Dyncast (Dynamic anycast) in CFN

routing service requests based on computing and network metrics

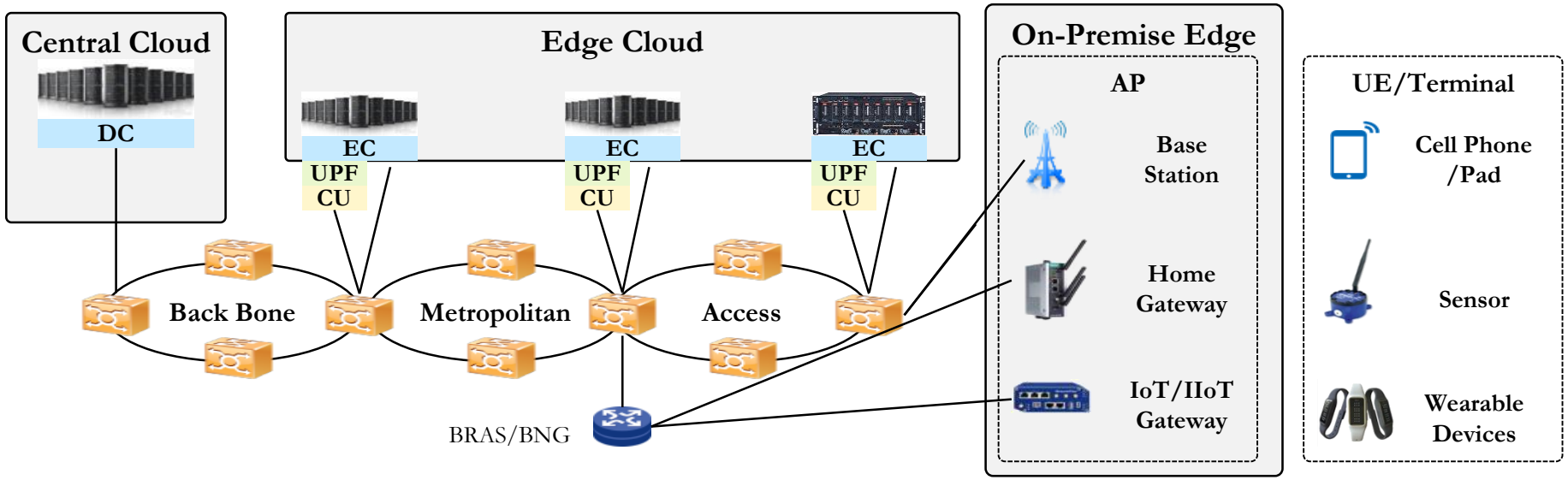
liyizhou@huawei.com

liupengyjy@chinamobile.com

draft-geng-rtgwg-cfn-dyncast-ps-usecase
draft-li-rtgwg-cfn-dyncast-architecture

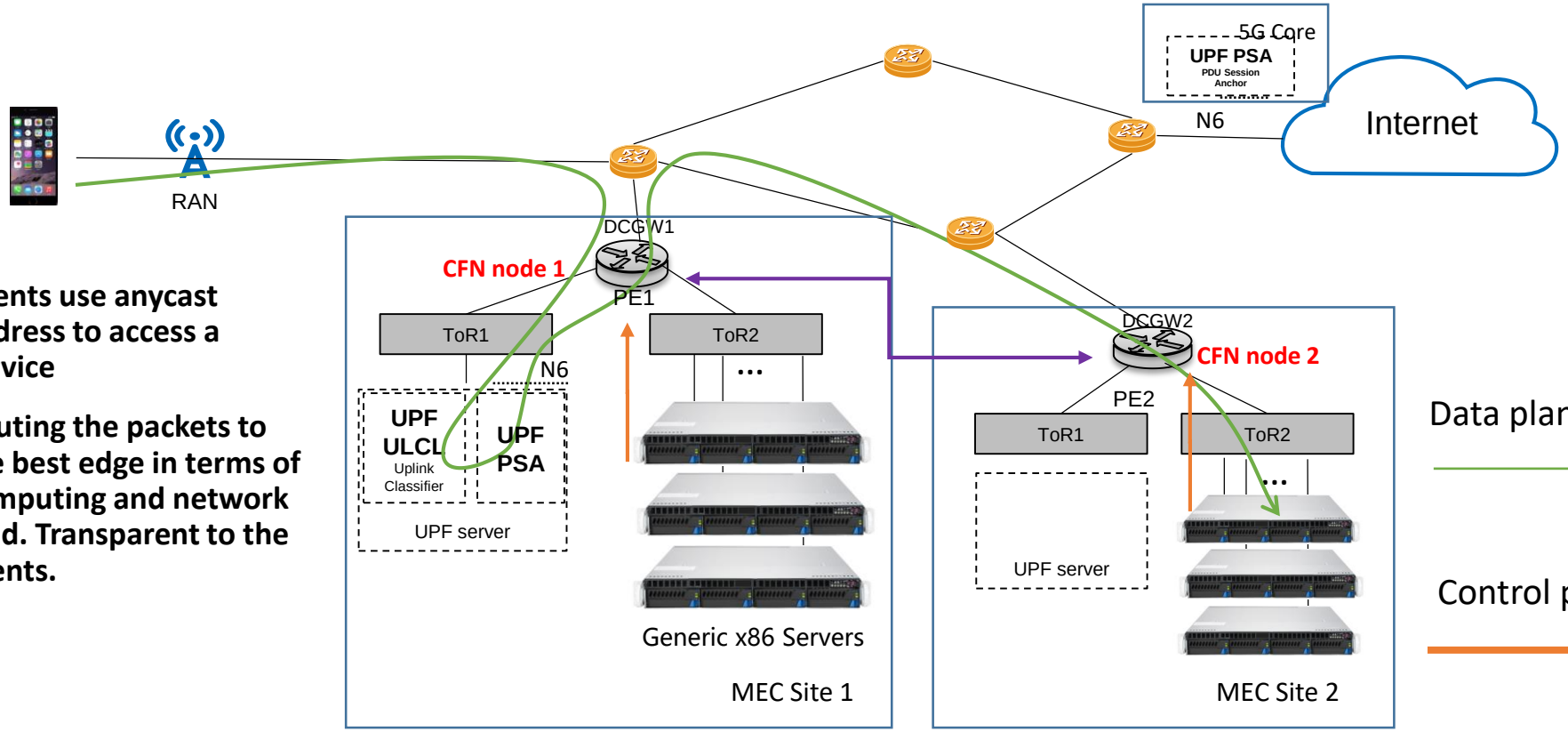
IETF109 hotrfc

Problems in edge computing



- Large number of edge sites
- Limited and varying computing resource for each site
- Question: Which edge is the best to route a computing demand to?
  - Computing resource and load attached
  - Network status
  - In real time

Concept of Dyncast in CFN



- **Clients use anycast address to access a service**
- **Routing the packets to the best edge in terms of computing and network load. Transparent to the clients.**

Data plane:

Data flow to the selected MEC Site 2

Control plane:

Service info notification and update to CFN node

Info distribution among CFN nodes

Proposed features to be supported in dyncast:

- **Anycast based service addressing methodology**
- **Flow Affinity**
- **Computing Aware Routing**

CFN: Compute first networking. A distributed computing environment across a network to perform flexible load management and performance optimizations.

Activity in IETF 109

- Virtual Side Meeting:
  - Wed (Nov 18), start 5 min after IETF plenary ends, 75-min session
    - UTC 10:45 - 12:00
    - CET (UTC+1) 11:45 - 13:00
    - CST (UTC+8) 18:45 - 20:00
    - PST (UTC-8) 02:45 - 04:00
  - Information also available on side meeting wiki: https://trac.ietf.org/trac/ietf/meeting/wiki/109sidemeetings
  - Webex: cfn-dyncast
  - Email me at liyizhou@huawei.com

- Purpose:
  - Understand the use cases, problem space, gaps and challenges
  - Review the framework, is it a right direction to go?
  - Discuss the potential work and where to fit them in IETF?