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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-g709v3-05.txt

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Abstract

[RFC4328] and [RFC7139] provide the extensions to the Generalized Multi-Protocol Label Switching (GMPLS) signaling to control the full set of OTN features including ODU0, ODU1, ODU2, ODU3, ODU4, ODU2e and ODUflex. However, these specifications do not cover additional signal types ODU1e, ODU3e1, and ODU3e2 mentioned in [G.Sup43]. 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].

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1. Introduction

[RFC7139] 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, and ODU3e2). This draft provides GMPLS signaling extension to support these additional signal types mentioned in [G.Sup43].

2. RSVP-TE extension for Additional Signal Types

[RFC7139] 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

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signal type for ODU1e, ODU3e1 and ODU3e2 as defined in the IANA consideration section.

3. Security Considerations

This document does not introduce any additional security issues above those identified in [RFC7139].

4. IANA Considerations

This document defines signal type for ODU1e, ODU3e1 and ODU3e2, as follows:

Value	Type
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TBD	ODU1e (10Gbps Ethernet [GSUP.43])
TBD	ODU3e1 (40Gbps Ethernet [GSUP.43])
TBD	ODU3e2 (40Gbps Ethernet [GSUP.43])

These signaled types are carried in Traffic Parameters in OTN-TDM SENDER_TSPEC and OTN-TDM FLOWSPEC objects [RFC7139].

5. Acknowledgments

The authors would like to thank Lou Berger, Adrian Farrel and 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.
- [RFC7139] Zhang, F., Ed., Zhang, G., Belotti, S., Ceccarelli, D., and K. Pithewan, "GMPLS Signaling Extensions for Control of Evolving G.709 Optical Transport Networks", RFC 7139, March 2014.
- [RFC7139] 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.

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6.2. Informative References

[G.709-v3] ITU-T, "Interface for the Optical Transport Network (OTN)", G.709/Y.1331 Recommendation, February, 2012.

[GSUP.43] ITU-T, "Proposed revision of G.sup43 (for agreement)", February, 2011.

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