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Organization Extension for the Extensible Provisioning Protocol (EPP) draft-ietf-regext-org-ext-05

Abstract

This mapping, an extension to EPP object mappings like the EPP domain name mapping [RFC5731], to support assigning an organization to any existing object (domain, host, contact) as well as any future objects.

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1. Introduction

In the business model of domain registration, we usually have 3 roles of entities, a registrant, a registrar and a registry. There may have some other roles of entities involved in the domain registration process which are not formally defined, such as resellers, DNS service operators, privacy proxy, etc.

A domain reseller is an individual or a company that acts as a agent for accredited registrars. A third-party DNS service operator is responsible for a zone where the operator is neither the registrant nor the registrar of records for the delegation. And a privacy proxy is an entity that provides with individuals or organizations domain registration without exposing their private information. These kind of entities are defined as "organizations" with different role types in this document.

In order to facilitate provisioning and management of organization information in a shared central repository, this document proposes an organization extension mapping for any EPP object like domain names in [RFC5731], hosts in [RFC5732] and contacts in [RFC5733]. The examples provided in this document are used for the domain object for illustration purpose. The host and contact object could be extended in the same way with the domain object.

An organization mapping object defined in [ID.draft-ietf-regext-org] SHOULD be created first. The organization information specified in this document MUST reference the existing organization identifier.

This document is specified using the XML 1.0 as described in [W3C.REC-xml-20040204] and XML Schema notation as described in [W3C.REC-xmlschema-1-20041028] and [W3C.REC-xmlschema-2-20041028].

2. 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 [RFC2119].

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

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.

orgext-1.0 in this document is used as an abbreviation for urn:ietf:params:xml:ns:orgext-1.0.

3. Object Attributes

This extension adds additional elements to EPP object mappings like the EPP domain name mapping [RFC5731]. Only the new elements are described here.

3.1. Organization Identifier

Organization identifier provides the ID of an organization. Its corresponding element is <orgext:id> which refers to the <organization:id> element defined in [ID.draft-ietf-regext-org]. All organization objects are identified by a server-unique identifier.

4. EPP Command Mapping

A detailed description of the EPP syntax and semantics can be found in the EPP core protocol specification [RFC5730]. The command mappings described here are specifically for use in provisioning and managing organization information via EPP.

4.1. EPP Query Commands

EPP provides three commands to retrieve domain information: <check> to determine if a domain object can be provisioned within a repository, <info> to retrieve detailed information associated with a domain object, and <transfer> to retrieve domain-object transfer status information.

4.1.1. EPP <check> Command

This extension does not add any elements to the EPP <check> command or <check> response described in the EPP domain name mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733].

4.1.2. EPP <info> Command

This extension does not add any element to the EPP <info> command described in the EPP domain mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733]. However, additional elements are defined for the <info> response in the EPP domain mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733].

When an <info> command has been processed successfully, the EPP <resData> element MUST contain child elements as described in the EPP object extensions. In addition, the EPP <extension> element SHOULD

contain a child <orgext:infData> element that identifies the extension namespace if the object has data associated with this extension and based on server policy. The <orgext:infData> element contains the following child elements:

- Zero or more <orgext:id> elements are allowed that contains the identifier of the organization. The "role" attribute is used to represent the relationship that the organization has to the object. See Section 7.3 in [ID.draft-ietf-regext-org] for a list of values.

Example <info> response for an authorized client with multiple organizations:

```
S:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
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:      <domain:infData
S:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
S:        <domain:name>example.com</domain:name>
S:        <domain:roid>EXAMPLE1-REP</domain:roid>
S:        <domain:status s="ok"/>
S:        <domain:registrant>jd1234</domain:registrant>
S:        <domain:contact type="admin">sh8013</domain:contact>
S:        <domain:contact type="billing">sh8013</domain:contact>
S:        <domain:contact type="tech">sh8013</domain:contact>
S:        <domain:ns>
S:          <domain:hostObj>ns1.example.com</domain:hostObj>
S:        </domain:ns>
S:        <domain:clID>ClientX</domain:clID>
S:        <domain:crID>ClientY</domain:crID>
S:        <domain:crDate>2015-02-06T04:01:21.0Z</domain:crDate>
S:        <domain:exDate>2018-02-06T04:01:21.0Z</domain:exDate>
S:        <domain:authInfo>
S:          <domain:pw>2fooBAR</domain:pw>
S:        </domain:authInfo>
S:      </domain:infData>
S:    </resData>
S:    <extension>
S:      <orgext:infData
S:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
S:        <orgext:id role="reseller">myreseller</orgext:id>
S:        <orgext:id role="privacyproxy">myproxy</orgext:id>
S:      </orgext:infData>
S:    </extension>
S:    <trID>
S:      <clTRID>ngcl-IvJjzMZc</clTRID>
S:      <svTRID>test142AWQONJZ</svTRID>
S:    </trID>
S:  </response>
S:</epp>
```

Example <info> response for an authorized client with no organization:

```
S:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
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:      <domain:infData
S:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
S:        <domain:name>example.com</domain:name>
S:        <domain:roid>EXAMPLE1-REP</domain:roid>
S:        <domain:status s="ok"/>
S:        <domain:registrant>jd1234</domain:registrant>
S:        <domain:contact type="admin">sh8013</domain:contact>
S:        <domain:contact type="billing">sh8013</domain:contact>
S:        <domain:contact type="tech">sh8013</domain:contact>
S:        <domain:ns>
S:          <domain:hostObj>ns1.example.com</domain:hostObj>
S:        </domain:ns>
S:        <domain:clID>ClientX</domain:clID>
S:        <domain:crID>ClientY</domain:crID>
S:        <domain:crDate>2015-02-06T04:01:21.0Z</domain:crDate>
S:        <domain:exDate>2018-02-06T04:01:21.0Z</domain:exDate>
S:        <domain:authInfo>
S:          <domain:pw>2fooBAR</domain:pw>
S:        </domain:authInfo>
S:      </domain:infData>
S:    </resData>
S:    <extension>
S:      <orgext:infData
S:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0"/>
S:    </extension>
S:    <trID>
S:      <clTRID>ngcl-IvJjzMZc</clTRID>
S:      <svTRID>test142AWQONJZ</svTRID>
S:    </trID>
S:  </response>
S:</epp>
```

An EPP error response MUST be returned if an <info> command cannot be processed for any reason.

4.1.3. EPP <transfer> Command

This extension does not add any elements to the EPP <transfer> command or <transfer> response described in the EPP domain name mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733].

4.2. EPP Transform Commands

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

4.2.1. EPP <create> Command

This extension defines additional elements for the EPP <create> command described in the EPP object extensions. No additional elements are defined for the EPP <create> response.

The EPP <create> command provides a transform operation that allows a client to create an object. In addition to the EPP command elements described in the EPP object extensions, the command MUST contain an <extension> element, and the <extension> element MUST contain a child <orgext:create> element that identifies the extension namespace if the client wants to associate data defined in this extension to the object. The <orgext:create> element contains the following child elements:

- One or more <orgext:id> elements that contains the identifier of the organization. The "role" attribute is used to represent the relationship that the organization has to the object. See Section 7.3 in [ID.draft-ietf-regext-org] for a list of values.

Example <create> Command with only one organization:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <create>
C:      <domain:create
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:        <domain:period unit="y">3</domain:period>
C:        <domain:ns>
C:          <domain:hostObj>ns1.example.com</domain:hostObj>
C:        </domain:ns>
C:        <domain:registrant>jd1234</domain:registrant>
C:        <domain:contact type="tech">sh8013</domain:contact>
C:        <domain:contact type="billing">sh8013</domain:contact>
C:        <domain:contact type="admin">sh8013</domain:contact>
C:        <domain:authInfo>
C:          <domain:pw>fooBAR</domain:pw>
C:        </domain:authInfo>
C:      </domain:create>
C:    </create>
C:    <extension>
C:      <orgext:create
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:id role="reseller">myreseller</orgext:id>
C:      </orgext:create>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

Example <create> Command with multiple organizations:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <create>
C:      <domain:create
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:        <domain:period unit="y">3</domain:period>
C:        <domain:ns>
C:          <domain:hostObj>ns1.example.com</domain:hostObj>
C:        </domain:ns>
C:        <domain:registrant>jd1234</domain:registrant>
C:        <domain:contact type="tech">sh8013</domain:contact>
C:        <domain:contact type="billing">sh8013</domain:contact>
C:        <domain:contact type="admin">sh8013</domain:contact>
C:        <domain:authInfo>
C:          <domain:pw>fooBAR</domain:pw>
C:        </domain:authInfo>
C:      </domain:create>
C:    </create>
C:    <extension>
C:      <orgext:create
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:id role="reseller">myreseller</orgext:id>
C:        <orgext:id role="privacyproxy">myproxy</orgext:id>
C:      </orgext:create>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

When a <create> command has been processed successfully, the EPP response is as described in the EPP object extension.

An EPP error response MUST be returned if a <create> command cannot be processed for any reason.

4.2.2. EPP <delete> Command

This extension does not add any elements to the EPP <delete> command or <delete> response described in the EPP domain mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733].

4.2.3. EPP <renew> Command

This extension does not add any elements to the EPP <renew> command or <renew> response described in the EPP domain mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733].

4.2.4. EPP <transfer> Command

This extension does not add any elements to the EPP <transfer> command or <transfer> response described in the EPP domain mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733], but after a successful transfer of an object with an assigned organization, the handling of the assigned organization is dependent on the organization roles and server policy.

4.2.5. EPP <update> Command

This extension defines additional elements for the EPP <update> command described in the EPP domain mapping [RFC5731], host mapping [RFC5732] and contact mapping [RFC5733]. No additional elements are defined for the EPP <update> response.

The EPP <update> command provides a transform operation that allows a client to modify the attribute of an object. In addition to the EPP <update> command elements, the command MUST contain an <extension> element, and the <extension> element MUST contain a child <orgext:update> element that identifies the extension namespace if the client wants to update the object with data defined in this extension. The <orgext:update> element contains the following child elements:

- An OPTIONAL <orgext:add> element that contains attribute values to be added to the object.

- An OPTIONAL <orgext:rem> element that contains attribute values to be removed from the object.

- An OPTIONAL <orgext:chg> element that contains attribute values to be changed.

At least one and only one <orgext:add>, <orgext:rem> or <orgext:chg> element MUST be provided. The <orgext:add>, <orgext:rem> and <orgext:chg> elements contain the following child element:

- One or more <orgext:id> elements that contains the identifier of the organization. The "role" attribute is used to represent the relationship that the organization has to the object. See Section 7.3 in [ID.draft-ietf-regext-org] for a list of values.

Example <update> command, adding a reseller:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <domain:update
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <orgext:update
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:add>
C:          <orgext:id role="reseller">myreseller</orgext:id>
C:        </orgext:add>
C:      </orgext:update>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

Example <update> command, adding multiple organizations:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <domain:update
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <orgext:update
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:add>
C:          <orgext:id role="reseller">myreseller</orgext:id>
C:          <orgext:id role="privacyproxy">myproxy</orgext:id>
C:        </orgext:add>
C:      </orgext:update>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

Example <update> command, removing a reseller:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <domain:update
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <orgext:update
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:rem>
C:          <orgext:id role="reseller"/>
C:        </orgext:rem>
C:      </orgext:update>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

Example <update> command, removing multiple organizations:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <domain:update
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <orgext:update
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:rem>
C:          <orgext:id role="reseller"/>
C:          <orgext:id role="privacyproxy"/>
C:        </orgext:rem>
C:      </orgext:update>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

Example <update> command, updating reseller identifier:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <domain:update
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <orgext:update
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:chg>
C:          <orgext:id role="reseller">myreseller</orgext:id>
C:        </orgext:chg>
C:      </orgext:update>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

Example <update> command, updating multiple organization identifiers:

```
C:<?xml version="1.0" encoding="UTF-8" standalone="no"?>
C:<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
C:  <command>
C:    <update>
C:      <domain:update
C:        xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:        <domain:name>example.com</domain:name>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <orgext:update
C:        xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0">
C:        <orgext:chg>
C:          <orgext:id role="reseller">myreseller</orgext:id>
C:          <orgext:id role="privacyproxy">myproxy</orgext:id>
C:        </orgext:chg>
C:     </orgext:update>
C:    </extension>
C:    <clTRID>ABC-12345</clTRID>
C:  </command>
C:</epp>
```

When an extended <update> command has been processed successfully, the EPP response is as described in the EPP object extension.

5. 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. The BEGIN and END tags are not part of the schema; they are used to note the beginning and ending of the schema for URI registration purposes.

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

<schema
  targetNamespace="urn:ietf:params:xml:ns:orgext-1.0"
  xmlns:orgext="urn:ietf:params:xml:ns:orgext-1.0"
  xmlns="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified"
>

  <annotation>
    <documentation>
      Extensible Provisioning Protocol v1.0
      Organization Extension Schema v1.0
    </documentation>
  </annotation>

  <!-- Child elements found in EPP commands. -->
  <element
    name="create"
    type="orgext:createType"/>
  <element
    name="update"
    type="orgext:updateType"/>

  <!--
    Organization identifier with required role
  -->
  <complexType name="orgIdType">
    <simpleContent>
      <extension base="token">
        <attribute
          name="role"
          type="token"
          use="required"/>
      </extension>
    </simpleContent>
  </complexType>
```

```
<!--
  Child elements of the <orgext:create> command
  All elements must be present at time of creation
-->
<complexType name="createType">
  <sequence>
    <!-- agent identifier or the organization,
      e.g. registrar, reseller, privacy proxy, etc. -->
    <element
      name="id"
      type="orgext:orgIdType"
      maxOccurs="unbounded"/>
  </sequence>
</complexType>

<!--
  Child elements of <orgext:update> command
-->
<complexType name="updateType">
  <sequence>
    <element
      name="add"
      type="orgext:addRemChgType"
      minOccurs="0"
    />
    <element
      name="rem"
      type="orgext:addRemChgType"
      minOccurs="0"
    />
    <element
      name="chg"
      type="orgext:addRemChgType"
      minOccurs="0"
    />
  </sequence>
</complexType>

<complexType name="addRemChgType">
  <sequence>
    <!-- agent identifier of the organization,
      e.g. registrar, reseller, privacy proxy, etc. -->
    <element
      name="id"
      type="orgext:orgIdType"
      maxOccurs="unbounded"/>
  </sequence>
</complexType>
```

```
  <!-- Child response element -->
  <element
    name="infData"
    type="orgext:infDataType"/>

  <!-- <orgext:infData> response elements -->
  <complexType name="infDataType">
    <sequence>
      <!-- agent identifier the organization,
        e.g. registrar, reseller, privacy proxy, etc. -->
      <element
        name="id"
        type="orgext:orgIdType"
        minOccurs="0"
        maxOccurs="unbounded"/>
    </sequence>
  </complexType>

  <!-- End of schema. -->
</schema>
END
```

6. Internationalization Considerations

EPP is represented in XML, which provides native support for encoding information using the Unicode character set and its more compact representations including UTF-8. Conformant XML processors recognize both UTF-8 and UTF-16. Though XML includes provisions to identify and use other character encodings through use of an "encoding" attribute in an <?xml?> declaration, use of UTF-8 is RECOMMENDED.

As an extension of the EPP domain name mapping, the elements, element content described in this document MUST inherit the internationalization conventions used to represent higher-layer domain and core protocol structures present in an XML instance that includes this extension.

7. IANA Considerations

7.1. XML Namespace

This document uses URNs to describe XML namespaces and XML schemas conforming to a registry mechanism described in [RFC3688]. IANA is requested to assignment the following URI.

Registration request for the organization namespace:

URI: urn:ietf:params:xml:ns:orgext-1.0

Registrant Contact: See the "Author's Address" section of this document.

XML: See the "Formal Syntax" section of this document.

7.2. EPP Extension Registry

The EPP extension described in this document should be registered by the IANA in the EPP Extension Registry described in [RFC7451]. The details of the registration are as follows:

Name of Extension: Organization Extension

Document status: Standards Track

Reference: (insert reference to RFC version of this document)

Registrant Name and Email Address: IESG

TLDs: any

IPR Disclosure: none

Status: active

Notes: none

8. Implementation Status

Note to RFC Editor: Please remove this section and the reference to [RFC7942] before publication. This section records the status of known implementations of the protocol defined by this specification at the time of posting of this Internet-Draft, and is based on a proposal described in [RFC7942]. The description of implementations in this section is intended to assist the IETF in its decision processes in progressing drafts to RFCs. Please note that the listing of any individual implementation here does not imply endorsement by the IETF. Furthermore, no effort has been spent to verify the information presented here that was supplied by IETF contributors. This is not intended as, and must not be construed to be, a catalog of available implementations or their features. Readers are advised to note that other implementations may exist.

According to [RFC7942], "this will allow reviewers and working groups to assign due consideration to documents that have the benefit of running code, which may serve as evidence of valuable experimentation and feedback that have made the implemented protocols more mature.

It is up to the individual working groups to use this information as they see fit".

8.1. Verisign EPP SDK

Organization: Verisign Inc.

Name: Verisign EPP SDK

Description: The Verisign EPP SDK includes both a full client implementation and a full server stub implementation of draft-ietf-regext-org-ext.

Level of maturity: Development

Coverage: All aspects of the protocol are implemented.

Licensing: GNU Lesser General Public License

Contact: jgould@verisign.com

URL: https://www.verisign.com/en_US/channel-resources/domain-registry-products/epp-sdks

8.2. CNNIC Implementation

Organization: CNNIC

Name: Organization Extension for EPP

Description: CNNIC is trying to update organization extension from previous reseller extension according to this document.

Level of maturity: Development

Coverage: Organization extension for EPP

Contact: zhouguiqing@cnnic.cn

9. Security Considerations

The object mapping extension described in this document does not provide any other security services or introduce any additional considerations beyond those described by [RFC5730], [RFC5731], [RFC5732] and [RFC5733] or those caused by the protocol layers used by EPP.

10. Acknowledgment

The authors would like to thank Rik Ribbers, Marc Groeneweg, Patrick Mevzek, Antoin Verschuren and Scott Hollenbeck for their careful review and valuable comments.

11. References

11.1. Normative References

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11.2. Informative References

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Zhou, L., Kong, N., Zhou, G., Lee, X., and J. Gould, "Extensible Provisioning Protocol (EPP) Reseller Mapping", Apr 2018, <http://tools.ietf.org/html/draft-ietf-regext-org>.

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Appendix A. Change Log

Initial -00: Individual document submitted.

-01:

* Updated abstract and introduction.

* Revised typos in info response.

* Added explanations on how to process reseller extension after successful transfer operation.

* Modified <update> explanation.

* Deleted reseller name element in <create> and <update> commands.

* Removed some inaccurate comments from xml schema.

* Modified the element name of reseller id and reseller name.

-02:

* Changed author information.

* Updated xml typos <reseller:infData> to <resellerext:infData> in <info> response.

-03:

* Changed author information.

* Updated section 3.1.

* Removed reseller name element in <info> response.

* Added acknowledgment.

* Revised the typo "resellerr" to "resellerext".

WG document-00: WG document submitted

WG document-01: Keep document alive for further discussion. The requirement of reseller information is clear for both registrar and registry. What we should reach a consensus is whether the extension should support only a name or ID and name.

Organization WG document-00: Change to a generic organization object extension.

Organization WG document-01: Added "Implementation Status" section.

Organization WG document-02: Accepted some of the feedbacks on the mailing list. Modified the examples in the document.

Organization WG document-03:

* Updated typos.

* Changed some descriptions about <orgext:id> and role attribute.

* Modified the example of "domain with no organization".

* Updated section 8, adding implementation status of Verisign.

Organization WG document-04:

* Updated typos.

* Removed the example of <update> command, domain with no organization.

* Updated references.

* Updated section 8 of implementation status.

Organization WG document-05:

* Removed the minOccurs="0" from the addRemChgType type of the XML schema

* Removed the third paragraph of "Implementation Status".

* Remove the Informative Reference to draft-ietf-regext-reseller-ext from the draft.

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