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>Element</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>from core</td>
</tr>
<tr>
<td>meta</td>
<td>from core</td>
</tr>
<tr>
<td>adminState</td>
<td></td>
</tr>
<tr>
<td>“schemas”</td>
<td>from core</td>
</tr>
<tr>
<td>Connectivity</td>
<td></td>
</tr>
<tr>
<td>displayName (optional)</td>
<td></td>
</tr>
<tr>
<td>mudUrl (optional)</td>
<td></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 list

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

Reviewers, co-authors, and implementations welcome!

Consider adoption early next year?
Discussion