OTrP over HTTP
draft-thaler-teep-otrp-over-http-01

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OTrP vs Transport

• Division of labor in specs
  • OTrP spec covers TEE communication: Agent <-> TAM
    • Does not specify transport under OTrP
  • Transport is REE communication: Agent Broker <-> TAM (Broker)
    • TAM might have a TEE as well
    • Should we add “TAM Broker” as a term to the arch doc?
    • Arch doc also uses “TEE” to mean device, should probably fix that too

• Transport details (see later slide)
  • Designed and implemented at IETF 103 hackathon
  • Presented and discussed during IETF 103 meeting
  • Documented in this draft
Handling policy changes at TAM

• Presented at IETF 103 meeting:
  • Designed (not implemented) periodic checks for policy changes
    • OTrP agent triggers session when new TA is needed, e.g., by app installer
    • OTrP agent also triggers session either:
      • A) at interval configured by TAM, OR
      • B) lazily when existing TA is started and it’s been longer than that interval

• Agent broker behavior is now specified in this draft
OTrP Transport @ 103

HTTP(S) Client (broker)

- HTTP GET tam-uri, Accept: application/json
- 200 OK, Content-type: application/json
- HTTP POST tam-uri, Content-type: application/json, Accept: application/json
- GetDeviceStateResponse("I need TA X")
- 200 OK, Content-type: application/json
- HTTP POST tam-uri, Content-type: application/json, Accept: application/json
- InstallTAResponse
- 200 OK

HTTP(S) Server

- GetDeviceStateRequest(tam-cert)
- Verify device, Authorize TA

OTrP Agent

- Verify TAM

TAM

- (empty)

Create SD, Install TA

- (empty)
Bcp56bis review

• HTTPBIS WG document on “Building Protocols with HTTP” (i.e., using HTTP as a transport)
  • https://tools.ietf.org/html/draft-ietf-httpbis-bcp56bis

• Use media type application/otrp+json instead of application/json
  • Currently in IANA Considerations section of this spec since HTTP is in broker
  • Should it be moved to the OTrP spec since that’s where the JSON is spec’ed?

• Mark Nottingham (author of httpbis doc) did a review of this I-D:
  • Change GET to 0-length POST (done)
Next Steps

• Two independent implementations in progress since 103 hackathon

• Ready to adopt as WG document?