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Registry policies “... with Expert Review”
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Abstract

This document updates RFC 8126, adding registry policies that augment an existing policy that is based on a review body action with the additional requirement for a Designated Expert review.

It also updates RFC 7120 with the necessary process to perform early allocations for registries with one of the augmented policies.

To support its objectives for the period of time while the above updates haven't been finalized, this document offers text that can be copy-pasted into specifications that want to make use of the augmented policies.

About This Document

This note is to be removed before publishing as an RFC.

Status information for this document may be found at <https://datatracker.ietf.org/doc/draft-bormann-gendispatch-with-expert-review/>.

Discussion of this document takes place on the gendispatch Working Group mailing list (<mailto:gendispatch@ietf.org>), which is archived at <https://mailarchive.ietf.org/arch/browse/gendispatch/>. Subscribe at <https://www.ietf.org/mailman/listinfo/gendispatch/>.

Source for this draft and an issue tracker can be found at <https://github.com/cabo/with-expert-review>.

Status of This Memo

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1. Introduction

Section 4 of RFC 8126 [BCP26] defines a number of _well-known policies_ that can be referenced as registration policies from documents that set up IANA registries. Some of these policies involve a _Designated Expert_, who is intended to be aware of the fine points of what should or should not become a registration in that registry (Sections 4.5 and 4.6 of RFC 8126 [BCP26]). Some other policies involve a _review body_ that autonomously, not involving a _Designated Expert_, decide whether a registration should be accepted (Sections 4.7, 4.8, 4.9, and 4.10 of RFC 8126 [BCP26]).

In the past, this has occasionally led to friction where a Designated Expert was not consulted by the review body before approving the registration, missing some finer point (such as certain consistency requirements) that would have been pointed out by the expert.

// As additional rationale that may be too detailed for the published
// version of this document, <https://github.com/cabo/with-expert-review/issues/1> (<https://github.com/cabo/with-expert-review/issues/1>) contains an example where the Designated Expert is needed to maintain overall consistency (and additional efficiency, if desired). (This editors' note will be deleted by the RFC editor.)

This document updates Section 4 of RFC 8126 [BCP26], adding registry policies that augment an existing policy that is based on a review body action with the additional requirement for a Designated Expert review.

It also updates Sections 2 and 3 of RFC 7120 [BCP100] with the necessary process to perform early allocations for registries with one of the augmented policies.

To support its objectives for the period of time while the above updates haven't been finalized, this document offers text that can be copy-pasted into specifications that want to make use of the augmented policies.

2. Augmented Registration Policies

For each of the well-known policies defined in Sections 4.7, 4.8, 4.9, and 4.10 of RFC 8126 [BCP26], this document adds a parallel _augmented policy_ that also specifies involving a Designated Expert.

For the period of time while [BCP26] has not been updated to include the augmented registration policies, authors of specifications that want to make use of these can simply copy the pertinent section below, replace "This policy" with "The policy for this registry", and use the result in the individual sections that establish new registries.

2.1. RFC Required With Expert Review

This policy is identical to a combination of Sections 4.6 and 4.7 of RFC 8126 [BCP26]. The RFC to be published serves as the documentation required by Section 4.6 of RFC 8126 [BCP26]. It is the responsibility of the stream approving body (see Section 5.1 of [RFC8729]) to ensure that an approval for the registration by the Designated Expert is obtained before approving the RFC establishing the registration.

2.2. IETF Review With Expert Review

This policy is identical to a combination of Sections 4.6 and 4.8 of RFC 8126 [BCP26]. The RFC to be published serves as the documentation required by Section 4.6 of RFC 8126 [BCP26]. It is the responsibility of the IESG to ensure that an approval for the registration by the Designated Expert is obtained before approving the RFC establishing the registration.

2.3. Standards Action With Expert Review

This policy is identical to a combination of Sections 4.6 and 4.9 of RFC 8126 [BCP26], mirroring the requirements of Section 2.2 narrowed down to a certain type of RFC to be published.

2.4. IESG Approval With Expert Review

This policy is identical to a combination of either Section 4.5 or Section 4.6 with Section 4.10 of RFC 8126 [BCP26], depending on the discretion of the IESG mentioned in the first paragraph of the latter section (which may be additionally informed by input from the Designated Expert). It is the responsibility of the IESG to ensure that an approval for the registration by the Designated Expert is obtained before approving the registration.

3. Early Allocation for Augmented Registration Policies

This document updates RFC 7120 [BCP100] to apply to the augmented policies defined above in Section 2.1, Section 2.2, and Section 2.3.

For the period of time while [BCP100] has not been updated in this respect, authors of specifications can use text that builds on Section 8.3 of [RFC9668], in a section that establishes a new registry using one of the augmented registration policies:

```
| [...] The procedure for early IANA allocation of "standards track  
| code points" defined in [RFC7120] also applies. When such a  
| procedure is used, IANA will ask the designated expert(s) to  
| approve the early allocation before registration. In addition,  
| working group chairs are encouraged to consult the expert(s) early  
| during the process outlined in Section 3.1 of [RFC7120].
```

Specifically:

* Item (a) in Section 2 of RFC 7120 [BCP100] is extended to include the three augmented policies "RFC Required With Expert Review", "IETF Review With Expert Review", and "Standards Action With Expert Review" (see Sections 2.1, 2.2, and 2.3 of the present document, respectively).

* Item (2) in Section 3.1 of RFC 7120 [BCP100] is amended as follows:

```
| 2. The WG chairs determine whether the conditions for early  
| allocations described in Section 2 are met, particularly  
| conditions (c) and (d). For the registration policies defined  
| in Section 2 of RFC-XXXX, IANA will ask the Designated  
| Expert(s) to approve the early allocation before registration.  
| In addition, WG chairs are encouraged to consult the Expert(s)  
| early during the early allocation process.
```

```
// RFC editor: please replace XXXX by the RFC number of this document  
// and delete this note.
```

4. Security Considerations

The security considerations of Section 5 of RFC 7120 [BCP100] and Section 12 of RFC 8126 [BCP26] apply. Augmenting registration policies by Designated Expert involvement may help reduce the potential of introducing security issues by adding inconsistent or insecure registrations to a registry.

5. IANA Considerations

This document is all about procedures that need to be implemented by IANA, but by itself has no IANA actions.

6. References

6.1. Normative References

- [BCP100] Best Current Practice 100,
<<https://www.rfc-editor.org/info/bcp100>>.
At the time of writing, this BCP comprises the following:
- Cotton, M., "Early IANA Allocation of Standards Track Code Points", BCP 100, RFC 7120, DOI 10.17487/RFC7120, January 2014, <<https://www.rfc-editor.org/info/rfc7120>>.
- [BCP26] Best Current Practice 26,
<<https://www.rfc-editor.org/info/bcp26>>.
At the time of writing, this BCP comprises the following:
- 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>>.
- [RFC8729] Housley, R., Ed. and L. Daigle, Ed., "The RFC Series and RFC Editor", RFC 8729, DOI 10.17487/RFC8729, February 2020, <<https://www.rfc-editor.org/rfc/rfc8729>>.
- [RFC9668] Palombini, F., Tiloca, M., Hglund, R., Hristozov, S., and G. Selander, "Using Ephemeral Diffie-Hellman Over COSE (EDHOC) with the Constrained Application Protocol (CoAP) and Object Security for Constrained RESTful Environments (OSCORE)", RFC 9668, DOI 10.17487/RFC9668, November 2024, <<https://www.rfc-editor.org/rfc/rfc9668>>.

6.2. Informative References

- [I-D.ietf-uuidrev-rfc4122bis-14]
Davis, K. R., Peabody, B., and P. Leach, "Universally Unique IDentifiers (UUID)", Work in Progress, Internet-Draft, draft-ietf-uuidrev-rfc4122bis-14, 6 November 2023, <<https://datatracker.ietf.org/doc/html/draft-ietf-uuidrev-rfc4122bis-14>>.
- [IANA.ace] IANA, "Authentication and Authorization for Constrained Environments (ACE)", <<https://www.iana.org/assignments/ace>>.
- [IANA.cose]
IANA, "CBOR Object Signing and Encryption (COSE)", <<https://www.iana.org/assignments/cose>>.

- [IANA.uuid] IANA, "UUID", <<https://www.iana.org/assignments/uuid>>.
- [RFC4430] Sakane, S., Kamada, K., Thomas, M., and J. Vilhuber, "Kerberosized Internet Negotiation of Keys (KINK)", RFC 4430, DOI 10.17487/RFC4430, March 2006, <<https://www.rfc-editor.org/rfc/rfc4430>>.
- [RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", RFC 5226, DOI 10.17487/RFC5226, May 2008, <<https://www.rfc-editor.org/rfc/rfc5226>>.
- [RFC5661] Shepler, S., Ed., Eisler, M., Ed., and D. Noveck, Ed., "Network File System (NFS) Version 4 Minor Version 1 Protocol", RFC 5661, DOI 10.17487/RFC5661, January 2010, <<https://www.rfc-editor.org/rfc/rfc5661>>.
- [RFC5797] Klensin, J. and A. Hoenes, "FTP Command and Extension Registry", RFC 5797, DOI 10.17487/RFC5797, March 2010, <<https://www.rfc-editor.org/rfc/rfc5797>>.
- [RFC6787] Burnett, D. and S. Shanmugham, "Media Resource Control Protocol Version 2 (MRCPv2)", RFC 6787, DOI 10.17487/RFC6787, November 2012, <<https://www.rfc-editor.org/rfc/rfc6787>>.
- [RFC8152] Schaad, J., "CBOR Object Signing and Encryption (COSE)", RFC 8152, DOI 10.17487/RFC8152, July 2017, <<https://www.rfc-editor.org/rfc/rfc8152>>.
- [RFC8881] Noveck, D., Ed. and C. Lever, "Network File System (NFS) Version 4 Minor Version 1 Protocol", RFC 8881, DOI 10.17487/RFC8881, August 2020, <<https://www.rfc-editor.org/rfc/rfc8881>>.
- [RFC9052] Schaad, J., "CBOR Object Signing and Encryption (COSE): Structures and Process", STD 96, RFC 9052, DOI 10.17487/RFC9052, August 2022, <<https://www.rfc-editor.org/rfc/rfc9052>>.
- [RFC9203] Palombini, F., Seitz, L., Selander, G., and M. Gunnarsson, "The Object Security for Constrained RESTful Environments (OSCORE) Profile of the Authentication and Authorization for Constrained Environments (ACE) Framework", RFC 9203, DOI 10.17487/RFC9203, August 2022, <<https://www.rfc-editor.org/rfc/rfc9203>>.

- [RFC9393] Birkholz, H., Fitzgerald-McKay, J., Schmidt, C., and D. Waltermire, "Concise Software Identification Tags", RFC 9393, DOI 10.17487/RFC9393, June 2023, <<https://www.rfc-editor.org/rfc/rfc9393>>.
- [RFC9528] Selander, G., Preu Mattsson, J., and F. Palombini, "Ephemeral Diffie-Hellman Over COSE (EDHOC)", RFC 9528, DOI 10.17487/RFC9528, March 2024, <<https://www.rfc-editor.org/rfc/rfc9528>>.

Appendix A. Usage in Existing Specifications

This appendix is informative.

Examples for RFCs (and one RFC-to-be) and registries created from them that use "Standards Action with Expert Review", without further explanation of this usage, include:

- * [IANA.uuid], interpreting the approved [I-D.ietf-uuidrev-rfc4122bis-14]
- * [IANA.cose], interpreting Section 11 of [RFC9052] in conjunction with the older Section 16 of [RFC8152]
- * [IANA.ace], interpreting Section 9 of [RFC9203]
- * Section 6 of [RFC9393]
- * Section 10 of [RFC9528]

A.1. Related Policy Statements Potentially of Interest

In a number of places, [RFC8881] uses phrasing such as:

```
| Hence, all assignments to the registry are made on a Standards
| Action basis per Section 4.6 of [63], with Expert Review required.
```

(here, [63] is a reference to RFC 8126 [BCP100]. RFC 8881's predecessor [RFC5661] used:)

```
| All assignments to the registry are made on a Standards Action
| basis per Section 4.1 of [55], with Expert Review required.
```

(here, [55] is a reference to [RFC5226], the precursor of RFC 8126, which listed the well-known policies in its Section 4.1.)

[RFC4430] (written before [RFC5226]) uses this phrasing:

- | * Assignment from the "RESERVED TO IANA" range needs Standards
| Action, or non-standards-track RFCs with Expert Review.

Somewhat unrelated, [RFC6787] uses the redundant phrase "Specification Required with Expert Review". Section 5 of [RFC5797] uses related phrasing for a more complicated requirement.

Acknowledgments

The creation of this document was prompted by an IESG ballot comment from John Scudder, which led to the observation that the now somewhat common practice of augmenting review-body-based registry policies by Expert Review had not been documented sufficiently.

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