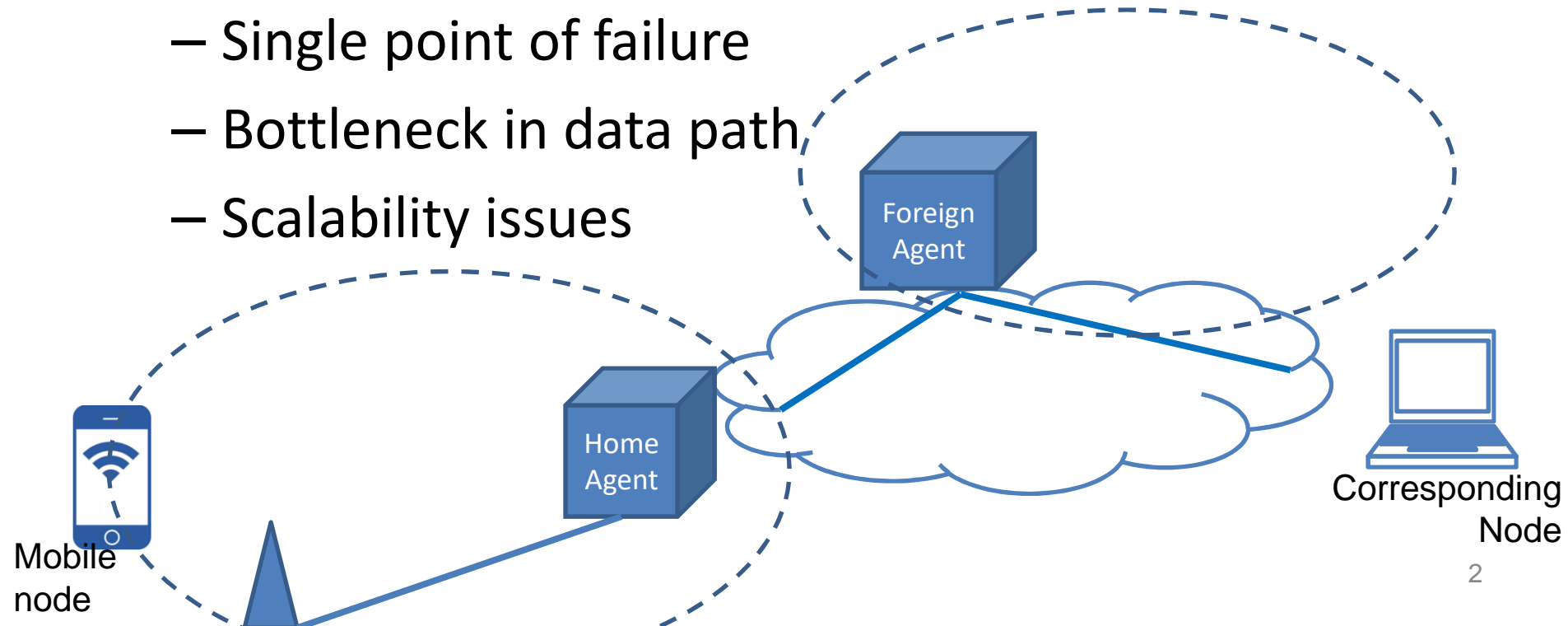# DMM: Distributed Mobility Management - Towards Efficient and Scalable Mobile Networks

Special Session along with ICN 2017

Problem Statement

- Centralized Mobility Management (CMM)
  - MIP - Home Agent
  - 4G – PDN-GW
  - Single point of failure
  - Bottleneck in data path
  - Scalability issues

DMM Issues (by IETF)

- Distributed mobility management
  - Tunneled x host based DMM
  - Split anchor functions
- Bypassable network-layer mobility support for each application session
- IPv6 deployment
- Existing mobility protocols
- Coexistence with deployed networks/hosts and operability across different networks
- Operation and management considerations
- Security considerations
- Multicast considerations
  - Per-flow multicast routing support

Today

- Inter-domain handover
  - CI-PMIPv6

- Expressive Modeling
  - Timed Petri Nets (work in progress)