ANSI X3S3.3 Information "Package"

Outline

Section 1: General

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Section 1: General

1.0 Introduction

1.1 Scope

The ANSI committee X3S3.3 (TG3) has the primary responsibility as task group to ANSI X3S3 to:

a. Define the detailed internal architecture of the Network and Transport Layers of the Open Systems Interconnection (ISO) Reference Model.

b. Define the Network and Transport Layer services and protocols

c. Initiate and/or participate in the development of ISO and CCITT Standards for the Network and Transport Layers

d. Provide US Task Assist Group (TAG) support for related ISO activities in JTC1 SC6/WG2 and WG4

e. Perform liaison with other standards groups regarding the Network and Transport Layers, eg.:

- X3S3.4 regarding services and functions at the boundary between the Data Link Layer and the Network Layer.

- X3S3.7 regarding public data network standards for the Network Layer

f. Maintain existing standards assigned to X3S3.3

1.2 Officers

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1.3 Meeting Schedule

TG3 meets regularly at 2 - 3 month intervals during the year with the schedule being generated during the third quarter of the preceding year. In addition to scheduling around ISO International meetings, consideration is also made for members that attend other standards meetings (CCITT, workshops, etc.).

See Attachment 5 for the 1992 meeting schedule of X3S3.3 and related committees.

1.4 Glossary of Terms

ANS	-	American National Standard
ANSI	-	American National Standards Institute
CBEMA	-	Computer and Business Equipment Manufacturers Association
CCITT	-	Consultative Committee of International Telephone and Telegraph
CD	-	Committee Draft
DAM	-	Draft Amendment
DIS	-	Draft International Standard
dpANS	-	draft proposed American National Standard
DTR	-	Draft Technical Report
IR	-	International Representative
JTC1	-	Joint technical Committee 1 of the International Standards Organization (ISO) and the International Electrotechnical Committee (IEC)
NP	-	New Work Item Proposal
PDAM	-	Proposed Draft Amendment
PDTR	-	Proposed Draft Technical Report
SMC	-	Secretariat Management Committee
SPARC	-	Standards Planning and Requirements Committee
TC	-	Technical Committee
TR	-	Technical Report

Section 2: Procedures

2.0 Membership requirements

Membership in TG3 may be in the form of:

a. Voting Member

Any individual directly and materially affected by the scope of the committee and who expresses willingness to participate regularly.

A perspective member shall attend at least two out of three successive meetings of the committee. The perspective member shall attend the first of these meetings as an observer and shall achieve membership effective with attendance at one of the next two successive meetings. At this time the member will be assessed a service fee by ANSI.

A member may designate one or more Alternates to provide coverage and/or technical support during meetings when the member may be absent.

b. Ex Officio

Chair of the parent Technical Committee (in this case X3S3) or chairman of the SPARC study group.

c. Liaison

Representatives of other U.S. and non-U.S. standards bodies who attend upon request.

c. Observers

Anyone interested who pays the service fee.

Non-voting members may attend meetings, speak and submit technical contributions. Ex Officio members may also present motions on behalf of their groups; such motions require no second. Nonvoting members receive meeting notices, minutes and draft standards, TRs and SG reports being voted upon by letter ballot. Observers receive meeting notices, draft agendas and minutes and officers are required to highlight or call out those documents which are dpANS so that observers are aware of them. Other documents are not distributed to those individuals.

Members will be terminated in the following condition: the member will be warned, by letter, upon failure of both the Principal and an Alternate to:

a) Attend two out of three successive meetings, in which case the membership will be terminated if not represented at the next meeting; or
b) Failure to pay appropriate service fees within the time specified by the ANSI Secretariat Staff.

The group may, under extenuating circumstances, vote to continue membership despite failure of the member to comply with the criteria above.

2.1 Voting rules

Members who are employees of non-US domiciled organizations may not vote on questions establishing the U.S. position on an international matter.

Each Principal member shall vote one of the following positions: affirmative; affirmative with comment; negative with reasons; or abstain with reasons. The reasons for a negative vote shall be given and, if possible, should include specific wording or actions which would resolve the objection. Abstentions are not permitted on any technical issues and on the decision to forward a document.

Conditional votes are not permitted.

Vote of Alternate

An Alternate vote is counted only if the Principal representative fails to vote.

Single Vote

No member may have more than one vote except in the case where two or more organizations appoint the same individual to represent them (as Principal or Alternate); that individual may cast a separate vote for each organization represented. The organizations shall confirm in writing to the Secretariat Management Committee (SMC) of CBEMA that they are aware of the dual role of the individual and will accept the consequences of such an arrangement. Additionally, representation by more than one organization by the same individual shall require approval by the SMC.

2.2 Meeting Format

2.2.1 Schedule of meetings

All meetings are held at the call of the chair and within the frequencies indicated in Section 1.2. To permit planning, each meeting agenda includes an item for review and confirmation of the meeting schedule.

A duly called meeting is one for which the meeting notice and agenda are issued no later than four weeks before the meeting.

When there is less than a quorum present at such a duly called meeting or less than the number of voting members required to approve an action, the members present may draft proposed action actions for submission to the entire membership for letter or action at the next meeting. They may conduct all business not requiring voting action (See next section). A duly called meeting shall count in determining members' attendance record unless specified otherwise by the SMC.

2.2.2 Documents distributed for action

Documents should be distributed at least two weeks prior to the meeting. Any documents sent later may be considered, but final action may only be taken in the absence of objection; otherwise, they must be acted upon by letter ballot or deferred until the next meeting.

2.2.3 Quorum

The required quorum for TG3 is one-third of the voting membership with at least four members present.

2.2.4 Minutes

Minutes are taken at each TG3 meeting and are distributed within four weeks after adjournment of the meeting. They consists of:

a. Date(s), locations, Chair, Vice-Chair, Secretary, hour of opening and adjournment,

b. Summary of significant actions taken,

c. List of voting members, showing those present on a daily basis,

d. Approved agenda (or approved changes to draft agenda)

e. Approval of previous meeting minutes

f. Register of documents since last issue of the register

g. Each motion seconded and not withdrawn, identifying maker of the motion, the fact of a second and the voting results,

h. Future meeting schedule, and

i. List of action items assigned to members of the committee.

Section 3: Guidelines for Document Preparation

3.0 General

The following guidelines for document preparation is provided to aid in the development and submission of documents to TG3 for use in both the committee and for further submission to liaison groups and International Standards bodies. The key objective is to focus more on the cover sheet and submission process rather than the style and content of the body of the document. General guidelines for document contents are provided in section 3.5. This is intended to minimize the changes for errors in the submittal and approval process.

3.1 X3S3.3 Cover Sheet

Contributions submitted by members for consideration in the committee should have a cover sheet of the form shown in Attachment 1. The document dumber will be assigned by the Chairman or Vice-chairman. It is in the form X3S3.3/year-number, eg. X3S3.3/92-100. contributions from other ANSI committees or liaison organizations would be submitted in their respective letterheads.

3.2 X3S3 Cover Sheet

The majority of TG3 output documents are forwarded to X3S3 for approval using an X3S3 cover sheet. See Attachment 2.

The date should usually be the date of submission by the committee. Project refers to the ANSI Project Number or the ISO Project Number if one pertains to this document. Note that this is different from the ISO Project number shown on the international cover sheets. If this document is in reply to or is related to a specific document then that document number should be shown as the reference document.

The text on the cover sheet should request approval of the attached document(s) and indicate the basic action intended, e.g. a **NO** vote with comments. It should add any information which is useful to X3S3 members in considering their vote on this document. Examples are if the material is controversial in some aspect, or if substantial international opposition is expected. The text should also contain any special requests or information necessary for the International Representative (IR) to properly process the document.

Note: Since the X3S3 cover sheet is removed prior to further processing, the text should not contain any information necessary to the international recipients which is not repeated in the document itself.

3.3 SC6/WG2 Cover Sheet

Contributions approved by X3S3 to be submitted to Working Group 2 should have the cover sheet as shown in Attachment 3.

Note that the **Project Number** refers to the JTC1/SC6 project.

3.4 SC6 Cover Sheet

Contributions approved by X3S3 to be submitted to JTC1/SC6 should have the cover sheet as shown in Attachment 4. The project number refers to the JTC1/SC6 project.

3.5 Body of document

The following general guidelines are applicable to documents submitted to X3S3 for approval.

Page numbers should be included to prevent errors in the page order or errors in duplication. The X3S3 cover sheet should not be involved in the page number count. Errors will be reduced by providing a master copy of the document to the IR which is one-sided copied only. In all cases the X3S3 cover sheet shall be on a separate piece of paper from the material to be sent forward. The most common errors occurring in the processing and distribution of documents are single sided duplication of double sided documents, missing pages and pages out of order.

Section 4: Projects

4.1 General

The projects listed below represent the work scope of TG3. They are listed in numerical order by ANSI Project Number. The Project Codes are as follows:

D - Development

I - International

L - Liaison

R - Revision

RF - Reaffirmation

M - Maintenance

DT - Technical Report

4.2 Project List

1. 0047-RF Structure For Formatting Message Headings for Information Interchange Using ASCII for Data Communication System Control; X3.57-1985

   Project Description:

   Specifies the information items used to construct a message heading and prescribes the sequence of these items. Intended to satisfy message heading format requirements for general information interchange between systems using ASCII; i.e., the X3.4 ASCII code standard and X3.28 ASCII Data Link Control Standard.

2. 0111-M Bit Sequencing of ASCII Serial-by-Bit data Transmission; X3.15-1976 (R1990)

   Project Description:

   Specifies Bit Sequencing for serial-by-bit transmission of ASCII

3. 0112-M Character Structure & Character Parity Sense for Serial-by-bit Data Communication in ASCII; X3.16-1976 (R1990)

Project Description:

Specifies character structure and parity sense for serial-by-bit transmission of ASCII.

4. 0281-DT Code Independent Message Heading Format

Project Description:

Develop message heading format Technical Report for use in code independent (bit-oriented) data transmission systems.

5. 0326-L OSI Reference Model, Network Layer

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to study the need for protocol specification and service definition standards in the OSI Network Layer (NL) to service the OSI Transport Layer (TL). NL protocols and service definitions are done under separate projects.

6. 0332-M Transport Layer Services and Protocols
ANSI/ISO 8072-1991; ANSI/ISO 8073-1991

Project Description:

Development of an ANS protocol specification and service definition equivalent/identical to the ISO/IEC Standards IS 8072, Transport Service Definition, and IS 8073, Transport Protocol Specification.

Note: CCITT Recommendations X.214-1984 and X.224-1984 are equivalent to IS 8072 and IS 8073, respectively.

A ballot was issued in 1990 to withdraw efforts to produce ANSs for Transport Services and Protocols in favor of using ISO 8072 and 8073.

7. 0340-D Encryption and Decryption at the OSI Transport Layer

Project Description:

Development of a standard to describe the functional and procedural characteristics of cryptographic functions used at the Transport Layer. Standard shall describe the interface and protocol necessary to effect the cryptographic protection of data, including cryptographic keys. Procedures, formats and operational states for controlling the encryption/decryption process will be defined, and will include:

- prevention of disclosure of plain text messages;
- detection of fraudulent modification of messages;
- detection of fraudulent insertion of messages;
- detection of fraudulent deletion of messages;
- detection of replay of a previous valid message.

8. 0365-L Reference Model Interwork Protocol of the Network Layer

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop standard interwork protocol to enhance any network layer protocol to meet the OSI Network Layer service Definition.

9. 0462-L Protocol for Providing the Connectionless Transport Services Using the connectionless or connection-oriented Network Service.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG4 for development of a protocol specification for the Transport Layer (ISO 8602) for providing the Connectionless-Mode Transport Service.

10. 0493-L Transport Service Definition to Provide Connectionless-Mode Data Transmission.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG4 to develop a service definition for the OSI Transport Layer (ISO 8072/AD 1, Transport Service Definition - Addendum 1: connectionless-mode transmission).

11. 0549-L Network Layer Addressing

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG4 to develop the syntax and semantics of the OSI Network Layer Addresses that identify the source and destination Network Service Access Points (NSAPs) in the OSI Network Layer Service definition; ISO 8348/AD2.

12. 0550-L Network Layer Service Definition

Project Description:

Liaison project with ISO/IEC JTC1 SC6/WG2 to develop service provided by the Network Layer of the Open Systems Interconnection (OSI) Reference Model Architecture. The service will provide an abstract functional definition of the service available in all OSI environments to support the operation of the Transport Protocol; ISO 8348.

13. 0551-L Technical Report on Network Layer Architecture

Project Description:

Develop a technical report that details the architecture of the Network Layer of the Open Systems Interconnection (OSI) Reference Model. It is intended to supplement the description in ISO 7498 and complement the Network Layer Service and Protocol standards. The ISO/IEC efforts are:

1) ISO 8648, Internal Organization of the Network Layer; and
2) ISO 8880 Parts 1, 2, and 3, Specification of Protocols to Provide and Support the OSI Network Service.

Note: 8880 will be processed a sa separate X3 project.

14. 0598-L Procedures for testing Conformance to ISO 8073, Transport Protocol

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG4 to develop a standard that specifies the necessary procedures and test suites for testing conformance to ISO 8073, Transport Protocol; work to be conducted via contributions to ISO/IEC JTC1/SC6 and CCITT.

15. 0627-L Provision of the Underlying Service assumed by ISO 8473 Over Point-to-Point Subnetworks which provide the ISO/IEC Data Link Service.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a standard that specifies the necessary network procedures to provide the underlying network service assumed by ISO 8473 over point-to-point subnetworks which provide the OSI Data Link Service; work to be conducted via contributions to ISO/IEC JTC1/SC6.

16. 0628-L OSI Network Layer - Intermediate Systems Functions

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a standard that defines the intermediate system functions, i.e., the function in the intermediate nodes in a network.

17. 0637-L Protocol Identification in the Network Layer

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a standard that specifies the procedures required to allow identification of Network Layer Protocols. This work will also provide identification of CCITT Network Protocols.

18. 0643-L Technical Report on Network Routing Architecture

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a Technical Report that specifies the Network Routing Architecture or Framework; work to be coordinated with US contributions to SC6 on the subject of Network routing.

19. 0644-L End system to Intermediate System Information Exchange Protocol for Use with ISO 8473 (ISO 9542)

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop an OSI Network Layer Protocol for the exchange of routing information between End systems (hosts) and Intermediate systems (gateways) to perform routing functions within their local domain of directly connected end systems and intermediate systems. The protocol will operate in close conjunction with ISO 8473, "Protocol for Provision of the Connectionless-Mode Network Service".

20. 0648-L End system to Intermediate system routing Information Exchange for use in Conjunction with ISO 8878.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop an OSI Network Layer Protocol for the exchange of routing information between End systems (hosts) and Intermediate systems (gateways) to perform routing functions within their local domain of directly connected end systems and intermediate systems. The protocol will operate in close conjunction with ISO 8878, "Use of X.25 to provide the" OSI connection-mode network service".

21. 0691-L OSI Network Layer Management Information Specification

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a complete specification of the management information that is exchanged for management purposes within the Network Layer. Specification will include the abstract syntax and semantics of the information contained within the OSI Management Information Base (MIB) that is directly related to the Network Layer.

22. 0692-L OSI Transport Layer Management Information Specification

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop complete specification of the management information exchanged for management purposes within the Transport Layer. Specification will include the abstract syntax and semantics of the information contained in the OSI Management Information Base (MIB) that is directly related to the Transport Layer.

23. 0694-L Addendum to OSI Transport Protocol Specification ISO 8473, covering Operation Over the Connectionless Network Service.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop the additional protocols necessary to operate the Class 4 Transport Protocol defined in ISO 8073 in any configuration in which the Network Layer provides the connectionless Network Service as defined in ISO 8348/Addendum 1.

24. 0756-L Intermediate System to Intermediate System (IS_IS) Intra-Domain Routing Information Exchange Protocol for Use in Conjunction with ISO 8473 (Protocol for Providing the Connectionless-Mode Network Service (Internetwork Protocol)).

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a protocol to allow intermediate systems to exchange routing information among themselves in support of global Network Layer routing. Protocol will provide intermediate systems with the information necessary for them to perform routing functions within the global domain of all interconnected intermediate and end systems within a single addressing domain. The protocol is intended to operate in close conjunction with the "Protocol for Providing the Connectionless-mode Network Service" (ISO 8473).

25. 0773-L Network Layer Security

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 for the development of a complete specification of Network Layer Security information: the abstract syntax and semantics of the information contained within and directly related to the Network Layer; ISO/IEC CD 11577. The standard provides for connection-oriented and connectionless modes of Network Service.

26. 0793-L Intermediate System to Intermediate System Inter-Domain Routeing Information Exchange Protocol; CD 10747.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a standardized protocol for the exchange of Routeing information among multiple intermediate systems that connect multiple distinct routeing domains ("inter-domain IS-IS"). The standard will define a protocol that operates to support the routeing function associated with the Network layer of the Basic Reference Model for Open systems Interconnection (ISO 7498).

27. 0814-L Transport Layer Security; ISO/IEC DIS 10736

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop a complete specification of the Transport Layer Security Information: the abstract syntax and semantics of the information contained within and directly related to the Transport Layer. The standard will include the provision of both connection-oriented and connectionless modes of Transport Service.

28. 0843-L Specification of IS-SNARE Interactions - Proposed Amendment 3 to ISO/IEC 10030

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 on an amendment to ISO/IEC 10030, End System routeing information exchange protocol for use in conjunction with ISO 8878, which will augment the functionality of 10030. The amendment defines the dialogue between an IS (Intermediate System) and an SNARE (Subnetwork Address Resolution Entity) that is necessary for an IS to know about every ES (End System) attached to a single subnetwork to which the IS is also attached when the SNARE function is not implemented as part of the IS.

29. 0844-L PICS Proforma for ISO/IEC 10030

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 which will result in a PICS (Protocol Implementation Conformance Statement) Proforma for ISO/IEC 10030, End System routeing information exchange protocol for use in conjunction with ISO 8878. The PICS Proforma will be in compliance with the relevant requirements, and in accordance with the relevant guidelines, given in ISO 9646-2, Conformance testing Methodology and Framework - Part 2: Abstract Test Suite Specification.

30. 0857-L ISO 8473:1988/Amendment 4: PICS Proforma

Project Description:

Develop an amendment containing the PICS (Protocol Implementation Conformance Statement) Proforma for ISO 8473, Connectionless Network Protocol.

31. 0859-D Structure and Semantics of the Domain Specific Part (DSP) of the OSI NSAP Address

Project Description:

This development effort will provide a standard reference for the DSP address, including a hierarchical sub-structure for the DSP, for the format over which ANSI holds direct authority, for use in OSI routeing environments based on ISO 9542, 10030, 10589 and 10747.

32. 0865-L ISO 8473:1988/Amendment 5 - Provision of the Underlying Service required by ISO 8473:1988 for Operation over ISDN Circuit-Switched B-Channels

Project Description:

Liaison with T1 to develop a protocol that provides the service needed by ISO 8473:1988 when operating over ISDN circuit-switched B-channel.

33. ECF-L Enhanced Communications Functions

Project Description:

Liaison with ISO/IEC JTC1 to define the OSI Lower Layer (Physical, Data Link, Network and Transport) services and protocol combinations to support the emerging high-speed data media (e.g., fiber technology)

34. PNS-L Protocol Combinations to support the Network Service (ISO 8880)

Project Description:

Liaison with ISO/IEC JTC1 SC6/ WG2 to define the protocol combinations to support the OSI Network Service. This standard will be updated on a periodic basis as new protocols/services are defined.

35. NSI-L Support of the OSI Network Service by ISDN (ISO 9574)

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to define the required support by ISDN for the OSI Network Service.

36. TSE-L Modifications to the Transport Service Description in support of Enhanced Communications Functions.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG4 to define modifications to the Transport Service Description (ISO 8072) to support the Enhanced Communications Functions as defined in project ECF-L.

37. TPE-L Enhancement of ISO 8073 to support Enhanced Communications Functions

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG4 to define enhancements to ISO 8073 in support of the Enhanced Communications Functions as defined in Project ECF.

38. IPE-L Enhancement of ISO 8473 to support Enhanced Communications Functions

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to define enhancements to ISO 8473 to support the Enhanced Communications Functions as defined in Project ECF-L.

39. NTI-L Interworking between CO and CL End Systems (ISO 10172)

Project Description:

Liaison with ISO/IEC JTC1 SC6 to define the semantics and syntax of procedures to allow interworking between connection-oriented and connectionless End Systems.

40. IPC-L Internetwork Protocol Conformance Testing

Project Description:

Liaison with ISO/IEC JTC1 SC6 to define conformance test suites for the Connectionless Network Protocol (ISO 8473)

41. DAA1-L Dynamic Discovery of NSAP Addresses by End Systems; ISO 9542/Am1

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to define dynamic address discovery protocol; Amendment 1 to ISO 9542, ES-IS Routeing Information Exchange Protocol for use in conjunction with ISO 8473.

42. DAA2-L Dynamic discovery of NSAP Addresses by End Systems; ISO 10030/AM1

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to define dynamic address discovery protocol; Amendment 1 to ISO 10030, ES-IS Routeing Information Exchange Protocol for use in conjunction with ISO 8878.

43. NSA-L Modification to the OSI NSAP Addressing in Support of Group Addressing (multipeer)

Project Description:

Liaison with ISO/IEC JTC1 SC6 to develop enhancements to ISO 8473/AD2 to provide group addressing capability to the existing NSAP Addressing architecture.

44. NLS-L Modifications to the Network Layer Service Description in support of Enhanced communications Functions.

Project Description:

Liaison with ISO/IEC JTC1 SC6/WG2 to develop enhancements to the Network Service Description in support of the Enhanced Communications Functions defined in Project ECF.

Attachment 1

Sample X3S3.3 Cover Sheet

Attachment 2

Sample X3S3 Cover Sheet

Attachment 3

Sample SC6/WG2 Cover Sheet

Attachment 4

Sample SC6 Cover Sheet

Attachment 5

1992 Schedule of X3S3.3 and Related Committees