



Launch Phase EPP Extension for the .sap TLD

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1. Schema Definition (Formal Syntax)

```

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

<schema targetNamespace="http://xmlns.tango-rs.net/epp/launchphase-1.0"
    xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
    xmlns:eppcom="urn:ietf:params:xml:ns:eppcom-1.0"
    xmlns="http://www.w3.org/2001/XMLSchema">

    <annotation>
        <documentation>
            Extensible Provisioning Protocol v1.0
            domain name extension schema for launch phase data
            processing for the .sap registry.
        </documentation>
    </annotation>

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

    <element name="info" type="lp:queryType"/>
    <element name="create" type="lp:createType"/>
    <element name="delete" type="lp:queryType"/>
    <element name="update" type="lp:queryType"/>

    <!-- child elements of commands using application ID and phase -->
    <complexType name="queryType">
        <sequence>
            <element name="applicationID" type="eppcom:minTokenType"/>
            <element name="phase" type="eppcom:minTokenType" minOccurs="0"/>
        </sequence>
    </complexType>

    <!-- child elements of the <create> command -->
    <complexType name="createType">
        <sequence>
            <element name="phase" type="eppcom:minTokenType" minOccurs="0"/>
            <element name="claim" type="lp:claimElType" minOccurs="0"
                maxOccurs="unbounded"/>
            <element name="applicationInfo" type="lp:genericStringType"
                minOccurs="0"/>
        </sequence>
    </complexType>

    <!-- child response elements -->

    <element name="infData" type="lp:infDataType"/>
    <element name="creData" type="lp:creDataType"/>

    <!-- response elements -->
    <complexType name="creDataType">
        <sequence>
            <element name="applicationID" type="eppcom:minTokenType"/>
        </sequence>
    </complexType>

    <complexType name="infDataType">
        <sequence>
            <element name="applicationID" type="eppcom:minTokenType"/>
            <element name="phase" type="eppcom:minTokenType" minOccurs="0"/>
            <element name="status" type="lp:statusType" minOccurs="0"/>
            <element name="claim" type="lp:claimElType" minOccurs="0"
                maxOccurs="unbounded"/>
            <element name="applicationInfo" type="lp:genericStringType"/>
        </sequence>
    </complexType>

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        minOccurs="0"/>
    </sequence>
</complexType>

<!-- common types --&gt;

<!-- application status --&gt;
&lt;complexType name="statusType"&gt;
    &lt;simpleContent&gt;
        &lt;extension base="normalizedString"&gt;
            &lt;attribute name="s" type="lp:statusEnumType" use="required"/&gt;
            &lt;attribute name="lang" type="language" default="en"/&gt;
        &lt;/extension&gt;
    &lt;/simpleContent&gt;
&lt;/complexType&gt;

<!-- allowed application status values --&gt;
&lt;simpleType name="statusEnumType"&gt;
    &lt;restriction base="token"&gt;
        &lt;enumeration value="pending"/&gt;
        &lt;enumeration value="validated"/&gt;
        &lt;enumeration value="invalid"/&gt;
        &lt;enumeration value="allocated"/&gt;
        &lt;enumeration value="rejected"/&gt;
    &lt;/restriction&gt;
&lt;/simpleType&gt;

<!-- generic identifier --&gt;
&lt;simpleType name="genericStringType"&gt;
    &lt;restriction base="normalizedString"&gt;
        &lt;minLength value="0"/&gt;
        &lt;maxLength value="255"/&gt;
    &lt;/restriction&gt;
&lt;/simpleType&gt;

<!-- entitlement --&gt;
&lt;simpleType name="entitlementType"&gt;
    &lt;restriction base="normalizedString"&gt;
        &lt;minLength value="0"/&gt;
        &lt;maxLength value="50"/&gt;
    &lt;/restriction&gt;
&lt;/simpleType&gt;

<!-- country code --&gt;
&lt;simpleType name="ccType"&gt;
    &lt;restriction base="token"&gt;
        &lt;length value="2"/&gt;
    &lt;/restriction&gt;
&lt;/simpleType&gt;

<!-- type describing the prior right of the applicant --&gt;
&lt;complexType name="claimElType"&gt;
    &lt;sequence&gt;
        &lt;element name="claimIssuer" type="eppcom:c1IDType"
            minOccurs="0"/&gt;
        &lt;element name="claimName" type="lp:genericStringType"
            minOccurs="0"/&gt;
        &lt;element name="claimNumber" type="lp:genericStringType"
            minOccurs="0"/&gt;
        &lt;element name="claimType" type="lp:genericStringType"
            minOccurs="0"/&gt;
        &lt;element name="claimEntitlement" type="lp:entitlementType"
            minOccurs="0"/&gt;
        &lt;element name="claimRegDate" type="date" minOccurs="0"/&gt;
        &lt;element name="claimExDate" type="date" minOccurs="0"/&gt;
        &lt;element name="claimCountry" type="lp:ccType" minOccurs="0"/&gt;
    &lt;/sequence&gt;
&lt;/complexType&gt;
</pre>

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<element name="claimRegion" type="lp:genericStringType"
    minOccurs="0"/>
<element name="pvrc" type="lp:genericStringType" minOccurs="0"/>
</sequence>
<attribute name="preValidated" type="boolean" use="required"/>
</complexType>

</schema>
```

2. Examples

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

2.1. EPP <info> Command

2.1.1. Example <info> command and response:

```
C:<?xml version="1.0" encoding="UTF-8"?>
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:        <info>
C:            <domain:info xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
C:                xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
C:                    domain-1.0.xsd">
C:                <domain:name>example.sap</domain:name>
C:            </domain:info>
C:        </info>
C:        <extension>
C:            <lp:info xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
C:                xsi:schemaLocation="http://xmlns.tango-rs.net/epp/launchphase-1.0
C:                    launchphase-1.0.xsd">
C:                <lp:applicationID>SR-20120723144213-4</lp:applicationID>
C:                <lp:phase>sunrise</lp:phase>
C:            </lp:info>
C:        </extension>
C:        <c1TRID>abc-00042</c1TRID>
C:    </command>
C:</epp>
```

```
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='1000'>
S:            <msg lang='en-US'>Command completed successfully</msg>
S:        </result>
S:        <resData>
S:            <domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
S:                xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
S:                    domain-1.0.xsd">
S:                <domain:name>example.sap</domain:name>
S:                <domain:roid>D123456789-COM</domain:roid>
S:                <domain:status s='active'/>
S:                <domain:registrant>abc123</domain:registrant>
S:                <domain:contact type='admin'>def456</domain:contact>
S:                <domain:contacttype='tech'>ghi789</domain:contact>
S:                <domain:ns>
S:                    <domain:hostObj>ns1.example.net</domain:hostObj>
S:                    <domain:hostObj>ns2.example.net</domain:hostObj>
S:                </domain:ns>
S:                <domain:c1ID>registrar</domain:c1ID>
S:                <domain:crID>registrar</domain:crID>
S:                <domain:crDate>2010-09-08T07:06:05.0Z</domain:crDate>
S:                <domain:exDate>2012-09-08T23:59:59.0Z</domain:exDate>
S:                <domain:authInfo>
S:                    <domain:pw>secret</domain:pw>
S:                </domain:authInfo>
S:            </domain:infData>
S:        </resData>
S:        <extension>
S:            <lp:infData xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
```

```

S:           xsi:schemaLocation="http://xmlns.tango-rs.net/epp/launchphase-1.0
S:           launchphase-1.0.xsd">
S:           <lp:applicationID>SR-20120723144213-4</lp:applicationID>
S:           <lp:phase>sunrise</lp:phase>
S:           <lp:status s="pending"/>
S:           <lp:claim preValidated="true">
S:             <lp:claimIssuer>C123456789abcdef</lp:claimIssuer>
S:             <lp:claimName>hallo</lp:claimName>
S:             <lp:claimNumber>A-BC 0815/13a</lp:claimNumber>
S:             <lp:claimType>REG-TM-WORD</lp:claimType>
S:             <lp:claimEntitlement>owner</lp:claimEntitlement>
S:             <lp:claimRegDate>2010-01-02</lp:claimRegDate>
S:             <lp:claimExDate>2020-02-02</lp:claimExDate>
S:             <lp:claimCountry>AU</lp:claimCountry>
S:             <lp:claimRegion>VIC</lp:claimRegion>
S:             <lp:pvrc>abcdef-1234567890-be3a5a0d</lp:pvrc>
S:           </lp:claim>
S:           <lp:applicationInfo>Intended for a web site about examples.</lp:applicationInfo>
S:         </lp:infData>
S:       </extension>
S:     <trID>
S:       <c1TRID>abc-00042</c1TRID>
S:       <svTRID>ZYX-99958</svTRID>
S:     </trID>
S:   </response>
S:</epp>

```

2.2. EPP <create> Command

2.2.1. Example <create> command and response:

```

C:<?xml version="1.0" encoding="UTF-8"?>
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:    <create>
C:      <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
C:        xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
C:        domain-1.0.xsd">
C:        <domain:name>example.sap</domain:name>
C:        <domain:period unit="y">1</domain:period>
C:        <domain:ns>
C:          <domain:hostObj>nsl.example.net</domain:hostObj>
C:          <domain:hostObj>nsl2.example.net</domain:hostObj>
C:        </domain:ns>
C:        <domain:registrant>abc123</domain:registrant>
C:        <domain:contact type="admin">def456</domain:contact>
C:        <domain:contact type="tech">ghi789</domain:contact>
C:        <domain:authInfo>
C:          <domain:pw>secret42</domain:pw>
C:        </domain:authInfo>
C:      </domain:create>
C:    </create>
C:  <extension>
C:    <lp:create xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
C:      xsi:schemaLocation="http://xmlns.tango-rs.net/epp/launchphase-1.0
C:      launchphase-1.0.xsd">
C:      <lp:phase>sunrise</lp:phase>
C:      <lp:claim preValidated="true">
C:        <lp:claimIssuer>C123456789abcdef</lp:claimIssuer>
C:        <lp:claimName>example</lp:claimName>
C:        <lp:claimNumber>A-BC 0815/13a</lp:claimNumber>
C:        <lp:claimType>trademark</lp:claimType>
C:        <lp:claimEntitlement>owner</lp:claimEntitlement>
C:        <lp:claimRegDate>2010-01-02</lp:claimRegDate>
C:        <lp:claimExDate>2020-02-02</lp:claimExDate>
C:        <lp:claimCountry>DE</lp:claimCountry>
C:        <lp:claimRegion>NRW</lp:claimRegion>
C:        <lp:pvrc>ABCdef 1234-bf532c1a</lp:pvrc>
C:      </lp:claim>
C:      <lp:applicationInfo>Intended for a web site about examples.</lp:applicationInfo>
C:    </lp:create>
C:  </extension>

```

```
C: <c1TRID>abc-00042</c1TRID>
C: </command>
C:</epp>
```

```
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="1001">
S:     <msg>Command completed successfully; action pending</msg>
S:   </result>
S:   <resData>
S:     <domain:creData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
S:       xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
S:         domain-1.0.xsd">
S:       <domain:name>example.sap</domain:name>
S:       <domain:crDate>2012-04-03T16:27:33.686528Z</domain:crDate>
S:       <domain:exDate>2013-04-03T16:27:33.686528Z</domain:exDate>
S:     </domain:creData>
S:   </resData>
S:   <extension>
S:     <lp:creData xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
S:       xsi:schemaLocation="http://xmlns.tango-rs.net/epp/launchphase-1.0
S:         launchphase-1.0.xsd">
S:       <lp:applicationID>SR-20120403162733-11</lp:applicationID>
S:     </lp:creData>
S:   </extension>
S:   <trID>
S:     <c1TRID>abc-00042</c1TRID>
S:     <svTRID>ZYX-99958</svTRID>
S:   </trID>
S: </response>
S:</epp>
```

2.3. EPP <delete> Command

2.3.1. Example <delete> command:

```
C:<?xml version="1.0" encoding="UTF-8"?>
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:   <delete>
C:     <domain:delete xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
C:       xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
C:         domain-1.0.xsd">
C:       <domain:name>example.sap</domain:name>
C:     </domain:delete>
C:   </delete>
C:   <extension>
C:     <lp:delete xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
C:       xsi:schemaLocation="http://xmlns.tango-rs.net/epp/launchphase-1.0
C:         launchphase-1.0.xsd">
C:       <lp:applicationID>SR-20120229131124-13</lp:applicationID>
C:       <lp:phase>sunrise</lp:phase>
C:     </lp:delete>
C:   </extension>
C:   <c1TRID>abc-00042</c1TRID>
C: </command>
C:</epp>
```

2.4. EPP <update> Command

2.4.1. Example <update> command:

```
C:<?xml version="1.0" encoding="UTF-8"?>
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:    <update>
C:      <domain:update xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
C:        xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
C:          domain-1.0.xsd">
C:        <domain:name>example.sap</domain:name>
C:        <domain:add>
C:          <domain:ns>
C:            <domain:hostObj>ns3.example.net</domain:hostObj>
C:          </domain:ns>
C:        </domain:add>
C:        <domain:rem>
C:          <domain:ns>
C:            <domain:hostObj>ns1.example.net</domain:hostObj>
C:          </domain:ns>
C:        </domain:rem>
C:      </domain:update>
C:    </update>
C:    <extension>
C:      <lp:update xmlns:lp="http://xmlns.tango-rs.net/epp/launchphase-1.0"
C:        xsi:schemaLocation="http://xmlns.tango-rs.net/epp/launchphase-1.0
C:          launchphase-1.0.xsd">
C:        <lp:applicationID>SR-20120403162733-11</lp:applicationID>
C:        <lp:phase>sunrise</lp:phase>
C:      </lp:update>
C:    </extension>
C:    <c:TRID>abc-00042</c:TRID>
C:  </command>
C:</epp>
```