

# Launch Phase EPP Extension for the .nrw 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 .nrw 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"

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

<!-- common types -->

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

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

<!-- generic identifier -->
<simpleType name="genericStringType">
    <restriction base="normalizedString">
        <minLength value="0"/>
        <maxLength value="255"/>
    </restriction>
</simpleType>

<!-- entitlement -->
<simpleType name="entitlementType">
    <restriction base="normalizedString">
        <minLength value="0"/>
        <maxLength value="50"/>
    </restriction>
</simpleType>

<!-- country code -->
<simpleType name="ccType">
    <restriction base="token">
        <length value="2"/>
    </restriction>
</simpleType>

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

```

```
<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 Minds + Machines GmbH 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.nrw</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: <clTRID>abc-00042</clTRID>
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.nrw</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:clID>registrar</domain:clID>
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:   </resData>
S: </response>
S:</epp>
```

```
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:pvc>abcdef-1234567890-be3a5a0d</lp:pvc>
S:      </lp:claim>
S:      <lp:applicationInfo>Intended for a web site about examples.</lp:applicationInfo>
S:      </lp:infData>
S:      </extension>
S:      <trID>
S:      <clTRID>abc-00042</clTRID>
S:      <svTRID>ZYX-99958</svTRID>
S:      </trID>
S: </response>
S:</epp>
```

## 2.2. EPP <create> Command

### 2.2.1. Example <create> command and response:

```
S:<?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.nrw</domain:name>
C:     <domain:period unit="y">1</domain:period>
C:     <domain:ns>
C:       <domain:hostObj>ns1.example.net</domain:hostObj>
C:       <domain:hostObj>ns2.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:pvc>ABCdef 1234-bf532c1a</lp:pvc>
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.nrw</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:       <domain:delete xmlns:domain="urn:ietf:params:xml:ns:domain-1.0
C:         domain-1.0.xsd">
C:       <domain:name>example.nrw</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.nrw</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:   <c1TRID>abc-00042</c1TRID>
C: </command>
C:</epp>
```