

FlexIP

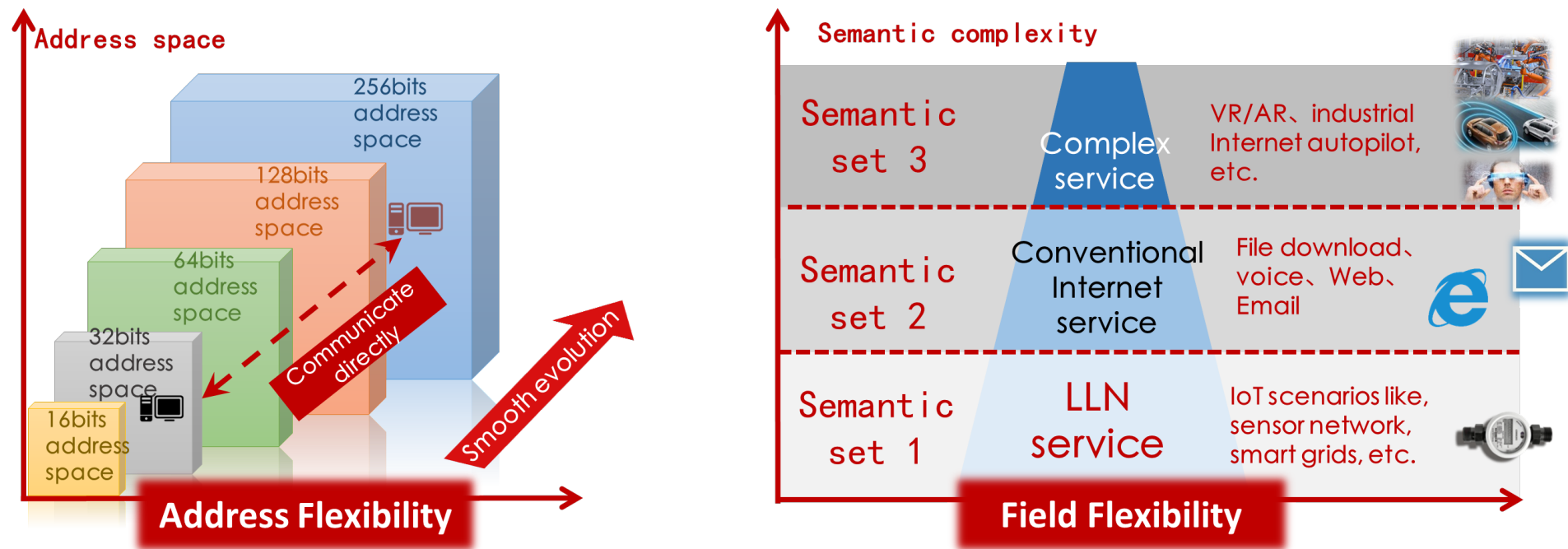
*Robert Moskowitz, Guangpeng Li
HotRFC@IETF103, November 2018*

Quick overview of FlexIP

- Variable-length address, unbounded address space
 - Two parts: Global and Local
 - Global Part is managed by global authority
 - Local Part is optional and managed by organization users
 - Recursively use
- Global routing in Multi-Tier
- Addressing globally but forwarding by address segments

Vision of FlexIP

- Any reasonable length of address is valid
 - Start new address space will not affect original network and addresses
 - Entities with different length addresses can communicate with each other directly
- Any combination of fields is valid
 - The packet header can be extreme short by omitting unrelated fields
 - New fields can be deployed more easier without the upgrade of hardware



Use case(issues from real network)

- Save resource for network node
 - Mesh node with battery
 - Small payload (low efficiency for TCP/IP)
 - ✓ FlexIP can construct extreme short header
- Privacy protection
 - IoT service gateway running application translator
 - Sensors of different operators connect to one gateway from one of the operator
 - ✓ Mapping of local part to mask true location. Robert Moskowitz is working on this, call for others to join.
 - ✓ FlexIP supports standard L3 forwarding and security
- I2 forwarding for use case where local part is I2 address

Welcome to the side meeting!

FlexIP discussion

19:00PM, Monday, 5th Nov.

Room: **Apartment 3 (9th Floor)**