

Anchorless Mobility Management

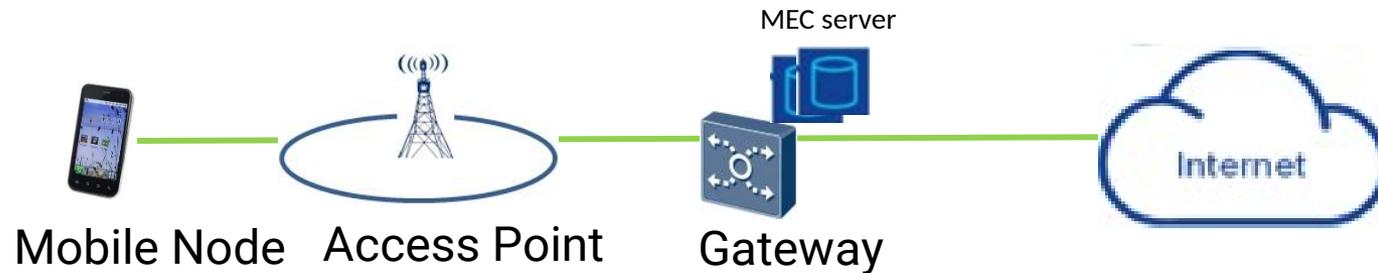
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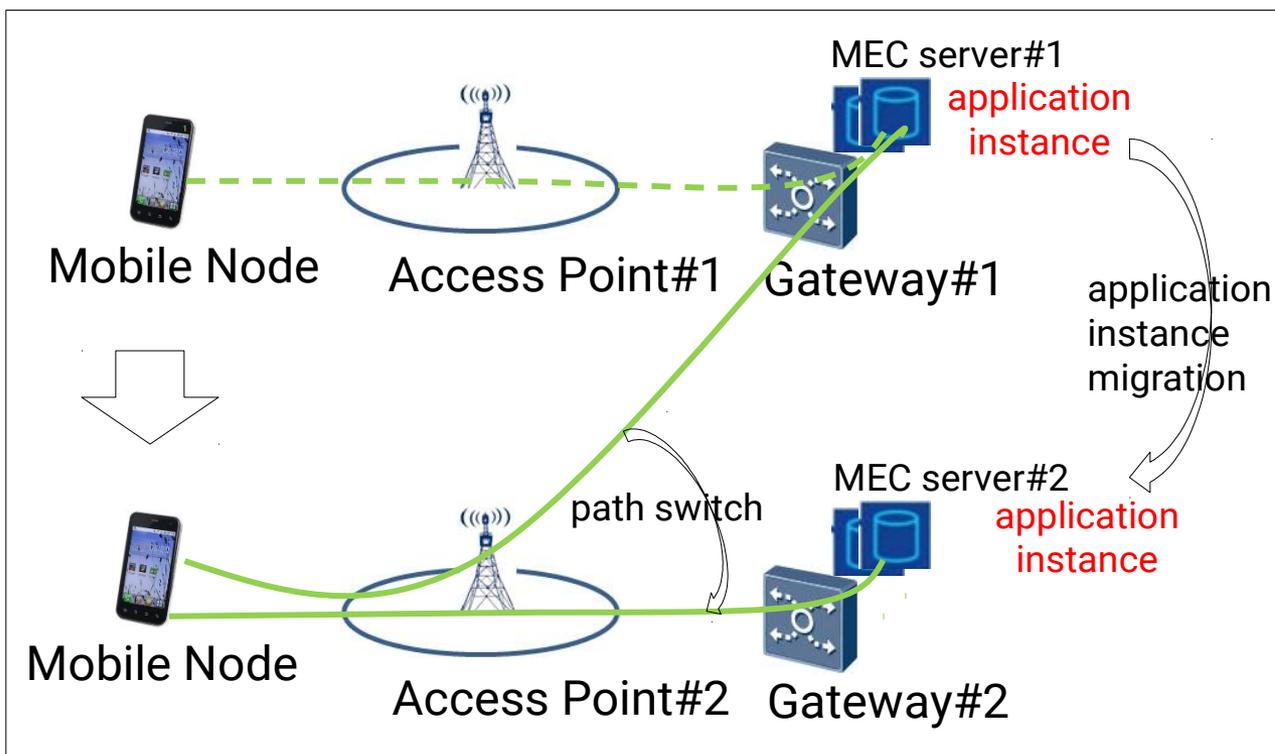
MEC (Multi-access Edge Computing) Background

- MEC uses a virtualization platform for running applications at the mobile network edge.
- The MEC sinks computing and storage capacity to the edge of the network, applications could be deployed in the MEC server.
- MEC is a candidate choice to increase traffic throughput and reduce end-to-end latency.



How Could MEC satisfy Critical Low Latency Requirement ?

- Deploying MEC at the edge of network could reduce network latency, but as MN moves away, the latency between MN and MEC might increase.
- To guarantee low latency, application instance migrates between MEC servers, following MN's movement. (named “**Smart Relocation**”)



Notes:

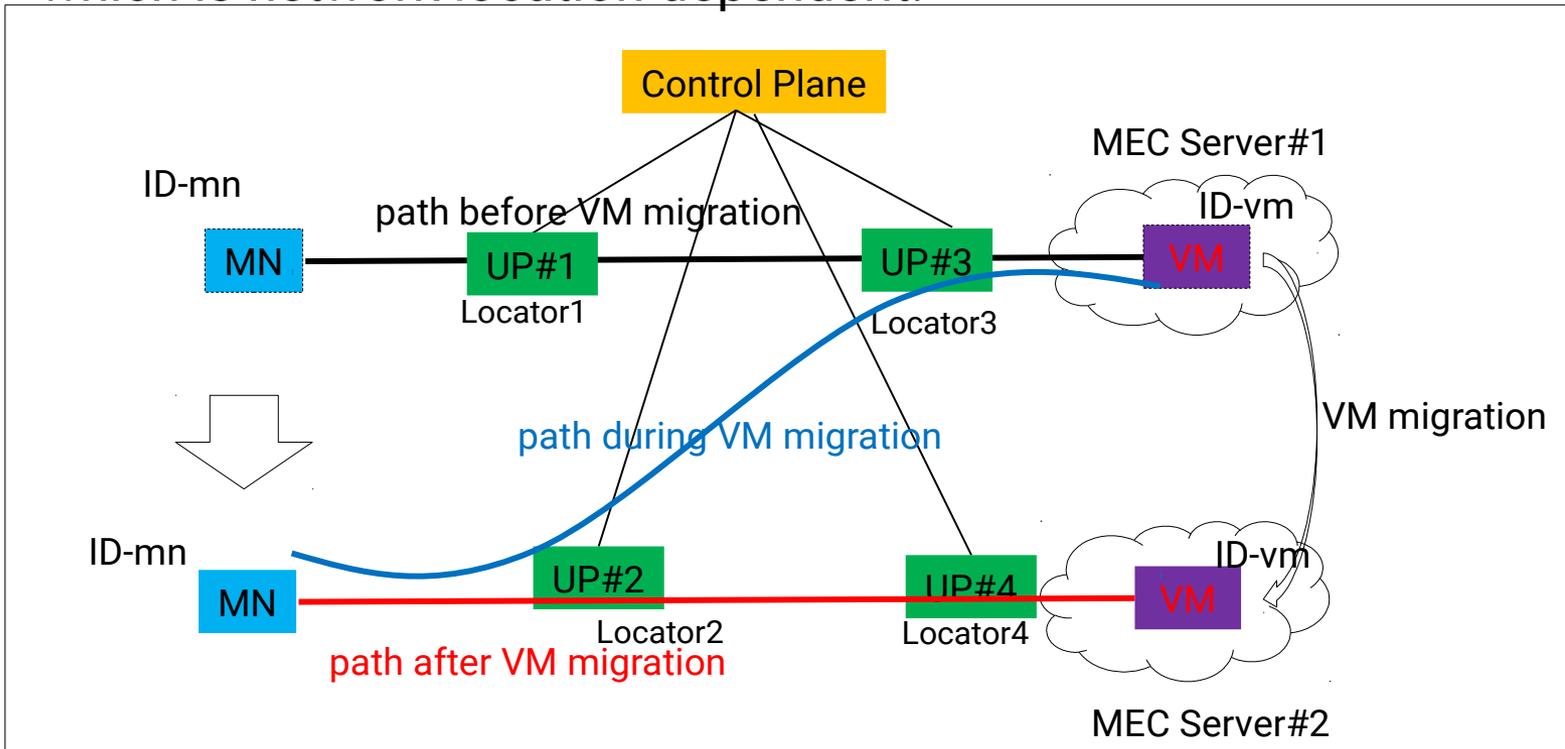
- application instance provides service for one MN.
- application instance migration could in the form of VM/docker migration.

What DMM Could Do for MEC Smart Relocation?

- A network layer service continuity support mechanism is required, which also eliminates routing redundancy for ongoing service.
- **Gaps for current DMM solutions:**
 - On-demand mobility scheme could reduce routing redundancy at certain level, but it's not quite enough for MEC smart relocation scenario: for the ongoing session, on-demand scheme could not eliminate routing redundancy at the same time providing service continuity.

Proposed Solution

- Network location independent **host ID** to identify the communication session, the IDs remain unchanged during the movement of MN and migration of application instance.
- Host ID is assigned by network to the host.
- IP address could be used as host ID, but once IP address is used as ID, it will not bound to the network location, and not used for routing.
- The traffic is routed based on network location information (**Locator**, e.g. IP), which is network location dependent.





Comments? Questions?