                   BGP Regisries by IDR and other BGP WGs
                   draft-hares-idr-bgp-registries-01.txt

Abstract

   The BGP Registries at IANA were set up as one of the earliest IANA
   registries. Over time, the registries have become denoted as
   requiring "standards action", "early allocation", "FCFS (first-come,
   first served)", "vendor specific", and "IETF review". This draft
   proposes that certain BGP registries that are labelled "standards
   action", "early allocation", or "IETF Review" add to these
   registration actions a "Expert Review. It also proposes that the
   chairs of BGP Protocol related WG groups be part of the review team.
   The intent is that these chairs will be responsible for bringing
   questionable allocations to their workings attention.

   The BGP relate working groups are currently the IDR, BESS, SIDROPS,
   and GROW, but other working groups like SPRING might be added.

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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1. Introduction

   During 2016, several BGP attributes were squatted upon causing
   operational problems during the early deployment of large communities
   [RFC8092]. Due these problems, [RFC8093] deprecated the use of 6
   attribute numbers.

   To avoid this problem in the future, it is helpful to increase pace
   of the early-allocations process and to coordinate the review of key
   BGP registries. This document proposes to augment existing
   registration processes for BGP registries with Expert review.

   This draft proposes that certain BGP registries that are labelled
   "standards action", "early allocation", or "IETF Review" add to these
   registration actions a "Expert Review. It also recommends that the
   chairs of BGP Protocol related WG groups be part of the review team.

2. BGP Registries to Change Registration Process on

   This document proposes the that IETF BGP registries in Table 1 below
   require their current registration policy plus Expert Review. It
   recommends that the chairs of the BGP related working groups (e.g.
   IDR, Bess, SIDROPS, GROW) be a part of this review team. The IESG
   can define which working groups are BGP working groups, but it is
   important to get the chairs of the Working Groups that originate or
   maintain the drafts in Table 1 as part of the review team.

If no BGP WG groups remain, the IESG may select designated experts to
fulfill this role.

ER = Expert Review

Table 1 - Registries with changes

BGP registry	Registration	reference	Add ER
Message Types	Standards Action	RFC4271	yes
BGP Path Attributes	Standards Action	RFC4271	yes
BGP Error (notification) codes	Standards Action	RFC4271 RFC7313	yes
BGP Error Subcodes	Standards Action	RFC4271	yes
Open Message Error subcodes	Standards Action	RFC4271	yes
Update Message Error subcodes	Standards Action	RFC4271	yes
BGP Finite State Machine Error subcodes	Standards Action	RFC6608	yes
BGP Cease NOTIFICATION message subcodes	Standards Action or Early Allocation	RFC4486	yes
BGP Route Refresh Message Error subcodes	Standards Action (1-127 range	RFC7313	yes
BGP Outbound Route Filtering (ORF) Types	Standards Action	RFC5291	yes
BGP Open Optional Parameter types	IETF Review	RFC5492	yes
BGP Tunnel Encapsulation Attribute Sub-TLVS	Standards Action	RFC5512	yes
BGP AIGP Attribute	Standards Action	RFC7311	Yes

BGP Tunnel Encapsulation Attribute Sub-TLVS	Standards Action	RFC5512	yes
BGP AIGP Attribute	Standards Action	RFC7311	Yes
Route Refresh Subcdes	Standards Action (1-127)	RFC7313	Yes
P-Multicast Service Interface Tunnel (PMSI) Tunnel Types	IETF Review	RFC7385	Yes
P-Multicast Service Interface Tunnel (PMSI) Attribute Flags	Standards Action	RFC7385	Yes
BGP MCAST-VPN Route Types	Standards Action	RFC7441	Yes

The registries in Table 2 have Expert Review. This document requests
that IANA increase their designated expert pool by adding to the pool
the chairs in BGP related Working Groups (E.g. IDR, BESS, SIDROPS,
GROW).

   ER = Expert Review

   Table 2 - Registries with Expert Review

BGP registry	Registration	reference	Add ER
BGP Layer 2 Encapsulation Types	Expert Review (0-127)	RFC6624	yes
BGP Layer 2 TLV Types	Expert Review	RFC6624	yes

3. Security Considerations

   Administrative process - Not applicable.

4. IANA Considerations

   For all of the BGP registries or portions of BGP Registries listed in
   table 1 append "Designated reviewers" to the registration process.

   This document requests the IESG nominate the chairs of the current
   BGP related working groups which manage the following base protocols
   that established the registries:

      [RFC4271],

      [RFC4486],

      [RFC5291],

      [RFC5492],

      [RFC5512],

      [RFC6608],

      [RFC6624],

      [RFC7311],

      [RFC7313],

      [RFC7385],

      [RFC7441],

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   for the active discussion at IETF 97 and post-IETF 97 that inspired
   this draft.

6. Normative References

   [RFC2119]   Bradner, S., "Key words for use in RFCs to Indicate
               Requirement Levels", BCP 14, RFC 2119,
               DOI 10.17487/RFC2119, March 1997,
               <http://www.rfc-editor.org/info/rfc2119>.

   [RFC4271]   Rekhter, Y., Ed., Li, T., Ed., and S. Hares, Ed., "A
               Border Gateway Protocol 4 (BGP-4)", RFC 4271,
               DOI 10.17487/RFC4271, January 2006,
               <http://www.rfc-editor.org/info/rfc4271>.

   [RFC4486]   Chen, E. and V. Gillet, "Subcodes for BGP Cease
               Notification Message", RFC 4486, DOI 10.17487/RFC4486,
               April 2006, <http://www.rfc-editor.org/info/rfc4486>.

   [RFC5291]   Chen, E. and Y. Rekhter, "Outbound Route Filtering
               Capability for BGP-4", RFC 5291, DOI 10.17487/RFC5291,
               August 2008, <http://www.rfc-editor.org/info/rfc5291>.

   [RFC5492]   Scudder, J. and R. Chandra, "Capabilities Advertisement
               with BGP-4", RFC 5492, DOI 10.17487/RFC5492, February
               2009, <http://www.rfc-editor.org/info/rfc5492>.

   [RFC5512]   Mohapatra, P. and E. Rosen, "The BGP Encapsulation
               Subsequent Address Family Identifier (SAFI) and the BGP
               Tunnel Encapsulation Attribute", RFC 5512,
               DOI 10.17487/RFC5512, April 2009,
               <http://www.rfc-editor.org/info/rfc5512>.

   [RFC6608]   Dong, J., Chen, M., and A. Suryanarayana, "Subcodes for
               BGP Finite State Machine Error", RFC 6608,
               DOI 10.17487/RFC6608, May 2012,
               <http://www.rfc-editor.org/info/rfc6608>.

   [RFC6624]   Kompella, K., Kothari, B., and R. Cherukuri, "Layer 2
               Virtual Private Networks Using BGP for Auto-Discovery and
               Signaling", RFC 6624, DOI 10.17487/RFC6624, May 2012,
               <http://www.rfc-editor.org/info/rfc6624>.

   [RFC7311]   Mohapatra, P., Fernando, R., Rosen, E., and J. Uttaro,
               "The Accumulated IGP Metric Attribute for BGP", RFC 7311,
               DOI 10.17487/RFC7311, August 2014,
               <http://www.rfc-editor.org/info/rfc7311>.

   [RFC7313]   Patel, K., Chen, E., and B. Venkatachalapathy, "Enhanced
               Route Refresh Capability for BGP-4", RFC 7313,
               DOI 10.17487/RFC7313, July 2014,
               <http://www.rfc-editor.org/info/rfc7313>.

   [RFC7385]   Andersson, L. and G. Swallow, "IANA Registry for
               P-Multicast Service Interface (PMSI) Tunnel Type Code
               Points", RFC 7385, DOI 10.17487/RFC7385, October 2014,
               <http://www.rfc-editor.org/info/rfc7385>.

   [RFC7441] Wijnands, IJ., Rosen, E., and U. Joorde, "Encoding
              Multipoint LDP (mLDP) Forwarding Equivalence Classes
              (FECs) in the NLRI of BGP MCAST-VPN Routes", RFC 7441,
              DOI 10.17487/RFC7441, January 2015,
              <http://www.rfc-editor.org/info/rfc7441>.

   [RFC8092] Heitz, J., Ed., Snijders, J., Ed., Patel, K., Bagdonas,
              I., and N. Hilliard, "BGP Large Communities Attribute",
              RFC 8092, DOI 10.17487/RFC8092, February 2017,
              <http://www.rfc-editor.org/info/rfc8092>.

   [RFC8093] Snijders, J., "Deprecation of BGP Path Attribute Values
              30, 31, 129, 241, 242, and 243", RFC 8093,
              DOI 10.17487/RFC8093, February 2017,
              <http://www.rfc-editor.org/info/rfc8093>.

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