Distributed Mobility Management Protocol for WiFi Users in Fixed Network

Behcet Sarikaya(sarikaya@ieee.org)
Li Xue (xueliucb@gmail.com)
IETF 95

draft-sarikaya-dmm-for-wifi-04
DMM for WiFi

Virtualized Control Plane

SDN Controller for Backhaul Network

eNodeB Group 1

Egress

Ingress

UG-Router

Layer 3 Network

SDN Controller for Core Network

P-Router

B-Router

Internet/IMS/Other PDN

Northbound Interface

SDN Controller for Access Network

eNodeB Group 2

Access Point 1

Residential Gateway

Access Point 2

OpenFlow

Netconf

i2rs Client

i2rs Agent
What is new in Rev. 04

- MN is assigned a prefix and it keeps this prefix as it moves
- In Rev. 04, we addressed handling route establishment after handover (host route issue) in the context of Netconf & Yang
- Used Netmod WG work on A YANG Data Model for Routing Management as the basis in experimental work
- At nUGW, retrieve the active route for MN, add a host route for the new MN, propagate upstream;
- At pUGW, delete the route
RPC to delete the route at pUGW

- <rpc message-id="101" ... >
- get-config(running, filter=(destination-prefix, next-hop-address))
- edit-config(running, delete, config)
RPC to Add a new route for MN at nUGW

- `<rpc message-id="101" ... >`
- `get-config(running, filter=(destination-prefix, next-hop-address))`
- `edit-config(running, create, config)`
Conclusions

- Previous revisions: Clarified SDN model for Layer 2 and Layer 3 route management
- Added Multicast support
- This revision: added route management on handover
- Future work?