

NG Telco CPE and Business Edge Services – Blurring the Lines

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DISCLAIMER

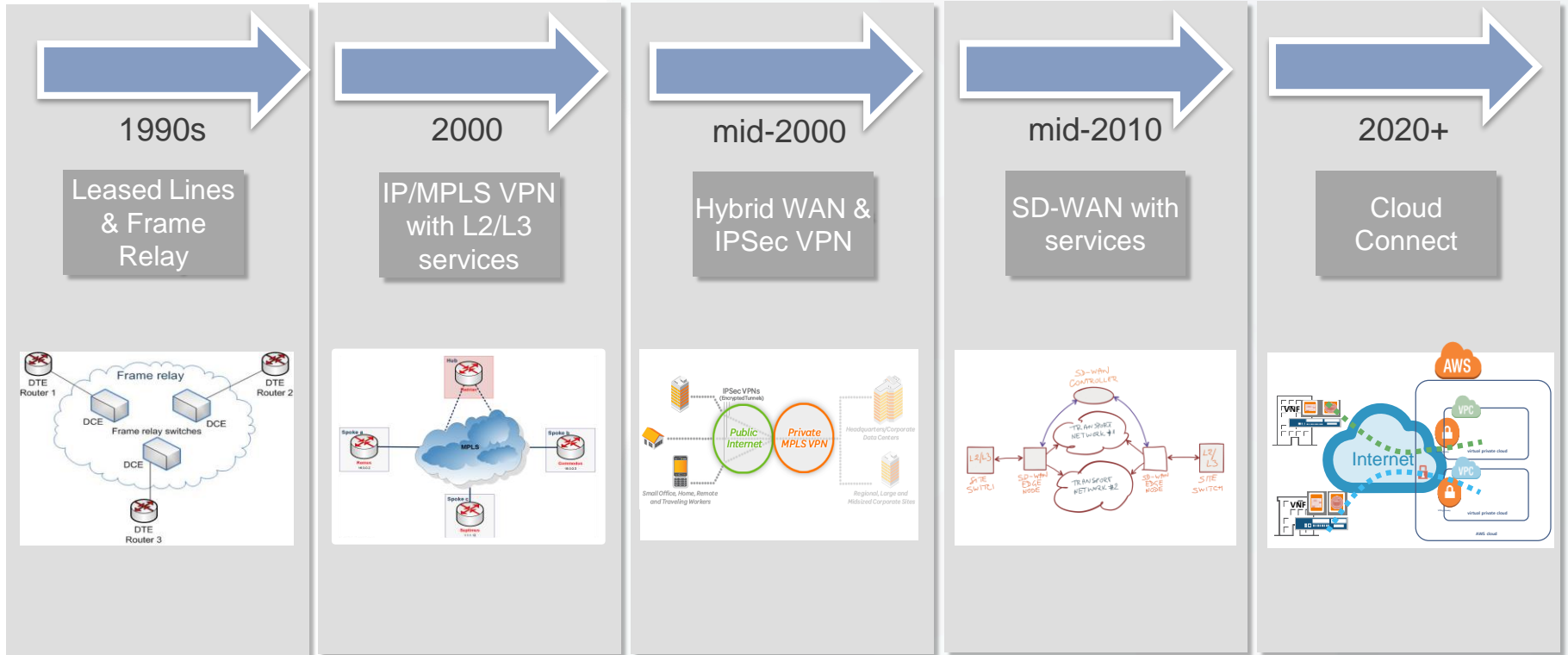
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Customers must ensure that purchasing decisions:

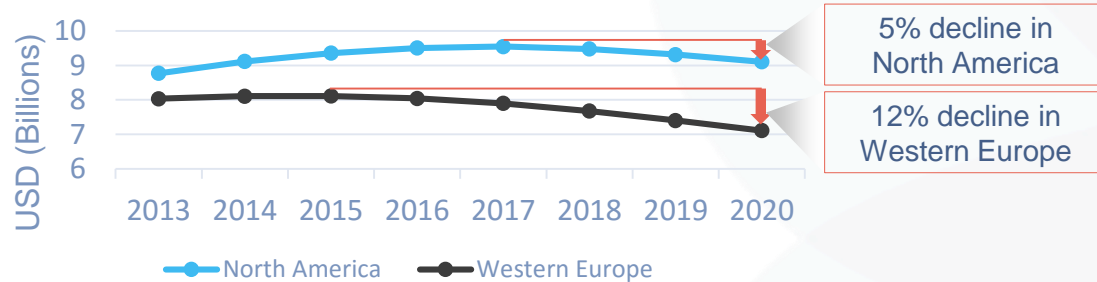
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Evolution of Business Connectivity Services



MPLS Challenges & SD-WAN Opportunities

MPLS Revenue (Developed Markets)



5% decline in North America

12% decline in Western Europe

- Global Revenue growth for MPLS is declining
- Price erosion for MPLS means Europe starts to see negative growth rates for MPLS VPN revenues by 2016, with North America following suit by 2018

SD-WAN Market Size



93% CAGR

- By 2020, SD-WAN market size is projected to grow to \$6B with a CAGR of 93%

Sources:
OVUM: "IP VPN Services Market Forecast"
IDC: "Cloud and Drive for WAN Efficiencies Power Move to SD-WAN"

Cloud CPE with SDWAN (MPLS VPN as transit)

Intelligent Branch

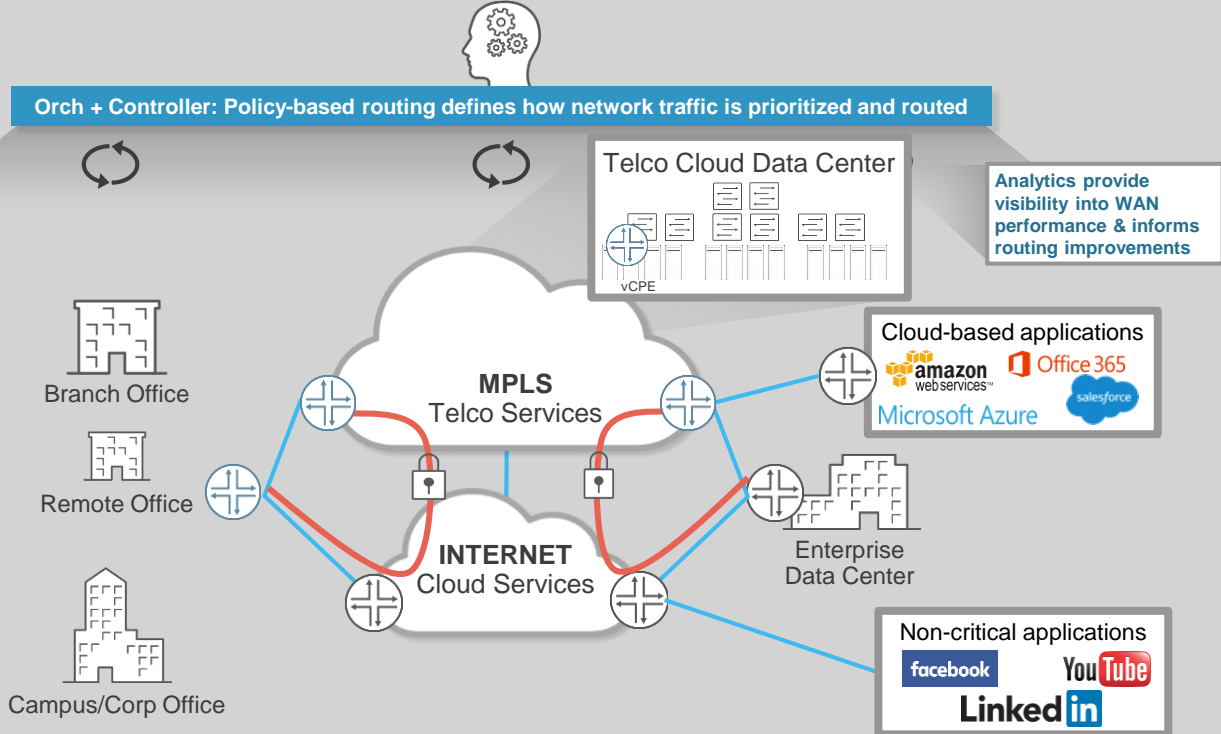
Analytics and Deep Application Inspection

Application-based SLAs

Centralized Policy Management

Secure and Managed VPN

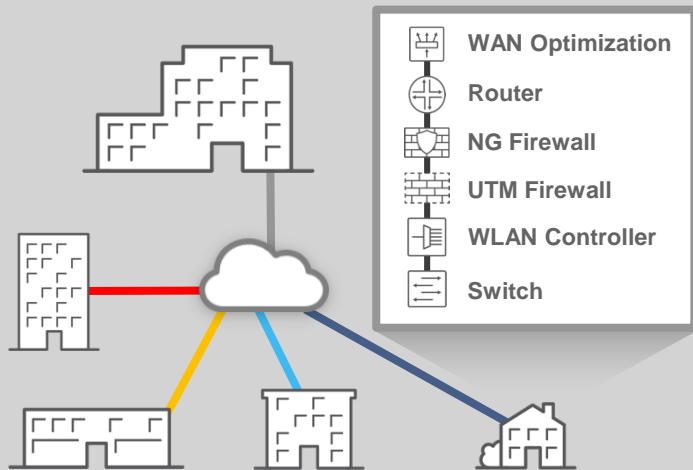
SD-WAN framework allows implementation of more intelligence/logic in software rather than in hardware, enabling increased flexibility and automation



SD-WAN Branch with NFV

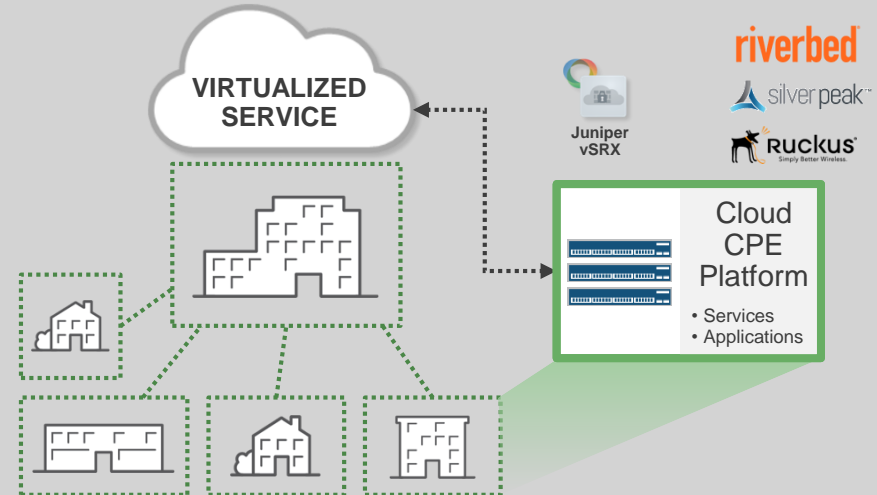
Bring Agility and Enhanced Customer Experience Utilizing Cloud Technology

Legacy Branch (PMO)



Expensive, complex all-in-one box or many vendor inline boxes and cumbersome refresh

Future Branch (FMO)



Simple, customizable and instantaneous refresh

SD-WAN Branch with Single Internet

Intelligent Branch

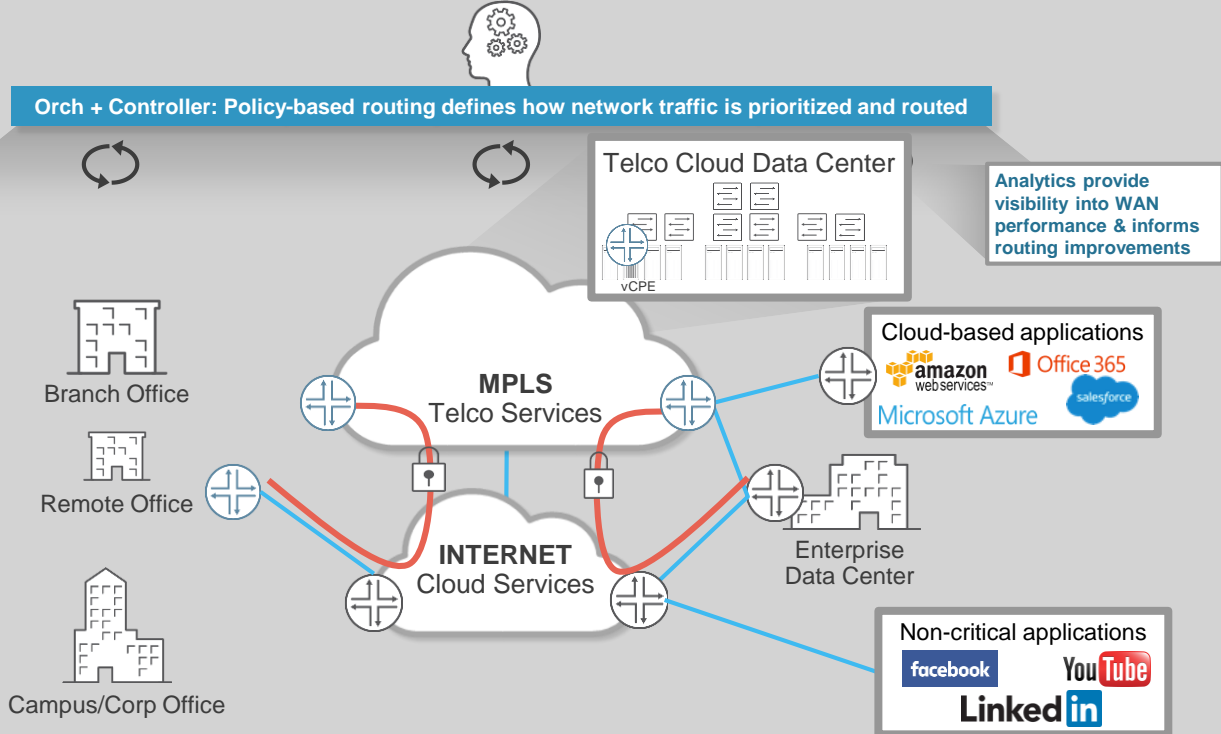
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SD-WAN framework allows implementation of more intelligence/logic in software rather than in hardware, enabling increased flexibility and automation



SD-WAN Branch with Dual Internet

Intelligent Branch

Analytics and Deep Application Inspection

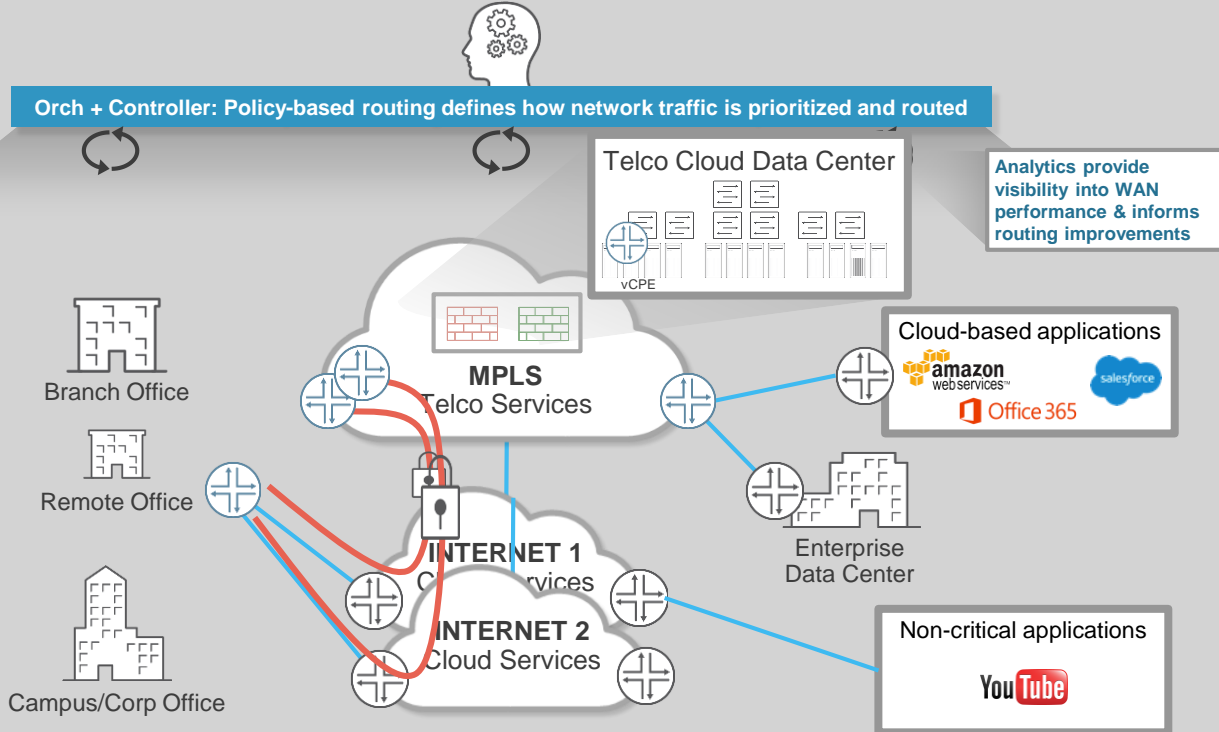
Application-based SLAs

Centralized Policy Management

Secure and Managed VPN

SD-WAN framework allows implementation of more intelligence/logic in software rather than in hardware, enabling increased flexibility and automation

Orch + Controller: Policy-based routing defines how network traffic is prioritized and routed



SD-WAN Branch with Hybrid VPN

Intelligent Branch

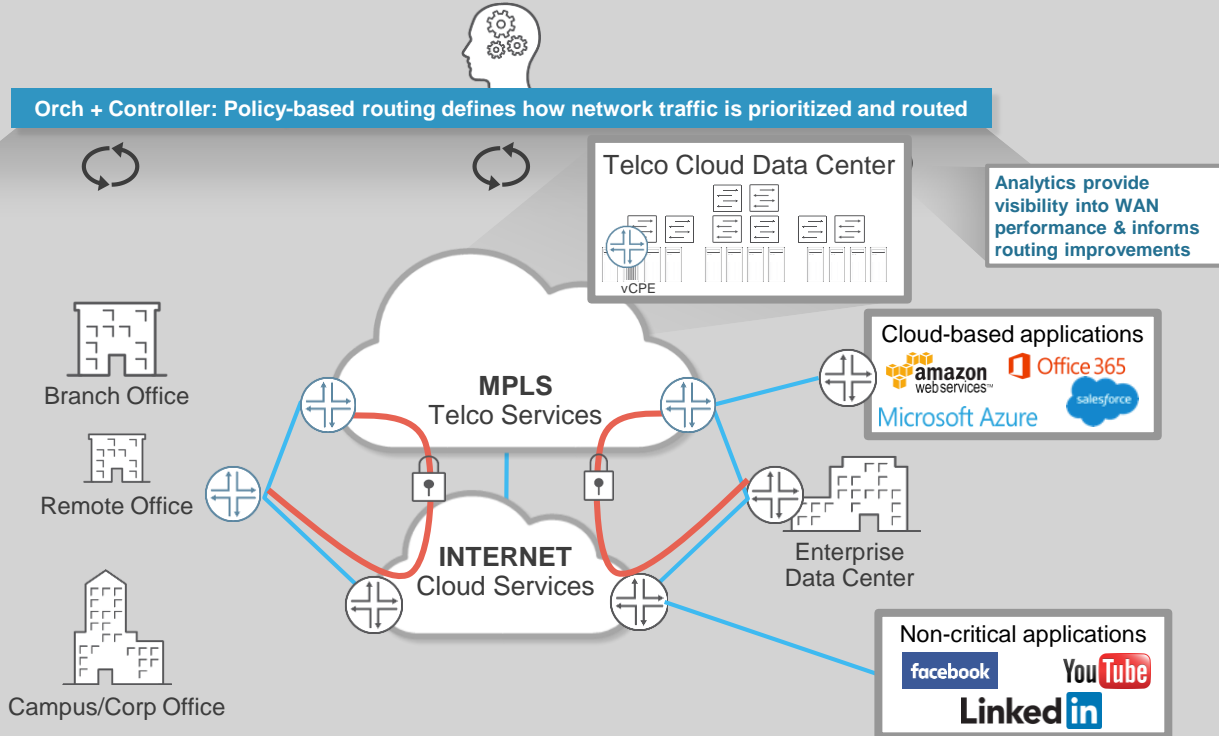
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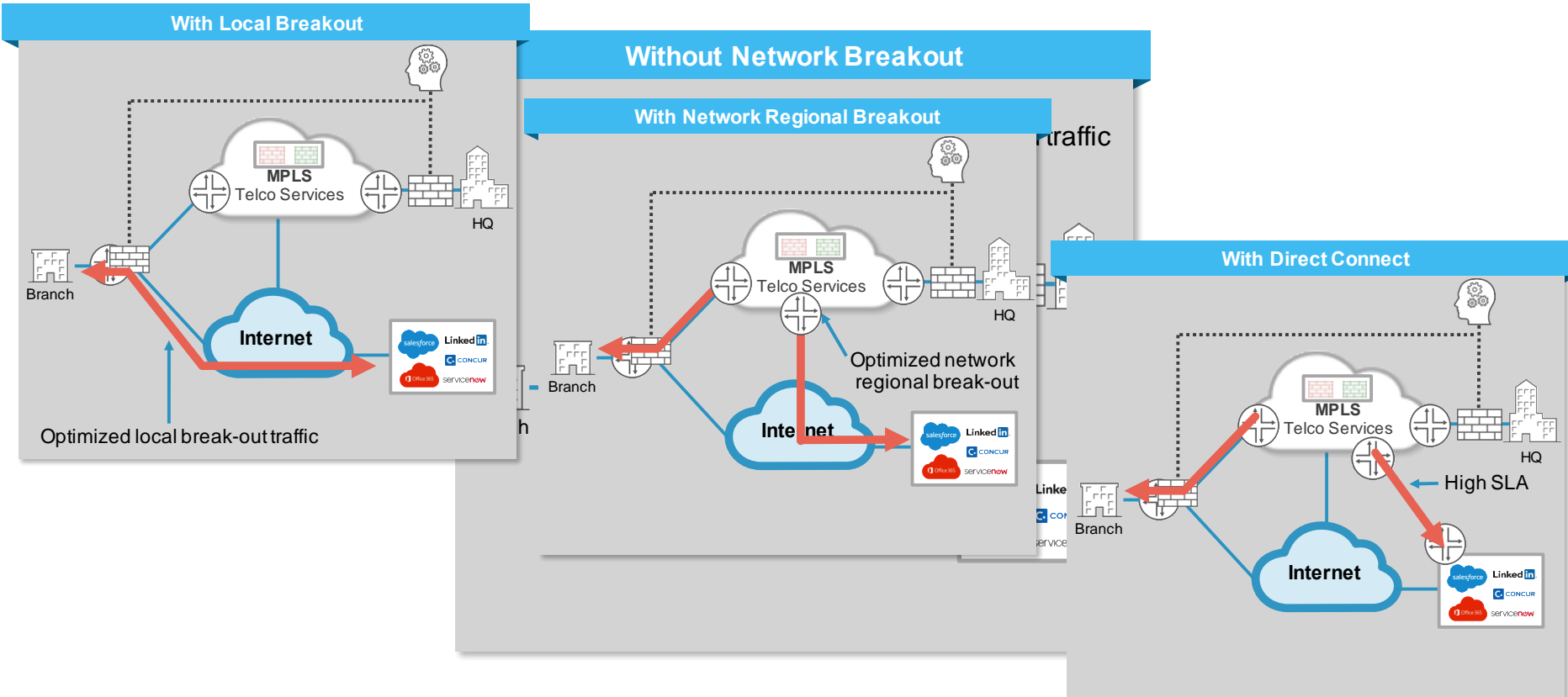
Centralized Policy Management

Secure and Managed VPN

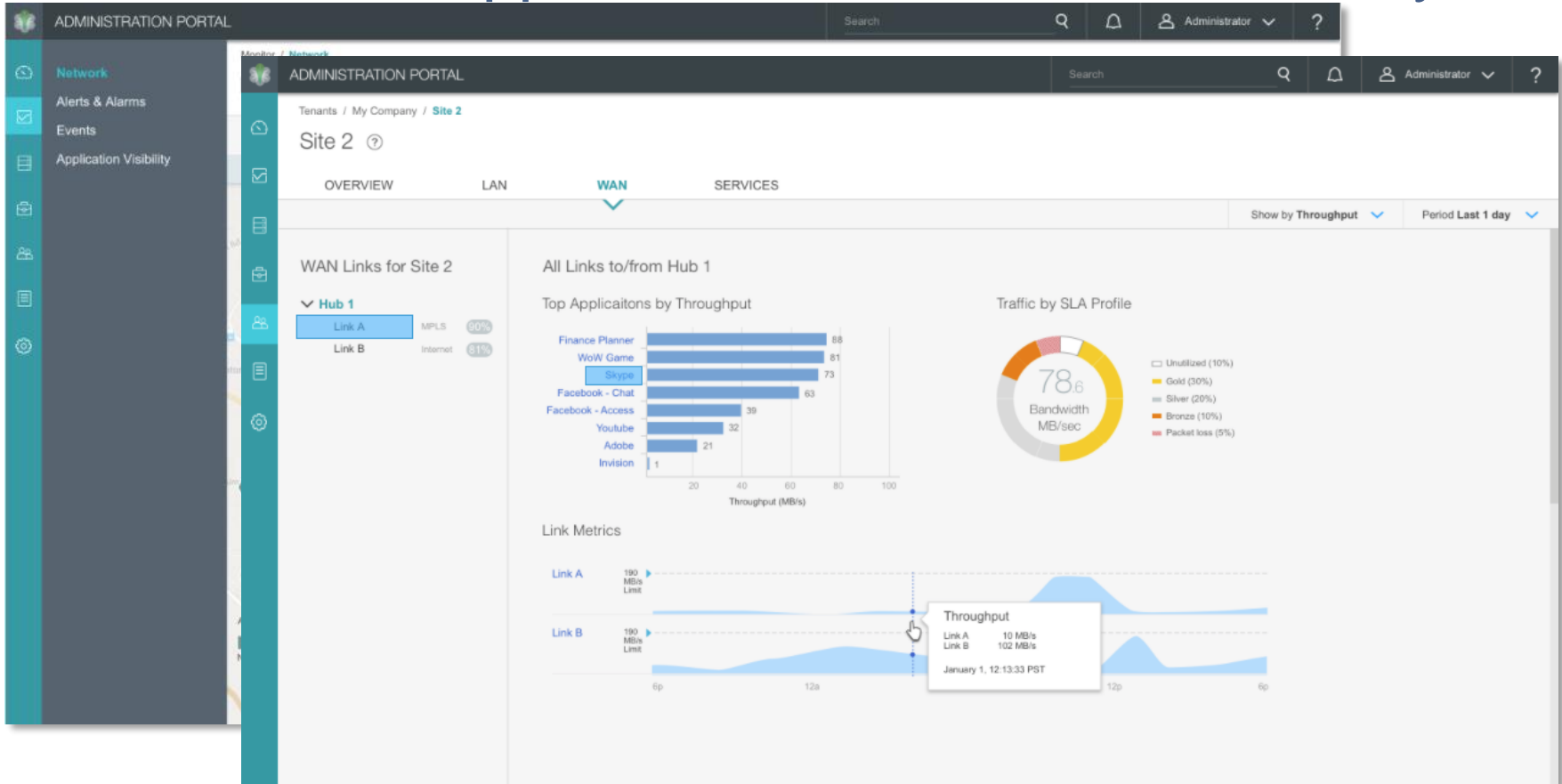
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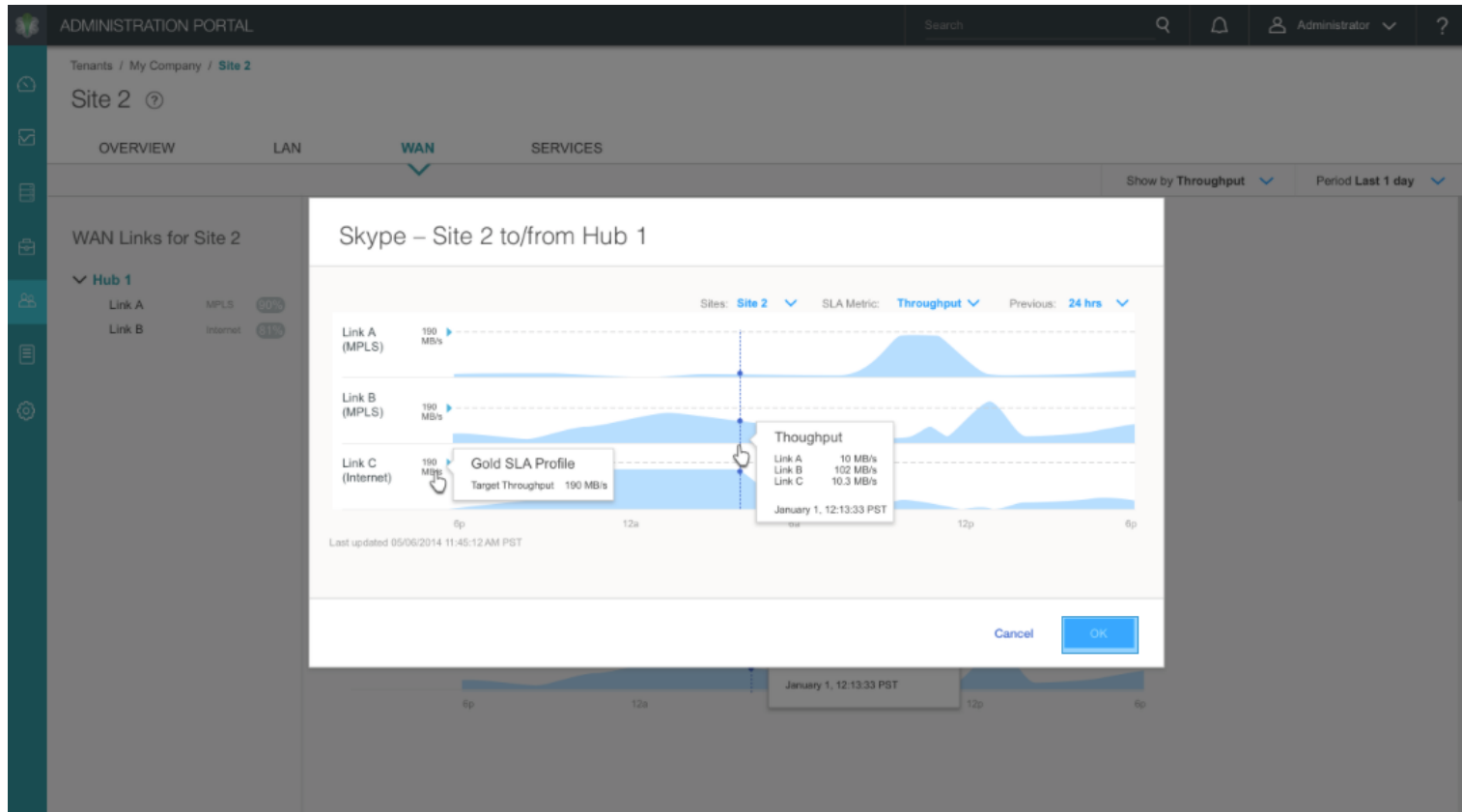
Secure SD-WAN Branch with Multi Breakouts options for SaaS



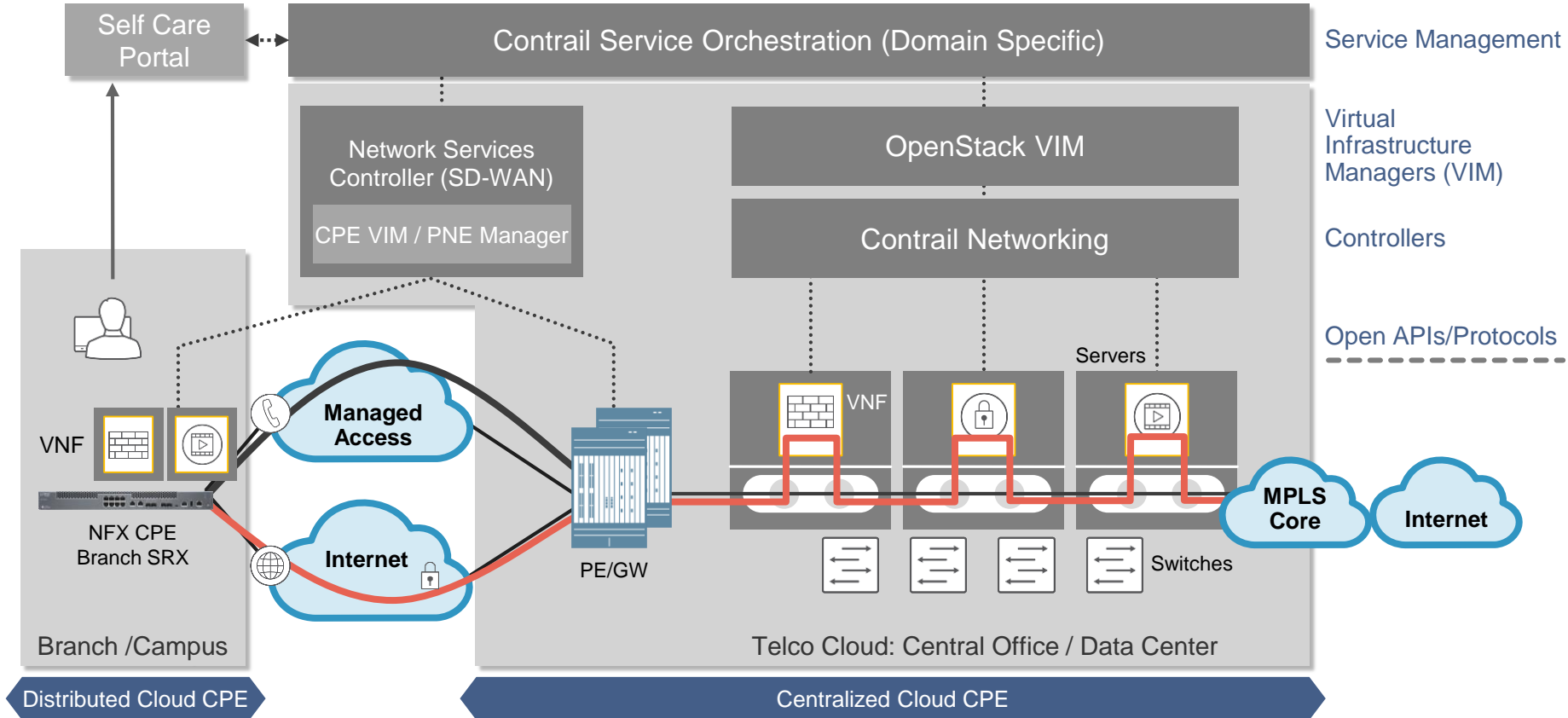
SD-WAN with App Visualization and SLA Visibility



SD-WAN with App Visualization and SLA Visibility



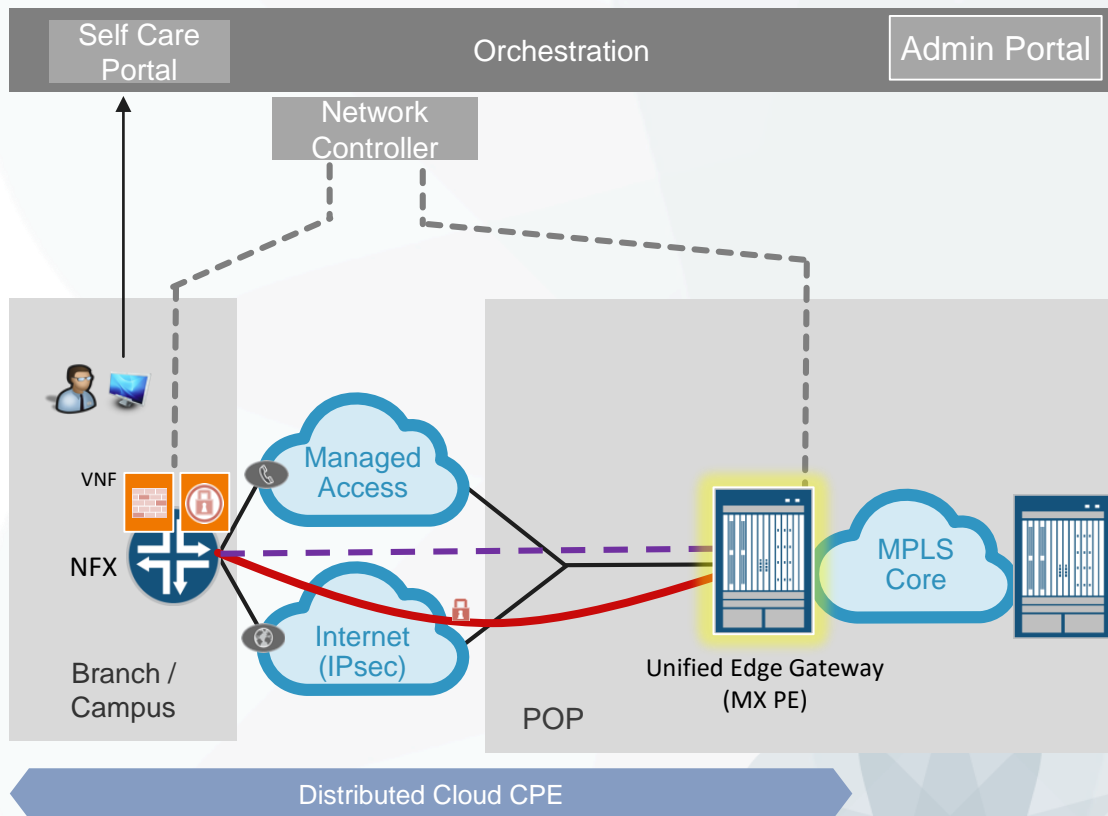
Cloud CPE - Open End-to-End Architecture



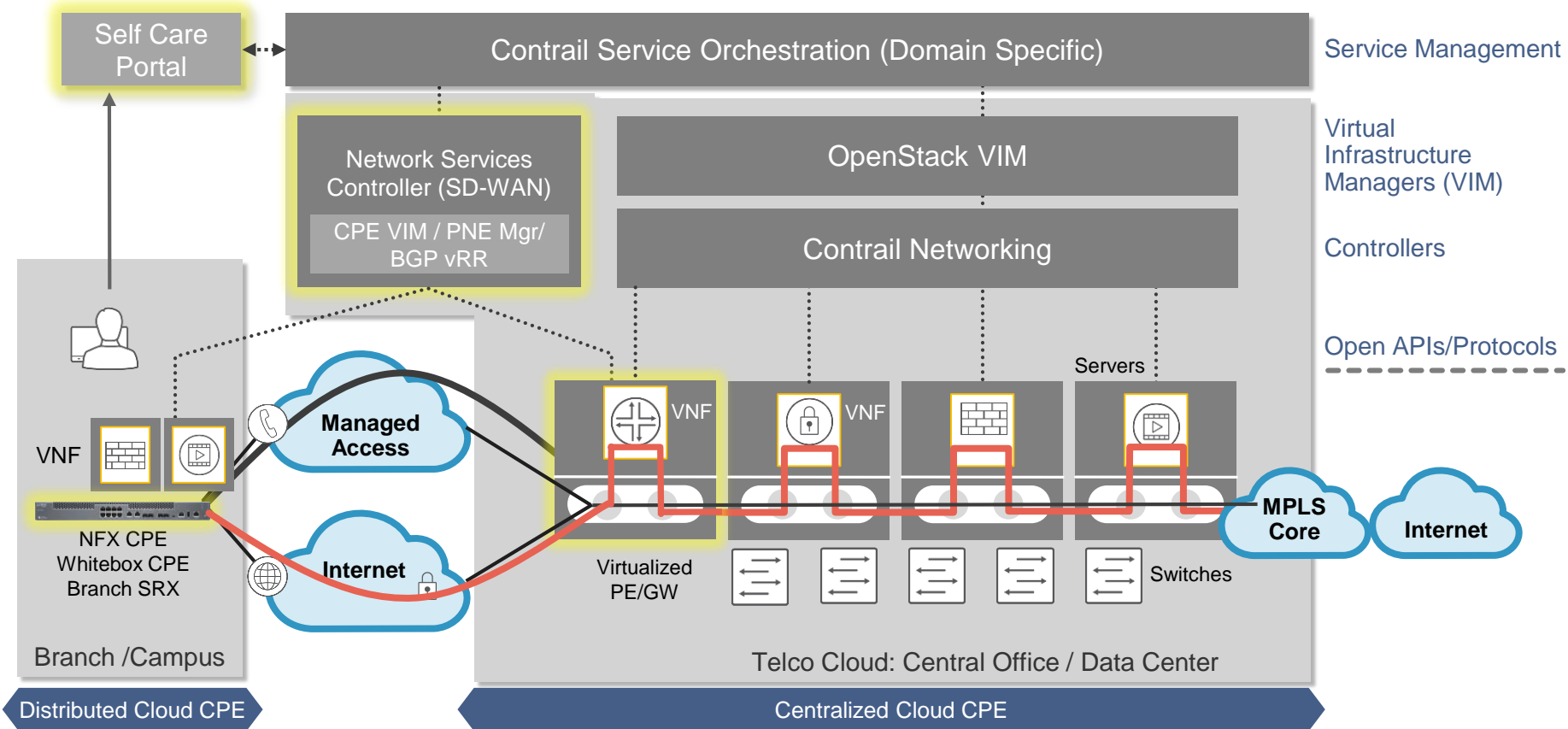
Unified Services Edge

What's different?

- Fully multi-tenant unified SP gateway for termination of SD-WAN based services
- Scalable hardware based encryption for high tunnel termination capacity
- Support flow based symmetrical scalable routing without propriety encapsulation mechanisms
- Can easily integrate into existing MPLS VPN services with full PE functionality

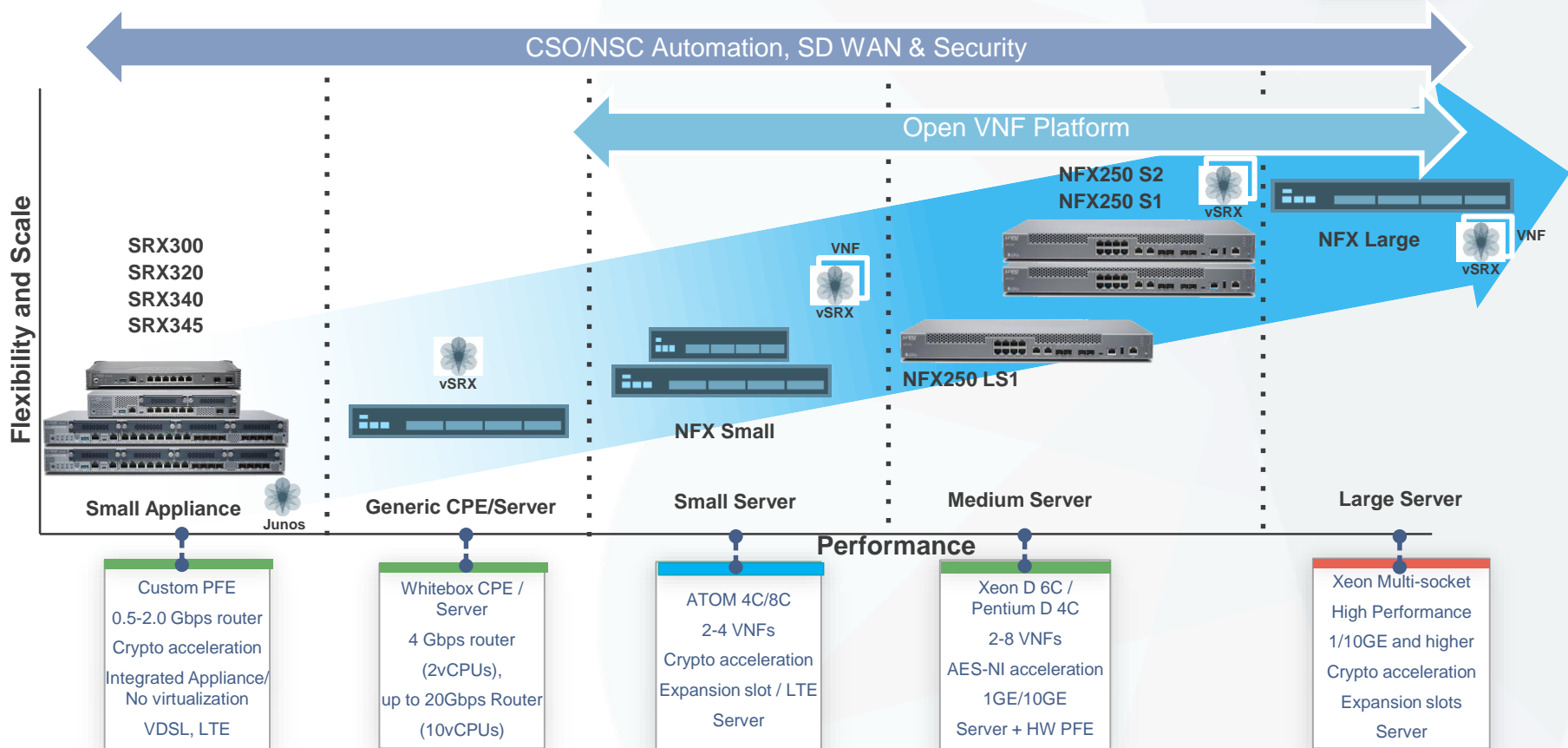


Cloud CPE Evolution

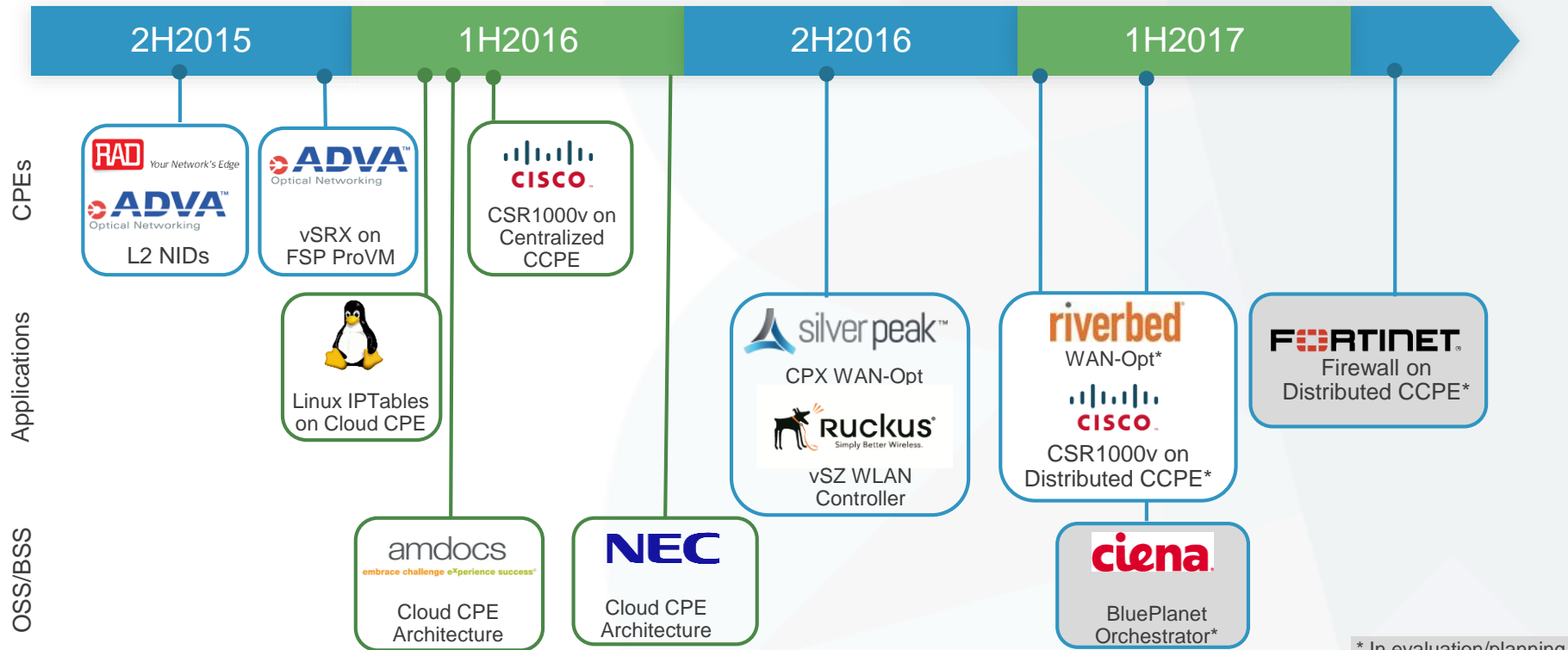


Cloud CPE Product Portfolio Roadmap

█ Shipping
█ SOPD
█ Investigation



Cloud CPE Partnerships



* In evaluation/planning



Wrap Up

- SD-WAN vision & architecture that easily integrates with existing IP/MPLS based services
- Full range of NG CPEs platforms provides an open framework for range of business network services
- Cloud CPE model offers NFV starting at the branch and PoP enabling optimal service placement based on service needs
- Solution based on best of breed technology in routing, security and switching to enable differentiated service offers to end customers

Thank You