Onboarding

DRAFT-RICHARDSON-EMU-EAP-ONBOARDING-01

IETF 114

DEVICE ONBOARDING

- Unconfigured device needs to be onboarded, but has no credentials
- Solution: use unauthenticated EAP-TLS, and join a captive portal network
- Problem: RFC 5216 allows for unauthenticated EAP-TLS, but offers no further help
- Solution: use explicit signalling via NAI of <u>onboarding@eap.arpa</u>
 - NAI is local only, and cannot be forwarded / proxied
 - device can access a limited network for onboarding
- Once on a captive portal network, use RFC8995(BRSKI) to get credentials
 - this avoids trying to stuff BRSKI into EAP, and reuses existing captive portal infrastructure

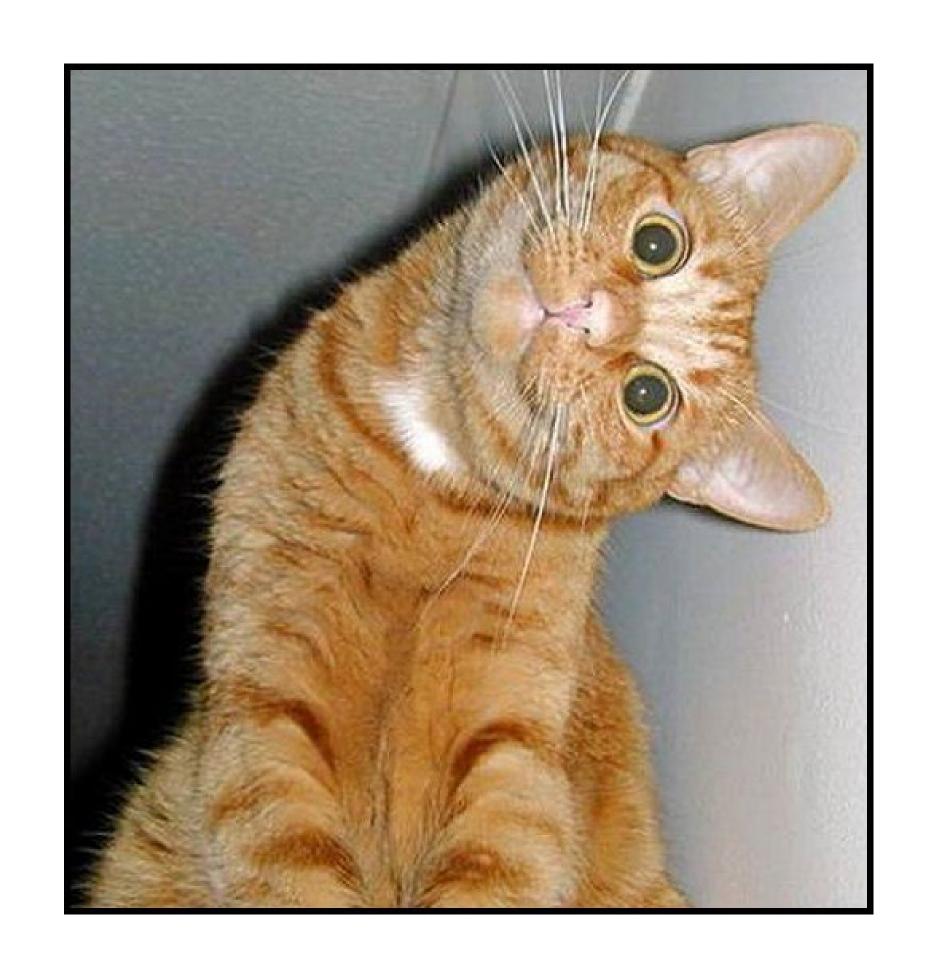
FURTHER WORK

- The device can still authenticate the server (e.g. subjectAltName)
 - If a CA root is good enough for web browsing, it's good enough for onboarding
- ► The behavior of the local network is "captive portal + TBD"
- ...@eap.arpa can be used to signal different kinds of desired access

RELATED WORK

- Similar work being done elsewhere (Hotspot 2.0 onboarding, etc.)
 - SDO-specific
- WBA has "unauth EAP-TLS" using vendor-specific EAP method.

- It would be good for the IETF to define standard methods for this
 - Avoids fragmentation in the technology



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