPACT ON EXISTING USER PRACTICES AND INVESTMENTS:

The proposed standard will clarify the address resolution procedures to be used with HIPPI implementations.

4.2 IMPACT ON SUPPLIER PRODUCTS AND SUPPORT:

The proposed standard will provide an upward growth path that complements and enhances existing supplier products and support schemes. The proposed standard will result in expanded applications for existing and conceived products in the HIPPI network markets. It is likely that isolated adverse effects would occur in any case through non-standard evolution or revolution.

4.3 TECHNIQUES AND COSTS FOR COMPLIANCE VERIFICATION:

The committee will consider the results of testing provided to the committee through the voluntary efforts of the participants in T11. With this method all costs are borne by the organizations of the various participants and have for the most part been mainly an adjunct of their normal development costs.

4.4 LEGAL CONSIDERATIONS: None known.

5 CLOSELY RELATED STANDARDS ACTIVITIES

5.1 EXISTING STANDARDS:

- (1) X3.183-1991 [R 1996], High-Performance Parallel Interface - Mechanical, Electrical, and Signalling Protocol Specification (HIPPI-PH);
- (2) X3.210-1992, High-Performance Parallel Interface - Framing Protocol (HIPPI-FP);
- (3) X3.218-1993, High-Performance Parallel Interface – Encapsulation of ISO 8802-2 (IEEE Std 802.2) Logical Link Control Protocol Data Units (HIPPI-LE), the standard to be revised;
- (4) X3.222-1997, High-Performance Parallel Interface - Physical Switch Control (HIPPI-SC);
- (5) X3.283-1996, High-Performance Parallel Interface - Encapsulation of Frames of the Fibre Channel Physical and Signalling Interface (HIPPI-FC);
- (6) X3.299-1997, High-Performance Parallel Interface - Mapping to Asynchronous Transfer Mode (HIPPI-ATM);
- (7) X3.300-1997, High-Performance Parallel Interface - Serial Specification (HIPPI-Serial).

5.2 NCITS STANDARDS DEVELOPMENT PROJECTS:

- (1) Project 1213-D for High-Performance Parallel Interface - 6400 Mbit/s Physical Layer (HIPPI-6400-PH) - (NCITS 323-199x), in first public review;
- (2) Project 1231-D for High-Performance Parallel Interface - 6400 Mbit/s Physical Switch Control (HIPPI-6400-SC) - (NCITS 324-199x), in first public review;
- (3) Project 1245-D for Scheduled Transfer (ST), in development in T11.

5.3 NCITS STUDY GROUPS: None

5.4 OTHER RELATED DOMESTIC STANDARDS DEVELOPMENT PROJECTS: None

5.5 ISO/IEC JTC 1 STANDARDS DEVELOPMENT PROJECTS:

The HIPPI standards are to be submitted as project requests to ISO JTC1/SC25. International HIPPI standards are in the ISO/IEC 11518-xxx series.

5.6 OTHER RELATED INTERNATIONAL STANDARDS DEVELOPMENT PROJECTS:

None

5.7 RECOMMENDATIONS FOR COORDINATING LIAISON: None

5.8 RECOMMENDATIONS FOR CLOSE LIAISON: None