



EXTENSIBLE PROVISIONING PROTOCOL MAPPING: <RGP POLL>

Version 1.2

LEGAL DISCLAIMER

COPYRIGHT NOTIFICATION

Copyright © 2012 VeriSign, Inc. All rights reserved. VERISIGN; the Verisign logo; and other trademarks, service marks and Verisign designs are registered or unregistered trademarks of VeriSign Inc. and its subsidiaries in the United States and foreign countries. Copyright laws and international treaties protect this document, and any Verisign product to which it relates.

VERISIGN PROPRIETARY INFORMATION

This document is the property of VeriSign, Inc. and its subsidiaries (together “Verisign”) It may be used by recipient only for the purpose for which it was transmitted and must be returned upon request or when no longer needed by recipient. It may not be copied or communicated without the prior written consent of Verisign.

DISCLAIMER AND LIMITATION OF LIABILITY

Verisign has made efforts to ensure the accuracy and completeness of the information in this document. However, Verisign makes no warranties of any kind (whether express, implied or statutory) with respect to the information contained herein. Verisign assumes no liability to any party for any loss or damage (whether direct or indirect) caused by any errors, omissions or statements of any kind contained in this document. Further, Verisign assumes no liability arising from the application or use of the product or service described herein and specifically disclaims any representation that the products or services described herein do not infringe upon any existing or future intellectual property rights. Nothing herein grants the reader any license to make, use or sell equipment or products constructed in accordance with this document. Finally, all rights and privileges related to any intellectual property right described herein are vested in the patent, trademark or service mark owner and no other person may exercise such rights without express permission, authority or license secured from the patent, trademark or service mark owner. Verisign reserves the right to make changes to any information herein without further notice.

Any statements contained within this document concerning Verisign's future prospects are "forward looking statements" under the Federal Securities laws. There can be no assurance that future results will be achieved and actual results could differ materially from forecasts, estimates, and summary information contained in the document. Important factors that could cause actual results to differ materially include but are not limited to factors discussed in Verisign's SEC filings.

NOTICE AND CAUTION

Concerning U.S. Patent or Trademark Rights

Verisign and other trademarks, service marks and logos are registered or unregistered trademarks of Verisign and its subsidiaries in the United States and in foreign countries. The inclusion in this document, the associated on-line file or the associated software of any information covered by any other patent, trademark or service mark rights does not constitute nor imply a grant of or authority to exercise, any right or privilege protected by such patent, trademark or service mark. All such rights and privileges are vested in the patent, trademark or service mark owner and no other person may exercise such rights without express permission, authority or license secured from the patent, trademark or service mark owner.

Change Log

Author(s)	Date	Revision	Description
Colin Lloyd	05/01/2004	1.0	Initial Revision
James Gould	05/23/2004	1.1	Some editorial changes like the EPP RFC reference
James Gould	7/2/2012	1.2	Added the Object Attributes section and removed some extraneous sections.

Table of Contents

1. INTRODUCTION	1
2. OBJECT ATTRIBUTES.....	2
2.1 RGP STATUS	2
2.2 DATES AND TIMES	2
3. EPP COMMAND MAPPING.....	3
3.1 EPP <POLL> COMMAND	3
4. FORMAL SYNTAX	6
5. REFERENCES.....	8

1. Introduction

This document describes an Extensible Provisioning Protocol (EPP) mapping for the Registry Grace Period (RGP) Poll Notification. An account will be notified whenever an RGP report is required.

This mapping is specified using the Extensible Markup Language (XML) 1.0 as described in [\[XML\]](#) and XML Schema notation as described in [\[XMLS-1\]](#) and [\[XMLS-2\]](#). [\[EPP\]](#) provides a complete description of EPP command and response structures. A thorough understanding of the base protocol specification is necessary to understand the mapping described in this document.

XML is case sensitive. Unless stated otherwise, XML specifications and examples provided in this document **MUST** be interpreted in the character case presented to develop a conforming implementation.

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 [RFC2119].

In examples, "C:" represents lines sent by a protocol client and "S:" represents lines returned by a protocol server. Indentation in examples is provided only to illustrate element relationships and is not a **REQUIRED** feature of this protocol.

2. Object Attributes

The EPP RGP Poll has attributes and associated values that may be viewed by the sponsoring client or server. This section describes each attribute type in detail.

2.1 RGP Status

The RGP status attribute includes the non-grace period statuses defined in [\[EPP-RGP\]](#). Specifically, one of redemptionPeriod, pendingRestore, and pendingDelete statuses MUST be used.

2.2 Dates and Times

Date and time attribute values MUST be represented in Universal Coordinated Time (UTC) using the Gregorian calendar. The extended date-time form using upper case "T" and "Z" characters defined in [\[XMLS-2\]](#) MUST be used to represent date-time values, as XML Schema does not support truncated date-time forms or lower case "t" and "z" characters.

3. EPP Command Mapping

A detailed description of the EPP syntax and semantics can be found in [\[EPP\]](#). The command mappings described here are specifically for use in RGP [\[EPP-RGP\]](#) via EPP.

3.1 EPP <poll> Command

The EPP <poll> command and response is defined in [section 2.9.2.3](#) of [\[EPP\]](#). The RGP Poll Notification is an [\[EPP\]](#) response used in an EPP <poll> response.

For the RGP Poll Notification, poll messages apply whenever an [\[EPP-RGP\]](#) RGP restore command is successfully completed. The RGP Poll message includes the domain name, the restore report request date, the restore report due date, and the current RGP status of the domain as defined in [section 3.1](#) of [\[EPP-RGP\]](#).

In the case of a RGP specific message, a <rgp-poll:pollData> element will be included within the <resData> element of the standard <poll> response. The <rgp-poll:pollData> element will include a reference to the rgp-poll namespace and schema location. EPP data contained within the <rgp-poll:pollData> element is formatted according to the rgp-poll schema.

Example <poll> command:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
C:  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
C:    xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
C:  <command>
C:    <poll op="req"/>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

The returned result code notes that a message has been returned in response to a <poll> command.

Below is an example <poll> response with RGP specific information. The element <rgp-poll:pollData> contains the RGP specific data.

```
S: <?xml version="1.0" encoding="UTF-8"?>
S: <epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
S:  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
S:  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
S:  <response>
S:    <result code="1301">
S:      <msg>Command completed successfully; ack to dequeue</msg>
S:    </result>
S:    <msgQ count="5" id="12345">
```

```

S:          <qDate>2004-05-03T20:06:17.0002Z</qDate>
S:          <msg>Restore Request Pending</msg>
S:      </msgQ>
S:      <resData>
S:          <rgp-poll:pollData
S:              xmlns:rgp-poll="http://www.verisign.com/epp/rgp-poll-1.0"
S:              xsi:schemaLocation="http://www.verisign.com/epp/rgp-poll-1.0 rgp-poll-1.0.xsd">
S:                  <rgp-poll:name>foobar.com</rgp-poll:name>
S:                  <rgp-poll:rgpStatus s="pendingDelete"/>
S:                  <rgp-poll:reqDate>2004-05-03T20:06:17.0002Z</rgp-
S:poll:reqDate>
S:                  <rgp-poll:reportDueDate>2004-05-03T20:06:17.0002Z</rgp-
S:poll:reportDueDate>
S:              </rgp-poll:pollData>
S:          </resData>
S:      <trID>
S:          <clTRID>abc-123</clTRID>
S:      </trID>
S:  </response>
S: </epp>

```

An RGP specific <pollData> element MUST consist of the following elements/attributes:

Element	Attribute	Description
<rgp-poll:name>		The domain name that is a candidate for restoration.
<rgp-poll:rgpStatus>	s	The RGP status of the domain as a string as defined in [EPP-RGP] exclusive of the grace period statuses.
<rgp-poll:reqDate>		The date the server implementation is requesting the client's restore report.
<rgp-poll:reportDueDate>		The date the client's restore report must be received by the server implementation.

A client MUST acknowledge each response to dequeue the message and make subsequent messages available for retrieval. A client acknowledges messages by sending a <poll> command with the op attribute value of “ack” and the msgID attribute value set to the server-provided message id gleaned from the previous <poll> op command.

Example <poll> acknowledgement command:

```

C: <?xml version="1.0" encoding="UTF-8" standalone="no"?>
C: <epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
C:   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
C:   xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0
C:   epp-1.0.xsd">

```


C: <command>
C: <poll op="ack" msgID="12345"/>
C: <clTRID>ABC-12346</clTRID>
C: </command>
C:</epp>

A <poll> acknowledgement response notes the number of messages remaining in the queue and the ID of the next message available for retrieval.

Example <poll> acknowledgement response:

S:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
S:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
S: xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
S: xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0
S: epp-1.0.xsd">
S: <response>
S: <result code="1000">
S: <msg>Command completed successfully</msg>
S: </result>
S: <msgQ count="4" id="12346"/>
S: <trID>
S: <clTRID>ABC-12346</clTRID>
S: <svTRID>54322-XYZ</svTRID>
S: </trID>
S: </response>
S:</epp>

4. Formal Syntax

An EPP object mapping is specified in XML Schema notation. The formal syntax presented here is a complete schema representation of the object mapping suitable for automated validation of EPP XML instances.

```
<?xml version="1.0" encoding="UTF-8"?>

  <schema targetNamespace="http://www.verisign.com/epp/rgp-poll-1.0"
    xmlns:rgp-poll="http://www.verisign.com/epp/rgp-poll-1.0"
    xmlns:eppcom="urn:ietf:params:xml:ns:eppcom-1.0"
    xmlns:rgp="urn:ietf:params:xml:ns:rgp-1.0"
    xmlns="http://www.w3.org/2001/XMLSchema"
    elementFormDefault="qualified">

    <!--
    Import common element types.
    -->

    <import namespace="urn:ietf:params:xml:ns:eppcom-1.0"
      schemaLocation="eppcom-1.0.xsd"/>
    <import namespace="urn:ietf:params:xml:ns:rgp-1.0"
      schemaLocation="rgp-1.0.xsd"/>

    <annotation>
      <documentation>
        Extensible Provisioning Protocol v1.0
        VeriSign poll notification specification for registry grace period
        poll notifications.
      </documentation>
    </annotation>

    <!--
    Child elements found in EPP commands.
    -->

    <element name="pollData" type="rgp-poll:pollDataType"/>

    <!--
    Child elements of the <notifyData> element for the
    redemption grace period.
    -->

    <complexType name="pollDataType">
      <sequence>
```

```
<element name="name" type="eppcom:labelType"/>
<element name="rgpStatus" type="rgp:statusType"/>
<element name="reqDate" type="dateTime"/>
<element name="reportDueDate" type="dateTime"/>
</sequence>
</complexType>
<!--
End of schema.
-->
</schema>
```

5. References

[[EPP](#)] IETF RFC 5730: S. Hollenbeck: "Extensible Provisioning Protocol (EPP)", August 2009.

[[XML](#)] Editors T. Bray et al.: "Extensible Markup Language (XML) 1.0 (Second Edition)", W3C Recommendation 04 February 2004.

[[XMLS-1](#)] Editors H. Thompson et al.: "XML Schema Part 1: Structures", W3C Recommendation 28 October 2004.

[[XMLS-2](#)] Editors P. Biron, A. Malhotra: "XML Schema Part 2: Datatypes", W3C Recommendation 28 October 2004.

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