

IDR Group  
Internet-Draft  
Updates: [7752](#) (if approved)  
Intended status: Standards Track  
Expires: October 1, 2021

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March 30, 2021

Updates to the Allocation Policy for the Border Gateway Protocol - Link State (BGP-LS) Parameters Registries  
[draft-ietf-idr-bgp-ls-registry-06](#)

## 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.

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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.

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### [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 code point allocation may be made to the Designated Experts at any time, and MUST be accompanied by technical documentation explaining the use of the code point. Such documentation SHOULD be presented in the form of an Internet-Draft, but MAY arrive in any form that can be reviewed and exchanged amongst reviewers.
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.

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3. In the case of Working Group documents, the Designated Experts MUST 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 MUST 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 MUST notify the IDR mailing list (or its successor) of the request and MUST provide access to the document. The Designated Expert MUST allow two weeks for any response. Any comments received MUST be considered by the Designated Expert as part of the subsequent step.
5. The Designated Experts MUST then review the assignment requests on their technical merit. The Designated Experts MAY raise issues related to the allocation request with the authors and on the IDR (or successor) mailing list for further consideration before the assignments are made.
6. The Designated Expert MUST 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 code points with a reference to the associated document.
8. In the event that the document is a Working Group document or is

AD Sponsored, and that document fails to progress to publication as an RFC, the Working Group chairs or AD SHOULD contact IANA to coordinate about 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

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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, Bruno Decraene, Benjamin Kaduk, and Martin Vigoureux for engaging in discussion on the details of this work.

### 5. 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, <<https://www.rfc-editor.org/info/rfc2119>>.
- [RFC7752] Gredler, H., Ed., Medved, J., Previdi, S., Farrel, A., and S. Ray, "North-Bound Distribution of Link-State and Traffic Engineering (TE) Information Using BGP", [RFC 7752](#), DOI 10.17487/RFC7752, March 2016, <<https://www.rfc-editor.org/info/rfc7752>>.
- [RFC8126] Cotton, M., Leiba, B., and T. Narten, "Guidelines for Writing an IANA Considerations Section in RFCs", [BCP 26](#), [RFC 8126](#), DOI 10.17487/RFC8126, June 2017, <<https://www.rfc-editor.org/info/rfc8126>>.
- [RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in [RFC 2119](#) Key Words", [BCP 14](#), [RFC 8174](#), DOI 10.17487/RFC8174, May 2017, <<https://www.rfc-editor.org/info/rfc8174>>.

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