

A New Generation of Carrier Ethernet Network



E-Line

- Virtual Private Lines (EPL)
- Ethernet Private Lines (EVPL)

E-LAN

- Multipoint L2 VPNs
- Transparent LAN Service

E-Tree

- Rooted Multi-Point L2 VPNs
- Traffic Segregation

E-Access

- Wholesale Access Services

Standardized Multi-CoS, Interconnect, Manageability

Carrier Ethernet 1.0 & 2.0 Definition



Carrier Ethernet Generation	CE ^{1.0}		CE ^{2.0}			
<i>Characteristics</i>	<i>Standardized</i>		<i>Multi-CoS, Managed, Interconnected</i>			
Services	E-Line	E-LAN	E-Line	E-LAN	E-Tree	E-Access
Services Specs & IAs	MEF 6		MEF 6.1 & 6.1.1, 33 MEF 22.1			

Supporting Work

Attributes & IAs	MEF 10	MEF 10.2 & 10.2.1, 26.1 MEF 13, 20, 23.1
Management	MEF 7, 15	MEF 7.1, 16, 17, 30, 31

Enabled Applications

MBH	2G/3G Migration	4G MBH Migration, MBH Optimization
Business Services	Metro, Regional	Local, Regional, National, Global Application, distance oriented, Private Cloud
Wholesale	-	Buy/Sell Access Services

Carrier Ethernet 1.0 and 2.0



CE 1.0

Introduced 3 standardized Ethernet services

CE 2.0



Delivers 3 powerful features (Multi-CoS, Interconnected, Managed) over 8 services



Establishes a clear standardized definition being implemented by MEF members



Brings significant value of MEF services to all stakeholders

No More Academic stuff!

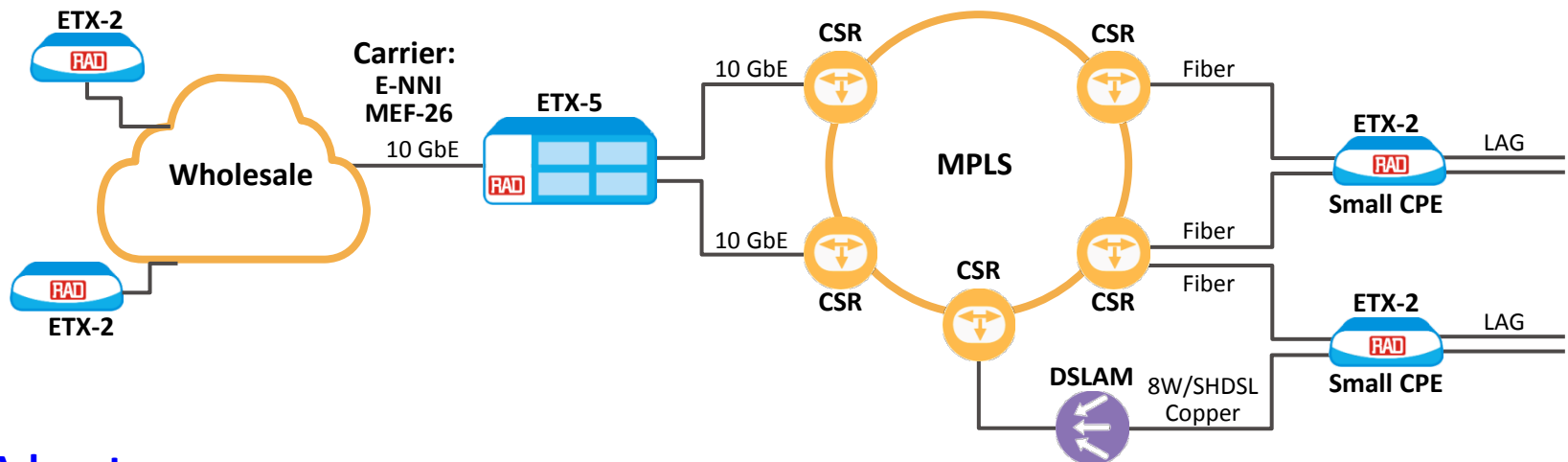
Real use cases!

Swiss SP – Wholesale and business services – RAD Solution



Customer Benefits:

- Multi Cos services based on MEF 2.0
- ETX series, real end-to-edge access solution service control, performance management over a variety of access networks
- Carrier to carrier connectivity and ENNI based on MEF 26, & 28
- ENNI Protection: 2-link LAG , Dual Homing 50ms protection, active/standby



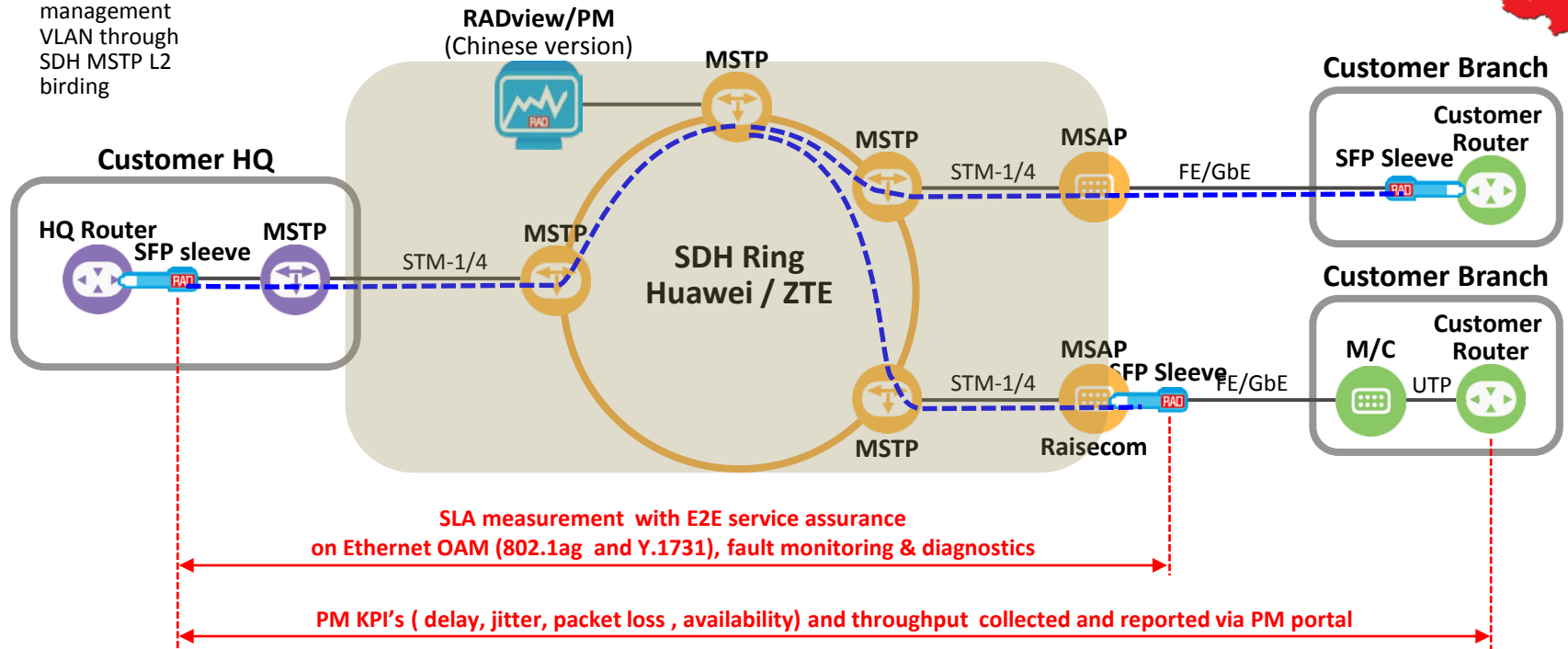
RAD Advantages:

- ETX-5 and ETX-2 carrier grade Access Aggregation & CPE with changeable uplink module that supports different types of uplinks fiber & SHDSL, providing E2E service
- ETX-2 CPE supports dual homing protection between SHDSL and fiber uplinks

PM Solution for Wholesaler in China



-- In band management VLAN through SDH MSTP L2 birthing



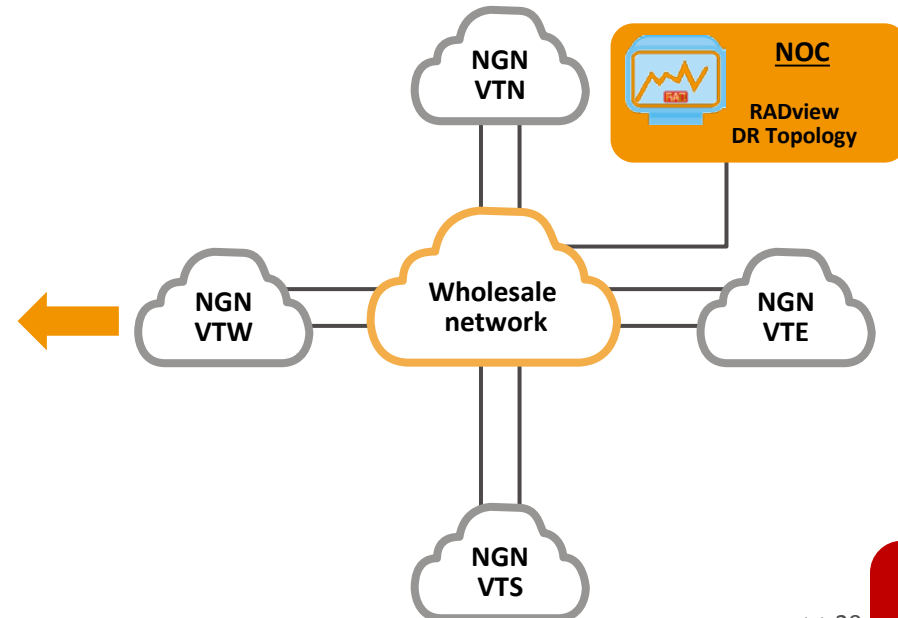
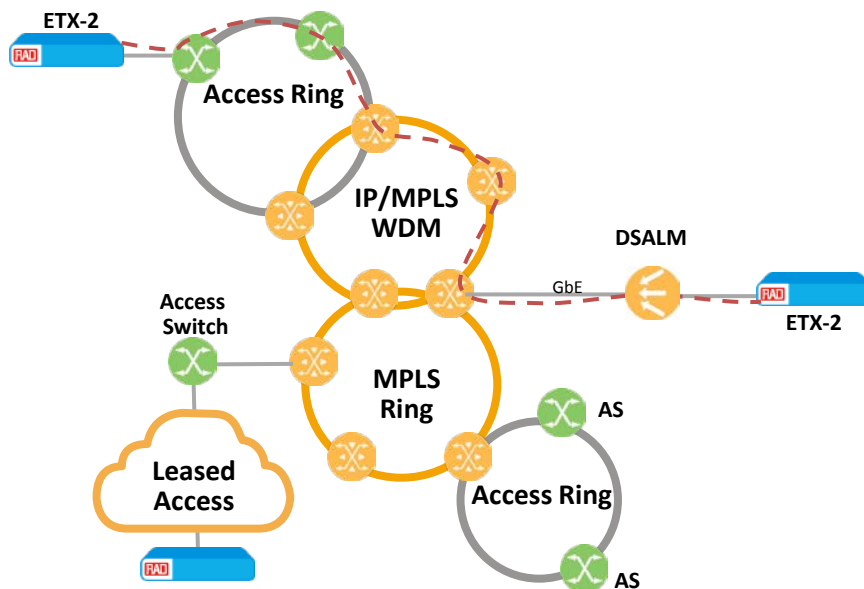
Customer Benefits:

- SFP sleeve base solution that normalize the network and comply to MEF2.0 services
- A PM solution to monitor end-to-end Ethernet services over wholesale and existing network and generate monthly reports to be delivered to their VIP customers
- SFP sleeve base solution that plugged into any network infrastructure, consisted of various equipment types and provide a unified performance monitoring and fault management overlay
- Maximum reuse and minimal changes to existing infrastructure

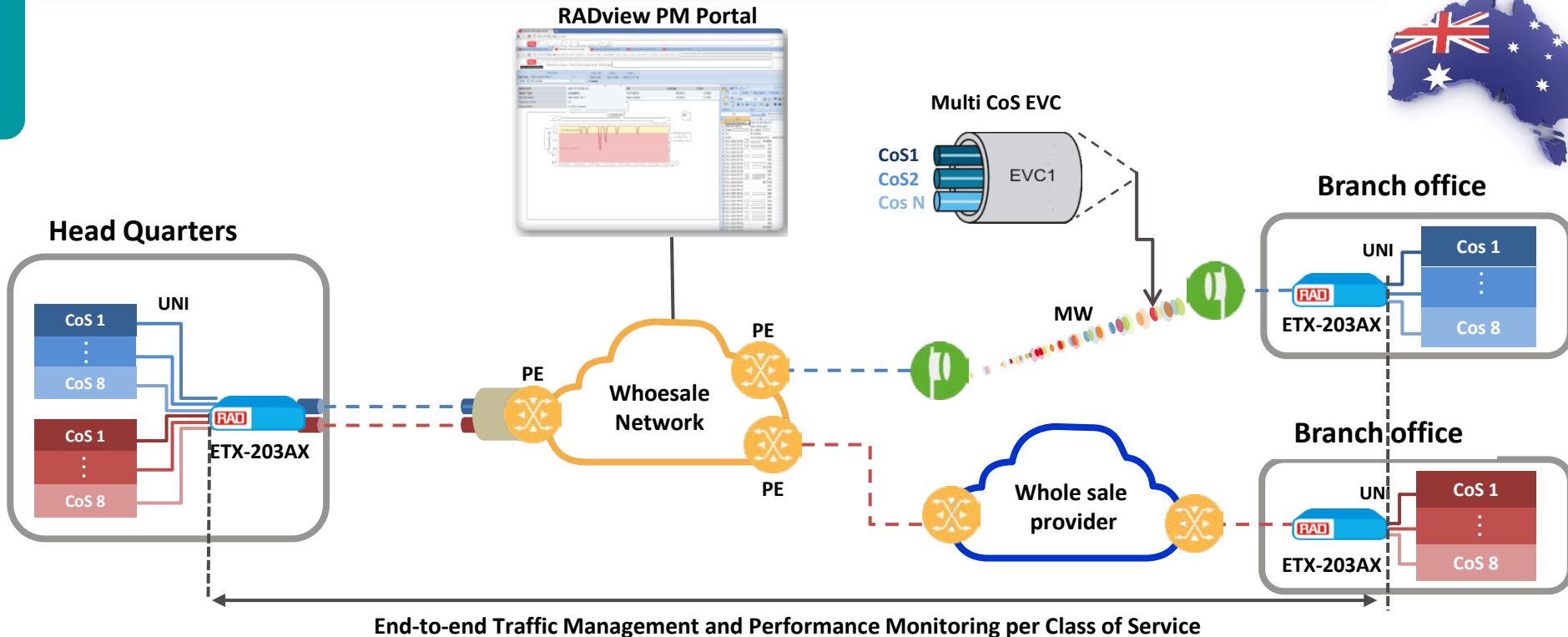
Business SP that monitor Wholesaler Network



- A Core network with four regional sub-networks, each with interconnected rings:
 - 40G (DWDM) & 10GbE core rings with 1/10 GbE access rings
 - L2/L3 hybrid services for business and wholesale with DSL, FE, 1G and 10G links
- Certified MEF 2.0 Ethernet base services
- The wholesale provider need to provide SLA based services (EVPL & EVPLAN) and to issue monthly reports
- Field service of the transport network is outsourced to Ericsson and therefore SP needed visibility of the end to end service using SAA



Multi CoS Ethernet Service over Wholesale Network



Customer Benefits:

- Provide differentiated services over a single EVC (Multi Class of Service EVC)
- Performance Monitoring per each Class of Service including PM portal
- Traffic management per each Class of Service
- MEF CE 2.0 Certified Ethernet service

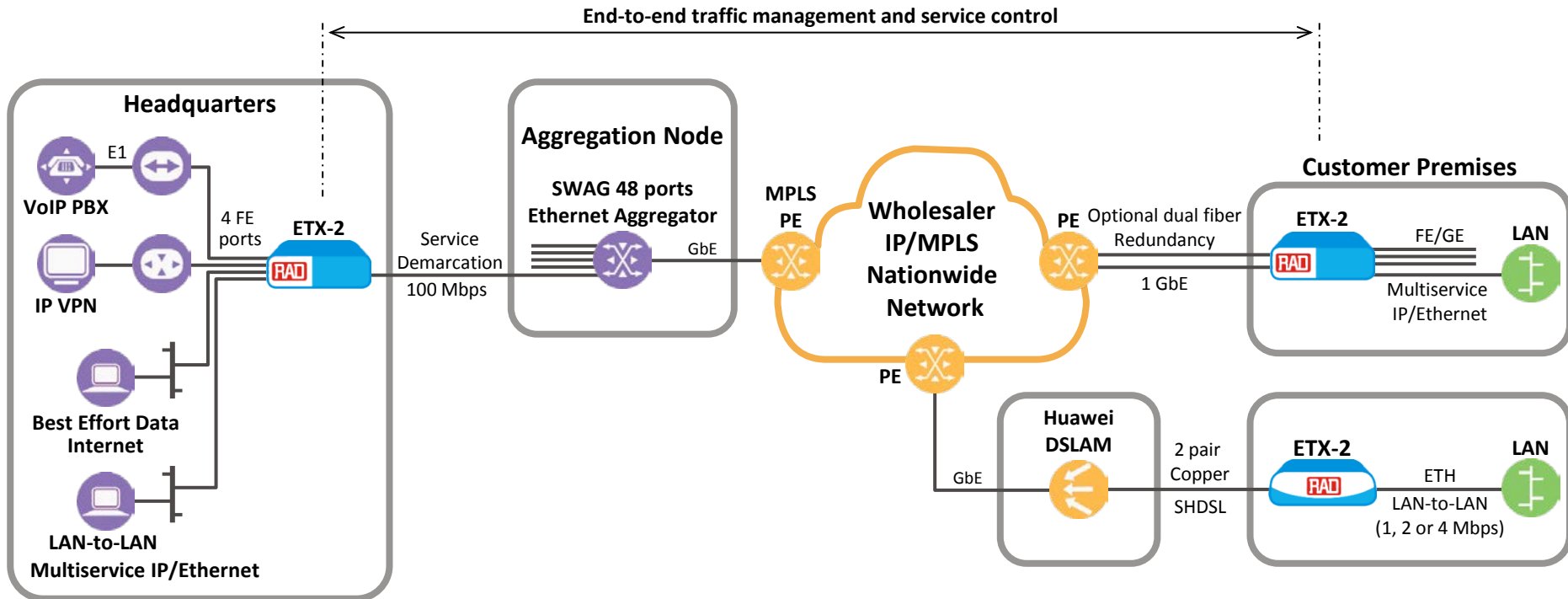
France

New Ethernet services over fiber and DSL



Customer Benefits:

- Multi-services: Ethernet and IP services in one box (up to 5 simultaneous services on 1G link)
- MEF 2.0 certified
- Carrier to Carrier Connectivity maintaining QoS policy
- Single equipment for fiber and DSL

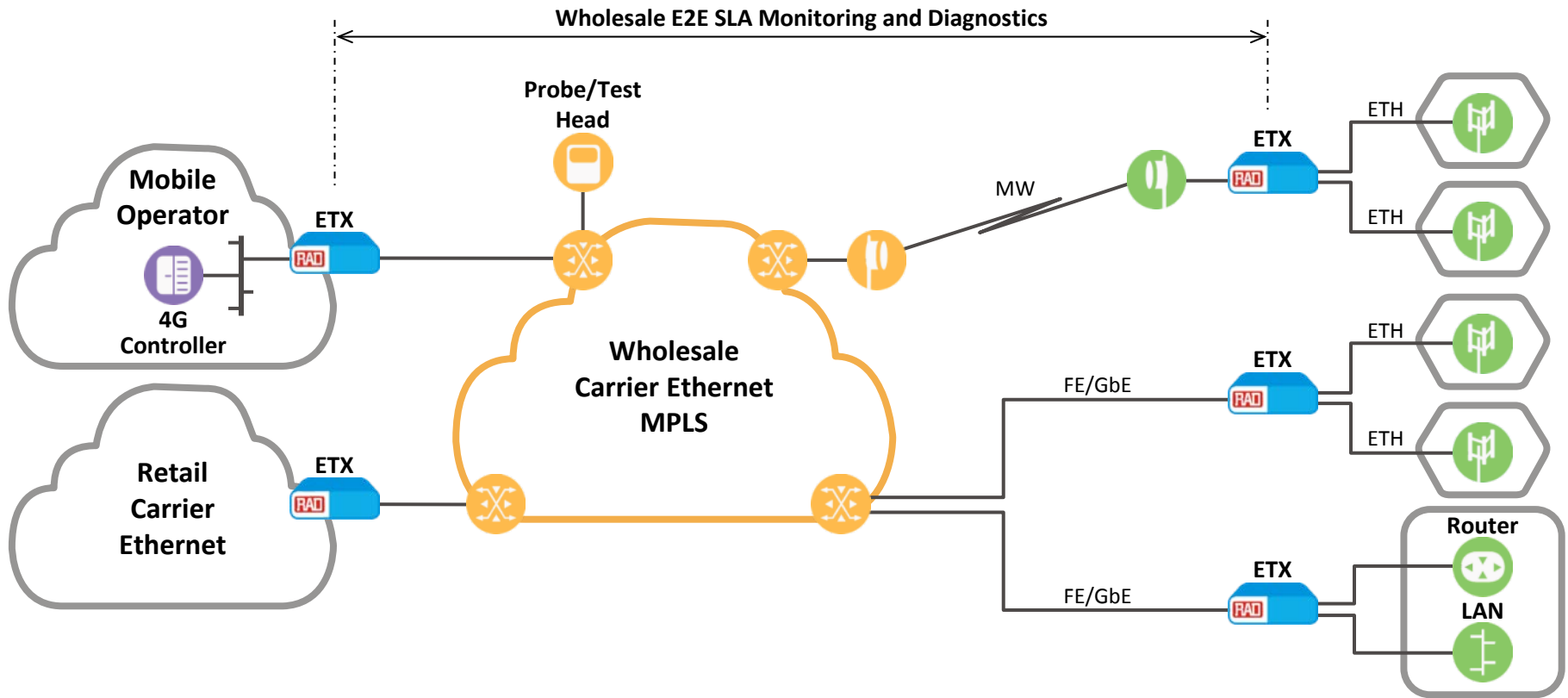


U.S. Wholesale Ethernet



Customer Benefits:

- Same product for retail and wholesale services
- Solution supports advanced EVPL services and EVPLAN services based on MEF2.0
- End to PM and FM over the wholesale network for mobile services



**Thank You
For Your
Attention**



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