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

- 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
  - 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

http/tls get [...]/.well-known/est/requestvoucher
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