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Extensible Provisioning Protocol (EPP) and Registration Data Access Protocol (RDAP) Status Mapping
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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 the gaps to ensure that all of the EPP RFC statuses are supported in RDAP.

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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 EPP Domain Name Mapping [RFC5731], section 2.3 of the EPP Host Mapping [RFC5732], section 2.2 of the EPP Contact Mapping [RFC5733], and section 3.1 of EPP Grace Period Mapping [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 an alphabetically sorted 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. The EPP prohibited statuses reflect both what is prohibited ("renew", "update", "transfer", "delete") and who set ("client" or "server") and can clear the status. In the DNR, the client and server prohibited statuses are separate and RDAP MUST support the same separation.

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 camel case representation to lower case with a space character inserted between word boundaries.

addPeriod = add period; For DNR that indicates if the object is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the registration.
autoRenewPeriod = auto renew period; For DNR that indicates if the object is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the auto renewal.
clientDeleteProhibited = client delete prohibited; For DNR that indicates the client requested that requests to delete the object MUST be rejected.
clientHold = client hold; For DNR that indicates the client requested that the DNS delegation information MUST NOT be published for the object.
clientRenewProhibited = client renew prohibited; For DNR that indicates the client requested that requests to renew the object MUST be rejected.
clientTransferProhibited = client transfer prohibited; For DNR that indicates the client requested that requests to transfer the object MUST be rejected.
clientUpdateProhibited = client update prohibited; For DNR that indicates the client requested that requests to update the object (other than to remove this status) MUST be rejected.
pendingRestore = pending restore; For DNR that indicates a object is in the process of being restored after being in the redemptionPeriod state.
redemptionPeriod = redemption period; For DNR that indicates 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; For DNR that indicates if the object is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the renewal.
serverDeleteProhibited = server delete prohibited; For DNR that indicates the server set the status so that requests to delete the object MUST be rejected.
serverRenewProhibited = server renew prohibited; For DNR that indicates the server set the status so that requests to renew the object MUST be rejected.
serverTransferProhibited = server transfer prohibited; For DNR that indicates the server set the status so that requests to transfer the object MUST be rejected.
serverUpdateProhibited = server update prohibited; For DNR that indicates the server set the status so that requests to update the object (other than to remove this status) MUST be rejected.

serverHold = server hold; For DNR that indicates the server set the status so that DNS delegation information MUST NOT be published for the object.
transferPeriod = transfer period; For DNR that indicates if the domain name is deleted by the registrar during this period, the registry provides a credit to the registrar 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 should be registered by the IANA in the RDAP JSON Values Registry described in [RFC7483]:

Value: add period

Type: status

Description: For DNR that indicates if the object is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the registration.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: auto renew period

Type: status

Description: For DNR that indicates if the object is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the auto renewal.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: client delete prohibited

Type: status

Description: For DNR that indicates the client requested that requests to delete the object MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: client hold

Type: status

Description: For DNR that indicates the client requested that the DNS delegation information MUST NOT be published for the object.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: client renew prohibited

Type: status

Description: For DNR that indicates the client requested that requests to renew the object MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: client transfer prohibited

Type: status

Description: For DNR that indicates the client requested that requests to transfer the object MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: client update prohibited

Type: status

Description: For DNR that indicates the client requested that requests to update the object (other than to remove this status) MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: pending restore

Type: status

Description: For DNR that indicates a object is in the process of being restored after being in the redemptionPeriod state.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: redemption period

Type: status

Description: For DNR that indicates 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.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: renew period

Type: status

Description: For DNR that indicates if the object is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the renewal.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: server delete prohibited

Type: status

Description: For DNR that indicates the server set the status so that requests to delete the object MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: server renew prohibited

Type: status

Description: For DNR that indicates the server set the status so that requests to renew the object MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: server transfer prohibited

Type: status

Description: For DNR that indicates the server set the status so that requests to transfer the object MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: server update prohibited

Type: status

Description: For DNR that indicates the server set the status so that requests to update the object (other than to remove this status) MUST be rejected.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: server hold

Type: status

Description: For DNR that indicates the server set the status so that DNS delegation information MUST NOT be published for the object.

Registrant Name: IESG

Registrant Contact Information: iesg@ietf.org

Value: transfer period

Type: status

Description: For DNR that indicates if the domain name is deleted by the registrar during this period, the registry provides a credit to the registrar for the cost of the transfer.

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

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

[RFC3915] Hollenbeck, S., "Domain Registry Grace Period Mapping for the Extensible Provisioning Protocol (EPP)", RFC 3915, September 2004.

[RFC5731] Hollenbeck, S., "Extensible Provisioning Protocol (EPP) Domain Name Mapping", STD 69, RFC 5731, August 2009.

[RFC5732] Hollenbeck, S., "Extensible Provisioning Protocol (EPP) Host Mapping", STD 69, RFC 5732, August 2009.

[RFC5733] Hollenbeck, S., "Extensible Provisioning Protocol (EPP) Contact Mapping", STD 69, RFC 5733, August 2009.

[RFC7481] Hollenbeck, S. and N. Kong, "Security Services for the Registration Data Access Protocol (RDAP)", RFC 7481, DOI 10.17487/RFC7481, March 2015, <http://www.rfc-editor.org/info/rfc7481>.

[RFC7483] Newton, A. and S. Hollenbeck, "JSON Responses for the Registration Data Access Protocol (RDAP)", RFC 7483, March 2015.

[rdap-json-values] "RDAP JSON Values Registry", <https://www.iana.org/assignments/rdap-json-values/rdap-json-values.xhtml>.

Appendix A. Acknowledgements

Suggestions that have been incorporated into this document were provided by Andrew Newton, Scott Hollenbeck, Jim Galvin, and Gustavo Lozano.

Appendix B. Change History

B.1. Change from 00 to 01

1. Changed the mapping of "linked" to "associated" and removed the registration of "linked", based on feedback from Andrew Newton on the weirds mailing list.

B.2. Change from 01 to 02

1. Ping update.

B.3. Change from 02 to 03

1. Ping update.

B.4. Change from 03 to REGEXT 00

1. Changed to regext working group draft by changing draft-gould-epp-rdap-status-mapping to draft-ietf-regext-epp-rdap-status-mapping.

B.5. Change from REGEXT 00 to REGEXT 01

1. Updated based on regext mailing feedback from Scott Hollenbeck that included updating the registrant for the registration of the new statuses to IESG and iesg@ietf.org, and revising the security section. Changed to standards track based on suggestion by Jim Galvin and support from Gustavo Lozano on the regext mailing list.

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