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WORK GROUP: ARCHITECTURE

TITLE: Interoperability Requirements for TARP

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ABSTRACT: This is a SIF approved document that provides interoperability requirements for TARP.

Interoperability Requirements for TARP

1. Introduction

1.1 Purpose

The purpose of this document is to facilitate the deployment of OSI-based SONET DCNs by specifying the conformance and performance requirements of DCN components needed to assemble interoperable SONET DCNs.¹

1.2 Scope

1.3 Acronyms

ES	End System
ESH	End System Hello PDU
IIH	Intermediate-system to Intermediate-system Hello PDU
IS	Intermediate System
ISH	Intermediate System Hello PDU
NE	Network Element
NET	Network Entity Title
TARP	TID Address Resolution Protocol
TID	Target IDentifier

1.4 References

GR-253-CORE, *Synchronous Optical Network (SONET): Common Generic Criteria*, (A Module of TSGR, FR-440), Issue 2, Revision 1 (Bellcore, December 1997).

ISO/IEC 8473:1988: *Information processing systems - Data communications - Protocol for providing the connectionless-mode network layer service*

ISO/IEC DIS 8473 1:1993: *Information technology - Protocol for providing the connectionless-mode network service*

ISO/IEC 9542:1988: *Information processing systems - Telecommunications and information exchange between systems - End system to Intermediate system routing exchange protocol for use in conjunction with protocol for providing the connectionless-mode Network Service (ISO 8473)*

ISO/IEC 10589:1992: *Information technology - Telecommunications and information exchange*

¹ The term "interoperable DCNs" refers to interoperability among various DCN components within a single DCN.

between systems - Intermediate system to Intermediate system intra-domain routing information exchange protocol for use in conjunction with the protocol for providing the connectionless-mode Network Service (ISO 8473)

**This document has received the approval of the SONET Interoperability Forum (SIF).
August 13, 1998**

2. TARP Requirements

The TARP requirements for SIF are those found in Section 8.7 of GR-253-CORE, Issue 2, Revision 1 (December 1997) plus the following additional items:

Item A: When an NE serves as a TL1 Mediation Device for multiple NEs, the MD NE shall have a unique NET, with distinct System ID, for each target NE. Each NET shall correspond to exactly one TID and vice versa. If the MD NE is an ES, each NET shall be advertised by ES-IS in ESH PDUs. If the MD NE is an INE, each System ID shall be advertised following the procedure described in Section 6.2.2, Item A (last bullet), of SIF-AR-9708-056R3.

Item B²: For IS implementations, the set of neighbors shall include all adjacencies in the “up” state created by the ISO 10589 protocol machine, including end systems adjacencies created as a result of operating the ISO 9542 protocol machine in accordance with ISO 10589, including virtual adjacencies created due to a Level 1 area partitioning, and also including manual (provisioned) adjacencies.

For ES-only implementations, the set of neighbors shall include all adjacencies created by the ISO 9542 protocol machine, including manual (provisioned) adjacencies.

Item C: Provisioning TARP sequence numbers, tar-seq:

SIF no longer requires provisioning of TARP sequence numbers, tar-seq.

² This item is a clarification to the statement found in Section 8.7.5 of GR-253-CORE which states that: “Various TARP PDUs must be disseminated to TARP on all neighboring systems.”