L2 Trigger Implementation Examples on MIRAI-SF Simulator
- A Candidate for 802.21 Evaluation Platform

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A brief explanation of MIRAI-SF

- Equips a discrete event simulator engine which provides simple simulation building blocks; Entity, Process, in-outChannel, process
- Prepared network components utilizing the building blocks
  - Signaling servers
  - L2 switches
  - Routers
  - NICs
  - Radio APs and Devices
  - Communication stacks
  - Applications
- Network simulation is described in MNDL a network description language deploying the components

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Comparison scenarios

Defined FMIPv6 and L2 handoff models on same terminal mobility model (way-point) and AP deployment

- FMIPv6
  - Data forwarding between old and new routers
  - Pre-assigning of CoA and authentication data
  - L2 triggers
    - Reconnection on terminal
    - MAC address of new router
- Mobility support at L2
  - No configuration change at the IP layer
  - Less signaling traffic for supporting terminal mobility

Animated simulation result

- Let's see!

Show the signaling comparison animation here

Conclusion and Future Activities

○ L2mobility support achieves half of signaling traffic comparing FMIPv6

○ L2 mobility support can provide IPv4/v6 independent mobility service

○ Estimate the upcoming proposals from the other working groups to the 21 (e.g. beacon implementation on the MIRAI-SF simulator)

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