RESTCONF Issues

draft-ietf-netconf-restconf-01 NETCONF WG IETF #90 Toronto, CA

Andy Bierman <andy@yumaworks.com> Martin Björklund <mbj@tail-f.com> Kent Watsen <kwatsen@juniper.net> Rex Fernando <rex@cisco.com>

v0.3

Agenda

• Discuss and resolve open issues

B.1. select parameter

- What syntax should be used for the "select" query parameter?
 - The current choices are "XPath" and "path-expr".
 - Perhaps an additional parameter to identify the select string format is needed to allow extensibility?
- Update: Proposal for select syntax by Martin
 - leaf "select" on page 56
 - no additional parameters

B.1. select parameter (2)

- Should the select parameter be mandatory to implement?
 - Not really needed on small devices

B.2. netconf-state monitoring support

- Should long-term RESTCONF operations (i.e. SSE long-poll) be considered sessions with regards to NETCONF monitoring "session" list?
 - If so, what text is needed in RESTCONF draft to standardize the RESTCONF session entries?

• Update:

- No new YANG added yet
- Do not want to replicate the /netconf-state/sessions data

B.2. netconf-state monitoring support (2)

Augment Issues:

 RFC 6022 not clear if non NETCONF protocol sessions are still sessions "managed by the NETCONF server" or not

Proposal:

- Re-interpret 6022 restrictions to include all NM sessions that are managed by the server, such as RESTCONF
 - Add a leaf identifying the protocol
 - Add transport identities to support additional transports

B.3. secure transport

- Details to support secure operation over TLS are needed
 - Update: done
- Security considerations need to be written
 - Update: done
- Can call-home for RESTCONF be supported?
 - Update: none
 - Proposal: leave this work for later

B.4. Encoding of key leafs in resource URIs

- The use of a forward slash '/' as the delimiter between key values in a target resource URI is not not desirable. Only 1 segment per YANG data node layer should be used.
- Update: Proposal for new encoding added
 - /restconf/data/top/list1=key1,key2,key3/leaf1

B.5. get-bulk query parameters

- New query parameters (e.g., offset, limit) are needed to retrieve a limited number of list instances.
- Update: solution proposal not added
 - Add a "collection" resource type for list, leaf-list
 - Allow offset, limit query parameters for this resource type only
- Should this feature be mandatory or optional to implement?

B.6. defaults-handling

- The client does not really know what sort of defaults the server will return in GET replies.
 - Should the with-defaults query parameter be added to RESTCONF?
 - If so, should it be mandatory-to-implement?

B.7. protocol capability URIs

- The client does not know what vendor or SDO extensions (if any) are implemented by the server.
 - Should the server provide a read-only container of capability URIs to identify protocol extensions?

B.8. target resource list keys required for GET

- Should the client be able to GET all or a subset of all list instances by issuing a GET without any list keys for the target resource list?
 - GET /restconf/data/interfaces/interface
- Should a "collection" resource be required in order for such a request to be considered valid by the server?