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Moving Generic Associated Channel (G-ACh) IANA Registries to a New Registry

Abstract

RFC 5586 generalized the applicability of the pseudowire Associated Channel Header (PW-ACH) into the Generic Associated Channel G-ACh. However, registries and allocations of G-ACh parameters had been distributed throughout different, sometimes unrelated, registries. This document coalesces these into a new "Generic Associated Channel (G-ACh) Parameters" registry under the "Multiprotocol Label Switching Architecture (MPLS)" heading. This document updates RFC 5586.

This document also updates RFCs 6374, 6378, 6427, and 6428.

Status of This Memo

This is an Internet Standards Track document.

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1. Introduction

RFC 5586 generalized the PW-ACH into the G-ACh. However, registries and allocations of G-ACh namespaces had been distributed throughout different registries. This document coalesces these into a new "Generic Associated Channel (G-ACh) Parameters" registry in the "Multiprotocol Label Switching Architecture (MPLS)" name space. This reorganization achieves two purposes: it allocates the G-ACh registries in their natural place in the MPLS names space, and it provides a single view of the G-ACh registries, to simplify future assignments and avoid potential conflicts. This is an update to RFC 5586 [RFC5586].

Further, the "Pseudowire Associated Channel Types" registry is renamed to "Generalized Associated Channel (G-ACh) Types (including Pseudowire Associated Channel Types)" to make its generalized status explicit, and it is moved into the newly created registry.

Additionally, RFC 6374 [RFC6374], RFC 6378 [RFC6378], RFC 6427 [RFC6427], and RFC 6428 [RFC6428] specify allocations within the G-ACh that are now moved into the new registry.

With respect to where to find these IANA registries, the RFCs listed above are updated as indicated in Section 3; however, the registries themselves are not changed (with the exception of one being renamed). They are moved unchanged to the new registry.

2. IANA Considerations

IANA has added this document as a reference for each registry that has been moved or renamed as a result of actions requested by this document.

IANA has replaced all the relocated registries with pointers to the new URL or with a redirect.

2.1. Creation of a New Generic Associated Channel (G-ACh) Parameters IANA Registry

IANA has created a new "Generic Associated Channel (G-ACh) Parameters" registry. This is the common registry that will include all the registries being moved in Sections 2.2 and 2.3.

2.2. Renaming and Moving the Pseudowire Associated Channel Types Registry

This document renames the "Pseudowire Associated Channel Types" registry [IANA-PWE3] to "MPLS Generalized Associated Channel (G-ACh) Types (including Pseudowire Associated Channel Types)". This registry has been moved and included in the "Generic Associated Channel (G-ACh) Parameters" registry created in Section 2.1 because any additional registries are dependent upon the Associated Channel Header Type.

At the time of publishing this document and moving the registry, the following RFCs have G-ACh Types allocated: [RFC4385], [RFC5586], [RFC5718], [RFC5885], [RFC6374], [RFC6378], [RFC6426], [RFC6427], [RFC6428], [RFC6435], [RFC6478], and [RFC6671].

2.3. Consolidating G-ACh Registries

This document further updates the following RFCs by moving the registries related to G-ACh to the common "Generic Associated Channel (G-ACh) Parameters" registry created in Section 2.1.

- o From the PWE Parameters Registry [IANA-PWE3]:
 - * MPLS Generalized Associated Channel (G-ACh) Types [RFC5586]
 - * CC/CV MEP-ID TLV Registry [RFC6428]
- o From the MPLS LSP Ping Parameters Registry [IANA-LSP-Ping]:
 - * Measurement Timestamp Type [RFC6374]
 - * Loss/Delay Measurement Control Code: Query Codes [RFC6374]
 - * Loss/Delay Measurement Control Code: Response Codes [RFC6374]
 - * MPLS Loss/Delay Measurement TLV Object [RFC6374]
- o From the MPLS OAM Parameters Registry [IANA-MPLS-OAM]:
 - * MPLS Fault OAM Message Type Registry [RFC6427]
 - * MPLS Fault OAM Flag Registry [RFC6427]
 - * MPLS Fault OAM TLV Registry [RFC6427]
 - * MPLS PSC Request Registry [RFC6378]
 - * MPLS PSC TLV Registry [RFC6378]

Note that all the sub-registries in [IANA-MPLS-OAM] have been removed from "Multiprotocol Label Switching (MPLS) Operations, Administration, and Management (OAM) Parameters" registry. Therefore, the IANA has removed the MPLS OAM registry, per this document.

3. RFC Updates

This document updates [RFC5586] renaming the "Pseudowire Associated Channel Types" [IANA-PWE3] to "MPLS Generalized Associated Channel (G-ACh) Types (including Pseudowire Associated Channel Types)".

This document also updates the following RFCs by moving the G-ACh related registries to a common "MPLS Generic Associated Channel (G-ACh) Parameters" registry: RFCs 6374, 6378, 6427, and 6428.

All the registries listed above are moved without any changes to their content. The reason to move them is to create on single place where it is possible to find all the G-ACh parameters.

4. Security Considerations

The IANA instructions in this document do not directly introduce any new security issues.

5. Acknowledgements

The authors want to thank Amanda Baber and Scott Bradner for review and valuable comments.

6. References

6.1. Normative References

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- [RFC6374] Frost, D. and S. Bryant, "Packet Loss and Delay Measurement for MPLS Networks", RFC 6374, September 2011.
- [RFC6378] Weingarten, Y., Bryant, S., Osborne, E., Sprecher, N., and A. Fulignoli, "MPLS Transport Profile (MPLS-TP) Linear Protection", RFC 6378, October 2011.
- [RFC6427] Swallow, G., Fulignoli, A., Vigoureux, M., Boutros, S., and D. Ward, "MPLS Fault Management Operations, Administration, and Maintenance (OAM)", RFC 6427, November 2011.
- [RFC6428] Allan, D., Swallow Ed. , G., and J. Drake Ed. , "Proactive Connectivity Verification, Continuity Check, and Remote Defect Indication for the MPLS Transport Profile", RFC 6428, November 2011.

6.2. Informative References

[IANA-LSP-Ping]

IANA, "Multi-Protocol Label Switching (MPLS) Label Switched Paths (LSPs) Ping Parameters",
<<http://www.iana.org/assignments/mpls-lsp-ping-parameters>>.

[IANA-MPLS-OAM]

IANA, "Multiprotocol Label Switching (MPLS) Operations, Administration, and Management (OAM) Parameters", content has been moved to
<<http://www.iana.org/assignments/g-ach-parameters/>>.

[IANA-PWE3]

IANA, "Pseudowire Name Spaces (PWE3)",
<<http://www.iana.org/assignments/pwe3-parameters>>.

[RFC4385] Bryant, S., Swallow, G., Martini, L., and D. McPherson, "Pseudowire Emulation Edge-to-Edge (PWE3) Control Word for Use over an MPLS PSN", RFC 4385, February 2006.

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[RFC6435] Boutros, S., Sivabalan, S., Aggarwal, R., Vigoureux, M., and X. Dai, "MPLS Transport Profile Lock Instruct and Loopback Functions", RFC 6435, November 2011.

[RFC6478] Martini, L., Swallow, G., Heron, G., and M. Bocci, "Pseudowire Status for Static Pseudowires", RFC 6478, May 2012.

[RFC6671] Betts, M., "Allocation of a Generic Associated Channel Type for ITU-T MPLS Transport Profile Operation, Maintenance, and Administration (MPLS-TP OAM)", RFC 6671, November 2012.

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