                   Extensible Provisioning Protocol (EPP)
        and Registration Data Access Protocol (RDAP) Status Mapping

Abstract

   This document describes the mapping of the Extensible Provisioning
   Protocol (EPP) statuses with the statuses registered for use in the
   Registration Data Access Protocol (RDAP). This document identifies
   gaps in the mapping, and registers RDAP statuses to fill those gaps
   to ensure that all of the EPP statuses specified in RFCs are
   supported in RDAP.

Status of This Memo

   This is an Internet Standards Track document.

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   Internet Engineering Steering Group (IESG). Further information on
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1. Introduction

   This document maps the statuses defined in the Extensible
   Provisioning Protocol (EPP) RFCs to the list of statuses registered
   for use in the Registration Data Access Protocol (RDAP), in the "RDAP
   JSON Values" registry [rdap-json-values].

   The "RDAP JSON Values" registry is described in Section 10.2 of
   [RFC7483] and is available in the "RDAP JSON Values" registry
   [rdap-json-values].

   The EPP statuses used as the source of the mapping include
   Section 2.3 of the Extensible Provisioning Protocol (EPP) Domain Name
   Mapping [RFC5731], Section 2.3 of "Extensible Provisioning Protocol
   (EPP) Host Mapping" [RFC5732], Section 2.2 of "Extensible
   Provisioning Protocol (EPP) Contact Mapping" [RFC5733], and
   Section 3.1 of "Domain Registry Grace Period Mapping for the
   Extensible Provisioning Protocol (EPP)" [RFC3915].

   Each EPP status MUST map to a single RDAP status to ensure that data
   in the Domain Name Registries (DNRs) that use EPP can be accurately
   presented in RDAP.

1.1. 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].

2. EPP-to-RDAP Status Mapping

   Below is a list of EPP statuses from the EPP RFCs ([RFC5731],
   [RFC5732], [RFC5733], and [RFC3915]) mapped to the RDAP statuses
   registered in the "RDAP JSON Values" registry [rdap-json-values],
   with the format <EPP Status> '=' <RDAP Status>, where a blank <RDAP
   Status> indicates a gap in the mapping.

```
          addPeriod =
          autoRenewPeriod =
          clientDeleteProhibited =
          clientHold =
          clientRenewProhibited =
          clientTransferProhibited =
          clientUpdateProhibited =
          inactive = inactive
          linked = associated
          ok = active
          pendingCreate = pending create
          pendingDelete = pending delete
          pendingRenew = pending renew
          pendingRestore =
          pendingTransfer = pending transfer
          pendingUpdate = pending update
          redemptionPeriod =
          renewPeriod =
          serverDeleteProhibited =
          serverRenewProhibited =
          serverTransferProhibited =
          serverUpdateProhibited =
          serverHold =
          transferPeriod =
```

The "RDAP JSON Values" registry [rdap-json-values] does have a set of
prohibited statuses including "renew prohibited", "update
prohibited", "transfer prohibited", and "delete prohibited", but
these statuses do not directly map to the EPP prohibited statuses.
EPP provides status codes that allow distinguishing the case that an
action is prohibited because of server policy from the case that an
action is prohibited because of a client request. The ability to
make this distinction needs to be preserved in RDAP.

Each of the EPP status values that don't map directly to an RDAP
status value is described below. Each EPP status value includes a
proposed new RDAP status value and a description of the value. The
RDAP status value is derived from the EPP status value by converting
the EPP "camelCase" representation to lowercase with a space
character inserted between word boundaries.

addPeriod = add period; This grace period is provided after the
   initial registration of the object. If the object is deleted by
   the client during this period, the server provides a credit to
   the client for the cost of the registration.

   autoRenewPeriod = auto renew period; This grace period is provided
      after an object registration period expires and is extended
      (renewed) automatically by the server. If the object is deleted
      by the client during this period, the server provides a credit to
      the client for the cost of the auto renewal.

   clientDeleteProhibited = client delete prohibited; The client
      requested that requests to delete the object MUST be rejected.

   clientHold = client hold; The client requested that the DNS
      delegation information MUST NOT be published for the object.

   clientRenewProhibited = client renew prohibited; The client
      requested that requests to renew the object MUST be rejected.

   clientTransferProhibited = client transfer prohibited; The client
      requested that requests to transfer the object MUST be rejected.

   clientUpdateProhibited = client update prohibited; The client
      requested that requests to update the object (other than to
      remove this status) MUST be rejected.

   pendingRestore = pending restore; An object is in the process of
      being restored after being in the redemption period state.

   redemptionPeriod = redemption period; A delete has been received,
      but the object has not yet been purged because an opportunity
      exists to restore the object and abort the deletion process.

   renewPeriod = renew period; This grace period is provided after an
      object registration period is explicitly extended (renewed) by
      the client. If the object is deleted by the client during this
      period, the server provides a credit to the client for the cost
      of the renewal.

   serverDeleteProhibited = server delete prohibited; The server set
      the status so that requests to delete the object MUST be
      rejected.

   serverRenewProhibited = server renew prohibited; The server set the
      status so that requests to renew the object MUST be rejected.

   serverTransferProhibited = server transfer prohibited; The server
      set the status so that requests to transfer the object MUST be
      rejected.

   serverUpdateProhibited = server update prohibited; The server set
      the status so that requests to update the object (other than to
      remove this status) MUST be rejected.
   serverHold = server hold; The server set the status so that DNS
      delegation information MUST NOT be published for the object.

   transferPeriod = transfer period; This grace period is provided
      after the successful transfer of object registration sponsorship
      from one client to another client. If the object is deleted by
      the client during this period, the server provides a credit to
      the client for the cost of the transfer.

   The resulting mapping after registering the new RDAP statuses is:

      addPeriod = add period
      autoRenewPeriod = auto renew period
      clientDeleteProhibited = client delete prohibited
      clientHold = client hold
      clientRenewProhibited = client renew prohibited
      clientTransferProhibited = client transfer prohibited
      clientUpdateProhibited = client update prohibited
      inactive = inactive
      linked = associated
      ok = active
      pendingCreate = pending create
      pendingDelete = pending delete
      pendingRenew = pending renew
      pendingRestore = pending restore
      pendingTransfer = pending transfer
      pendingUpdate = pending update
      redemptionPeriod = redemption period
      renewPeriod = renew period
      serverDeleteProhibited = server delete prohibited
      serverRenewProhibited = server renew prohibited
      serverTransferProhibited = server transfer prohibited
      serverUpdateProhibited = server update prohibited
      serverHold = server hold
      transferPeriod = transfer period

3. IANA Considerations

3.1. JSON Values Registry

   The following values have been registered by the IANA in the "RDAP
   JSON Values" registry described in [RFC7483]:

      Value: add period
      Type: status
      Description: This grace period is provided after the initial
      registration of the object. If the object is deleted by the
      client during this period, the server provides a credit to the
      client for the cost of the registration. This maps to the Domain
      Registry Grace Period Mapping for the Extensible Provisioning
      Protocol (EPP) [RFC3915] 'addPeriod' status.
      Registrant Name: IESG
      Registrant Contact Information: iesg@ietf.org

      Value: auto renew period
      Type: status
      Description: This grace period is provided after an object
      registration period expires and is extended (renewed)
      automatically by the server. If the object is deleted by the
      client during this period, the server provides a credit to the
      client for the cost of the auto renewal. This maps to the Domain
      Registry Grace Period Mapping for the Extensible Provisioning
      Protocol (EPP) [RFC3915] 'autoRenewPeriod' status.
      Registrant Name: IESG
      Registrant Contact Information: iesg@ietf.org

      Value: client delete prohibited
      Type: status
      Description: The client requested that requests to delete the
      object MUST be rejected. This maps to the Extensible Provisioning
      Protocol (EPP) Domain Name Mapping [RFC5731], Extensible
      Provisioning Protocol (EPP) Host Mapping [RFC5732], and Extensible
      Provisioning Protocol (EPP) Contact Mapping [RFC5733]
      'clientDeleteProhibited' status.
      Registrant Name: IESG
      Registrant Contact Information: iesg@ietf.org

Value: client hold
Type: status
Description: The client requested that the DNS delegation
information MUST NOT be published for the object. This maps to
the Extensible Provisioning Protocol (EPP) Domain Name Mapping
[RFC5731] 'clientHold' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: client renew prohibited
Type: status
Description: The client requested that requests to renew the
object MUST be rejected. This maps to the Extensible Provisioning
Protocol (EPP) Domain Name Mapping [RFC5731]
'clientRenewProhibited' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: client transfer prohibited
Type: status
Description: The client requested that requests to transfer the
object MUST be rejected. This maps to the Extensible Provisioning
Protocol (EPP) Domain Name Mapping [RFC5731] and Extensible
Provisioning Protocol (EPP) Contact Mapping [RFC5733]
'clientTransferProhibited' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: client update prohibited
Type: status
Description: The client requested that requests to update the
object (other than to remove this status) MUST be rejected. This
maps to the Extensible Provisioning Protocol (EPP) Domain Name
Mapping [RFC5731], Extensible Provisioning Protocol (EPP) Host
Mapping [RFC5732], and Extensible Provisioning Protocol (EPP)
Contact Mapping [RFC5733] 'clientUpdateProhibited' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: pending restore
Type: status
Description: An object is in the process of being restored after
being in the redemption period state. This maps to the Domain
Registry Grace Period Mapping for the Extensible Provisioning
Protocol (EPP) [RFC3915] 'pendingRestore' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

     Value: redemption period
     Type: status
     Description: A delete has been received, but the object has not
     yet been purged because an opportunity exists to restore the
     object and abort the deletion process. This maps to the Domain
     Registry Grace Period Mapping for the Extensible Provisioning
     Protocol (EPP) [RFC3915] 'redemptionPeriod' status.
     Registrant Name: IESG
     Registrant Contact Information: iesg@ietf.org

     Value: renew period
     Type: status
     Description: This grace period is provided after an object
     registration period is explicitly extended (renewed) by the
     client. If the object is deleted by the client during this
     period, the server provides a credit to the client for the cost of
     the renewal. This maps to the Domain Registry Grace Period
     Mapping for the Extensible Provisioning Protocol (EPP) [RFC3915]
     'renewPeriod' status.
     Registrant Name: IESG
     Registrant Contact Information: iesg@ietf.org

     Value: server delete prohibited
     Type: status
     Description: The server set the status so that requests to delete
     the object MUST be rejected. This maps to the Extensible
     Provisioning Protocol (EPP) Domain Name Mapping [RFC5731],
     Extensible Provisioning Protocol (EPP) Host Mapping [RFC5732], and
     Extensible Provisioning Protocol (EPP) Contact Mapping [RFC5733]
     'serverDeleteProhibited' status.
     Registrant Name: IESG
     Registrant Contact Information: iesg@ietf.org

     Value: server renew prohibited
     Type: status
     Description: The server set the status so that requests to renew
     the object MUST be rejected. This maps to the Extensible
     Provisioning Protocol (EPP) Domain Name Mapping [RFC5731]
     'serverRenewProhibited' status.
     Registrant Name: IESG
     Registrant Contact Information: iesg@ietf.org

Value: server transfer prohibited
Type: status
Description: The server set the status so that requests to
transfer the object MUST be rejected. This maps to the Extensible
Provisioning Protocol (EPP) Domain Name Mapping [RFC5731] and
Extensible Provisioning Protocol (EPP) Contact Mapping [RFC5733]
'serverTransferProhibited' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: server update prohibited
Type: status
Description: The server set the status so that requests to update
the object (other than to remove this status) MUST be rejected.
This maps to the Extensible Provisioning Protocol (EPP) Domain
Name Mapping [RFC5731], Extensible Provisioning Protocol (EPP)
Host Mapping [RFC5732], and Extensible Provisioning Protocol (EPP)
Contact Mapping [RFC5733] 'serverUpdateProhibited' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: server hold
Type: status
Description: The server set the status so that DNS delegation
information MUST NOT be published for the object. This maps to
the Extensible Provisioning Protocol (EPP) Domain Name Mapping
[RFC5731] 'serverHold' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

Value: transfer period
Type: status
Description: This grace period is provided after the successful
transfer of object registration sponsorship from one client to
another client. If the object is deleted by the client during
this period, the server provides a credit to the client for the
cost of the transfer. This maps to the Domain Registry Grace
Period Mapping for the Extensible Provisioning Protocol (EPP)
[RFC3915] 'transferPeriod' status.
Registrant Name: IESG
Registrant Contact Information: iesg@ietf.org

4. Security Considerations

The status values described in this document can be subject to
server-side information disclosure policies that restrict display of
the values to authorized clients. Implementers may wish to review
[RFC7481] for a description of the RDAP security services that can be
used to implement information disclosure policies.

5. Normative References

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