

Unhandled Namespaces
draft-gould-casanova-regex-
unhandled-namespaces

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IETF-103 REGEXT Working Group

Introduction

- IETF-102 Working Session Review
 - Agreed the server should **not** return extensions not in a client's login services
 - Jim Gould and Martin Casanova had the action item to create a draft on a proposed approach for discussion
- Proposing: Unhandled Namespaces (draft-gould-casanova-regex-unhandled-namespaces)
 - <https://tools.ietf.org/html/draft-gould-casanova-regex-unhandled-namespaces>
 - Uses the EPP response <extValue> elements
 - Uses full unhandled namespace XML with predefined formatted reason

Greeting and Login Services in RFC 5730

- EPP Greeting Services: Sent by Server to Client
“identifies the services supported by the server”
- EPP Login Services: Sent by Client to Server
“<objURI> elements that contain URIs representing the objects to be managed during the session” and
“MAY contain one or more <extURI> elements that identify object extensions to be used during the session”
- Based on the definition in [RFC 5730](#)
 - A server should not return objects or extensions to the client that are not included in the EPP Login Services (unhandled namespaces)?

Use of EPP <extValue>

- EPP response may contain many <extValue> elements that include:
 - <value> element that contains the unhandled namespace XML
 - Per RFC 5730, XML processing of the <value> element is disabled
 - <reason> element contains a formatted reason using the ABNF:
 - NAMESPACE-URI “not in login services”
 - Example: **urn:ietf:params.xml:ns:domain-1.0 not in login services**
- The full XML of the object-level or command-response extension moved to an <extValue> element with pre-formatted <reason>
 - No information needs to be filtered
 - EPP response is RFC 5730 compliant
 - Information may be processed later
 - Poll messages can be consumed when there are unhandled namespaces

Unhandled Object-Level Extension

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <resData>
      [NAMESPACE-XML]
    </resData>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>54322-XYZ</svTRID>
    </trID>
  </response>
</epp>
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
      <extValue>
        <value>
          [NAMESPACE-XML]
        </value>
        <reason>
          [NAMESPACE-URI] not in login services
        </reason>
      </result>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>54322-XYZ</svTRID>
    </trID>
  </response>
</epp>
```

Unhandled Object-Level Extension Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
      <extValue>
        <value>
          <domain:trnData
            xmlns:domain="urn:ietf:params:xml:ns:domain-1.0">
            ...
          </domain:trnData>
        </value>
        <reason>
          urn:ietf:params:xml:ns:domain-1.0 not in login services
        </reason>
      </extValue>
    </result>
  </response>
</epp>
```

Unhandled Command-Response Extension

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
    </result>
    <extension>
      [NAMESPACE-XML]
    </extension>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>54322-XYZ</svTRID>
    </trID>
  </response>
</epp>
```

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
      <extValue>
        <value>
          [NAMESPACE-XML]
        </value>
        <reason>
          [NAMESPACE-URI] not in login services
        </reason>
      </extValue>
    </result>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>54322-XYZ</svTRID>
    </trID>
  </response>
</epp>
```

Unhandled Command-Response Extension Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0">
  <response>
    <result code="1000">
      <msg>Command completed successfully</msg>
      <extValue>
        <value>
          <secDNS:infData
            xmlns:secDNS="urn:ietf:params:xml:ns:secDNS-1.1">
            ...
          </secDNS:infData>
        </value>
        <reason>
          urn:ietf:params:xml:ns:secDNS-1.1 not in login services
        </reason>
      </extValue>
    </result>
    ...
  </epp>
```


Usage with General and Poll Message EPP Responses

- General EPP Responses
 - Server MAY use unhandled namespace approach for general EPP responses
 - SHOULD be applicable to only command-response extensions
 - Example includes RGP information in RFC 3915
- Poll Message EPP Responses
 - Server MUST use unhandled namespace approach for poll message
 - MAY be applicable to both object-level and command-response extensions
 - Example includes change poll information in draft-ietf-regext-change-poll

Conclusion

- Unhandled Namespaces provides an approach that:
 - Maintains compliance with RFC 5730
 - Enables unhandled namespace information to be returned by server
 - Enables poll queue messages to be consumed independent of client login services
 - Enables unhandled namespace information to be processed later by client
- Please review the draft and provide feedback on the mailing list