

TEEP over HTTP

draft-ietf-teep-otrp-over-http-03

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Summary of Issues

<https://github.com/ietf-teep/otrp-over-http>

Issues discussed at IETF 105:

1. Terminology alignment on transport layer implementation
2. HTTP Bindings
3. ~~Move media type to OTrP spec (closed)~~

Issues raised since IETF 105:

4. Relationship to ~~OTrPv2~~ TEEP protocol
5. Demuxing to OTrP vs TEEP protocol (new from Hackathon!)

Issue #4: Relationship to TEEP protocol

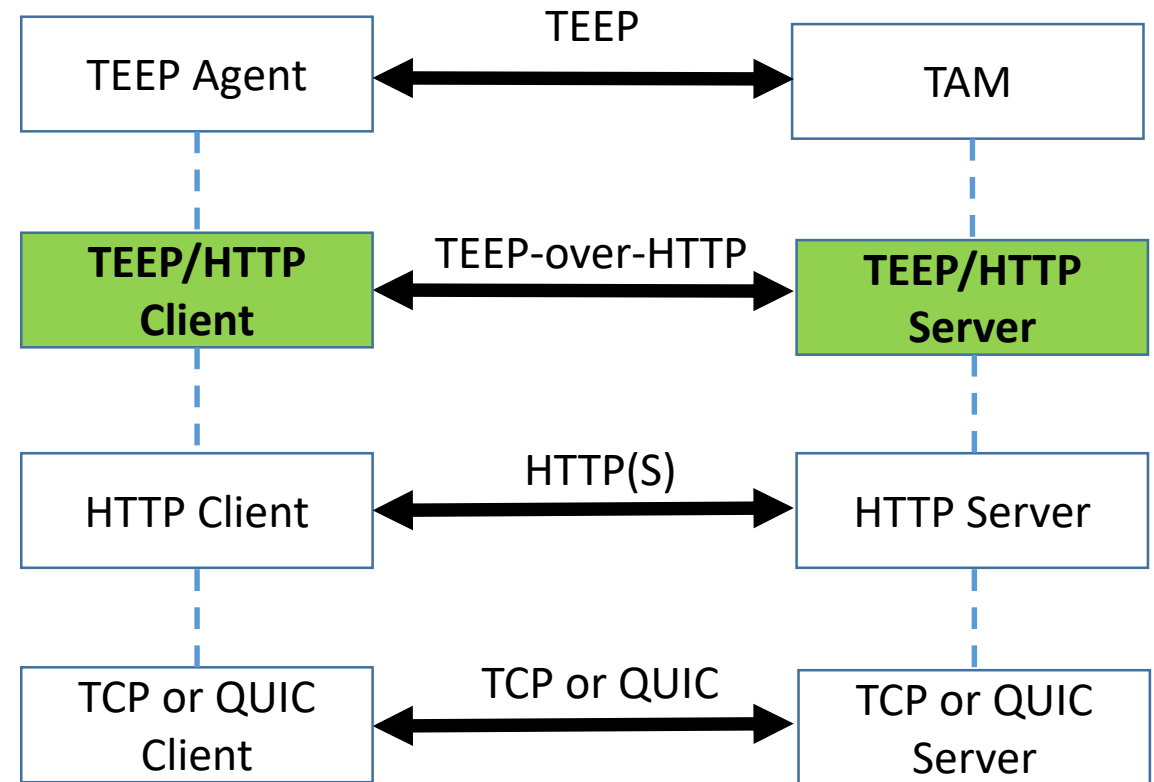
- Issue:
 - Old title was “HTTP Transport for the **Open Trust Protocol (OTrP)**” but WG decided to rename OTrPv2 to TEEP protocol
 - Examples used otrp media type but TEEP uses teep media type
- Changes in -03 (ready to close)
 - Updated title, discussion, and examples to use TEEP instead of OTrP
 - Did not remove support for OTrP in addition (but see Issue #5)
 - OTrP and TEEP have different media types, so references both as supportable over the same transport

Issue #5: Demuxing to OTrP vs TEEP protocol

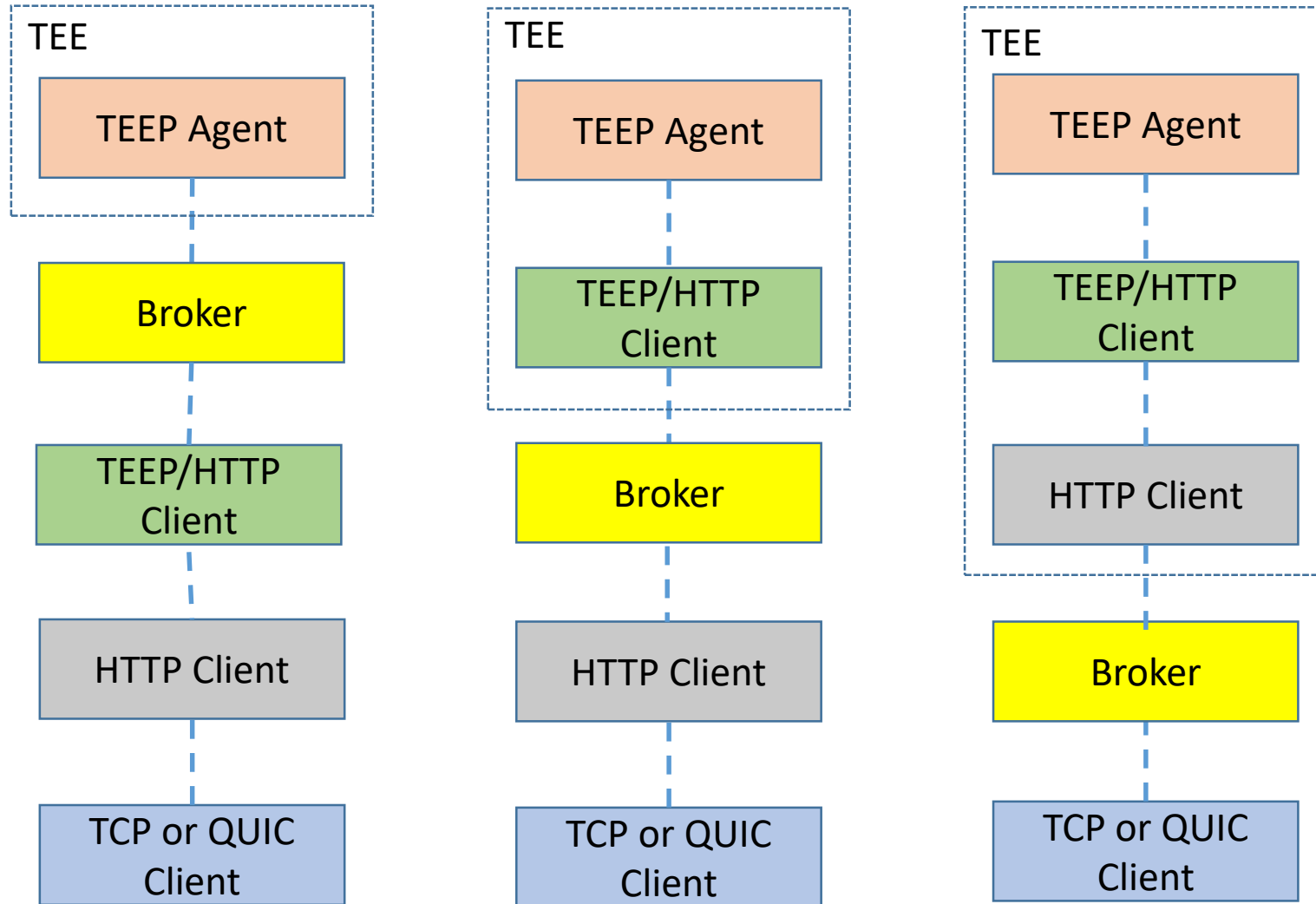
- Discovered by Hackathon 106 implementation experience
- Issue:
 - Draft did not adequately explain how to demux if both are supported
 - Example: 0-byte POST arrives at TAM, which protocol should respond?
- Possible resolutions:
 1. Remove all support for OTrP
 2. Demux behavior based on media type
 - On receipt of an HTTP message, the choice is made based on the Content-Type header if present, else the Accept header if it is present.
 - For other events on the Agent side (request to install a TA, etc), the choice is learned together with learning the TAM URI, i.e., the TAM URI and protocol to use go together.
 3. Demux based on TAM URI
 - Unlike option 2, this requires separate URIs (e.g., separate paths) for TEEP vs OTrP
 - On the Agent side (request to install a TA, etc), still requires learning the TAM URI and protocol together, since Agent cannot infer anything from the URI itself

Issue #1: Terminology alignment (1/2)

- Implementations of TEEP-over-HTTP spec are now called:
 - TEEP/HTTP Client
 - TEEP/HTTP Server
- Independent of whether TAM has a TEE or not



Issue #1: Terminology alignment (2/2)

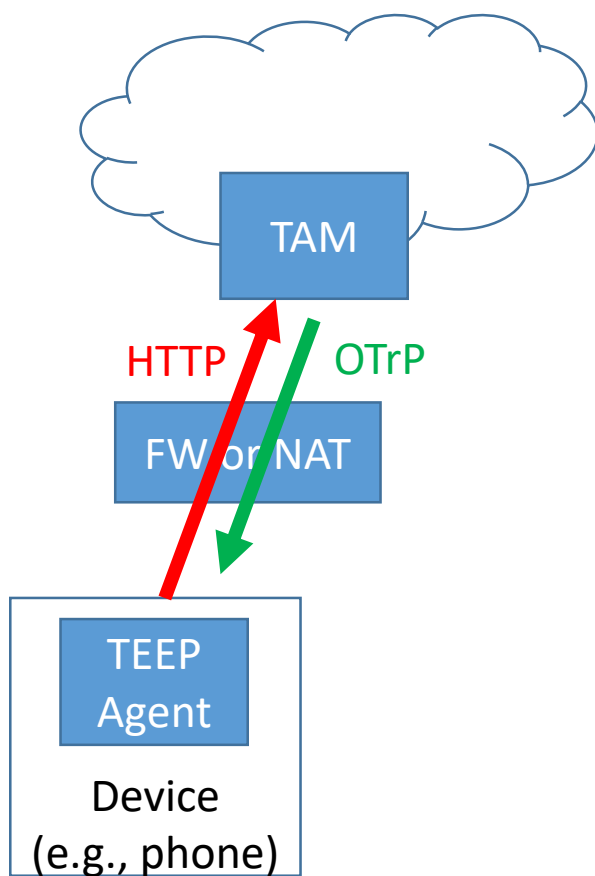


... (etc.)

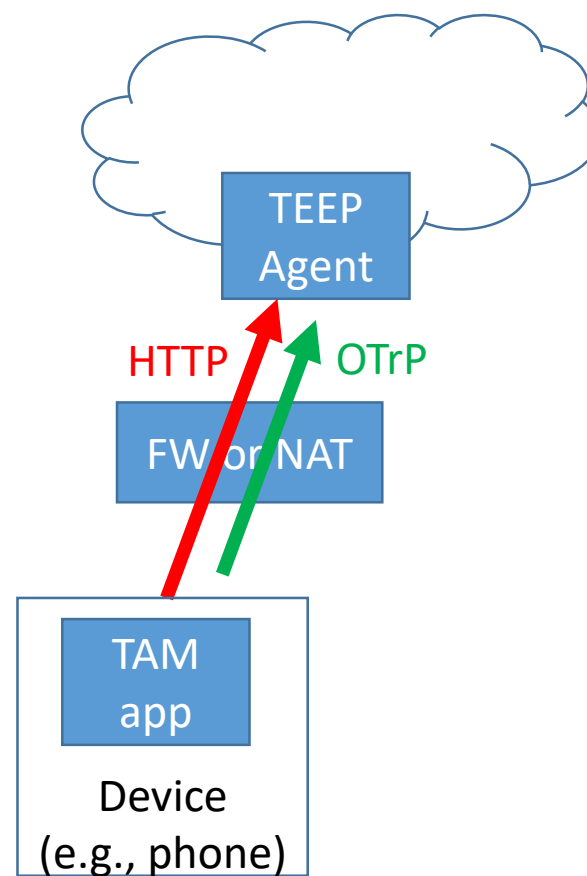
TEEP Broker can be at different layers in different implementations

Issue #2: HTTP Bindings (1/3)

Current model:



Anders asked about:



Issue #2: HTTP Bindings (2/3)

- Might also apply to Red Hat's Enarx scenario, if standard protocol is desired
- Options:
 - A. Do nothing
 - B. Punt to future work, but update title of this doc (IETF 105 consensus)**
 - C. Start on separate doc, and update title of this doc
 - D. Work on now, in same doc

Issue #2: HTTP Bindings (3/3)

- Changes in draft-03:
 - Updated title

HTTP Transport for Trusted Execution Environment Provisioning:
Agent-to-TAM Communication
 - Updated introduction with a discussion of the two topological scenarios
 - States that remainder of doc is scoped to the Agent-to-TAM scenario, with other scenario left to future work, except...
 - HTTP headers section and security considerations apply to both scenarios
- Ready to close (any subsequent feedback can be a new issue)?

Next Steps

- Address issue #5
- Any other issues?
- Then WGLC?