Network Working Group
Request for Comments: 3359
Category: Informational

T. Przygienda
Xebeo

August 2002

Reserved Type, Length and Value (TLV) Codepoints in Intermediate System to Intermediate System

Status of this Memo

Copyright Notice

Abstract

This document describes implementation codepoints within Intermediate System to Intermediate System (IS-IS) used today by several ISPs for routing within their clouds. IS-IS is an interior gateway routing protocol developed originally by OSI and used with IP extensions as Interior Gateway Protocol (IGP). This document summarizes all Table, Length and Value (TLV) codepoints that are being used by the protocol and its pending extensions.

1. TLV Codepoints Reserved

Name	Value	IIH	LSP	SNP	Status
Area Addresses	1	y	y	n	ISO 10589
IIS Neighbors	2	n	y	n	ISO 10589
ES Neighbors	3	n	y	n	ISO 10589
Part. DIS	4	n	y	n	ISO 10589
Prefix Neighbors	5	n	y	n	ISO 10589
IIS Neighbors	6	y	n	n	ISO 10589
Padding	8	y	n	n	ISO 10589
LSP Entries	9	n	n	y	ISO 10589
Authentication	10	y	y	y	ISO 10589
Opt. Checksum	12	y	n	y	IETF-draft
LSPBufferSize	14	n	y	n	ISO 10589 Rev 2 Draft
TE IIS Neigh.	22	n	y	n	IETF-draft
DECnet Phase IV	42	y	n	n	DEC (ancient)
Lucent Proprietary	66	n	y	n	
IP Int. Reach	128	n	y	n	RFC 1195
Prot. Supported	129	y	y	n	RFC 1195
IP Ext. Address	130	n	y	n	RFC 1195
IDRPI	131	n	y	y	RFC 1195
IP Intf. Address	132	y	y	n	RFC 1195
Illegal	133	n	n	n	RFC 1195 (not used)
Router ID	134	n	y	n	IETF-draft
TE IP. Reach	135	n	y	n	IETF-draft
Dynamic Name	137	n	y	n	RFC 2763
Nortel Proprietary	176	n	y	n	
Nortel Proprietary	177	n	y	n	
Restart TLV	211	y	n	n	IETF-draft
MT-ISN	222	n	y	n	IETF-draft
M-Topologies	229	y	y	n	IETF-draft
IPv6 Intf. Addr.	232	y	y	n	IETF-draft
MT IP. Reach	235	n	y	n	IETF-draft
IPv6 IP. Reach	236	n	y	n	IETF-draft
MT IPv6 IP. Reach	237	n	y	n	IETF-draft
P2P Adjacency State	240	y	n	n	IETF-draft

2. Assignment Procedures

This document is provided to avoid possible future conflicts in the assignment of TLV numbers. It does not constitute or represent any standard or authority assigning TLV numbers. TLV assignment happens on a shared, informational basis between the ISO, SIF and the IETF working groups. The core ISIS protocol is being specified in the ISO standards body, IP extensions to it however are products of the ISIS working group in IETF. Since ISO does not provide a numbering authority and IANA is only responsible for IP related coding points, no plausible central authority to assign TLV numbers exists as of today.

This document will be periodically updated by newer versions in the fashion of [RP94] and successors. It may be replaced at any given point in time by some type of official registry.

This document will not indicate specific documents using the codepoints, nor will it resolve the sub-TLV codepoints.

3. Acknowledgments

Thanks to Les Ginsberg and others for pointing out details and improving this work.

4. Security Consideration

ISIS security applies to the work presented. No specific security issues are being introduced.

5. References

[Cal90a] R. Callon. OSI ISIS Intradomain Routing Protocol. INTERNET-RFC, Internet Engineering Task Force, February 1990.

[Cal90b] R. Callon. Use of OSI ISIS for Routing in TCP/IP and Dual Environments. INTERNET-RFC, Internet Engineering Task Force, December 1990.

[ISO90] ISO. Information Technology - Telecommunications and Information Exchange between Systems - Intermediate System to Intermediate System Routing Exchange Protocol for Use in Conjunction with the Protocol for Providing the Connectionless-Mode Network Service. ISO, 1990.

[RP94] Reynolds, J., "Assigned Numbers; RFC 1700 is Replaced by an On-line Database", RFC 3232, January, 2002.

6. Authors' Addresses

Tony Przygienda
Xebeo
One Cragwood Road
South Plainfield, NJ 07080

Phone: (908) 222 4225
Email: prz@xebeo.com

7. Full Copyright Statement

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.