

Domain Eligibility EPP Extension for the TANGO Registration System

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1. Extension for Domain Name Eligibility

The TANGO Registration System provides a proprietary EPP extension for providing domain name eligibility information.

1.1 Introduction

This document describes an extension mapping for version 1.0 of the Extensible Provisioning Protocol (EPP) described in RFC 5730. This mapping is an extension of the domain name mapping described in RFC 5731. It is specified using the Extensible Markup Language (XML) and XML Schema notation.

This extension serves the purpose of specifying domain name eligibility information, i.e. additional information that allows the registry to determine a registrant's eligibility for acquiring or keeping a certain domain name. Depending on a registry's policies, the specification of certain eligibility information may be mandatory to obtain or retain a specific domain name.

In its present version, the extension allows the specification of a free-text "intended use" string which allows registrants to explain their intended use of the domain in question. The information is inspected by the registry to decide whether the domain name's use is compliant with registry policy.

If a top level domain's policy requires it, a domain's intended use must be specified when creating the domain with the <domain:create> EPP command. This information may be changed later using the <domain:update> EPP command. The current intended use on file for a domain may be inquired using the <domain:info> command.

1.2 EPP Command Mapping

This section deals with the specific command mappings for the EPP extension for domain name eligibility information.

In the following, the respective root elements of the extensions are mentioned. If used, they must be placed or expected within the optional <extension> element at the proper location in the XML document representing the EPP command or response, as described in RFC 5730. Note that the use of the "el:" XML namespace prefix is for documentation purposes only. Conforming to the "Namespaces in XML 1.1" standard, EPP and the registry implementation take only the associated namespace URI into account, and not the prefix itself. So actually any prefix or even the default namespace may be used in requests and must be expected in responses.

The eligibility extension is only used in relation to domain objects. It will not occur in commands that are related to host and contact objects.

1.2.1 EPP Query Commands

There are four EPP commands to retrieve object information: `<check>` to find out whether an object is known to the server, `<info>` to ask for detailed information associated with an object, `<poll>` to discover and retrieve queued service messages for individual clients and `<transfer>` to get transfer status information for an object.

1.2.1.1 EPP `<domain:check>` Command

This extension does not add any element to the EPP `<check>` command.

1.2.1.2 EPP `<domain:info>` Command

The eligibility extension does not provide an element for the info command. Additional elements are defined for the `<info>` response. When an `<info>` command has been processed successfully, the EPP `<extension>` element in the response contains a child `<el:infData>` element that identifies the eligibility extension namespace. The `<el:infData>` element contains a `<el:intendedUse>` element, which contains the intended use information currently present for the inquired domain.

An example of an `<info>` response containing the extension can be found in the "Examples" section below.

1.2.1.3 EPP `<poll>` Command

This extension does not add any element to the EPP `<poll>` command.

1.2.1.4 EPP `<transfer>` Query Command

This extension does not add any element to the EPP `<transfer>` query command.

1.2.2 EPP Transform Commands

There are five EPP commands to transform objects: `<create>` to create an instance of an object, `<delete>` to delete an instance of an object, `<renew>` to extend the validity period of an object, `<transfer>` to manage object sponsorship changes and `<update>` to change information associated with an object.

1.2.2.1 EPP `<domain:create>` Command

The create command, which allows the registration of domain objects, or, during a registry's sunrise and landrush phases, the application for domain objects, can be augmented by a `<el:create>` element in the extension section of

the command that identifies the eligibility extension namespace. The <el:create> element must contain a <el:intendedUse> element, which content specifies the domain's intended use.

An example of a <create> command using the extension can be found in the "Examples" section below.

1.2.2.2 EPP <domain:delete> Command

There are no extension elements for the domain delete command and response.

1.2.2.3 EPP <domain:renew> Command

There are no extension elements for the renew command and response.

1.2.2.4 EPP <domain:transfer> Command

There are no extension elements for the transfer command and response.

1.2.2.5 EPP <domain:update> Command

For the domain update command, extension elements exist for the command, allowing to change the intended use for an existing domain. This is done by using an <el:update> element in the extension section of the command that identifies the eligibility extension namespace. The <el:update> element must contain an <el:chg> element, which in turn must contain an <el:intendedUse> element, which content specifies the domain's new intended use.

1.3 Formal Syntax (Schema Definition)

```
<?xml version="1.0" encoding="UTF-8"?>
<schema targetNamespace="http://xmlns.tango-rs.net/epp/eligibility-1.0"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:el="http://xmlns.tango-rs.net/epp/eligibility-1.0"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified">

  <annotation>
    <documentation>
      Extensible Provisioning Protocol v1.0
      extension schema for domain registration eligibility information
    </documentation>
  </annotation>

  <!-- child elements found in EPP commands -->

  <element name="create" type="el:createType"/>
  <element name="update" type="el:updateType"/>
```

```

<!-- child elements found in EPP responses -->
<element name="infData" type="el:infDataType"/>

<!-- create extension -->
<complexType name="createType">
  <sequence>
    <element name="intendedUse" type="el:intendedUseType"/>
  </sequence>
</complexType>

<simpleType name="intendedUseType">
  <restriction base="string">
    <minLength value="1"/>
    <maxLength value="2048"/>
  </restriction>
</simpleType>

<!-- update extension -->
<complexType name="updateType">
  <sequence>
    <element name="chg" type="el:chgType"/>
  </sequence>
</complexType>

<complexType name="chgType">
  <sequence>
    <element name="intendedUse" type="el:intendedUseType"/>
  </sequence>
</complexType>

<!-- info extension -->
<complexType name="infDataType">
  <sequence>
    <element name="intendedUse" type="el:intendedUseType"/>
  </sequence>
</complexType>
</schema>

```

1.4 Examples

In the following examples, "C:" represents lines sent by an EPP client and "S:" represents lines returned by the EPP server.

1.4.1 EPP <info> Command

1.4.1.1 Example <info> response with eligibility information:

```

S:<?xml version='1.0' encoding='UTF-8'?>
S:<epp xmlns='urn:iETF:params:xml:ns:epp-1.0'>
S:  <response>

```

```
S: <result code='1000'>
S:   <msg lang='en-US'>Command completed successfully</msg>
S: </result>
S: <resData>
S:   <infData xmlns='urn:ietf:params:xml:ns:domain-1.0'>
S:     <name>example.tld</name>
S:     <roid>D123456789</roid>
S:     <status s='active'>
S:       <registrant>abc123</registrant>
S:       <contact type='admin'>def456</contact>
S:       <contacttype='tech'>ghi789</contact>
S:     <ns>
S:       <hostObj>ns1.example.net</hostObj>
S:       <hostObj>ns2.example.net</hostObj>
S:     </ns>
S:     <clID>registrar</clID>
S:     <crID>registrar</crID>
S:     <crDate>2010-09-08T07:06:05.0Z</crDate>
S:     <exDate>2012-09-08T23:59:59.0Z</exDate>
S:     <authInfo>
S:       <pw>secret</pw>
S:     </authInfo>
S:   </infData>
S: </resData>
S: <extension>
S:   <el:infData xmlns:el="http://xmlns.tango-rs.net/epp/eligibility-1.0">
S:     <el:intendedUse>Web site about examples in the .tld TLD.</el:intendedUse>
S:   </el:infData>
S: </extension>
S: <trID>
S:   <svTRID>ZYX-99958</svTRID>
S: </trID>
S: </response>
S: </epp>
```

1.4.2 EPP <create> Command

1.4.2.1 Example <create> command specifying eligibility information:

```
C: <?xml version="1.0" encoding="UTF-8"?>
C: <epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:   <command>
C:     <create>
C:       <create xmlns="urn:ietf:params:xml:ns:domain-1.0">
C:         <name>example.tld</name>
C:         <period unit="y">1</period>
C:       <ns>
C:         <hostObj>ns1.example.net</hostObj>
C:         <hostObj>ns2.example.net</hostObj>
C:       </ns>
C:       <registrant>abc123</registrant>
C:       <contact type="admin">def456</contact>
C:       <contact type="tech">ghi789</contact>
C:       <authInfo>
C:         <pw>secret42</pw>
C:       </authInfo>
C:     </create>
C:   </create>
C:   <extension>
C:     <el:create xmlns:el="http://xmlns.tango-rs.net/epp/eligibility-1.0">
C:       <el:intendedUse>Web site about examples in the .tld TLD.</el:intendedUse>
C:     </el:create>
C:   </extension>
C:   <clTRID>abc-00042</clTRID>
C: </command>
C: </epp>
```

1.4.3 EPP <update> Command

1.4.3.1 Example <update> command changing the eligibility information of a domain:

```
C:<?xml version="1.0" encoding="UTF-8"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <update xmlns="urn:ietf:params:xml:ns:domain-1.0">
C:        <name>example.tld</name>
C:        <chg/>
C:      </update>
C:    </update>
C:    <extension>
C:      <el:update xmlns:el="http://xmlns.tango-rs.net/epp/eligibility-1.0">
C:        <el:chg>
C:          <el:intendedUse>Web site about examples in the .tld TLD.</el:intendedUse>
C:        </el:chg>
C:      </el:update>
C:    </extension>
C:    <c1TRID>abc-00042</c1TRID>
C:  </command>
C:</epp>
```