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MAPOS Version 1 Assigned Numbers

Status of this Memo

This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

Authors' Note

This memo documents the parameters used in the Multiple Access Protocol over SONET/SDH Version 1. This document is NOT the product of an IETF working group nor is it a standards track document. It has not necessarily benefited from the widespread and in-depth community review that standards track documents receive.

Abstract

This document describes the protocol parameters used in the Multiple Access Over SONET/SDH (MAPOS) version 1. MAPOS is a link layer protocol and provides multiple access capability over SONET/SDH links.

1. Introduction

Multiple Access Protocol over SONET/SDH (MAPOS) [1] is a high-speed link-layer protocol that provides multiple access capability over SONET(Synchronous Optical Network)/SDH(Synchronous Digital Hierarchy)[2][3][4][5]. Its frame format is based on the HDLC-like framing [6] for PPP. A component called "Frame Switch" [1] allows multiple nodes to be connected together in a star topology to form a LAN. Using long haul SONET/SDH links, the nodes on such a "SONET-LAN" can span over a wide geographical area. The Internet Protocol (IP) [7] datagrams are transmitted in MAPOS HDLC frames [8].

This document describes the protocol parameters used in MAPOS version 1 [1].

2. Protocol Field Assignments

The MAPOS Version 1 Data Link Layer [1] contains a 16 bit Protocol field to identify the the encapsulated protocol. The Protocol field is consistent with the ISO 3309 (HDLC) extension mechanism for address fields. All protocol numbers MUST be assigned such that the least significant bit of the most significant octet equals "0", and the least significant bit of the least significant octet equals "1".

Assigned MAPOS Protocol Numbers

| Value (in hex) | Protocol Name |
|----------------|--|
| 0001-001F | Not Used - reserved |
| 0021 | MAPOS Version 1 Internet Protocol Version 4 [8] |
| 0023-FCFF | Not Used - reserved |
| FE01 | MAPOS Version 1 Address Resolution Protocol (ARP[8]) |
| FE03 | MAPOS Version 1 Node Switch Protocol (NSP[9]) |
| FE05 | MAPOS Version 1 Switch Switch Protocol (SSP[10]) |
| FE07-FEFF | Not Used - reserved |

References

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- [2] CCITT Recommendation G.707: Synchronous Digital Hierarchy Bit Rates (1990).
- [3] CCITT Recommendation G.708: Network Node Interface for Synchronous Digital Hierarchy (1990).
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- [5] American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Rates and Formats Specification, ANSI T1.105-1991.
- [6] Simpson, W., editor, "PPP in HDLC-like Framing," RFC-1662, July 1994.
- [7] Postel, J., "Internet Protocol (IP)," RFC-791, September 1981.
- [8] Murakami, K. and M. Maruyama, "IPv4 over MAPOS Version 1," RFC-2176, June, 1997.

- [9] Murakami, K. and M. Maruyama, "A MAPOS version 1 Extension - Node Switch Protocol," RFC-2173, June, 1997.
- [10] Murakami, K. and M. Maruyama, "A MAPOS version 1 Extension - Switch Switch Protocol," RFC-2174, June, 1997.

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