



MUD Status and other Onboarding Issues

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MUD Status

- Draft passed WG, IETF last calls
- Waited for draft-ietf-netmod-acl-model
- That document is completing shepherd review
- Very small changes needed
 - "access-lists" -> "acls" (probably)
 - systeminfo -> utf8 (this was agreed earlier)
 - Text around URL wordsmithed for IESG review
- Telechat date: 19. April 2018



What is this thing?

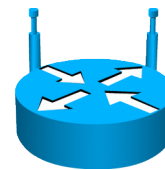
Who is responsible for it?

How do I protect it and my network?

Is it doing what it should be doing?

For different technologies

Across markets



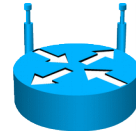
Next steps: Bandwidth Usage Profiles

- Requests for extending MUD to describe how much bandwidth a device may use
- Uses
 - Identify when device is demanding resources that it's not designed to use
 - Aggregate understanding of type of resources that may be demanded of a network at certain times
- Method
 - Extend to-device-policy and from-device policy to match either an ACE or ACL to a profile statement
 - Indicate the amount of traffic expected at a given DSCP over a certain period of time

QoS (ctd)

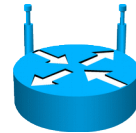
- Non-goals
 - Don't try to invent, restate, or otherwise be innovative about queuing methods. Just reference other people's work
 - Don't replace or even augment DIFFSERV/INTSERV model (May need to describe INTSERV usage in terms of DIFFSERV units)
- Questions
 - What units of time are interesting? Seconds? Minutes? Microseconds? Days?
- Example
 - This fire sensor sends one packet every minute in normal operation, but 1 packet a second when there is a fire

802.11 onboarding problem: choose a network



Network A

?



Network B

- Use Device Provisioning Protocol
- Extend IEEE 802.11aq
- Not really an IETF problem- here for completeness.

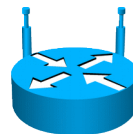
802.11 onboarding problem: provision access

Prerequisite to send: network access



Potential Solutions

- `http/tls get [...]/.well-known/est/requestvoucher`
 - 802.11u ANQP extension
 - Use of a new TEAP method
- Different forms of results needed (PSK, EAP-TLS, username/password, etc...)
- draft-friel-brski-over-802dot11 is a problem statement that looks also at various approaches



Network B

URL Composition

- Currently we have relaxed restrictions on the URL
- We warn about using queries
- Some ideas on how deployment might inform manufacturer
- One example: NEA
- This requires some conversations about BCP 190 and URL composition
 - Let's have those.

Name Lifetimes?



- What happens if a domain name in a MUD URL goes away?
- A 2018 luminaire is booted up in 2050
- “Pull up our 2018 Internet emulator to get an answer”
– Henk Birkholz