Plugfest

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Outline

- Setup
  - Full week
  - One hour a day sync meeting
  - VPN used to simulate a local LAN
  - https://github.com/w3c/wot-testing/tree/master/events/2020.06.Online
- New Accomplishments
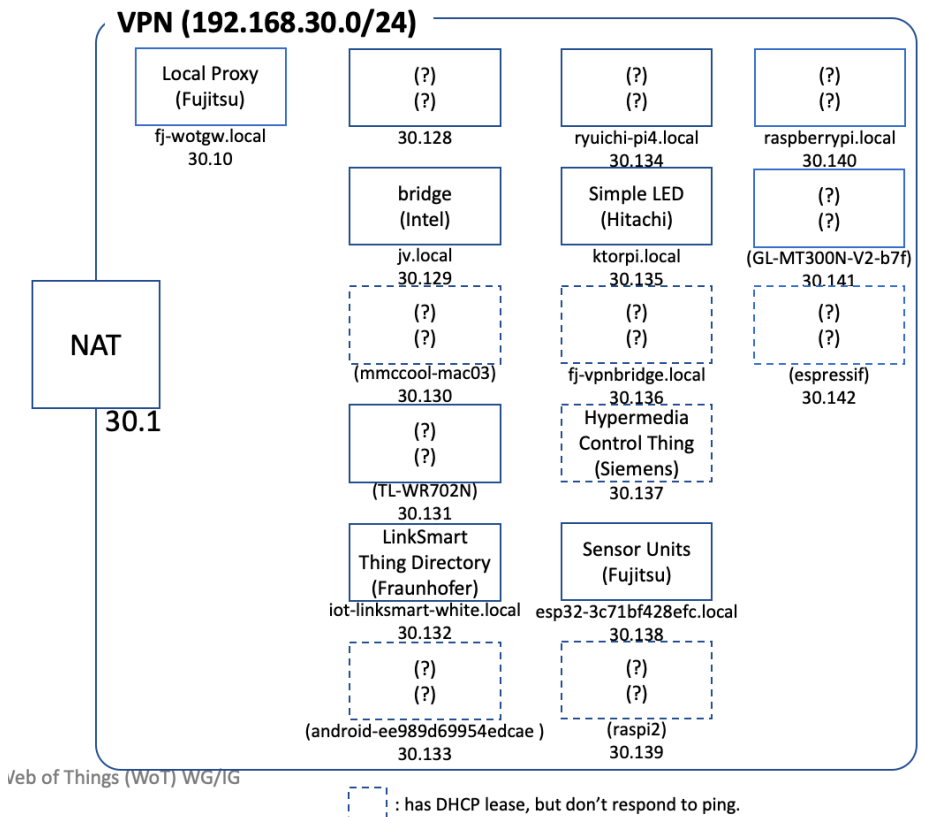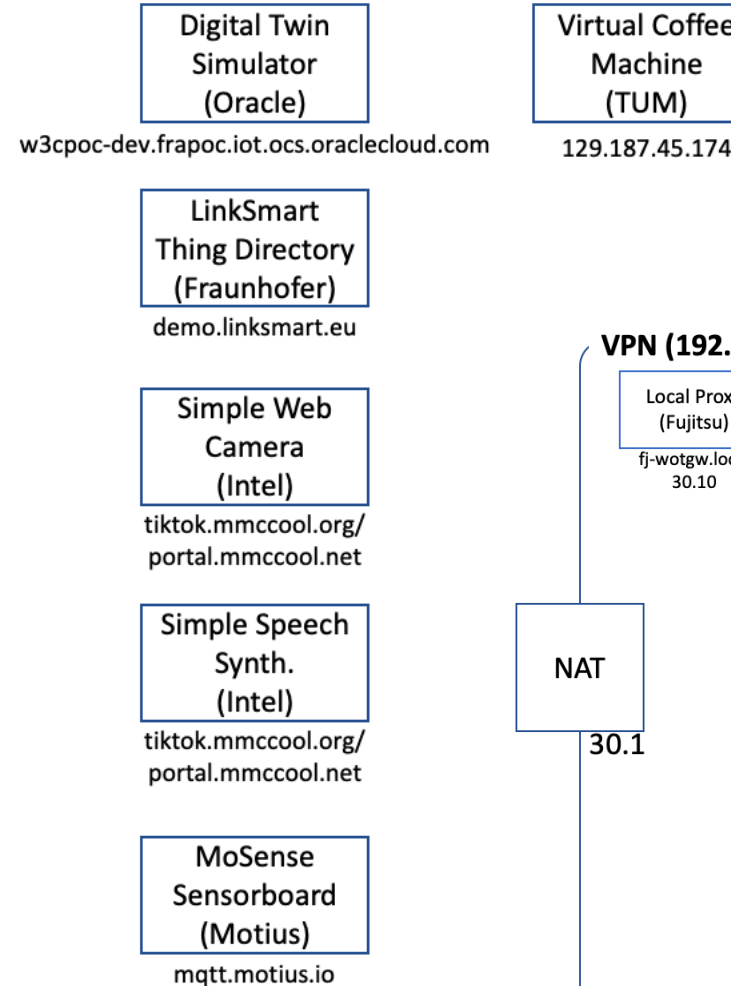- Outcomes
- Next Steps - Discussion

Setup

- VPN to simulate local area network behind a NAT

- NAT, DHCP server, and firewall run on small (1GB) AWS cloud instance

- Bridge so devices downstream do not realize they are sharing a VPN

- Bridge computer itself can also host services that appear on the VPN

New Accomplishments

- Searchable directory services automatically populated with TDs, supporting discovery via DNS-SD

- Autopopulation of Node-RED from directory

- Testing via W-ADE tool from TUM

- Hypermedia control prototypes

Internet

Digital Twin Simulator (Oracle)
w3cpoc-dev.frapoc.iot.ocs.oraclecloud.com

Virtual Coffee Machine (TUM)
129.187.45.174

LinkSmart Thing Directory (Fraunhofer)
demo.linksmart.eu

Simple Web Camera (Intel)
tiktok.mmccool.org/ portal.mmccool.net

Simple Speech Synth. (Intel)
tiktok.mmccool.org/ portal.mmccool.net

MoSense Sensorboard (Motius)
mqtt.motius.io

NAT
30.1

VPN (192.168.30.0/24)

Local Proxy (Fujitsu)
fj-wotgw.local
30.10

(?) (?)
30.128

bridge (Intel)
jv.local
30.129

(?) (?)
(mmccool-mac03)
30.130

(?) (?)
(TL-WR702N)
30.131

LinkSmart Thing Directory (Fraunhofer)
iot-linksmart-white.local
30.132

(?) (?)
(android-ee989d69954edcae)
30.133

(?) (?)
ryuichi-pi4.local
30.134

Simple LED (Hitachi)
ktorpi.local
30.135

(?) (?)
fj-vpnbridge.local
30.136

Hypermedia Control Thing (Siemens)
30.137

Sensor Units (Fujitsu)
esp32-3c71bf428efc.local
30.138

(?) (?)
(raspi2)
30.139

(?) (?)
raspberrypi.local
30.140

(?) (?)
(GL-MT300N-V2-b7f)
30.141

(?) (?)
(espressif)
30.142

⬚ : has DHCP lease, but don't respond to ping.

WEB OF
THINGS

Outcomes

See issues marked with "Plugfest Outcomes" label in wot-testing:

- Balance Validation and Experimentation
- Need to define appropriate DNS-SD service types
  - More generally, typed links
- Get Validation and Reporting tools ready before the plugfest
- Usefulness of the VPN
- Xpath features useful for discovery
- IDs needed for primary keys
  - LinkSmart design tried to use id field in TD as a primary key but since these are optional, this tripped on TDs that omitted them. Information and API model of directories needs to use temporary keys.

Next Steps - Discussions

- What could have been done better?
- What should we do next time?