Accredited Standards Committee
X3, INFORMATION PROCESSING SYSTEMS

X3S3.3/91-387R1
9 December, 1991

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To: X3S3.3

From: D. Marlow (NSWC)

Re: Approach for providing OSI Connectionless-mode Multicast support to the Protocol for providing the connectionless-mode transport service

NSWC has prepared this working draft of an Amendment to the Protocol for providing the connectionless-mode transport service

This contribution is an update from that provided in contribution X3S3.3/91-387.

This is a contribution to the interim SC6 meeting on "enhanced transport mechanism guidelines" in Paris on February 10-13, 1992. U.S. discussion on this input was held at the ANSI X3S3.3 committee's December 1991 meeting in Orlando, Florida.

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X3S3/91-_____
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9 December, 1991

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To: X3S3

From: X3S3.3

Re: Proposed changes to the Protocol for providing the connectionless-mode transport service to provide support for connectionless-mode multicast

Task group X3S3.3 has prepared this working draft of an Amendment to the Protocol for providing the connectionless-mode transport service (ISO 8602) providing support for connectionless-mode multicast transmission for discussion at the interim SC6 meeting on "enhanced transport mechanism guidelines" in Paris on February 10-13, 1992.

1991-12-09

ISO/IEC JTC1/SC6
TELECOMMUNICATIONS AND INFORMATION EXCHANGE BETWEEN SYSTEMS
Secretariat: U.S.A. (ANSI)

Title: **Proposed changes to the Protocol for providing the connectionless-mode transport service to support connectionless multicast**

Source: **USA**

Project(s): **[new]**

Status: **For discussion at the interim meeting of SC6 on "enhanced transport mechanism guidelines" in Paris on February 10-13, 1992.**

This contribution presents an approach that is currently being evaluated within the US for high performance networking. After further review, the protocol modifications presented in this document may undergo significant changes.

Requested Action:

Attachments:

Distribution:

Preface

This contribution provides minor changes to ISO 8602 to allow multicast transfer as an option. No added functionality is provided to ISO 8602, just the ability to use the multicast services of the Network layer if they exist.

This Amendment is one component of a number of standardization actions on-going to support an OSI Connectionless-mode multicast capability. Additional efforts are on-going to provide additions to the Network service definition and addressing addendums, the Connectionless-mode Network Layer Protocol and the ES-IS routeing protocol.

Date 1991-12-09

Information processing systems - Open Systems Interconnection - Protocol for providing the connectionless-mode transport service

Amendment X: Addition of connectionless-mode multicast capability

0. Introduction

This Amendment to ISO 8602 provides the capability to the Connectionless-mode Transport protocol to support multicast PDU transfer. The protocol for providing the connectionless-mode transport service is contained entirely in ISO 8602.

ISO 8602 restricts the Connectionless-mode transport to the case of exchanging TPDUs between one sending TS-user and one receiving TS-user. Subnetwork standards exist which support the transfer of a SDU from one entity to a number of other entities in a single logical operation. Work is on-going to develop the capabilities for exchanging multicast PDUs at the Network layer. This amendment is directed at providing multicast transport service via multicast capabilities of the Network service if they are available. With the current ISO 8602, no Transport layer capabilities are described to utilize such multicast Network services.

This Amendment defines additional assumptions concerning the services optionally provided by the Network layer and adds no new functions of its own.

1. Scope and Field of Application

Change the end of the first point (a) under paragraph 1 from "to one peer transport entity;" to:

to one or more peer transport entities;

2. References

This Amendment makes no changes to clause 2 of ISO 8602.

3. Definitions

Add to the end of 3.3.2:

The destination-transport address may identify a group of Transport Service users connected to different network entities depending on the services used and provided by the network service provider.

4. Symbols and Abbreviations

This Amendment makes no changes to clause 4 of ISO 8602.

5 Overview of the transport protocol

Add a new sentence at the end of 5.2:

Depending on the services provided by the Network service, a transport user may be able to send data to a group of other transport users and receive PDUs intended for a group of transport users via the use of the Destination address parameters in Table 3.

6. Protocol mechanisms

This Amendment makes no changes to clause 6 of ISO 8602.

7. Encoding of the unit data (UD) TPDU

This Amendment makes no changes to clause 7 of ISO 8602.

8. Conformance

This Amendment makes no changes to clause 8 of ISO 8602.