

NaaS (Network as a service) Requirement

draft-liu-nvo3-naas-requirement-00

Authors: Vic Liu, Chen Li

China Mobile

Speaker: Vic Liu

China Mobile

Motivation

- With public cloud, Network Capabilities can be sold as a service to datacenter tenants:
 - IP address, VLAN, VxLAN, Bandwidth, Load Balancing, Firewall,...
- Need for NaaS: providing E2E Virtual Network for tenants
- Traditional technologies may become bottleneck of public cloud service, e.g. 4K VLANs
- This draft describes requirements of NaaS for cloud datacenters

Requirement of Naas(1/2)

1. Isolation of different tenants

- Each tenant has a isolated logically network which can self-plan and re-use IP and VLAN resources
- Traffic and network service(LB, FW) need to be isolate for different tenants

2. Tenant's logical network in GUI

- Tenant's logical network should presented by GUI which contains L2 switch, L3 gateway, edge router, LB, FW, etc.
- All links and device are logical and mapped to physical network

3. Bandwidth guarantee

- NaaS should provide tenants ability to allocated and guaranteed E2E bandwidth of logical networks

4. Network management

- NaaS should offer management and configuration ability for tenant logical network(self pan traffic and strategies)
- CDC Operator is responsible for the physical network

Requirement of Naas(2/2)

5. Reliability

- Distributed CDC, resource pool HA, smart TE, etc.

6. Service function requirement

- Public cloud services: IP, bandwidth, firewall, load balance, CDN, etc.
- Private cloud services: DHCP, DNS, subnet gateway, VPN, etc.

7. Performance requirements

- Million-level tenants support
- Millisecond level service response
- Tenants line speed bandwidth

THANKS

- Vic Liu
 - liuzhiheng@chinamobile.com
- Chen Li
 - lichen@chinamobile.com