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         Resource ReserVation Protocol-Traffic Engineering (RSVP-TE)
           Extension for Additional Signal Types in G.709 OTN
            draft-ali-ccamp-additional-signal-type-g709v3-01.txt

Status of this Memo

This Internet-Draft is submitted in full conformance with the
provisions of BCP 78 and BCP 79.

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progress."

This Internet-Draft will expire on August 13, 2014.

Abstract

[I-D.draft-ietf-ccamp-gmpls-signaling-g709v3] provides the

extensions to the Generalized Multi-Protocol Label Switching
(GMPLS) signaling to control the full set of OTN features including
ODU0, ODU4, ODU2e and ODUflex. However, it does not cover
additional signal types mentioned in [G.Sup43] (ODU1e, ODU3e1,
ODU3e2) or (ODU1f, ODU2f). This draft provides GMPLS signaling
extension for these additional signal types.

Conventions used in this document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
"SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in
this document are to be interpreted as described in RFC 2119
[RFC2119].

Table of Contents

1. Introduction

   [I-D.draft-ietf-ccamp-gmpls-signaling-g709v3] updates the ODU-
   related portions of [RFC4328] to provide Resource ReserVation
   Protocol-Traffic Engineering (RSVP-TE) extensions to support
   control for [G.709-v3]. However, it does not cover additional
   signal types mentioned in [G.Sup43] (ODU1e, ODU3e1, ODU3e2) or
   (ODU1f and ODU2f).

   With the evolution and deployment of Optical Transport Network
   (OTN) technology, it is necessary to support additional signal
   types mentioned in [G.Sup43] and (ODU1f and ODU2f). [I-D.draft-
   khuzema-ccamp-gmpls-signaling-g709] had support for signal types
   mentioned in [G.Sup43] but the signal types values collides with
   values defined in [I-D.draft-ietf-ccamp-gmpls-signaling-g709v3].
   The draft has expired and also does not support ODU1f and ODU2f
   signal type.

   This draft provides GMPLS signaling extension to support
   additional signal types mentioned in [G.Sup43] and (ODU1f and
   ODU2f).

2. RSVP-TE extension for Additional Signal Types

   [I-D.draft-ietf-ccamp-gmpls-signaling-g709v3] defines the format
   of Traffic Parameters in OTN-TDM SENDER_TSPEC and OTN-TDM
   FLOWSPEC objects. The said traffic parameters have a signal type
   field. This document defines the signal type for ODU1e, ODU3e1,
   ODU3e2, ODU1f and ODU2f, as follows:

                 Value   Type
                 -----   ----
                   23   ODU1e (10Gbps Ethernet [GSUP.43])
                   24   ODU1f (10Gbps Fiber Channel)
                   25   ODU2f (10Gbps Fiber Channel)
                   26   ODU3e1 (40Gbps Ethernet [GSUP.43])
                   27   ODU3e2 (40Gbps Ethernet [GSUP.43])

3. Security Considerations

This document does not introduce any additional security issues above those identified in [I-D.draft-ietf-ccamp-gmpls-signaling-g709v3].

4. IANA Considerations

This document defines signal type for ODU1e, ODU3e1, ODU3e2, ODU1f and ODU2f to be carried in Traffic Parameters in OTN-TDM SENDER_TSPEC and OTN-TDM FLOWSPEC objects [I-D. draft-ietf-ccamp-gmpls-signaling-g709v3].

5. Acknowledgments

The authors would like to thank Sudip Shukla for comments.

6. References

6.1. Normative References

   [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate
             Requirement Levels", BCP 14, RFC 2119, March 1997.

   [RFC4328] Papadimitriou, D., Ed., "Generalized Multi-Protocol
             Label Switching (GMPLS) Signaling Extensions for G.709
             Optical Transport Networks Control", RFC 4328, January
             2006.

   [G.709-v3] ITU-T, "Interface for the Optical Transport Network
             (OTN)", G.709/Y.1331 Recommendation, December 2009.

   [GSUP.43] ITU-T, "Proposed revision of G.sup43 (for agreement)",
             December 2008.

   [I-D.draft-ietf-ccamp-gmpls-signaling-g709v3] F.Zhang, G.Zhang,
             S.Belotti, D.Ceccarelli, K.Pithewan, "Generalized
             Multi-Protocol Label Switching (GMPLS) Signaling
             Extensions for the evolving G.709 Optical Transport
             Networks Control, draft-ietf-ccamp-gmpls-signaling-
             g709v3, work in progress.

6.2. Informative References

   [I-D.draft-khuzema-ccamp-gmpls-signaling-g709] Pithewan, K., et
             al, "Signaling Extensions for Generalized MPLS (GMPLS)
             Control of G.709 Optical Transport Networks", expired
             draft.

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