draft-lear-opsawg-mud-bw-profile

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Problem Statement

- How to communicate to deployment how much bandwidth a device is supposed to use?

Questions about this device

- How much traffic should it generate?
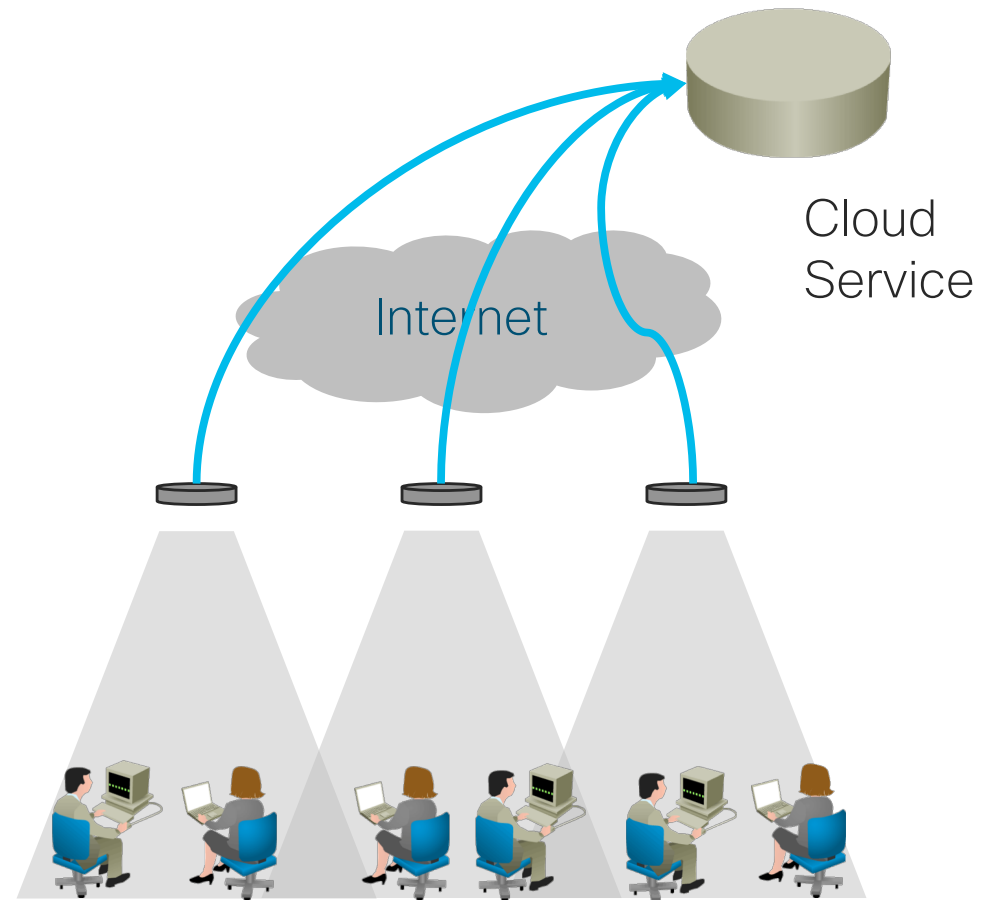 - 100 pps
  - 1 pps
  - 1 ppm
  - 1 pph
  - 1 ppd

What about when there's a fire?

- 1 pps
- 10 pps
- 100 pps

Occupancy Sensors

- Have cameras
- Do local processing
- Regular volume transmissions
- Occasional firmware updates
- Never transmit raw video

Cloud Service

Internet

Manufacturer can point out what "good" looks like

```
augment /mud:mud/mud:to-device-policy:
  +--rw bw-params
    +--rw service* [name]
      +--rw name         string
      +--rw timeframe    uint32
      +--rw pps?         uint32
      +--rw bps?         uint64
      +--rw dscp?        inet:dscp
      +--rw aclname?     -> /acl:acls/acl/name
augment /mud:mud/mud:from-device-policy:
  +--rw bw-params
    +--rw service* [name]
      +--rw name         string
      +--rw timeframe    uint32
      +--rw pps?         uint32
      +--rw bps?         uint64
      +--rw dscp?        inet:dscp
      +--rw aclname?     -> /acl:acls/acl/name
```

A few areas for improvement (already)

- Currently augmenting MUD grouping
  - No chance of interfering with other MUD aspects
  - REALLY complex- one ACL per profile. Ew.
- Probably better to directly augment "ace" grouping from ACL model
  - Just an additional set of parameters to ACEs already in the file
    - Much smaller files

Experimental thoughts

- May not be that easy for manufacturers to answer these questions
  - Do we need simple abstractions?

    "Low volume"
    "High volume"?
  - Do we need some tooling to help manufacturers?

- Needs to integrate with MUD abstractions

Comments?