ISO/IEC Status Report to T10

Gary S Robinson, IR

1. ISO/IEC JTC1/SC25 met. WG4 did not meet but did submit a status report and 9 resolutions to be approved by SC25.

2. List of SC 25/WG 4 resolutions to be approved by the 13th plenary meeting of ISO/IEC JTC 1/SC 25 at McLean, VA, USA, 2002-09-27

Resolution McLean SC 25/WG 4/01:
Based on the fact that the US NB does not see a need to revise ISO/IEC 9314-3:1990 (FDDIPMD), SC 25 instructs its Secretariat to withdraw resolution SC 25 10/62 (= Berlin99 WG 4/23).

Resolution McLean SC 25/WG 4/02:
Based on the fact that the US NB does not see a chance to provide an updated FDIS 9314-10 (FDDI TP-PMD) document due to missing international activity in the related US standards committee, SC 25 instructs its Secretariat to cancel the project, keep the project number reserved, and withdraw FCD 9314-10 as well as resolution SC 25 08/42 (= Buzios97 WG 4/06).

Resolution McLean SC 25/WG 4/03:
Based on the fact that the US NB will no longer pursue SCSI RMC (14776-364), SC 25 instructs its Secretariat to keep the project number reserved, and withdraw resolutions SC 25 11/79 (= Tromsø00 WG 4/51) and SC 25 11/80 (= Tromsø00 WG 4/52).

Resolution McLean SC 25/WG 4/04:
Based on the fact that the US NB does not intend to pursue HIPPI-6400-SC (11518-11) and HIPPI-6400-OPT (11518-12), SC 25 instructs its Secretariat to cancel both projects, keep the project numbers reserved, and withdraw resolutions SC 25 11/47 (=Tromsø00 WG 4/19) and SC 25 11/74 (=Tromsø00 WG 4/46).

Resolution McLean SC 25/WG 4/05:
Based on the fact that the US NB will no longer pursue FC-PH (14165-111), SC 25 instructs its Secretariat to cancel the project, keep the project number reserved, and withdraw DIS 14165-111.

Resolution McLean SC 25/WG 4/06:
Based on the fact that the US NB will no longer pursue FC-PH-2 and FC-PH-3 (14165-112 and -113), SC 25 instructs its Secretariat to cancel both projects, keep the project numbers reserved, and withdraw CDs 14165-112 and -113 as well as resolutions SC 25 07/91 (= London96 WG 4/61) and SC 25 07/98 (= London96 WG 4/68).

Resolution McLean SC 25/WG 4/07:
Based on the fact that the US NB does not see a need for VMSbus (IEC 60823:1990), SC 25 instructs its Secretariat the necessary steps to cancel the project, keep the project number reserved, and withdraw the existing standard IEC 60823:1990.

Resolution McLean SC 25/WG 4/08:
Based on the fact that the US NB wishes to withdraw Futurebus+ / Profile M (ISO/IEC 14536:1995), SC 25 instructs its Secretariat the necessary steps to cancel the project, keep the project number reserved, and withdraw the existing standard M ISO/IEC 14536:1995.

Resolution McLean SC 25/WG 4/09:
SC 25/WG 4 has been asked to conduct a preliminary review of five FDDI standards which are subject to periodic/systematic review on JTC 1 level in 2003. The assessment is as follows:

<table>
<thead>
<tr>
<th>project number</th>
<th>standards</th>
<th>number standards</th>
<th>name recommended action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25.13.01.08</td>
<td>9314-6:1998</td>
<td>FDDI SMT</td>
<td>confirm</td>
</tr>
<tr>
<td>1.25.13.01.11</td>
<td>9314-8:1998</td>
<td>FDDI MAC-2</td>
<td>confirm</td>
</tr>
<tr>
<td>1.25.13.01.12</td>
<td>9314-7:1998</td>
<td>FDDI PHY-2</td>
<td>confirm</td>
</tr>
<tr>
<td>1.25.13.01.15</td>
<td>9314-13:1998</td>
<td>FDDI CT-PICS</td>
<td>confirm</td>
</tr>
<tr>
<td>1.25.13.01.25</td>
<td>9314-25:1998</td>
<td>FDDI SMT-ATS</td>
<td>confirm</td>
</tr>
</tbody>
</table>
T10 and T11 approved all resolutions, at various times, except 7 and 8. These, 7 & 8, are the responsibility of the IEEE.

2. Below is the status report submitted by the Chair of WG4 (edited to remove typos and convert from PDF to DOC by G. S. Robinson)

25mcl08.DOC 1

• SC 25/WG 4 had its last (12th) meeting in Feldafing, Germany, on 2001-08-27/30, with participation from four countries: Germany, Japan, Poland, and USA.

• Originally, it was planned to have the 13th meeting of SC 25/WG 4 at McLean, VA, USA, prior to the SC 25 plenary. Unfortunately, the Convener / Secretary was unable to attend the meeting for personal reasons which caused the meeting to be canceled. The meeting will be re-scheduled as soon as circumstances allow; at latest prior to the next SC 25 plenary in summer 2003.

• Since our last meeting in August 2001 in Feldafing following progress was made:
  • 5 SCSI standards were published : SCSI SBP-2, SCSI SPI-2, SCSI-3 SBC, SCSI RBC, SCSI SPI-3
  • 1 former SC 26 standard was published : VME64-Specification ... which adds up to 16 microprocessor (bus) standards published
  • 6 standards are at ITTF for publication : IPI-3 Tape (revision), SCSI-3 SBC, SCSI-3 SSC, SCSI RBC, SCSI MMC-2, SCSI SPI-3
  • 4 FDISes were approved : SCSI-3 SBC, SCSI MMC-2, SCSI RBC, SCSI RBC
  • 3 (F)CDs were approved : SCSI-3 SSC, SCSI RBC, FC-100-TP
  • 2 NPs were approved: FC-BB -- in 04/2002 (see SC 25 N 724B / N 775)
    HPSB (IEEE 1394(a)) -- in 09/2002 (see JTC 1 N 6845)
  • 4 NPs are under vote: SCSI FCP-2 -- voting target 2002-10-25 (see JTC 1 N 6801)
    SCSI SPI-4 -- voting target 2002-10-25 (see JTC 1 N 6802)
    SCSI SPC-2 -- voting target 2002-11-14 (see JTC 1 N 6816)
    FC-AV -- voting target 2002-11-05 (see JTC 1 N 6829)
  • 1 standard (HIPPI-LE) plus various ISPs were confirmed during periodic/systematic review in 2001, In total, SC 25/WG 4 maintains 57 published standards:

<table>
<thead>
<tr>
<th>Standard</th>
<th>(ISO/)IEC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDDI</td>
<td>9314</td>
</tr>
<tr>
<td>SCSI</td>
<td>9316, 14776</td>
</tr>
<tr>
<td>HIPPI</td>
<td>11518</td>
</tr>
<tr>
<td>FC</td>
<td>14165</td>
</tr>
<tr>
<td>SC 26</td>
<td>various</td>
</tr>
<tr>
<td>Other</td>
<td>various</td>
</tr>
</tbody>
</table>

• Numerous resolutions from prior meetings (1996..2001) are still open requesting the National Bodies from Germany, Japan, and the United States to provide NWIPs and/or (F)CDs :
  
  Germany : 01 project
  Japan : 01 project
  USA : 26 projects

The US National Body votes to Approve JTC 1 6816, New Work Item Proposal for SCSI Primary Commands -2, (SPC-2) and the answers to 6 questions for the new work item are as follows:

Question 1 - Yes
Question 2 - Yes
Question 3 - Yes
Question 4 - Yes, Gary Robinson
Question 5 - Yes
Question 6 - Yes


The US National Body votes to Approve JTC 1 N 6801, Proposal for a New Work Item on Fibre Channel Protocol for SCSI, Second Version (FCP-2), and the answers to 6 questions for the new work item are as follows:

Question 1 - Yes
Question 2 - Yes
Question 3 - Yes
Question 4 - Yes, Gary Robinson
Question 5 - Yes
Question 6 - Yes

5. The IEEE Standards Association met on the subject of international representation for IEEE Computer Society Microprocessor Subcommittee. The IEEE is in the process of signing a Memorandum of Agreement with INCITS so they, the MSC, will become a TAG to ISO/IEC JTC1/SC25/WG4 along with T10 and T11. T10 and T11 will continue in their role but when this MoA is signed MSC will also be able to contribute and vote on their documents. This will separate T10 and T11 from IEEE MSC projects.
**MOTION:** T11 has reviewed the new work item proposal, and recommends that the US National Member vote to approve the new work item proposal for FC-10GFC in JTC1/SC25

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>ABS</th>
</tr>
</thead>
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**Proposal for a new work item on**

**Title:** Information technology --- Fibre Channel 10 Gigabit (10GFC)

**PROPOSAL FOR A NEW WORK ITEM**

<table>
<thead>
<tr>
<th>Date of presentation of proposal: 2002-08-06</th>
<th>Proposer: SC25</th>
<th>Secretariat: Germany (DIN)</th>
<th>ISO/IEC JTC 1 / SC 25 N</th>
</tr>
</thead>
</table>

A proposal for a new work item shall be submitted to the secretariat of the Subcommittee of ISO/IEC joint technical committee 1 concerned with a copy to the secretariat of ISO/IEC JTC1 and to the ISO Central Secretariat. **Presentation of the proposal** - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

**Title ISO/IEC: INFORMATION TECHNOLOGY - Fibre Channel 10 Gigabit (10GFC)**

**Scope:**

10GFC describes signaling and physical requirements that may be utilized by the FC-2 level to transport data at a rate in excess of 10 gigabits per second.

The Fibre Channel signaling and physical requirements described in this document are:

- Link Architecture including retiming
- Transmission Coding
- FC-1 data path interface
- Optional interconnect interfaces
- Physical Layer specifications
- Connector performance specifications
- Management interface and register set
- Link and cable plant management specifications

**Purpose and justification:**

10GFC is a member of the Fibre Channel family of standards. 10GFC provides signaling and physical layer requirements that may be utilized by the FC-2 level to transport data at a rate in excess of 10 gigabits per second between Fibre Channel Ports.

**Programme of work:** If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed?

- X a single International Standard
- more than one International Standard

**Relevant documents to be considered** Fibre Channel 10 Gigabit (10GFC) available now.

**Cooperation and liaison:** None.

**Preparatory work offered with target date** Fibre Channel 10 Gigabit (10GFC), available now.

**Signature:**
Will the service of a maintenance agency or registration authority be required? .........No............. Are there any known requirements for coding? ........No............Does the proposed standard concern known patented items? .......YES.

Comments with respect to the proposal in general, and recommendations thereon:
It is proposed to assign this new item to JTC 1/SC 25 as project 1.25.13.13.nn.

Voting on the proposal - Each P-member of the ISO/IEC JTC 1/SC 25 has an obligation to vote within the time limits laid down.

<table>
<thead>
<tr>
<th>Date of circulation:</th>
<th>Closing date for voting:</th>
<th>Signature</th>
</tr>
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<tr>
<td></td>
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</tbody>
</table>

Any proposal to add a new item to the programme of work shall be voted on by correspondence, even if it has appeared in the agenda of a meeting.

<table>
<thead>
<tr>
<th>A. Vote</th>
<th>YES</th>
<th>NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1 Do you accept the proposal in document JTC 1 /SC 25 N 074 as a sufficient definition of the new work item? (If you have responded &quot;NO&quot; to the above question, you are required to comment.)</td>
<td><em><strong>X</strong></em></td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Q.2 Do you support the addition of the new work item to the programme of work of the joint technical committee?</td>
<td><em><strong>X</strong></em></td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>B. Participation</th>
</tr>
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<tr>
<td>Q.3 Do you commit yourself to participate in the development of this new work item?</td>
</tr>
<tr>
<td>Q.4 Are you able to offer a project editor who will dedicate his/her efforts to the advancement and maintenance of this project? (If &quot;YES,&quot; please identify) Gary S. Robinson.)</td>
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<tr>
<td>Q.5 Do you have a major contribution or a reference document ready for submittal?</td>
</tr>
<tr>
<td>Q.6 Will you have such a contribution in ninety days?</td>
</tr>
</tbody>
</table>

P-member Voting: 
National Body  ANSI  
Date:  Submitted by:  
Name:  
MOTION: T11 has reviewed the new work item proposal, and recommends that the US National Member vote to approve the new work item proposal for FC-VI in JTC1/SC25

YES NO ABS

Title: Information technology --- Fibre Channel Virtual Interface (FC-VI) T11-02-129v0

PROPOSAL FOR A NEW WORK ITEM

| Date of presentation of proposal: 2002-04-20 | Proposer: USA |
| Secretariat: Germany(DIN) | ISO/IEC JTC 1 / SC 25 N |

A proposal for a new work item shall be submitted to the secretariat of the Subcommittee of ISO/IEC joint technical committee 1 concerned with a copy to the secretariat of ISO/IEC JTC1 and to the ISO Central Secretariat. Presentation of the proposal - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title ISO/IEC: INFORMATION TECHNOLOGY - Fibre Channel - Virtual Interface (VI)

Scope: This standard defines the Fibre Channel mapping protocol for the Virtual Interface (VI) Architecture (FC-VI). FC-VI defines the Fibre Channel Information Units in accordance with the VI Architecture model. FC-VI additionally defines how Fibre Channel services are used to perform the services required by the VI Architecture model of its network transport.

Purpose and justification:

FC-VI defines the mapping of VI Messages and VI Connections to FC-PH. FC-VI is based on the method of first establishing an FC-VI Connection between two FC-VI Ports, and then sending VI Messages over the FC-VI Connection. FC-VI defines the Information Units (IU's) that are required to establish and remove FC-VI Connections, and the IU's that are required to send VI Messages. Each VI Message is transferred in one Exchange, and each FC-VI Connection is established in one Exchange (Client-Server) or two Exchanges (Peer-to-Peer). As required by FC-PH, each FC-VI Information Unit (IU) is constructed from one Sequence. One or more IU’s are grouped together to form one Exchange.

FC-VI defines FC-VI Connection IU’s to establish and remove FC-VI Connections, and defines FC-VI Message IU’s to send VI Messages. FC-VI defines a FCVI_HANDLE to specify the destination VI for the VI Message. FC-VI Ports shall send FC-VI Connection IU’s between them to establish the FCVI_HANDLEs. An FC-VI Port may choose its own FCVI_HANDLE for each of its FC-VI Endpoints. The FC-VI Port is required to use the FCVI_HANDLE specified by the other FC-VI Port when transmitting a VI Message. The FC-VI Provider may use any appropriate method to map a FCVI_HANDLE to a VI Handle as used by a VI Application, since FC-VI does not define a specific mapping between FCVI_HANDLEs and VI Handles.

FC-VI defines a FC-VI Message ID (FCVI_MSG_ID). The FCVI_MSG_ID is set to one by an FC-VI Port when it sends the first IU of its first VI Message on a new FC-VI Connection. The FC-VI Port that receives the VI Message shall echo the same FCVI_MSG_ID in any Response IU. Each FC-VI Port shall increment the FCVI_MSG_ID value by one for every VI Message sent within a VI to facilitate the detection of lost VI Messages at the receiver. A separate FCVI_MSG_ID count is kept for each direction of a VI. See Clause 8 for a complete description of FC-VI error detection and recovery. VI Reliability Levels are defined with respect to VI Message delivery. FC-VI supports all three levels of reliability (Unreliable Delivery, Reliable Delivery, Reliable Reception) and all connection models (Client-Server, Peer-to-Peer) defined by the VI Architecture. FC-VI supports all VI data transfer models (Send, RDMA Write and RDMA Read) defined by the VI Architecture. FC-VI supports Class 2 and Class 3 classes of service. FC-VI supports Arbitrated Loop, Fabric, Loop attached Fabric, and Point-to-Point topologies. FC-VI supports an In-Order Fabric and an Out-of-Order Fabric.

Programme of work: If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed?
Any proposal to add a new item to the programme of work shall be voted on by correspondence, even if it has appeared in the agenda of a meeting.

<table>
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<tr>
<th>A.</th>
<th>Vote</th>
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<th>NO</th>
<th>Comment</th>
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<td>Q.1</td>
<td>Do you accept the proposal in document JTC 1 /SC 25 N 074 as a sufficient definition of the new work item? (If you have responded &quot;NO&quot; to the above question, you are required to comment.)</td>
<td><strong>X</strong></td>
<td>____</td>
<td>____</td>
</tr>
<tr>
<td>Q.2</td>
<td>Do you support the addition of the new work item to the programme of work of the joint technical committee?</td>
<td><strong>X</strong></td>
<td>____</td>
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<tr>
<td>Q.6</td>
<td>Will you have such a contribution in ninety days?</td>
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</table>
Motion to Approve Forwarding of NWIP to JTC1/SC25

MOTION: T11 recommends that the US approve and forward the NWIP (T11/02-nnnvm) for FC-FS to JTC1/SC25 for further processing as an international standard project. The proposed Project Editor is Gary S. Robinson.

YES NO ABS

Proposal for a new work item on

Title: Information technology --- Fibre Channel - Framing And Signaling (FC-FS)

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal: 2002-10-02  Proposer:  SC25
Secretariat:  Germany(DIN)  ISO/IEC JTC 1 / SC 25 N

A proposal for a new work item shall be submitted to the secretariat of the Subcommittee of ISO/IEC joint technical committee 1 concerned with a copy to the secretariat of ISO/IEC JTC1 and to the ISO Central Secretariat. Presentation of the proposal - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title ISO/IEC: INFORMATION TECHNOLOGY - Framing And Signaling (FC-FS)

Scope:  FC-FS (along with FC-PI) is the combination of the FC-PH [1], its amendments 1 [2] and 2 [3], FC-PH-2 [4] and FC-PH-3 [5] standards. The standard also deletes or obsoletes outdated functions and features from those standards.

The standard includes additional link services in support of new functions defined by the Fibre Channel family of documents and includes improvements and clarifications to the definitions of existing services as dictated by experience with existing implementations. The standard also defines and includes other capabilities that shall improve the performance of existing Fibre Channel products and fit those products for new applications.

Purpose and justification:
FC-FS is a member of the Fibre Channel family of standards. This standard describes the physical and signaling interface of a high performance serial link for support of the Upper Level Protocols (ULPs) associated with HIPPI, IPI, SCSI, IP and others.

Programme of work: If the proposed new work item is approved, which of the following document(s)is (are) expected to be developed?

_X__ a single International Standard more than one International Standard

Relevant documents to be considered Fibre Channel Framing And Signaling (FC-FS) available now.

Cooperation and liaison: None.

Preparatory work offered with target date Fibre Channel Framing And Signaling (FC-FS), available now.

Signature:
Motion to Approve Forwarding of NWIP to JTC1/SC25

MOTION: T11 recommends that the US approve and forward the NWIP (T11/02-nnnvm) for FC-PI to JTC1/SC25 for further processing as an international standard project. The proposed Project Editor is Gary S. Robinson.

YES NO ABS

Proposal for a new work item on

Title: Information technology --- Fibre Channel - Physical Interfaces (FC-PI)

PROPOSAL FOR A NEW WORK ITEM

| Date of presentation of proposal: 2002-10-02 | Proposer: SC25 |
| Secretariat: Germany(DIN) | ISO/IEC JTC 1 / SC 25 N |

A proposal for a new work item shall be submitted to the secretariat of the Subcommittee of ISO/IEC joint technical committee 1 concerned with a copy to the secretariat of ISO/IEC JTC1 and to the ISO Central Secretariat. Presentation of the proposal - to be completed by the proposer Guidelines for proposing and justifying a new work item are given in ISO Guide 26.

Title ISO/IEC: INFORMATION TECHNOLOGY - Physical Interfaces (FC-PI)

Scope: This International Standard describes the physical interface portions of a high performance serial link that supports the higher Upper Level Protocols (ULPs) associated with HIPPI, IPI, SCSI, IP and others.

This Standard incorporates features from the many interface and component standards described in the normative reference section clause 2.

Purpose and justification:

FC-PI is a member of the Fibre Channel family of standards and describes the physical interface portions of a high performance serial link for support of the Upper Level Protocols (ULPs) associated with HIPPI, IPI, SCSI, IP and others.

Programme of work: If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed?

X one International Standard

more than one International Standard

Relevant documents to be considered Fibre Channel Physical Interfaces (FC-PI) available now.

Cooperation and liaison: None.

Preparatory work offered with target date Fibre Channel Physical Interfaces (FC-PI), available now.

Signature:

Will the service of a maintenance agency or registration authority be required? ......No............... Are there any known requirements for coding? ........No...........Does the proposed standard concern known patented items? ...

YES.

Comments with respect to the proposal in general, and recommendations thereon:

It is proposed to assign this new item to JTC 1/SC 25 as project 1.25.13.13.24.

Voting on the proposal - Each P-member of the ISO/IEC JTC 1/SC 25 has an obligation to vote within the time limits laid down.