

Network Working Group
Internet-Draft
Intended status: Standards Track
Expires: September 28, 2012

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March 27, 2012

Organic Industry Involvement Status for the Extensible Provisioning
Protocol (EPP)
draft-epext-dotbio-00

Abstract

Requirements Language

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].

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1. Introduction

This document describes an extension mapping for the Extensible Provisioning Protocol (EPP) described in RFC 5730 [RFC5730]. This mapping, an extension of the contact mapping described in RFC 5733 [RFC5733], is specified using the Extensible Markup Language (XML) 1.0 and XML Schema notation.

The organic industry, especially organic farming is a highly regulated industry. Production, distribution and import of organic products are subject to national and international regulations. To comply with these legislations Starting Dot has drafted an EPP-Extension that will subject domain name registrants to the following:

- o Declaration of involvement or not in the production or distribution of organic products
- o In case of involvement compliance with national and international legislations.

2. Document Conventions

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 is provided only to illustrate element relationships and is not a REQUIRED feature of this protocol.

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.

3. Object Attributes

This extension adds an attribute to the contact:create command. The flag can either be set to 'true' or to 'false':

- o FALSE: Not involved in the production or distribution of organic products.
- o TRUE: Involved in the production or distribution of organic products and in compliance with national and international legislations.

4. EPP Command Mapping

A detailed description of the EPP commands can be found in RFC 5730 [RFC5730] and RFC 5733 [RFC5733].

4.1. EPP Query Commands

4.1.1. EPP <check> Command

Either the request nor the response of the EPP <check> command is influenced by this extension.

4.1.2. EPP <info> Command

The EPP request is not extended by this extension. The EPP response will deliver the status of the dotbio:policy flag as follows:

```
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>Command completed successfully</msg>
S:   </result>
S:   <resData>
S:     <contact:infData
S:       xmlns:contact="urn:ietf:params:xml:ns:contact-1.0">
S:       <contact:id>sh8013</contact:id>
S:       <contact:roid>3234924_CONTACT-DOTBIO</contact:roid>
S:       <contact:status s="ok"/>
S:       <contact:postalInfo type="int">
S:         <contact:name>John Doe</contact:name>
S:         <contact:org>Example Inc.</contact:org>
S:         <contact:addr>
S:           <contact:street>124 Example Dr.</contact:street>
S:           <contact:street>Suite 200</contact:street>
S:           <contact:city>Dulles</contact:city>
S:           <contact:sp>VA</contact:sp>
S:           <contact:pc>20166-6503</contact:pc>
S:           <contact:cc>US</contact:cc>
S:         </contact:addr>
S:       </contact:postalInfo>
S:       <contact:voice>+1.7035555555</contact:voice>
S:       <contact:fax>+1.7035555556</contact:fax>
S:       <contact:email>jdoe@example.com</contact:email>
S:       <contact:clID>registrar</contact:clID>
S:       <contact:crID>registrar</contact:crID>
S:       <contact:crDate>2009-04-14T14:05:00.0Z</contact:crDate>
S:       <contact:upID>registrar</contact:upID>
```

```
S: <contact:update>2009-04-23T12:04:04.0Z</contact:update>
S: <contact:authInfo>
S: <contact:pw/>
S: </contact:authInfo>
S: </contact:infData>
S: </resData>
S: <extension>
S: <dotbio:infData xmlns:dotbio="http://www.nic.bio/epp/dotbio-1.0">
S: <dotbio:contact>
S: <dotbio:policy accept="true"/>
S: </dotbio:contact>
S: </dotbio:infData>
S: </extension>
S: <trID>
S: <clTRID>5D43A945-29B3-4097-A119-AB860E8B67E0</clTRID>
S: <svTRID>b503d7e6-08ac-4e58-b5b3-3b8f960dfd01</svTRID>
S: </trID>
S: </response>
S: </epp>
```

4.1.3. EPP <poll> Command

Either the request nor the response of the EPP <poll> command is directly influenced by this extension.

4.1.4. EPP <transfer> Command

Either the request nor the response of the EPP <transfer> command is directly influenced by this extension.

4.2. EPP Transform Commands

4.2.1. EPP <create> Command

Creating a contact handle requires the EPP user to submit the extension as follows:

```
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:   <create>
C:    <contact:create
C:      xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
C:      xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0
C:        contact-1.0.xsd">
C:     <contact:id>sh8013</contact:id>
C:     <contact:postalInfo type="int">
C:       <contact:name>John Doe</contact:name>
C:       <contact:org>Example Inc.</contact:org>
C:       <contact:addr>
C:         <contact:street>123 Example Dr.</contact:street>
C:         <contact:street>Suite 100</contact:street>
C:         <contact:city>Dulles</contact:city>
C:         <contact:sp>VA</contact:sp>
C:         <contact:pc>20166-6503</contact:pc>
C:         <contact:cc>US</contact:cc>
C:       </contact:addr>
C:     </contact:postalInfo>
C:     <contact:voice>+1.7035555555</contact:voice>
C:     <contact:fax>+1.7035555556</contact:fax>
C:     <contact:email>jdoe@example.com</contact:email>
C:     <contact:authInfo>
C:       <contact:pw/>
C:     </contact:authInfo>
C:   </contact:create>
C: </create>
C: <extension>
C:   <dotbio:create xmlns:dotbio="http://www.nic.bio/epp/dotbio-1.0">
C:     <dotbio:contact>
C:       <dotbio:policy accept="true"/>
C:     </dotbio:contact>
C:   </dotbio:create>
C: </extension>
C: <clTRID>3708CE46-DA95-4D44-B5AA-B1371BACAF97</clTRID>
C: </command>
C:</epp>
```

The EPP response is not directly influenced by this EPP extension.

4.2.2. EPP <delete> Command

Either the request nor the response of the EPP <delete> command is directly influenced by this extension.

4.2.3. EPP <renew> Command

Either the request nor the response of the EPP <renew> command is directly influenced by this extension.

4.2.4. EPP <transfer> Command

Either the request nor the response of the EPP <transfer> command is directly influenced by this extension.

4.2.5. EPP <update> Command

Either the request nor the response of the EPP <update> command is directly influenced by this extension. Updating the policy flag is not possible.

5. Formal Syntax

The EPP object mapping is specified in XML Schema notation which is suitable for automated validation:

```
<?xml version="1.0" encoding="UTF-8"?>
<schema targetNamespace="http://www.nic.bio/epp/dotbio-1.0"
  xmlns:dotbio="http://www.nic.bio/epp/dotbio-1.0"
  xmlns="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified">

  <annotation>
    <documentation>
      Extensible Provisioning Protocol v1.0 domain name extension
      schema for the organic industry involvement /
      policy acceptance status.
    </documentation>
  </annotation>

  <!--
    Child elements found in EPP commands.
  -->
  <element name="create" type="dotbio:createType"/>
  <!--
    Child elements of the <create> command for contact creation.
  -->
```

```
<complexType name="createType">
  <sequence>
    <choice>
      <element name="contact" type="dotbio:contactType"/>
    </choice>
  </sequence>
</complexType>

<!--
  Child elements of the contact type.
-->
<complexType name="contactType">
  <sequence>
    <element name="policy" type="dotbio:policyType"/>
  </sequence>
</complexType>

<!--
  The attribute for organic industry involvement /
  policy acceptance status.
-->
<complexType name="policyType">
  <attribute name="accept" type="boolean" use="required"/>
</complexType>

<!--
  Child response elements.
-->
<element name="infData" type="dotbio:respDataType"/>

<!--
  Response elements.
-->
<complexType name="respDataType">
  <sequence>
    <element name="contact" type="dotbio:contactType"/>
  </sequence>
</complexType>

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

6. Security Considerations

As with other contact handles, contact handle updates and deletions can only be done by the owning and authenticated client. The authentication mechanism is described in RFC 5730 [RFC5730]. Contact

handle deletion is prohibited, if a reference to a superordinate domain is active.

7. Internationalization Considerations

The EPP protocol is represented in XML. XML supports natively the Unicode character set.

For this extension, only the values 'true' and 'false' are accepted. This is to ensure by the enforcement of the XML-Schema (Section 5).

8. IANA Considerations

URNs are used by this document, to describe XML-Namespaces and XML-Schemas. These URNs are in strictly accordance with RFC 5730 [RFC5730] or RFC 5733 [RFC5733].

9. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.
- [RFC5730] Hollenbeck, S., "Extensible Provisioning Protocol (EPP)", STD 69, RFC 5730, August 2009.
- [RFC5733] Hollenbeck, S., "Extensible Provisioning Protocol (EPP) Contact Mapping", STD 69, RFC 5733, August 2009.

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