SCIM device use cases

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How are these identities the same and how are they different?

The systems in which their credentials reside both need to be primed (provisioned)
Why SCIM?

• This is a provisioning function
  • Create a new device
  • Delete an old device
  • (maybe) update an existing devices
  • Group devices

• This is a bulk device identity
  authentication/authorization function

• Why not SCIM? ;-)
Key Goals

- Automate flow of onboarding of devices that an enterprise acquires
- Allow for standardized approach
- Allow for Multiple L2 Technologies
  - Wifi
  - LoRa
  - 802.3 (Wired)
  - BLE
- Allow for multiple bootstrapping / authentication technologies
  - DPP (Wifi Alliance)
  - Vouchers (RFC 8366)
  - Naked certs?
  - BLE OOB
  - Fido FDO Vouchers

Deliver via a *normalized* schema (we have been developing in JSON schema)
What’s this “fully normalized” business?

- Device
  - Wifi
  - 802.3
  - BLE
    - DPP
    - RFC8366
    - FDO
    - BLE-OOB
    - Keypair

No Technology Religion
Another difference - directionality

Enterprise SCIM client

SCIM Server

Application

Enterprise SCIM client

Supplier SCIM Server

“Add this user to your service”

“Add this device to your inventory”
• Bootstrapping credential movement is required
• A supplier may be the SCIM client
  • SCIM model ponders the enterprise being the SCIM client
  • The supplier is providing a device, it must provide its credentials.
• Device identities are scoped based on the supplier
• Device attributes will vary based on L2/L3 capabilities
• Desire to carry other stuff
  • SBOM information
  • Device type
Questions/Issues

• What is the relationship between users and devices?
  • Also... RBAC... maybe a group owns a device?
    • “Facilities owns lightbulbs”
  • Given backward nature of the communication, this is a question.
  • Lifecycle questions here...what is the supplier role?
• Should that be exposed here?
• Which schema language, please?
• Need real $refs in schema.
• Discuss here, please.
Next Steps

• A draft?