An HTTPS-based Transport for YANG Notifications

draft-ietf-netconf-https-notif-08

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Updates since -06

- Lot of review comments – Thank you!

- Resource URLs

- Discovery of receiver resources

- Clarifications around Receiver/Publisher interaction

- IANA considerations

Resource URL

- Common 'path' for both resources
  - e.g. <path>some-path</path>

- 'capabilities' resource
  - e.g. GET /some-path/capabilities HTTP/1.1

- 'relay-notification' resource
  - e.g. POST /some-path/relay-notification HTTP/1.1

Discovery of receiver capabilities

XML

HTTP/1.1 200 OK

  Date: Wed, 26 Feb 2020 20:33:30 GMT

  Server: example-server

  Content-Type: application/xml

  Content-Length: nnn

```
<receiver-capabilities>
  <receiver-capability>
     urn:ietf:capability:https-notif-receiver:encoding:json
  </receiver-capability>
  <receiver-capability>
     urn:ietf:capability:https-notif-receiver:encoding:xml
  </receiver-capability>
  <receiver-capability>
     urn:ietf:capability:https-notif-receiver:encoding:rfc8639-
enabled
  </receiver-capability>
</receiver-capabilities>
```

JSON

HTTP/1.1 200 OK

  Date: Wed, 26 Feb 2020 20:33:30 GMT

  Server: example-server

  Cache-Control: no-cache

  Content-Type: application/json

  Content-Length: nnn

```
{
  receiver-capabilities {
    "receiver-capability": [
      "urn:ietf:capability:https-notif-receiver:encoding:json",
      "urn:ietf:capability:https-notif-receiver:encoding:xml",
      "urn:ietf:capability:https-notif-receiver:encoding:rfc8639-
enabled"
    ]
  }
}
```

Receiver Capabilities

- This draft defines
  - 'rfc-8639' capability
    - Indicates support for the RFC 8639 state machine
  - 'xml' capability
    - Indicates support for receiving notifications in XML
  - 'json' capability
    - Indicates support for receiving notifications in JSON

- Other drafts can add other capabilities
  - e.g. Notification Messages can add support for 'bundled-messages'

Clarification around Receiver/Publisher Interaction

- YANG notifications are defined as a one-way message in RFC 7950

- But, HTTP requires a response

- Hence this document defines "204 No Content" response

- However, other responses are possible, (e.g. "401 Not Authorized")

IANA Considerations

- A new registry was added to define "Capability URNs".
- Initialized with three URNs discussed earlier.

Q & A