SCIM for devices

draft-shahzad-scim-device-model-01.txt
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How do I?

- Provision a new device (or many new devices) into infrastructure?
- Establish bootstrapping credentials?  
  ... for different L2 and onboarding technologies?
- Provide ancillary information (like SBOMs, etc)?
- Get application-API information for non-IP-based infrastructure?  
  ... for BLE?  
  ... Zigbee?  
  ... other?
Answer? Use SCIM for devices!

- A normalized set of schemas, starting with a small base schema
- No (onboarding) technology religion
- We provide initial examples
  - Device Provisioning Protocol
  - Blue Tooth Low Energy
  - Zigbee
- Looking for others
- Table Stakes:
  - Sufficient information to bootstrap trust between device and network infrastructure
Why not Other Stuff?

**YANG/NETCONF/RESTCONF**

- This work is focused on provisioning the **network** about the device, and not the device itself.
- No device config or state shared
- No re-use available for existing models

**SNMP?**

- Ew. How 1980s.
Basic elements needed

<table>
<thead>
<tr>
<th>id – from core</th>
</tr>
</thead>
<tbody>
<tr>
<td>meta – from core</td>
</tr>
<tr>
<td>adminState</td>
</tr>
<tr>
<td>“schemas” – from core</td>
</tr>
<tr>
<td>Connectivity</td>
</tr>
<tr>
<td>displayName (optional)</td>
</tr>
<tr>
<td>mudUrl (optional)</td>
</tr>
</tbody>
</table>
Things to think about

All the comments that Phil and others mentioned.

Are we using the correct schema description method?

What should be normalized into / out of the Device Core?

Example WiFi schema is really DPP schema (we should correct that)
Proposed Work Plan

Discuss now and on scim list

Github tracker: https://github.com/iot-onboarding/scim-devices

Reviewers, co-authors, and implementations welcome!

Consider adoption early next year?
Discussion