                 Updates to the IS-IS TLV Codepoints Registry

Abstract

   This document recommends some editorial changes to the IANA "IS-IS
   TLV Codepoints" registry to more accurately document the state of the
   protocol. It also sets out new guidelines for Designated Experts to
   apply when reviewing allocations from the registry.

Status of This Memo

   This is an Internet Standards Track document.

   This document is a product of the Internet Engineering Task Force
   (IETF). It represents the consensus of the IETF community. It has
   received public review and has been approved for publication by the
   Internet Engineering Steering Group (IESG). Further information on
   Internet Standards is available in Section 2 of RFC 5741.

   Information about the current status of this document, any errata,
   and how to provide feedback on it may be obtained at
   http://www.rfc-editor.org/info/rfc7370.

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1. Introduction

   The "IS-IS TLV Codepoints" registry was created by [RFC3563] and
   extended by [RFC6233]. The assignment policy for the registry is
   "Expert Review" as defined in [RFC5226]. As documents related to
   IS-IS are developed, the codepoints required for the protocol
   extensions are reviewed by the Designated Experts and added to the
   IANA-managed registry. As these documents are published as RFCs, the
   registries are updated to reference the relevant RFC.

   In the case of TLVs supporting prefix advertisement, currently
   separate sub-TLV registries are maintained for each TLV. These
   registries need to be combined into a common sub-TLV registry similar
   to what has been done for neighbor advertisement TLVs.

   In some cases, there is a need to allocate codepoints defined in
   Internet-Drafts (I-Ds) that seem likely to eventually gain Working
   Group approval, without waiting for those I-Ds to be published as
   RFCs. This can be achieved using Expert Review, and this document
   sets out guidance for the Designated Experts to apply when reviewing
   allocations from the registry.

1.1. Requirements Language

   The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
   "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this
   document are to be interpreted as described in RFC 2119 [RFC2119].

2. IS Neighbor Sub-TLV Registry

   There was an existing common sub-TLV registry named "Sub-TLVs for
   TLVs 22, 141, and 222". [RFC5311] defines the IS Neighbor Attribute
   TLV (23) and the MT IS Neighbor Attribute TLV (223). The format of
   these TLVs is identical to TLVs 22 and 222, respectively. The IS
   Neighbor sub-TLV registry has been extended to include these two
   TLVs. Settings for inclusion of each sub-TLV are identical to the
   settings for TLVs 22 and 222, respectively.

3. Prefix Reachability Sub-TLV Registry

   Previously, there existed separate sub-TLV registries for TLVs 135,
   235, 236, and 237. As in the case of the IS Neighbor TLVs discussed
   in the previous section, assignment of sub-TLVs applicable to one or
   more of these TLVs is intended to be common. Therefore, the existing
   separate sub-TLV registries have been combined into a single registry
   entitled "Sub-TLVs for TLVs 135, 235, 236, and 237". As existing
   sub-TLV assignments are common to all the TLVs, this represents no
   change to the protocol -- only a clearer representation of the
   intended sub-TLV allocation strategy. The format of the registry is
   as shown below:

Type	Description	135	235	236	237	Reference
0	Unassigned					
1	32-bit Administrative Tag Sub-TLV	y	y	y	y	[RFC5130]
2	64-bit Administrative Tag Sub-TLV	y	y	y	y	[RFC5130]
3-255	Unassigned					

4. Guidance for Designated Experts

   When new I-Ds are introduced requiring new codepoints, it is
   advantageous to be able to allocate codepoints without waiting for
   them to progress to RFC. The reasons this is advantageous are
   described in [RFC7120]. However, the procedures in [RFC7120] for
   early allocation do not apply to registries, such as the "IS-IS TLV
   Codepoints" registry, that utilize the "Expert Review" allocation
   policy. In such cases, what is required is that a request be made to
   the Designated Experts who MAY approve the assignments according to
   the guidance that has been established for the registry concerned.

   The following guidance applies specifically to the "IS-IS TLV
   Codepoints" registry.

   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. 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.

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

6. In the event that the document fails to progress to RFC, the
    Expiry and deallocation process defined in [RFC7120] MUST be
    followed for the relevant codepoints -- noting that the
    Designated Experts perform the role assigned to Working Group
    chairs.

5. IANA Considerations

    This document provides guidance to the Designated Experts appointed
    to manage allocation requests in the "IS-IS TLV Codepoints" registry.

    IANA has updated the registry that was specified as "Sub-TLVs for
    TLVs 22, 141, and 222" to be named "Sub-TLVs for TLVs 22, 23, 141,
    222, and 223".

    Per this document, the existing sub-TLV registries for TLVs 135, 235,
    236, and 237 have been combined into a single registry -- the
    "Sub-TLVs for TLVs 135, 235, 236, and 237" registry -- as described
    in Section 3.

6. Security Considerations

    This document introduces no new security issues.

7. References

7.1. Normative References

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[RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an
           IANA Considerations Section in RFCs", BCP 26, RFC 5226,
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           "Simplified Extension of Link State PDU (LSP) Space for
           IS-IS", RFC 5311, February 2009,
           <http://www.rfc-editor.org/info/rfc5311>.

[RFC6233] Li, T. and L. Ginsberg, "IS-IS Registry Extension for
           Purges", RFC 6233, May 2011,
           <http://www.rfc-editor.org/info/rfc6233>.

[RFC7120] Cotton, M., "Early IANA Allocation of Standards Track Code
           Points", BCP 100, RFC 7120, January 2014,
           <http://www.rfc-editor.org/info/rfc7120>.

7.2. Informative References

[RFC3563] Zinin, A., "Cooperative Agreement Between the ISOC/IETF
           and ISO/IEC Joint Technical Committee 1/Sub Committee 6
           (JTC1/SC6) on IS-IS Routing Protocol Development", RFC
           3563, July 2003, <http://www.rfc-editor.org/info/rfc3563>.

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