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
• 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