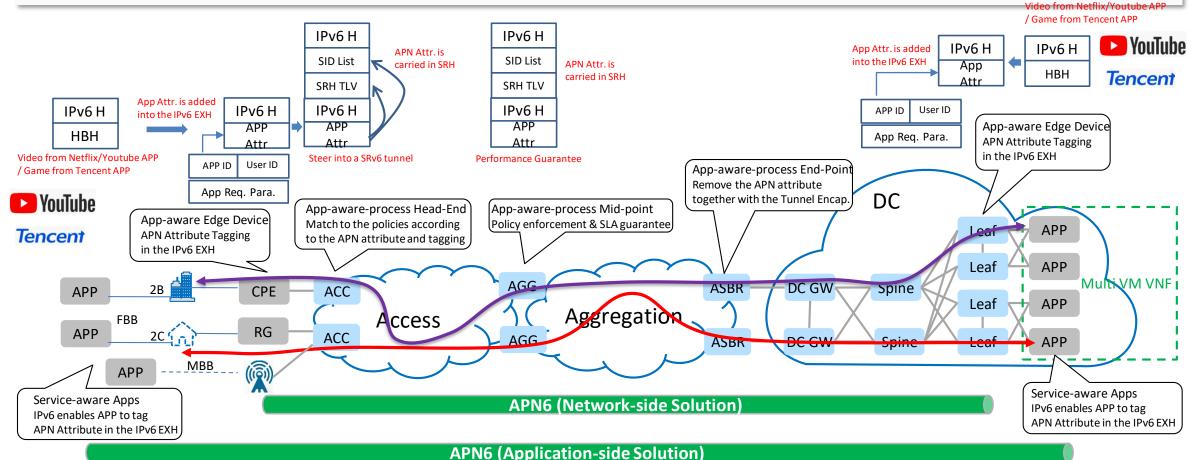
# **APN6 Deployments**



### **APN6: Application-aware IPv6 Networking**

- Make use of IPv6 extensions header to convey APN attribute along with the packets into the network
- To facilitate the flexible policy enforcement and fine-grained service provisioning



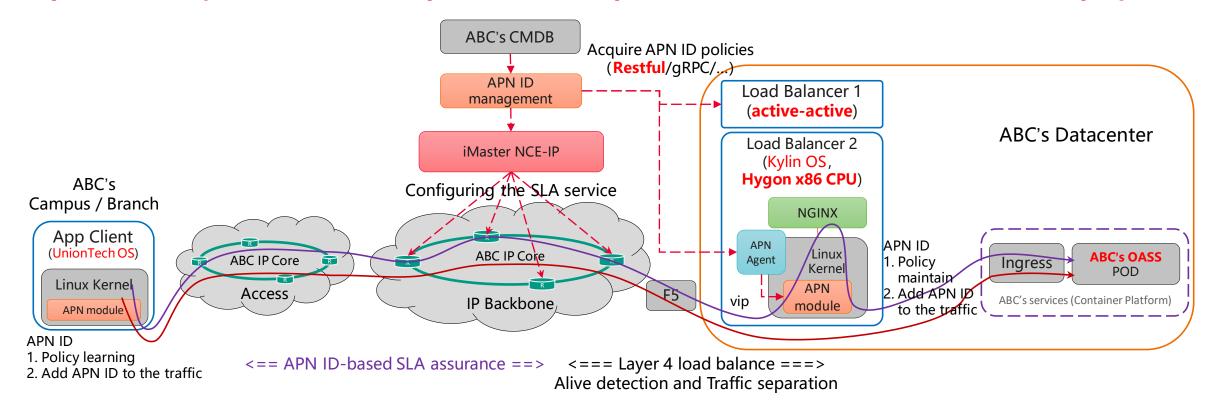
https://datatracker.ietf.org/doc/draft-li-apn-framework/

https://ieeexplore.ieee.org/abstract/document/9162934



### APN for ABC's OASS application:

Implemented by the APN control plane and data plane kernel module. Non-intrusive deployment.



#### Problem: Weak SLA capability, quality risks of key services

- 1. Applications and IP addresses are strongly bound. The network cannot detect address changes and adjust SLA policies in time
- 2. Limited identification capability for massive applications: the network cannot provide fine-granularity SLA assurance.

#### Values recognized by the customer(ABC):

- The bandwidth requirements are low in normal times
- For large-scale software upgrade and delivery service (OASS application), APN enable self-service quick bandwidth modification to handle burst traffic and achieve high concurrency. That ensure lossless delivery.





#### **APN6** Demo Cases: Improve User Experience of Video Conference in 2B Services

#### APN for service-aware, Slicing for SLA ensurance, IFIT for E2E visualization Mgmt **Operation platform** (iMOC) Layer In-meeting quality visualization (converge network & conference) Ctrl **Network Controller** CloudVC (SMC) 💰 iMaster NC Layer (NCE) **Campus Network** Core Network (IPv6 Enhanced, IP & Optical) **VC Terminals** Cloud VC slice IoT slice **Physical** OA slice CloudLink Box Data Center Layer CloudVC (MCU) HW CloudLink software OpenEuler Euler of (J: OpenHarmony Harmony OS iFIT provides per-Hop telemetry in real time Service 2 Carry Conference Conference Carry Layer APN identifier APN identifier Media Traffic SRv6 auto-setup. Flex-E slices provide SLA guarantee. Media Traffic **User Equipment Network** Cloud **ICT VC Terminals** Network (router & switch) iMOC, NCE, Product (Harmony OS)

IP & Optical (transport)



CloudVC (EulerOS)

# Thank you.

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