Security Level:

Building a Better Connected World,
ROADS to a Better Future

SRv6 for Cloud and Network Synergy

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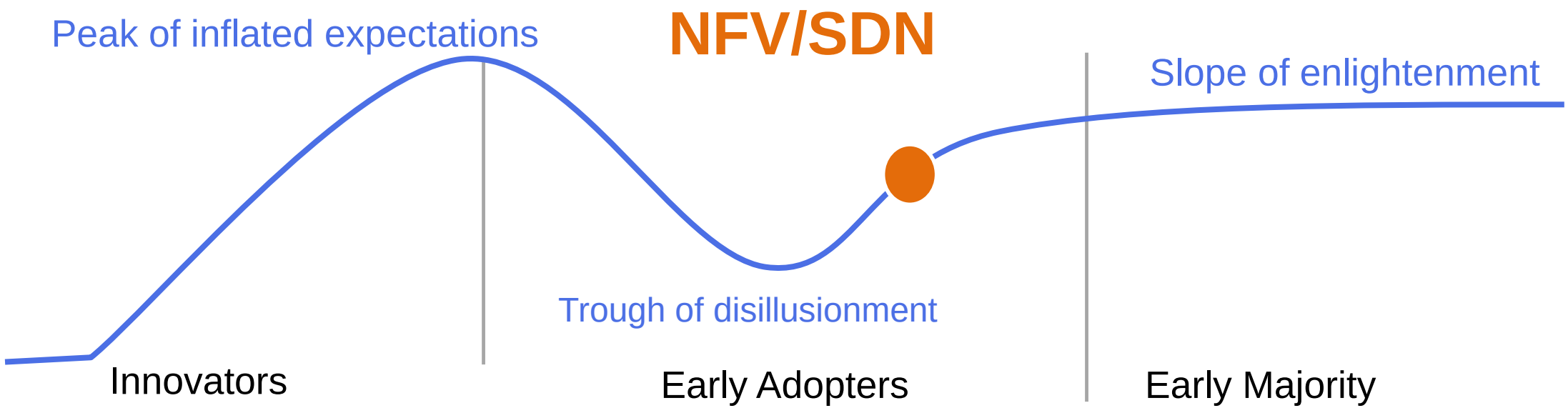
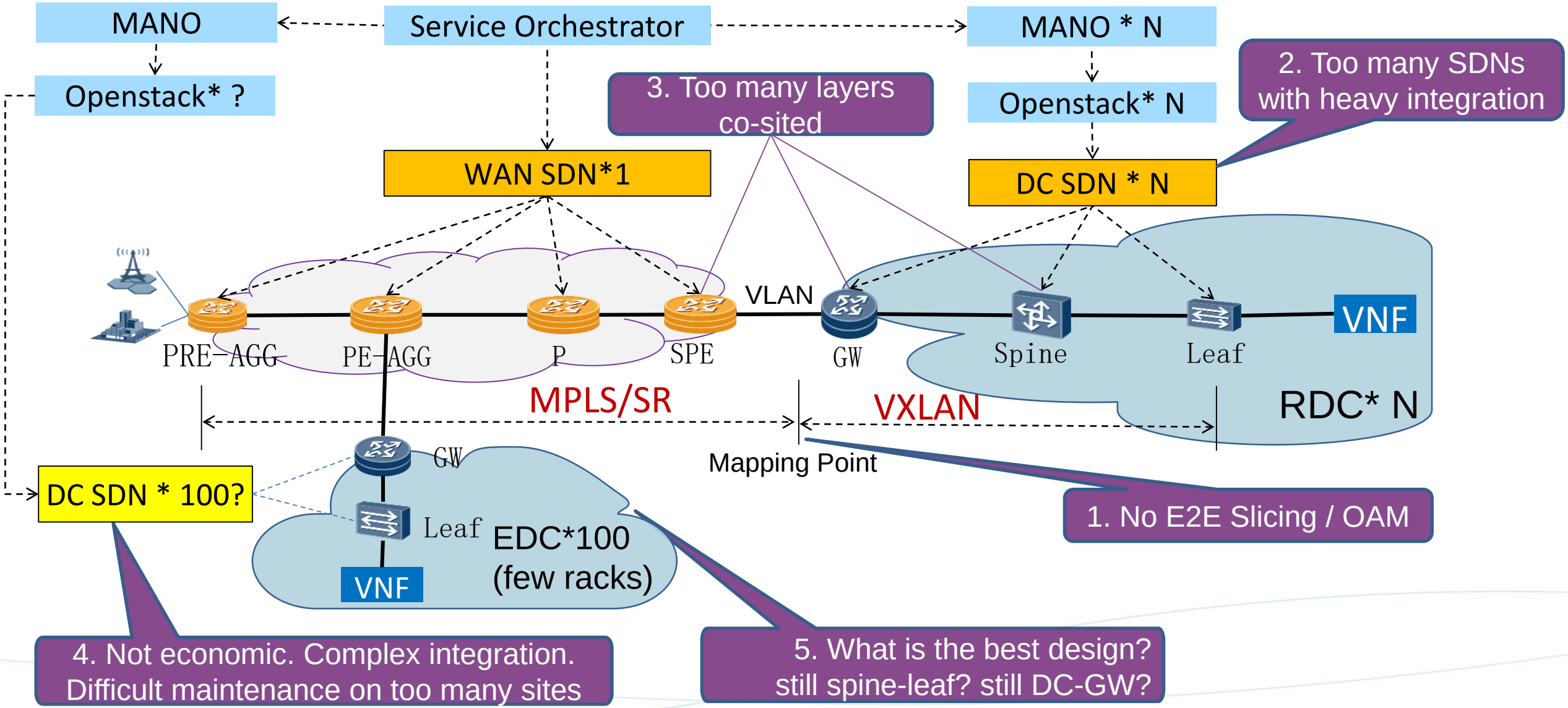
Telco Cloud for Digital Transformation

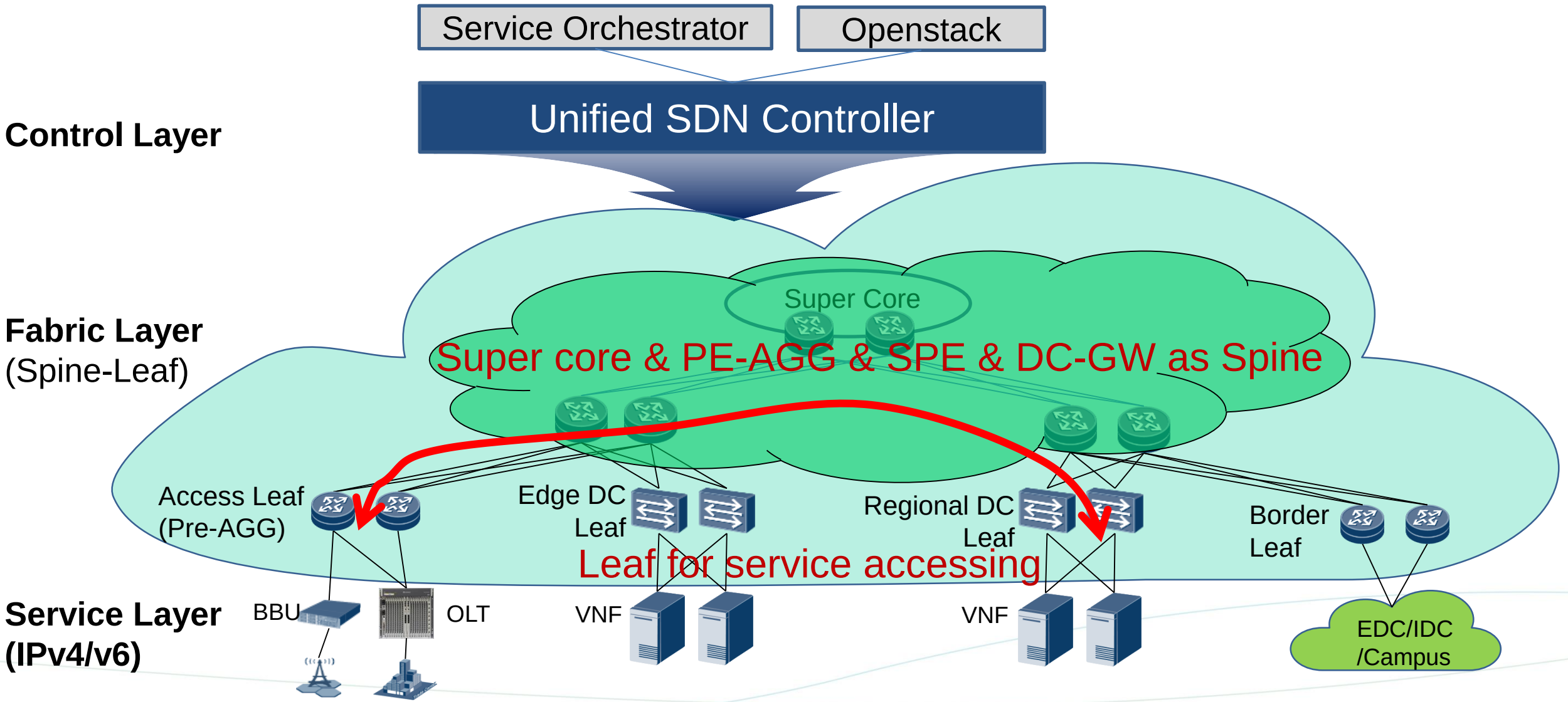
Gartner Hype Cycle



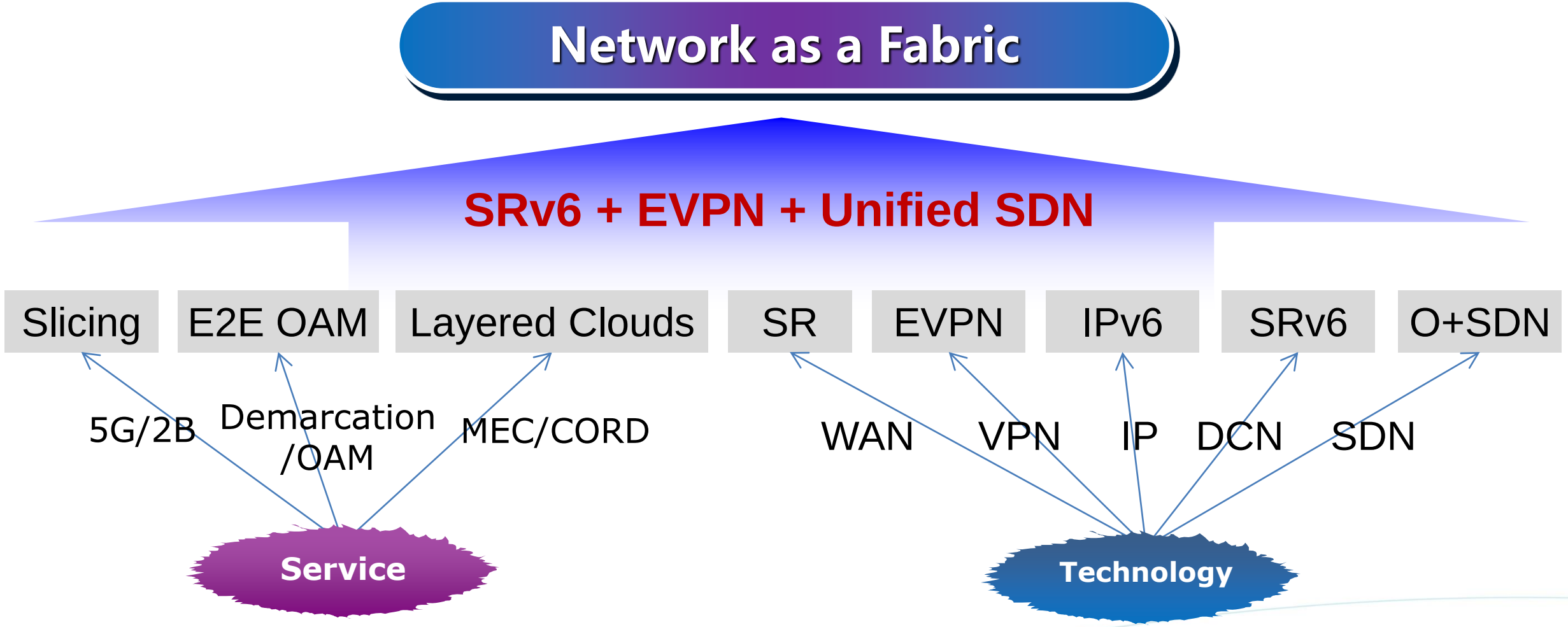
Challenges of Traditional Telco Cloud Transport



Target Telco Cloud Transport Evolution: E2E Network as a Fabric



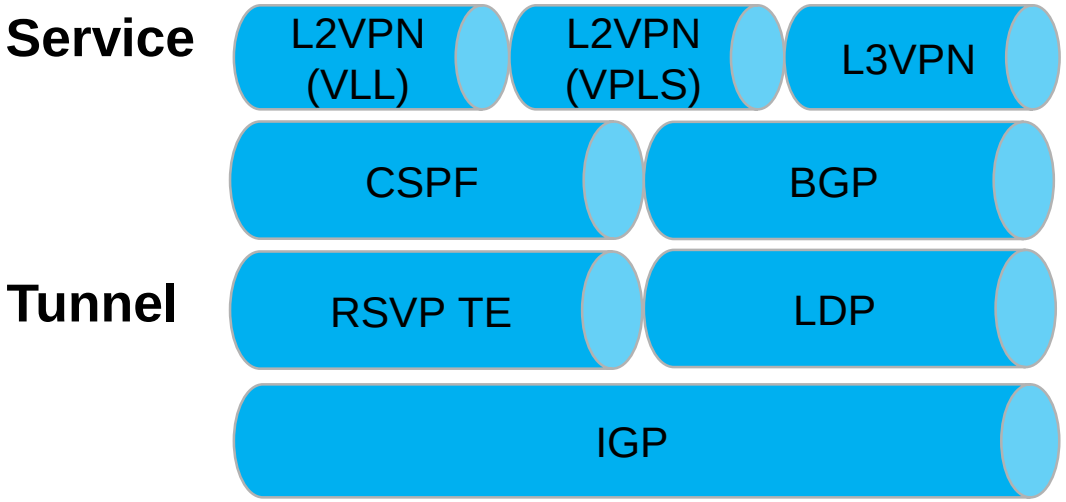
NAAF: Derived From Service & Technology Evolution



Aimed to solve the challenges and to head for Telco-cloud transport evolution.

Protocol Simplification: SRv6+EVPN Only

AS IS



TO BE

Cons:

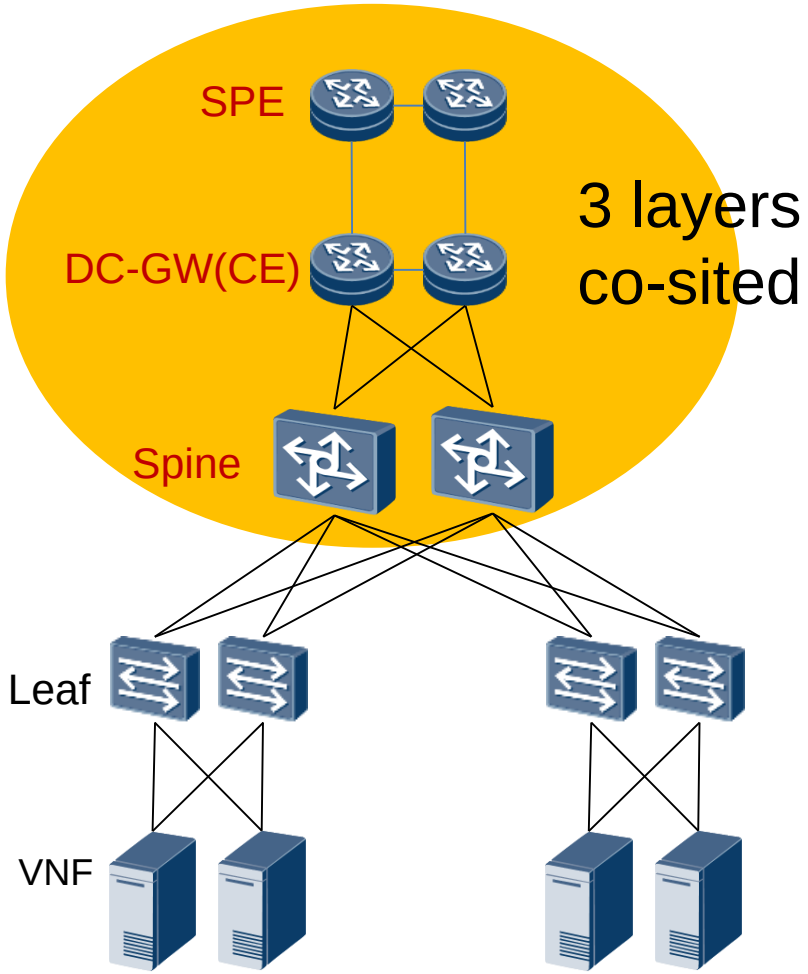
- Multi-Protocol, Complex Configuration
- Isolated O&M for Each Domain, Low efficiency

Pros:

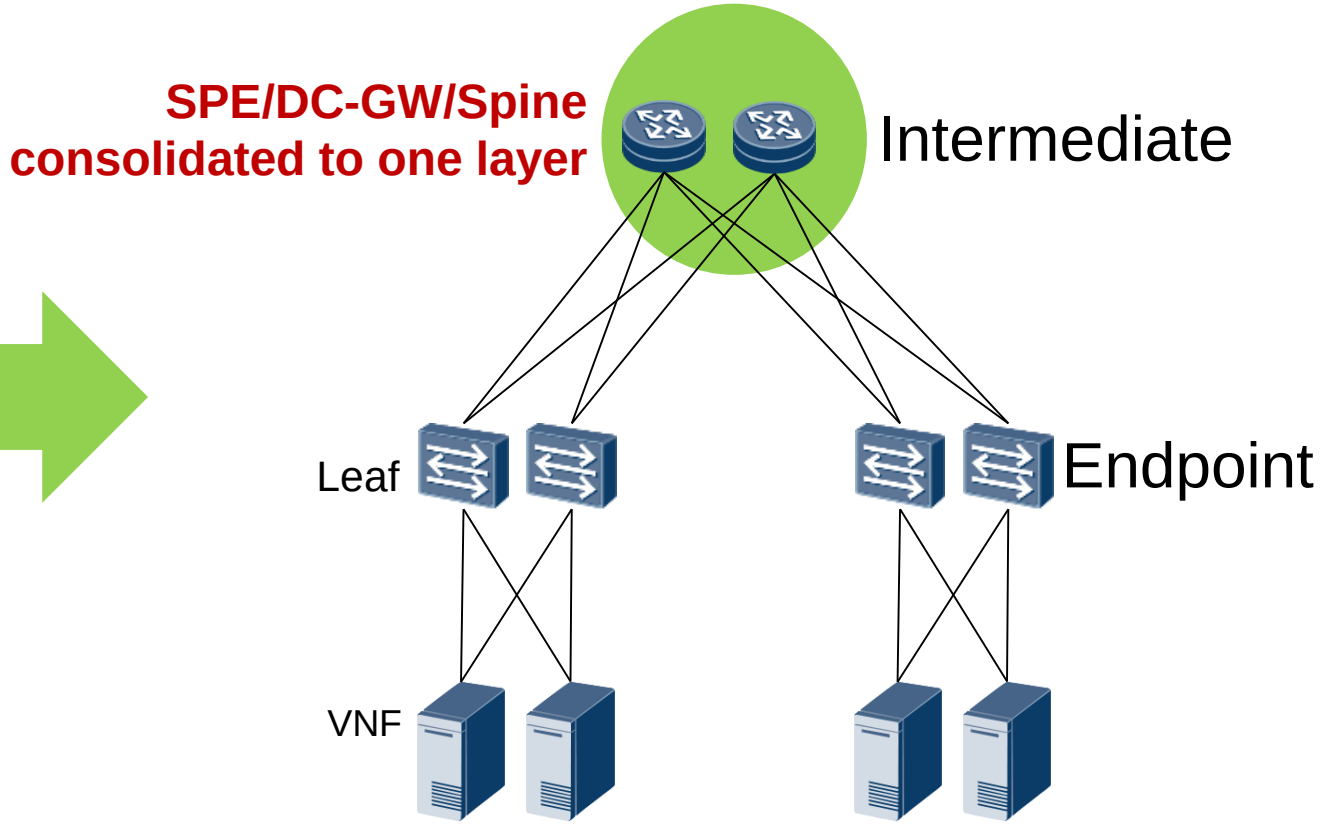
- Easy Maintenance. Simplified & Unified
- 100% Topology protection (<50ms, TI-LFA)
- Unified L2VPN/L3VPN (IPv4 & IPv6 compitable)

Protocol simplification helps to reduce TCO, and to easy the implementation of SDN

Simplified Layers to Save TCO



Traditional SPE, spine and DC-GW crowded in the same site.

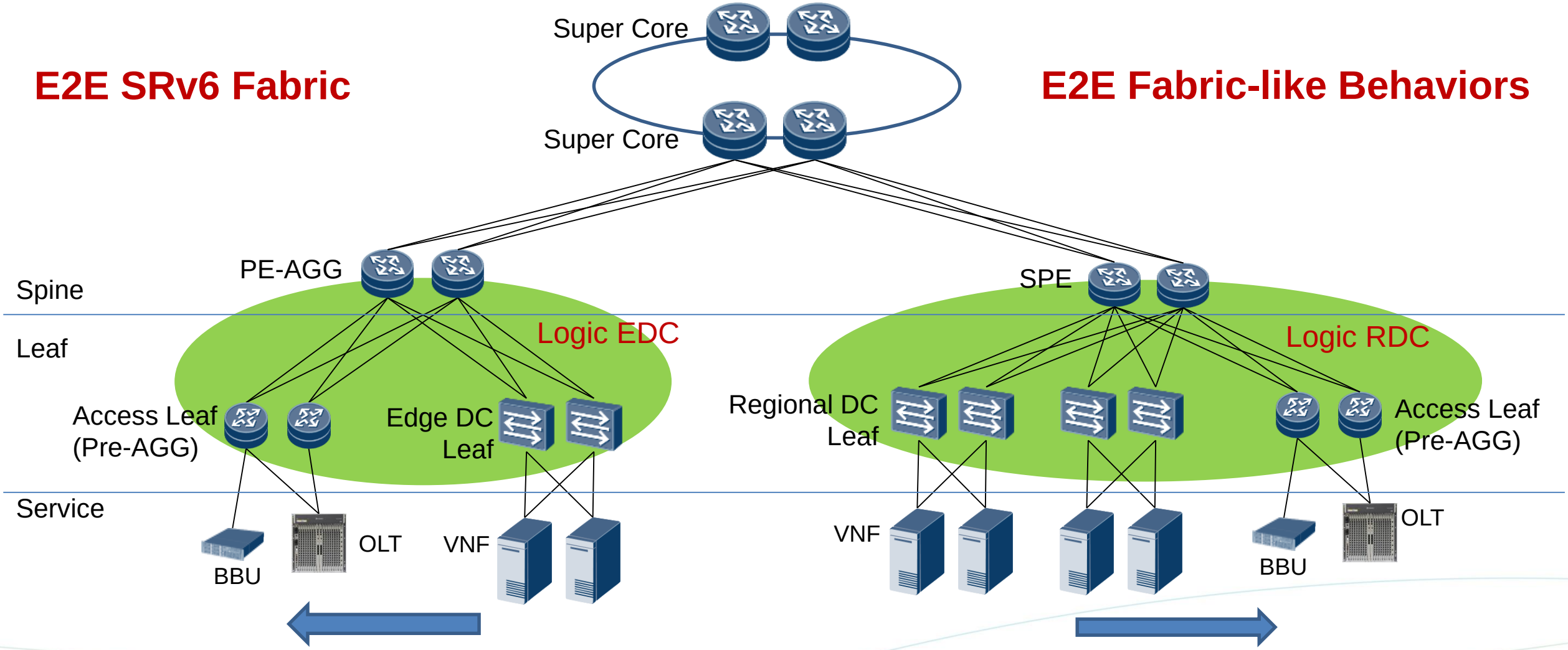


Consolidated to one layer: simplified, OPEX & CAPEX saving.

On-demand & Minimal-effort Scalability for Edge & Regional Clouds

E2E SRv6 Fabric

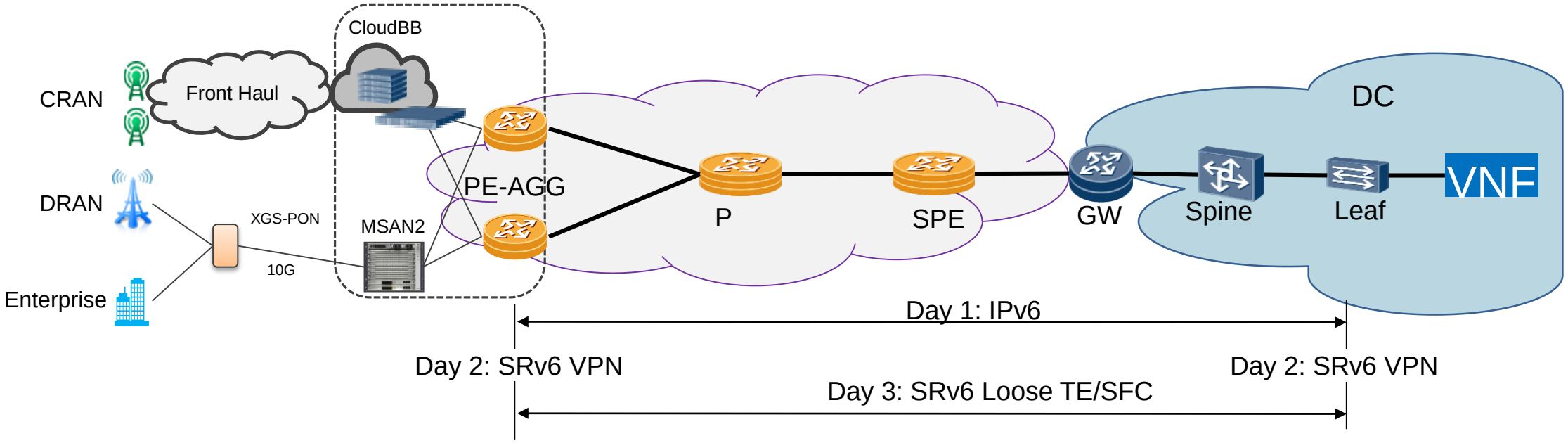
E2E Fabric-like Behaviors



Just add leafs for new services & edge clouds.

Unified accessing for VNF/PNF & BBU & OLT, etc.

Easy E2E Incremental Deployment



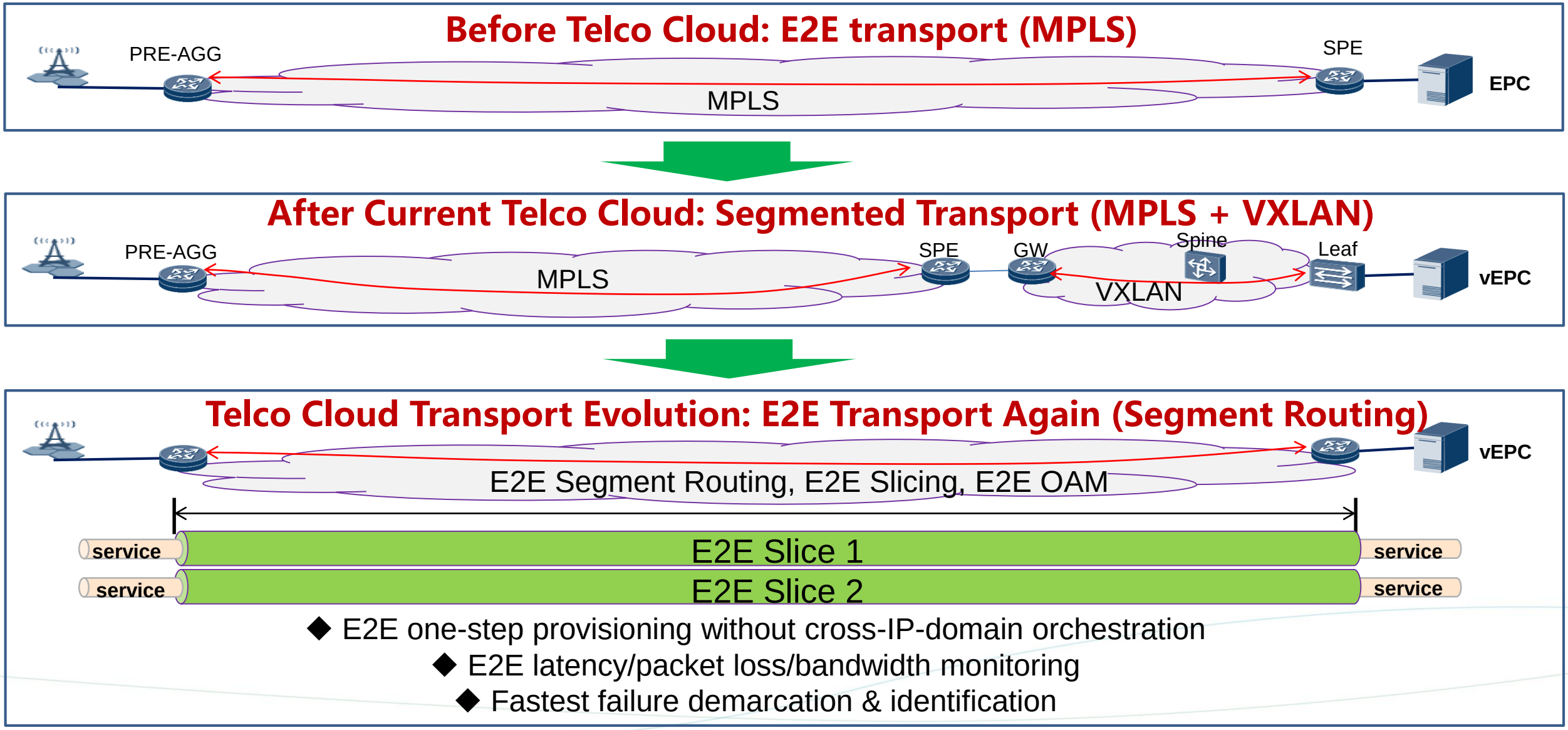
Future

Day1: Upgrade the network devices to support IPv6

Day2: Upgrade the network edge devices to support SRv6 VPN services

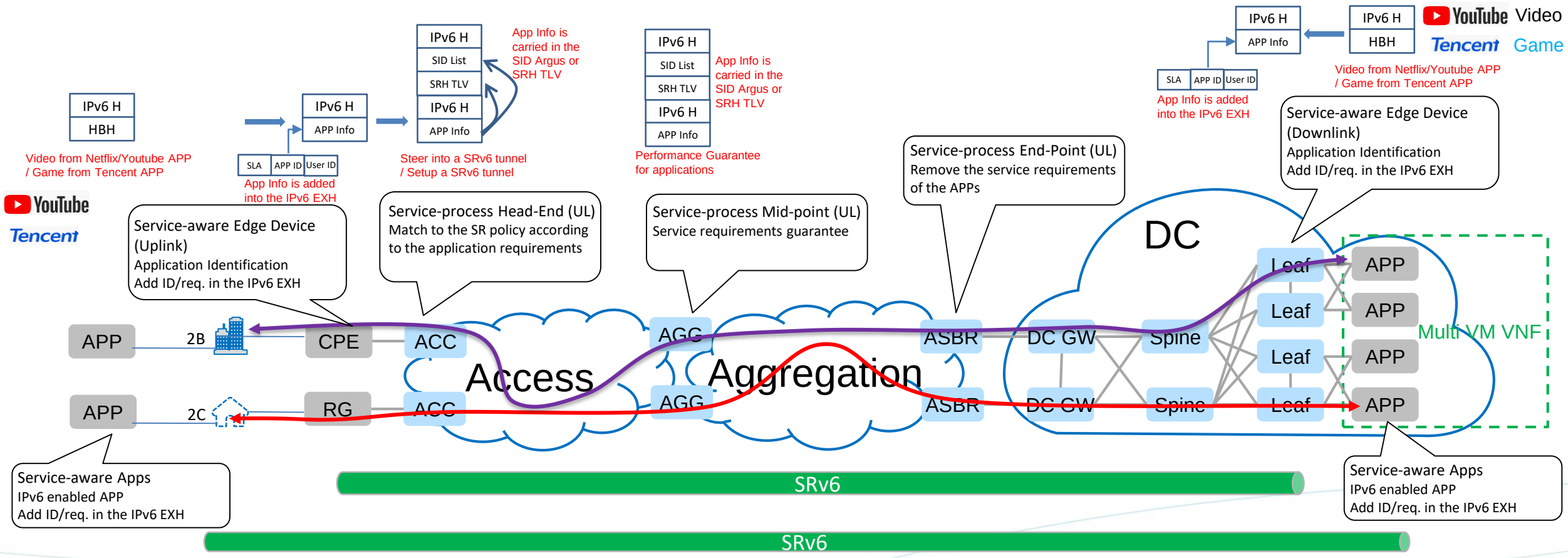
Day3: Upgrade the network intermediate devices to support SRv6 loose TE traffic optimization and SRv6 SFC

E2E Slicing & OAM: Key For 5G & Telco Cloud Era



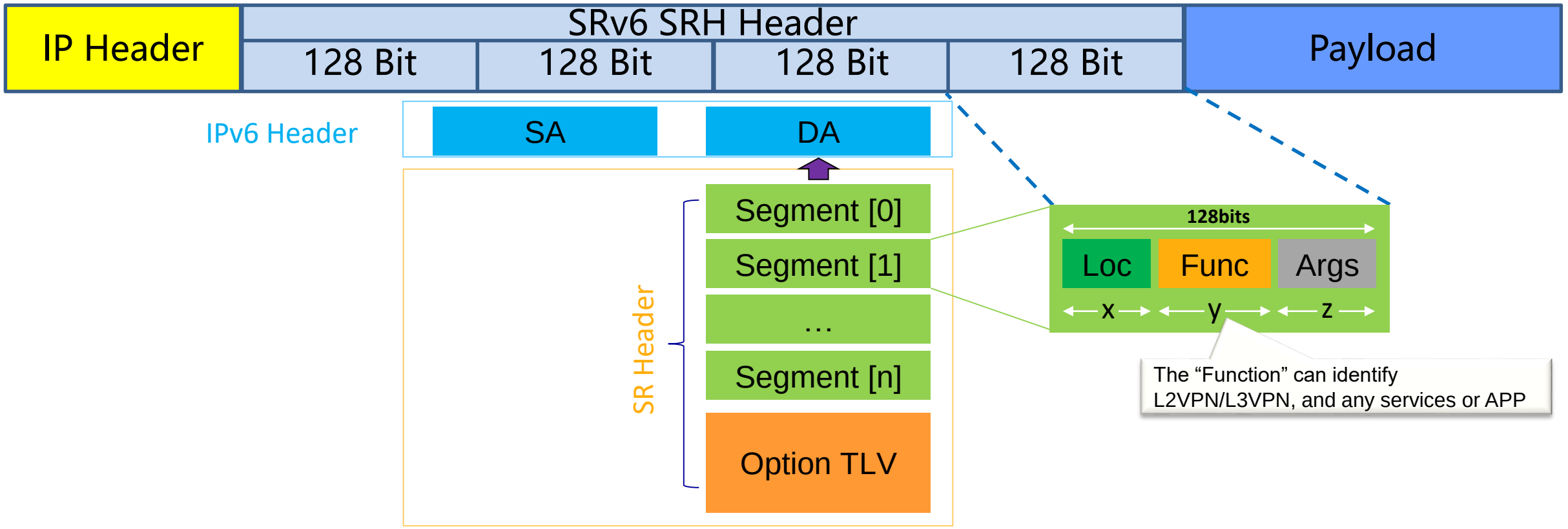
On-going Future: Application-aware SRv6/IPv6 Network

- Make use of IPv6 extensions header to convey the service requirements along with the packet to the network
- To facilitate the service deployment and network resource adjustment to guarantee SLA for applications



https://tools.ietf.org/html/draft-li-6man-service-aware-ipv6-network-00 IETF104@Prague

SRv6 Benefits : Simplicity with Future-proof Extensibility



- Native IP without MPLS
- Transparent for intermediate nodes(BE)
- Best programmability
- E2E transport slicing is possible
- Unified Tech for WAN & DCN
- Unified underlay & Overlay
- Unlimited address pool
- Compatible with IPv4&IPv6 services

Summary: Advantage Map of NAAF

NAAF

E2E SRv6
E2E EVPN
Unified SDN

1. Unified SDN

1. One-time integration
2. Centralized OAM
3. One-time investment
4. No WAN+DC orchestration

2. E2E tunnels

1. Fast provisioning
2. E2E KPI monitoring
3. Fast demarcation
4. E2E slicing

3. SRv6+EVPN

1. SPE+GW+Spine consolidated
2. Best programmability
3. Best protection
4. IPv6+IPv4 compatible
5. Unified Tech for WAN+DC
6. Foreseeable final evolution
7. Open & Standard

4. Fabric behavior

1. Easy scalability for Edge cloud
2. ECMP
3. Spine scalability
4. DVR for L2&L3 services

Service Centric

Best Evolution

Big TCO Saving

Thank You.