Unhandled Namespaces Discussion

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Introduction

- Original REGEXT Posting By Martin Casanova

  "What happens if a client does not specify the change-poll extension in the Login command but starts consuming all its poll messages? Are the change-poll messages delivered just without the <extension> <changePoll> element or are these poll messages retained until a change-poll enabled EPP-Session polls them?"

- Discussion on REGEXT Mailing List
  - Purpose of Greeting and Login services included in RFC 5730
  - Not unique to the change-poll extension, so a broader discussion is needed
  - Options :
    1. There is no problem
    2. There is a problem, but it is not important enough to create a common solution
    3. There is a problem and a common solution is required

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 objects extensions to be used during the session"

- Based on the definition in RFC 5730
  - Should a server **accept** objects or extensions provided by client that are not included in the EPP Greeting Services (unhandled namespaces)?
  - Should a server **return** objects or extensions to the client that are not included in the EPP Login Services (unhandled namespaces)?

Not Unique to change-poll extension

- Applicable to all poll messages
  - Change Poll Extension in draft-ietf-regext-change-poll
  - Launch Phase Extension in RFC 8334
  - Key Relay Mapping in RFC 8063
- Applicable to some command / response extensions
  - DNSSEC Extension in RFC 5910
  - Registry Fee Extension in draft-ietf-regext-epp-fees
  - Bundling Extension in draft-ietf-regext-bundling-registration

Options-Revisited

1. There is no problem
    - The RFC supports servers returning services that the client does not include in the login services. This includes responses to object commands (e.g., domain create) and poll messages.
2. There is a problem, but it is not important enough to create a common solution
    - The RFC does not support servers returning services that the client does not include in the login services, but it is not important enough to the clients to define a common solution.
3. There is a problem and a common solution is required
    - The RFC does not support servers returning services that the client does not include in the login services and a common solution is required.

Potential Client Issues with Server Returning Unsupported Services (Option 1 or 2)

- Validating Clients fail during XML parse
  - If the client’s XML parser does not include the required XML schema, the client will be unable to pass validation.
  - Failing to parse an EPP poll message may cause the client to be unable to acknowledge the message, meaning it would become a poison poll message.
  - The client could disable XML schema validation.
- Clients fail unmarshalling the response
  - Unsupported blocks of XML may fail unmarshalling by the client
  - A full failure in unmarshalling the poll message may cause the client to be unable to acknowledge the message, meaning it would become a “poison poll message”.
  - The client could capture the raw XML for later processing.

Potential Poll Message Solutions (Option 3)

1. Server returns an error (e.g., 2307 “Unimplemented object server”)
    - This option will stop the processing of the poll queue, resulting in a poison poll message for the client
2. Return a successful Poll Message with an extension (unsupported) that indicates the lack of client support
    - What happens if the client does not support the unsupported extension?
3. Return a successful Poll Message with an encoded <msgQ><msg> element indicating lack of client support
    - The <msgQ><msg> element is meant to be human readable, not machine parsable
4. Return a successful Poll Message with use of result <extValue> elements that indicates the lack of client support
    1. The <extValue> elements are currently used for error responses

<msgQ><msg> CSV Encoding Option

- Definition

```
msg             = ext-namespaces “ not supported in login services”
ext-namespaces = ext-namespace / ext-namespace “,” ext-namespaces
ext-namespace  = 1*VCHAR
```

- Example

```
<msg>
 urn:ietf:params:xml:ns:domain-1.0,
 urn:ietf:params:xml:ns:changePoll-1.0 not supported in login services
</msg>
```

<msgQ><msg> XML Encoding Option

- Definition

```
msg           = msg-text *LWSP *(not-supported *LWSP)
msg-text      = *VCHAR
not-supported = “<notSupported>” 1*VCHAR “</notSupported>”
```

- Example

```
<msg>Registry initiated update of domain.
  <notSupported>urn:ietf:params:xml:ns:domain-1.0</notSupported>
  <notSupported>urn:ietf:params:xml:ns:changePoll-1.0</notSupported>
</msg>
```

<extValue> Elements

- Definition

```
value             = unhandled-xml /
                    <extURI>server-namespace</extURI> /
                    <objURI>server-namespace</objURI>
reason            = "Message incomplete due to missing "
                    service-namespace " in the login services”
server-namespace = 1*VCHAR
unhandled-xml     = 1*OCTET ; Unhandled EPP extension (object or command / response) XML
```

- Example

```
<extValue>
  <value>
    <extURI>urn:ietf:params:xml:ns:changePoll-1.0</extURI>
  </value>
  <reason>
    Message incomplete due to missing urn:ietf:params:xml:ns:changePoll-1.0 in the login services
  </reason>
</extValue >
```

Other Options?

- Are there other options to solve the unhandled namespace issue?