                Extension Registry for the Extensible Provisioning Protocol
                       draft-hollenbeck-epp-ext-reg-00

Abstract

   The Extensible Provisioning Protocol (EPP) includes features to add
   functionality by extending the protocol. It does not, however,
   describe how those extensions are managed. This document describes a
   procedure for the registration and management of extensions to EPP
   and it specifies a format for an IANA registry to record those
   extensions.

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1. Conventions Used in This Document

   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].

1.1. Acronyms and Abbreviations

      EPP: Extensible Provisioning Protocol
      IANA: Internet Assigned Numbers Authority
      IPR: Intellectual Property Rights

2. Introduction

   Domain name registries implement a variety of operational and
   business models. The differences in these models made it impossible
   to develop a "one size fits all" provisioning protocol, so the
   Extensible Provisioning Protocol (EPP, [RFC5730]) was designed to

focus on a minimal set of common functionality with built-in
extension capabilities that allow new features to be specified on an
"as needed" basis. Guidelines for extending EPP are documented in
Informational RFC 3735 [RFC3735].

RFCs 5730 and 5735 do not describe how extension development can be
managed and coordinated. This has led to a situation in which server
operators can develop different extensions to address similar needs,
such as the provisioning of Value Added Tax (VAT) information.
Clients then need to support multiple extensions that serve similar
purposes, and interoperability suffers.

An IANA registry can be used to help manage and coordinate the
development of protocol extensions. This document describes an IANA
registry that can be used to coordinate the development of EPP
extensions.

3. Extension Specification and Registration Procedure

   This section describes the format of an IANA registry and the
   procedures used to populate and manage registry entries.

3.1. Extension Specification

   The "Specification Required" policy described in RFC 5226 [RFC5226]
   MUST be followed. Extension specifications MUST be written and
   available in the English language. Non-English specifications are
   OPTIONAL.

   Note that the "Specification Required" policy implies review by a
   Designated Expert. Section 3 of RFC 5226 describes the role of
   Designated Experts and the function they perform.

3.2. Registration Procedure

   The registry contains information describing each registered
   extension. Registry entries are created and managed by sending forms
   to IANA that describe the extension and the operation to be performed
   on the registry entry.

3.2.1. Required Information

   Name of Extension: A case-insensitive text string that contains the
   name of the extension specification.

   Specification Location: A URL [RFC3986] that describes the location
   of the specification.

Registrant Name and Email Address: The case-insensitive name and
email address of the person that is responsible for managing the
registry entry.

TLDs: A case-insensitive text string description of the top-level
domain (or domains) for which the extension has been specified.
"Any" or "ANY" MUST be used if the extension is not associated with a
specific top-level domain. Multiple TLDs SHOULD be specified as a
list of domain names separated by commas, e.g. ".com, .net".

IPR Disclosure: Either "None", "NONE", or a URL that describes the
location of an IPR disclosure document. Depending on the type of
specification the IPR disclosure MAY be filed with the IETF in
accordance with RFCs 3979 [RFC3979] as updated by RFC 4879 [RFC4879].
Non-IETF IPR disclosures MUST clearly identify the claimed
intellectual property rights and terms of use. "None" or "NONE"
indicates that the extension is freely available for use with no
claimed intellectual property rights.

3.2.2. Registration Form

The required information MUST be formatted consistently using the
following form:

```
-----BEGIN FORM-----
Name of Extension:
<text string> (quotes are OPTIONAL)

Specification Location:
<URL>

Registrant Name and Email Address:
<registrant name>, <email address>

TLDs:
"Any"│"ANY"│<one or more TLD text strings separated by commas>

IPR Disclosure:
"None"│"NONE"│<URL>
-----END FORM-----
```

Example form with RFC specification:

```
-----BEGIN FORM-----
Name of Extension:
"An Extension RFC for the Extensible Provisioning Protocol (EPP)"

Specification Location:
http://tools.ietf.org/html/rfcXXXX

Registrant Name and Email Address:
John Doe, jdoe@example.com

TLDs:
Any

IPR Disclosure:
None
-----END FORM-----
```

Example form with non-RFC specification:

```
-----BEGIN FORM-----
Name of Extension:
"An Example Extension for the .example Top-Level Domain"

Specification Location:
http://www.example.com/html/example-epp-ext.txt

Registrant Name and Email Address:
John Doe, jdoe@example.com

TLDs:
.example

IPR Disclosure:
http://www.example.com/ipr/example-epp-ext-ipr.html
-----END FORM-----
```

3.2.3. Registration Processing

Each registration form sent to IANA MUST contain a single record for
incorporation into the registry. The form will be sent via email to
<iana@iana.org> by the extension registrant. It MUST have a subject
line indicating whether the enclosed form represents an insertion of
a new record (indicated by the word "INSERT" in the subject line) or
a replacement of an existing record (indicated by the word "MODIFY"

in the subject line). At no time can a record be deleted from the
registry.

4. IANA Considerations

   IANA is requested to create a new protocol registry to manage EPP
   extensions. The information to be registered and the procedures to
   be followed in populating the registry are described in Section 3.

   Name of registry: Extensions for the Extensible Provisioning Protocol

   Required information: See Section 3.2.1.

   Review process: "Specification Required" as described in RFC 5226
   [RFC5226].

   Size, format, and syntax of registry entries: See Section 3.2.1.

   Initial assignments and reservations: None.

   In addition, the form used to populate and manage the registry is to
   be added to the table of Protocol Registration Forms maintained by
   IANA.

5. Security Considerations

   Using email to deliver forms to IANA carries a risk of registry
   entires being created or updated by an attacker who is able to spoof
   the email address of a legitimate extension registrant. This risk
   can be mitigated by replying to received messages with a request to
   confirm the requested action. The reply will be delivered to the
   specified registrant, who can validate or refute the request.

6. Acknowledgements

   The information described in the registry is based on a suggestion
   posted to the provreg mailing list by Jay Daley in August 2013.

   The author would like to acknowledge the following individuals for
   their contributions to this document: TBD.

7. References

7.1. Normative References

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              Requirement Levels", BCP 14, RFC 2119, March 1997.

   [RFC3979] Bradner, S., "Intellectual Property Rights in IETF
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   [RFC4879] Narten, T., "Clarification of the Third Party Disclosure
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   [RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an
              IANA Considerations Section in RFCs", BCP 26, RFC 5226,
              May 2008.

   [RFC5730] Hollenbeck, S., "Extensible Provisioning Protocol (EPP)",
              STD 69, RFC 5730, August 2009.

7.2. Informative References

   [RFC3735] Hollenbeck, S., "Guidelines for Extending the Extensible
              Provisioning Protocol (EPP)", RFC 3735, March 2004.

Appendix A. Change Log

   Initial -00: Initial version.

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