Moving Generic Associated Channel (G-ACh) IANA Registries to a New
Registry
draft-ietf-mpls-moving-iana-registries-04

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 RFC 6374, RFC 6428, RFC 6378, RFC 6427,
   RFC-ietf-mpls-gach-adv, and RFC-ietf-mpls-tp-ethernet-addressing.

Status of this Memo

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

   Internet-Drafts are working documents of the Internet Engineering
   Task Force (IETF). Note that other groups may also distribute
   working documents as Internet-Drafts. The list of current Internet-
   Drafts is at http://datatracker.ietf.org/drafts/current/.

   Internet-Drafts are draft documents valid for a maximum of six months
   and may be updated, replaced, or obsoleted by other documents at any
   time. It is inappropriate to use Internet-Drafts as reference
   material or to cite them other than as "work in progress."

   This Internet-Draft will expire on July 30, 2014.

Copyright Notice

Table of Contents

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 is
needed to get a single view of the G-ACh registries, to simplify
future assignments, and to avoid potential conflicts. This is an
update to RFC RFC 5586 [RFC5586].

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

Additionally, RFC 6374 [RFC6374], RFC 6428 [RFC6428], RFC 6378]
[RFC6378], RFC 6427 [RFC6427], RFC-ietf-mpls-gach-adv
[I-D.ietf-mpls-gach-adv], and RFC-ietf-mpls-tp-ethernet-addressing
[I-D.ietf-mpls-tp-ethernet-addressing] 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.

Editor's note:
Need to fix the references to RFC-ietf-mpls-gach-adv and RFC-ietf-
mpls-tp-ethernet-addressing

2. IANA Considerations

IANA is requested to add this document as a reference for any
registry that is moved or renamed as a result of actions requested by
this document.

IANA is also requested to replace 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 is requested to create a new "Generic Associated Channel (G-ACh)

Parameters" registry under the "Multiprotocol Label Switching
Architecture (MPLS)" heading. 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] into "MPLS Generalized Associated Channel
(G-ACh) Types (including Pseudowire Associated Channel Types)". This
registry is moved and included as the first registry 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: [I-D.ietf-mpls-gach-adv],
[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 G-ACh
related registries to the common "MPLS 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]

   * G-ACh Advertisement Protocol Application Registry
      [I-D.ietf-mpls-gach-adv]

   * G-ACh Advertisement Protocol TLV Registry
      [I-D.ietf-mpls-gach-adv]

   * G-ACh Advertisement Protocol: Ethernet Interface Parameters
      [I-D.ietf-mpls-tp-ethernet-addressing]

   * 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] are moved from
      "Multiprotocol Label Switching (MPLS) Operations, Administration,
      and Management (OAM) Parameters" registry. The IANA is therefore
      requested to remove the "MPLS OAM" registry.

3. RFC Updates

   This document updates [RFC5586] renaming the "Pseudowire Associated
   Channel Types" [IANA-PWE3] into "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: RFC 6374, RFC 6428, RFC 6378, RFC 6427,
   RFC-ietf-mpls-gach-adv, and RFC-ietf-mpls-tp-ethernet-addressing.

   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 Barber and Scott Bradner for review
   and valuable comments.

6. References

6.1. Normative References

[I-D.ietf-mpls-gach-adv]
          Frost, D., Bryant, S., and M. Bocci, "MPLS Generic
          Associated Channel (G-ACh) Advertisement Protocol",
          draft-ietf-mpls-gach-adv-08 (work in progress), June 2013.

[I-D.ietf-mpls-tp-ethernet-addressing]
          Frost, D., Bryant, S., and M. Bocci, "MPLS-TP Next-Hop
          Ethernet Addressing",
          draft-ietf-mpls-tp-ethernet-addressing-08 (work in
          progress), July 2013.

[RFC5586] Bocci, M., Vigoureux, M., and S. Bryant, "MPLS Generic
          Associated Channel", RFC 5586, June 2009.

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

[IANA-MPLS-OAM]
          Internet Assigned Numbers Authority, "Multiprotocol Label
          Switching (MPLS) Operations, Administration, and
          Management (OAM) Parameters",

            <http://www.iana.org/assignments/mpls-oam-parameters>.

   [IANA-PWE3]
            Internet Assigned Numbers Authority, "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.

   [RFC5718] Beller, D. and A. Farrel, "An In-Band Data Communication
            Network For the MPLS Transport Profile", RFC 5718,
            January 2010.

   [RFC5885] Nadeau, T. and C. Pignataro, "Bidirectional Forwarding
            Detection (BFD) for the Pseudowire Virtual Circuit
            Connectivity Verification (VCCV)", RFC 5885, June 2010.

   [RFC6426] Gray, E., Bahadur, N., Boutros, S., and R. Aggarwal, "MPLS
            On-Demand Connectivity Verification and Route Tracing",
            RFC 6426, November 2011.

   [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.

Authors' Addresses

   Loa Andersson
   Huawei

   Email: loa@mail01.huawei.com

Carlos Pignataro
Cisco Systems, Inc.

Email: cpignata@cisco.com