        Updates to the Allocation Policy for the Border Gateway Protocol - Link
                    State (BGP-LS) Parameters Registries
                    draft-ietf-idr-bgp-ls-registry-03

Abstract

   RFC 7752 defines Border Gateway Protocol - Link State (BGP-LS). IANA
   created a registry consistent with that document called the "Border
   Gateway Protocol - Link State (BGP-LS) Parameters Registry" with a
   number of sub-registries. The allocation policy applied by IANA for
   those registries is "Specification Required" as defined in RFC 8126.

   This document updates RFC 7752 by changing the allocation policy for
   all of the registries to "Expert Review" and by updating the guidance
   to the Designated Experts.

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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   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 June 12, 2021.

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1. Introduction

Border Gateway Protocol - Link State (BGP-LS) [RFC7752] requested
IANA to create a registry called the "Border Gateway Protocol - Link
State (BGP-LS) Parameters Registry" with a number of sub-registries.
The allocation policy applied by IANA for those registries is
"Specification Required" as defined in [RFC8126].

The "Specification Required" policy requires evaluation of any
assignment request by a "Designated Expert" and guidelines for any
such experts are given in section 5.1 of [RFC7752]. In addition,
this policy requires that "the values and their meanings must be
documented in a permanent and readily available public specification,
in sufficient detail so that interoperability between independent
implementations is possible" [RFC8126]. Further, the intention
behind "permanent and readily available" is that "a document can
reasonably be expected to be findable and retrievable long after IANA
assignment of the requested value" [RFC8126].

Another allocation policy called "Expert Review" is defined in
[RFC8126]. This policy also requires Expert Review, but has no
requirement for a formal document.

All reviews by Designated Experts are guided by advice given in the
document that defined the registry and set the allocation policy.

This document updates RFC 7752 by changing the allocation policy for
all of the registries to "Expert Review" and updating the guidance to
the Designated Experts.

1.1. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
"SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and
"OPTIONAL" in this document are to be interpreted as described in BCP
14 [RFC2119] [RFC8174] when, and only when, they appear in all
capitals, as shown here.

2. IANA Considerations

IANA maintains a registry called the "Border Gateway Protocol - Link
State (BGP-LS) Parameters Registry". This registry contains four
sub-registries:

o BGP-LS NLRI-Types

o BGP-LS Node Descriptor, Link Descriptor, Prefix Descriptor, and
   Attribute TLVs

o BGP-LS Protocol-IDs

o BGP-LS Well-Known Instance-IDs

IANA is requested to change the assignment policy for each of these
registries to "Expert Review".

2.1. Guidance for Designated Experts

Section 5.1 of [RFC7752] gives guidance to Designated Experts. This
section replaces that guidance.

In all cases of review by the Designated Expert (DE) described here,
the DE is expected to check the clarity of purpose and use of the
requested code points. The following points apply to the registries
discussed in this document:

1. Application for a codepoint allocation MAY be made to the
    Designated Experts at any time.

2. The Designated Experts SHOULD only consider requests that arise
    from I-Ds that have already been accepted as Working Group
    documents or that are planned for progression as AD Sponsored
    documents in the absence of a suitably chartered Working Group.

3. In the case of Working Group documents, the Designated Experts
    SHOULD check with the Working Group chairs that there is
    consensus within the Working Group to make the allocation at this
    time. In the case of AD Sponsored documents, the Designated

Experts SHOULD check with the AD for approval to make the
allocation at this time.

4. If the document is not adopted by the IDR Working Group (or its
   successor), the Designated Expert SHOULD notify the IDR mailing
   list (or its successor) of the request and allow two weeks for
   any response. Any comments received SHOULD be considered by the
   Designated Expert as part of the subsequent step.

5. The Designated Experts SHOULD then review the assignment requests
   on their technical merit. The Designated Experts SHOULD NOT seek
   to overrule IETF consensus, but they MAY raise issues for further
   consideration before the assignments are made.

6. The Designated Expert MUST attempt to ensure that any request for
   a code point does not conflict with work that is active or
   already published within the IETF.

7. Once the Designated Experts have granted approval, IANA will
   update the registry by marking the allocated codepoints with a
   reference to the associated document.

8. In the event that the document fails to progress to RFC, the
   Working Group chairs or AD SHOULD contact the Designated Expert
   to coordinate with IANA over marking the code points as
   deprecated. A deprecated code point is not marked as allocated
   for use and is not available for allocation in a future document.
   The WG chairs may inform IANA that a deprecated code point can be
   completely de-allocated (i.e., made available for new
   allocations) at any time after it has been deprecated if there is
   a shortage of unallocated code points in the registry.

3. Security Considerations

The security consideration of [RFC7752] still apply.

Note that the change to the expert review guidelines makes the
registry and the Designated Experts slightly more vulnerable to
denial of service attacks through excessive and bogus requests for
code points. It is expected that the registry cannot be effectively
attacked because the Designated Experts would, themselves, fall to
any such attack first. Designated Experts are expected to report to
the IDR working group chairs and responsible Area Director if they
believe an attack to be in progress, and should immediately halt all
requests for allocation. This may temporarily block all legitimate
requests until mitigations have been put in place.

4. Acknowledgements

   This work is based on the IANA considerations section of [RFC7752].
   The author thanks the people who worked on that document.

   The author would like to be able to thank John Scudder for suggesting
   the need for this document.

   Thanks to John Scudder, Donald Eastlake, Ketan Talaulikar, and Alvaro
   Retana for review, comments, and discussion.

   Additional thanks to Gyan Mishra, Acee Lindem, Ketan Talaulikar, Les
   Ginsberg, and Bruno Decraene for engaging in discussion on the
   details of this work.

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Author's Address

   Adrian Farrel
   Old Dog Consulting

   Email: adrian@olddog.co.uk