YANG Instance Data format

Balazs Lengyel, Benoit Claise

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Concept

› Many use-cases where documenting YANG Instance data in files is useful
  - Documenting server capabilities
  - Preloading default configuration data
  - Documenting Factory Default Settings
  - Storing diagnostics data
  - etc.

› Define a standard file format
  - Meta-data about the instance data set
  - XML or JSON encoding

Changes 00 - 01

› Added the target-ptr metadata with 3 methods

  − List of target modules, revisions, feature, deviations

    › Inline: contained in the file

    › URI – pointer to another file

    › External, some method external to this spec

  − Yang choice used – allows the addition of other methods later

    › e.g. YANG package based target selection

› Added timestamp metadata

  − e.g. instance data about statistics generated every 5 minutes

› Removed usage of dedicated .yid file extension

Changes 01 - 02

› Defined the format of the content-data part by referencing various RFCs and drafts
  - get-data and get operations are not referenced as normative
› Inline target-ptr may include augmenting modules
  - augmenting modules may add important info to ietf-yang-library
    › e.g. Semver module-version
› Inline target-ptr may use alternatives to ietf-yang-library
  - Is there a need for using someother module instead of yang-library?
› Moved inline target modules into a separate <target-modules> element
  - not part of content-data
› Added backwards compatibility considerations

```xml
<instance-data-set xmlns="urn:…:ietf-yang-instance-data">
  <name>read-only-acm-rules</name>
  <inline-target-spec>ietf-yang-library@2016-06-21.yang
    </inline-target-spec>
  <target-modules>
    <module-state xmlns="urn:…:ietf-yang-library">
      <module>
        <name>ietf-netconf-acm</name>
        <revision>2012-02-22</revision>
      </module>
    </module-state>
  </target-modules>
  <revision>
    <date>2018-01-25</date>
    <description>Initial version</description>
  </revision>
  <description>NACM rules for a read-only role.</desc>
  <contact>info@acme.com</contact>
  <content-data>…</content-data>
</instance-data-set>
```

```xml
<content-data>
    <nacm xmlns="urn:…:ietf-netconf-acm">
      <enable-nacm>true</enable-nacm>
      <read-default>deny</read-default>
      <exec-default>deny</exec-default>
      <rule-list>
         <name>read-only-role</name>
         <group>read-only-group</group>
         <rule>
            <name>read-all</name>
            <module-name>*</module-name>
            <access-operation>read</access-operation>
            <action>permit</action>
         </rule>
      </rule-list>
    </nacm>
  </content-data>
```

Way Forward

› Asking the chairs, audience:

   Received lots of comments to previous versions

   Managed to include suggestions

   Not many comments to last version

   WG Last Call when can we start it?