



**I E T F**®

# IETF 110 TEEP Hackathon

March 10, 2021  
Akira Tsukamoto (AIST)

# IETF Hackathon

Date March 4, 10:00-15:00 in JST

Participants:

Akira Tsukamoto, AIST

Kuniyasu Suzaki, TRASO/AIST

Kohei Isobe, Secom

Ken Takayama, Secom

Masashi Kikuchi, TRASIO

Takahiko Nagata, TRASIO

# Gathering at the gather

The screenshot displays a virtual meeting environment. On the left, a chat window is open, showing a conversation between participants. The chat messages include:

- 12:00 PM: nagata to nearby: すみません.. 次の打合せのため離脱します
- 1:50 PM: Akira Tsukamoto to nearby: <https://github.com/ietf-teep/teep-protocol/pull/124>  
[https://github.com/ietf-teep-protocol/issues/125](https://github.com/ietf-teep/teep-protocol/issues/125)
- 2:11 PM: Akira Tsukamoto to nearby: [https://github.com/ietf-teep-protocol/issues/127](https://github.com/ietf-teep/teep-protocol/issues/127)
- 2:26 PM: Akira Tsukamoto to nearby: [https://docs.google.com/presentation/d/1CfePhDrHm161o\\_O7BaCiEV6AFoo2CnF4ueMda4CK8/edit?usp=sharing](https://docs.google.com/presentation/d/1CfePhDrHm161o_O7BaCiEV6AFoo2CnF4ueMda4CK8/edit?usp=sharing)
- 2:38 PM: Akira Tsukamoto to nearby: [https://github.com/ietf-teep-protocol/issues/128](https://github.com/ietf-teep/teep-protocol/issues/128)

The main view shows a 3D virtual room with a wooden floor and three round tables labeled 'd', 'e', and 'h'. Each table is surrounded by chairs. Participants are visible in video thumbnails at the top and bottom right. The thumbnails show: Kuniyasu Suzuki (Ring Kuniyasu Suzuki), Isobe Kohji (Isobe Kohji), kikuchi (Ring kikuchi), and Christos Koulamas (Christos Koulamas). The bottom right corner shows a video thumbnail of Akira Tsukamoto Online. A button labeled 'Press x to view document' is visible near the bottom center. The chat window on the left has a 'To Nearby' dropdown and a 'Message...' input field.

# Plan (1/3)

- Objective:
  - Adopt draft-05, which had many changes
    - 32 Pull Requests (PR) were merged after IETF109
  - Try following the latest draft in implementations and purify the draft
- Implementations used in Hackathon:
  - TAM: tamproto from Secom
  - TEEP device: teep-device from Lepidum and AIST
  - teep library: libctEEP from Secom

## Plan (2/3) : Testing between TAM and teep-device

- Generating digest of TC and create suit manifest. Have not generated a suit-manifest before. Upload this suit manifest to tamproto and use it for other tests.
- Test unneeded-tc-list, check if deleting TC would work or not and fixing it.
- Test token that the type have changed from uint to bstr.
- Add implementation in teep-device to verify every entry of suit-manifest properly.

## Plan (3/3) : Others

- Discuss SUI draft discription of preventing rollback updates
- Discuss how to use URI externally in suit manifest
- Making PR at github: the teep-protocol binary example:
  - Change Token example from 8byte to 16 byte, Change component-id example from 15 byte to 16 byte
- Making Issue at github:
  - Should digest region contain only data entry or with type-id and length of cbor.

# Result (1/3 ): Testing between TAM and teep-device

- Test token that the type have changed from uint to bstr.
  - Success, communicated fine after changes TAM (tamproto) <-> teep-device
- Generating digest of tc and create suit manifest. Have not tried generating a suit-manifest before. Upload this suit manifest to tamproto and use it for other tests.
  - Could not finish it.
- Test unneeded-tc-list, check if deleting TC would work.
  - Success, deleting TC worked fine. However, already this is obsolete feature in draft-05
- Implement in teep-device to verify every entry of suit-manifest properly.
  - Could not finish it. We learned that it is unlikely to be finished soon.

## Result (2/3): Others

- Making PR at github:
  - Change Token example from 8byte to 16 byte, Change tc-id example from 15 byte to 16 byte
    - <https://github.com/ietf-teep/teep-protocol/pull/124>
  - Unify the upper/lower cases and remove the leftover unneeded-tc-list
    - <https://github.com/ietf-teep/teep-protocol/pull/126>
- Making Issues at github:
  - TA Signer or TC Signer -> Discussion topic at IETF 110 TEEP session
    - <https://github.com/ietf-teep/teep-protocol/issues/125>
  - Use token in teep message or using nonce in eat-claim-set in the future -> Discussion topic at IETF 110 TEEP session
    - <https://github.com/ietf-teep/teep-protocol/issues/127>
  - How to generating suit manifest for delete -> Discussion topic at IETF 110 TEEP session
    - <https://github.com/ietf-teep/teep-protocol/issues/128>



## Result (3/3): Investigate and discussion

- Check suit draft for preventing rollback updates.
  - Run out of time, could not discuss
- Discuss how to use uri externally from signed area in suit manifest
  - Run out of time, could not discuss -> Discussion topic at IETF 110 TEEP session
    - <https://github.com/ietf-teep/teep-protocol/issues/104>
    - <https://github.com/ietf-teep/teep-protocol/issues/105>

# Summary

- Was able to have consensus of maturity of draft-ietf-teep-protocol on top of draft-ietf-teep-otrp-over-http is mostly fine now from implementation perspective.
- Where to focus after IETF110?
  - Trying COSE on teep-protocol
    - we only have tried CBOR portion.
  - Move majority of effort on how to use SUIT manifest properly inside teep-protocol
    - Nobody have tried yet.
- After IETF 111?
  - Probably integrating RATS in TEEP.

A part of this hackathon presentation is based on results obtained from a project, JPNP16007, commissioned by the New Energy and Industrial Technology Development Organization (NEDO).