

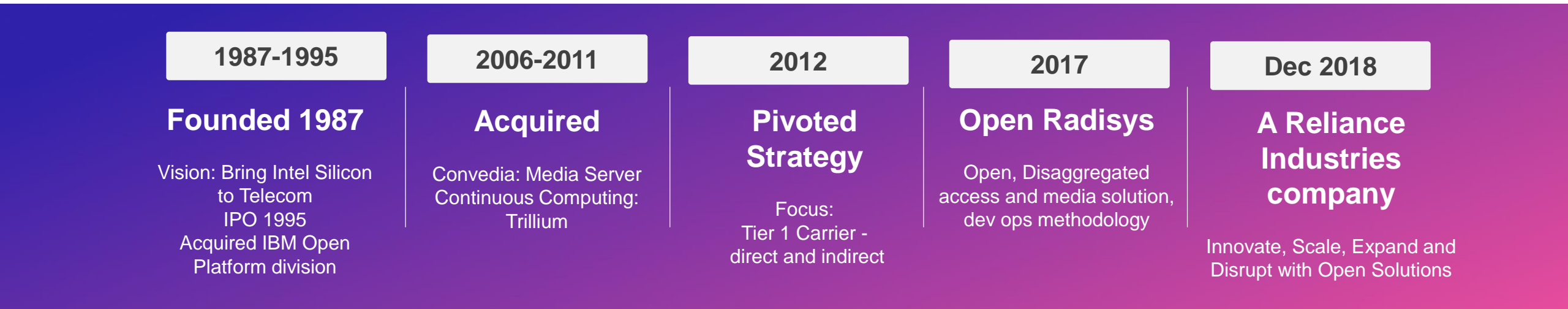


Radisys

connect open
BROADBAND

ONF Broadband Meetup, Berlin
Rajesh Chundury
May 20th, 2022

Introduction: DNA of Open Telecom Innovation



Headquarters: Hillsboro, OR
United States

Global sales and operations

Centers of Excellence: Bangalore (India)
Hillsboro, OR (US)
Frisco, TX (US)
Guangdong (China)
Shanghai (China)

Over 30 years of experience and leadership in networking

Leading contributor to open standards organizations and initiatives

No. of Employees: ~1000

Open: Our Vision for the Networks of Tomorrow

Creating new digital experiences

Disaggregated

Software / Hardware
Network Functions
Control / Media



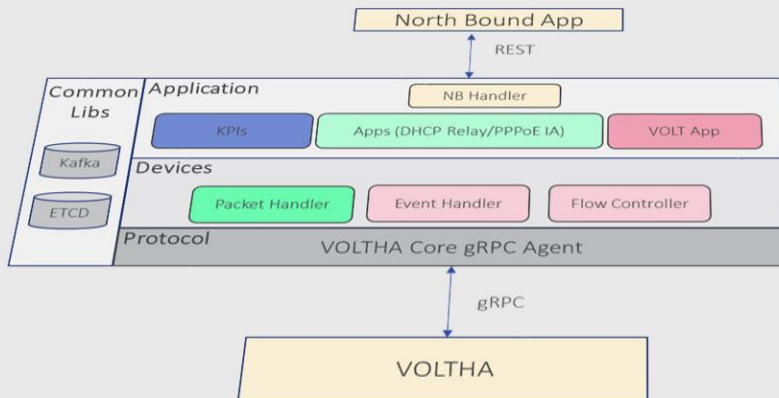
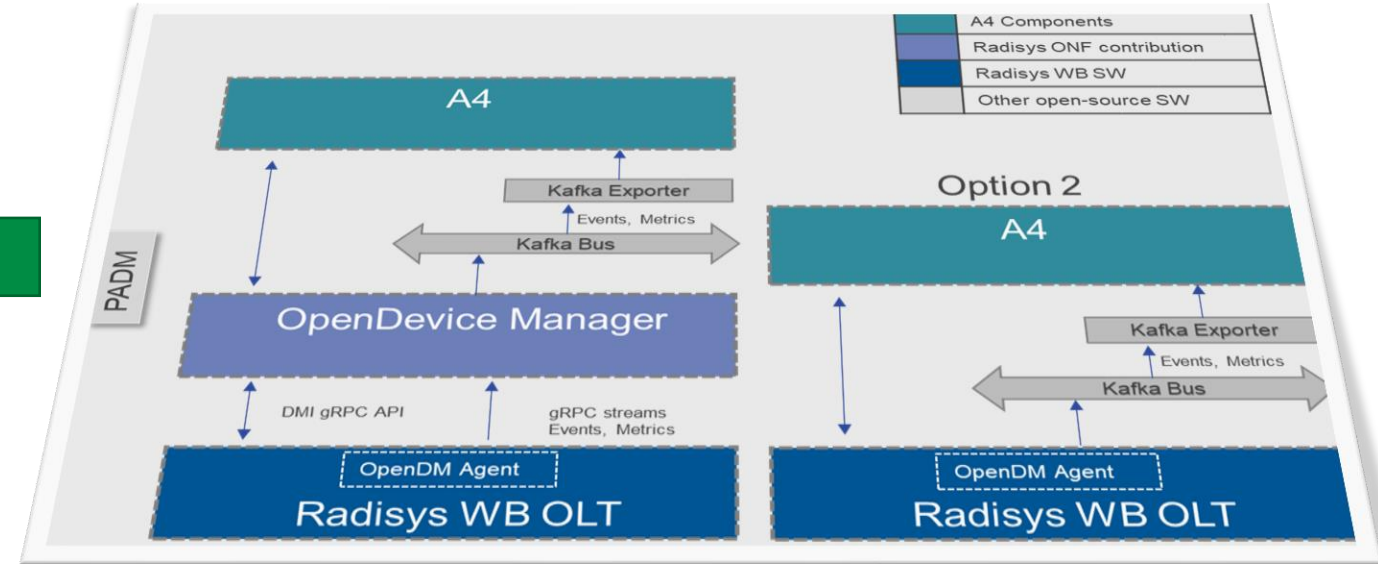
Intelligent

Software Defined
Programmable
AI/ML

Open

Software , Hardware, Interfaces

Device Management Interface



Application Layer

- The VOLT application that associates services to named ports and manages flows and meters upon events such as port up, port down, etc.
- The protocol applications - DHCP Relay & PPPoE IA.

Device Layer

- Processes and stores the device related data like device, logical ports, flows.
- Events like port up/down are handled and relayed to Application Layer
- Controls the packet in/out based on the configurations

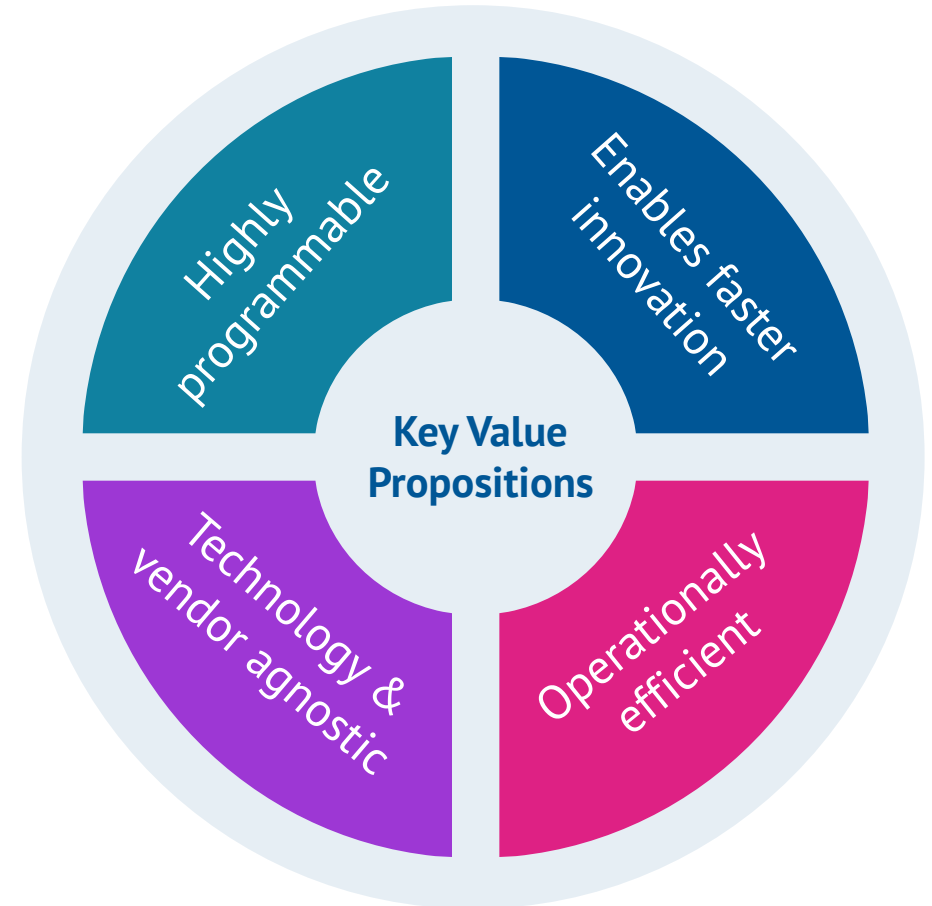
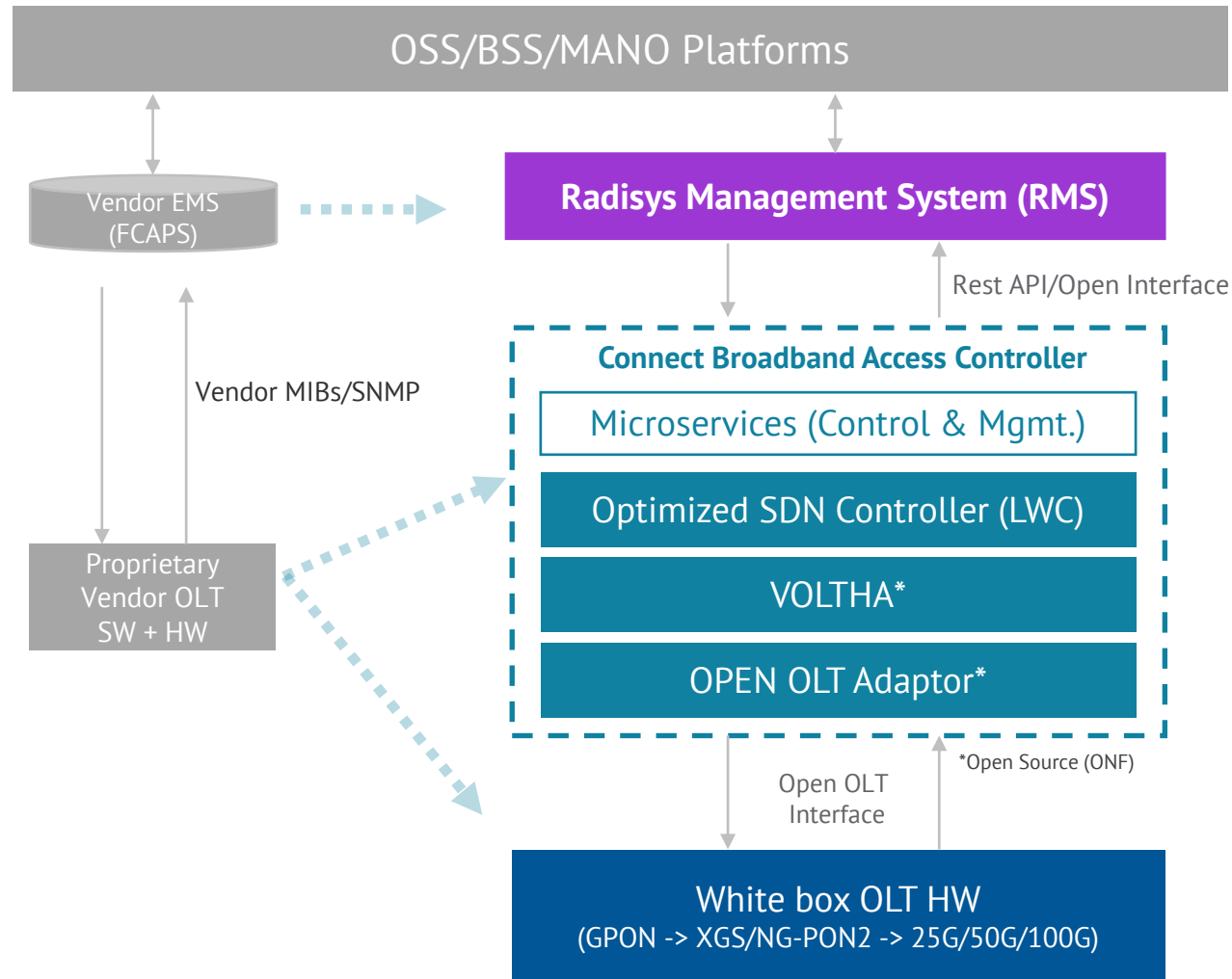
VOLTHA Core gRPC Agent

- Agent interacts with the VOLTHA over gRPC.
- No changes made to protocol for LWC
- Information like the Devices/Ports/Flows are polled from VOLTHA and updated to the Device Layer for further processing.

ONOS Replacement Controller (Light Weight Controller)

Open and Disaggregated Architecture

Disaggregated Access Solution Enabled by Open Interfaces and Open-Source Software

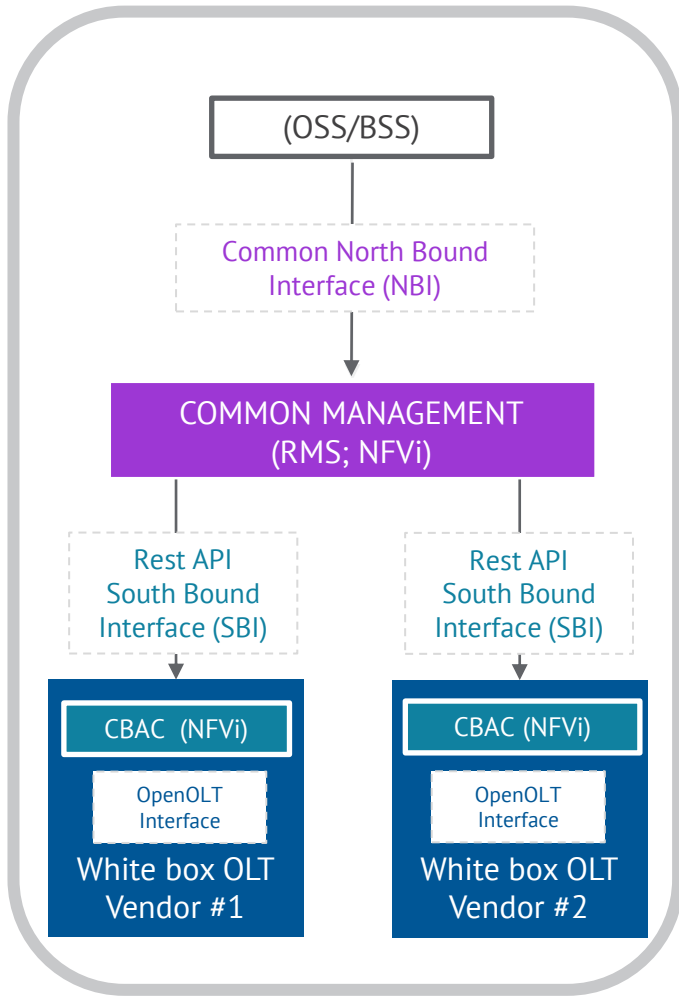


Transform Your Network at Your Pace

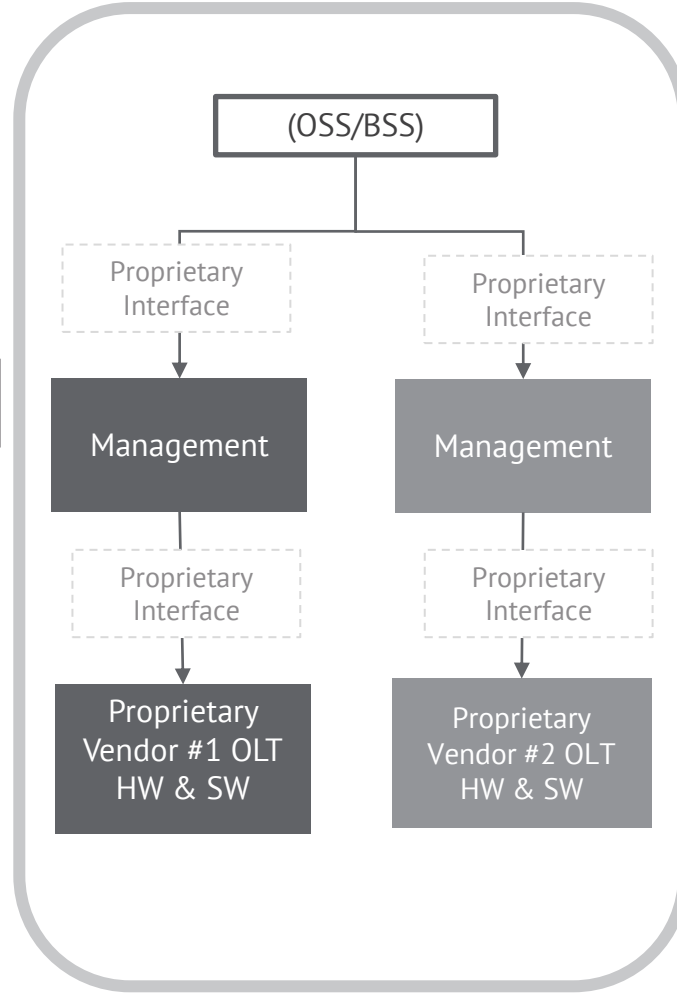
Flexible Deployment Options



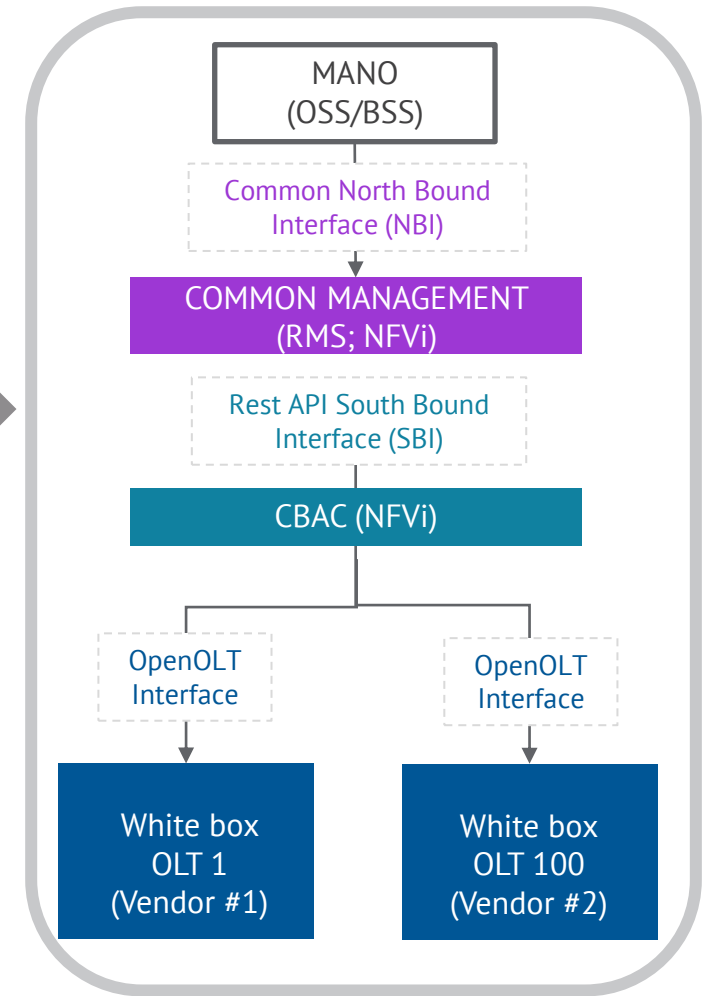
DISTRIBUTED CONTROL PLANE



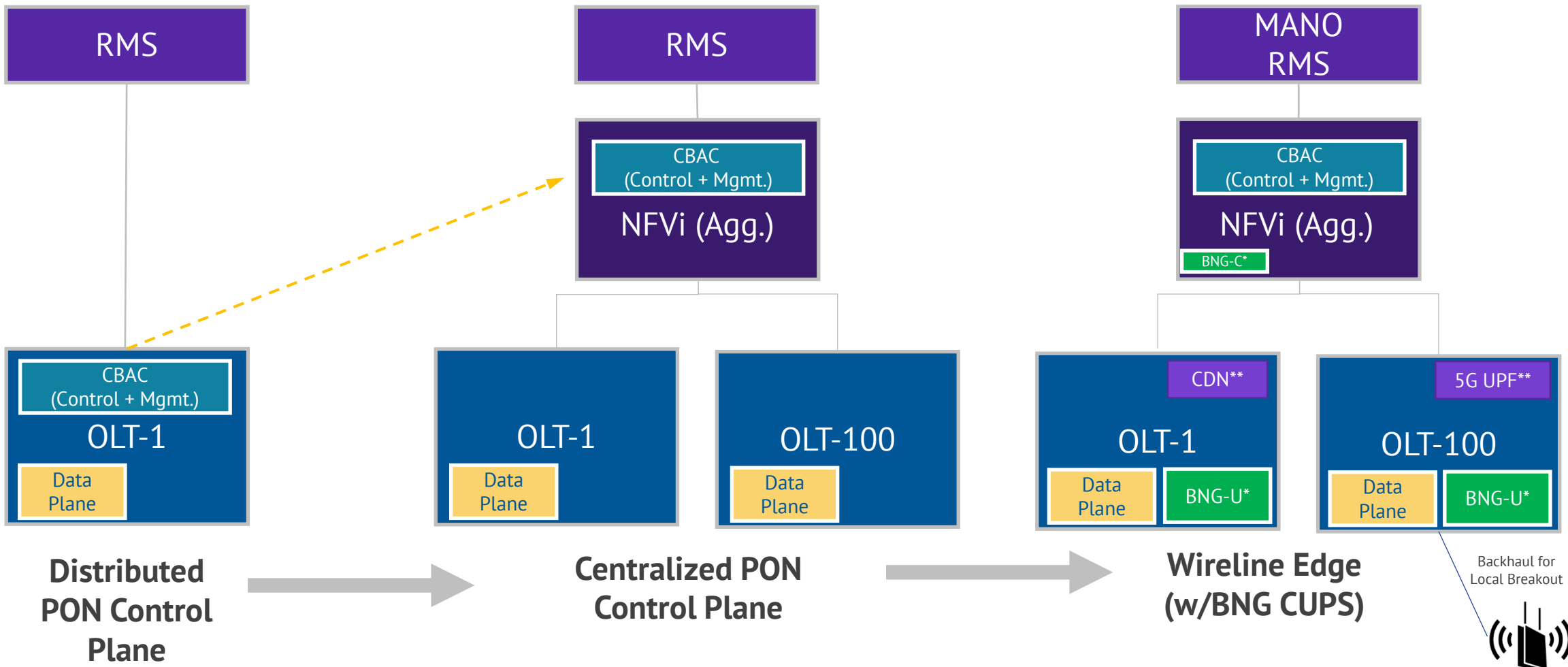
PROPRIETARY & DISTRIBUTED SW



CENTRALIZED CONTROL PLANE

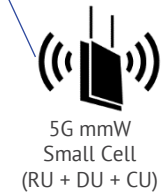


Architecture Evolution to Converged Disaggregated Edge



CBAC deployed on Google Cloud Platform as a PoC

*Roadmap
**Vision



Customer Case Studies & Deployment Models

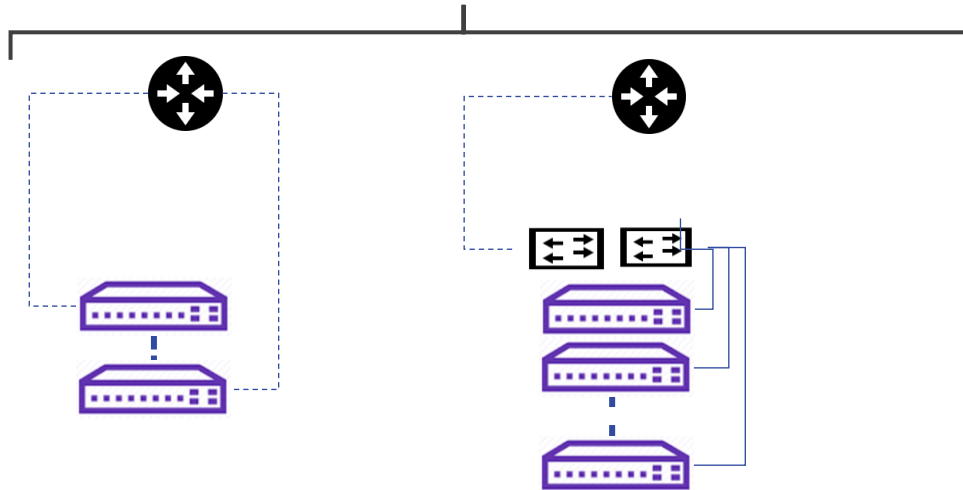
Deployment Models



Compute		L/S Service Edge	L2/L3 TOR	Router	OLT	
Mgmt & PON Controller	PON Controller	BNG on Leaf	Redundant ToR		WB OLT	Radisys OLT w/ controller

Central Management
 Inventory, Topology, Configuration, Assurance

Control Plane on pOLT (Distributed)



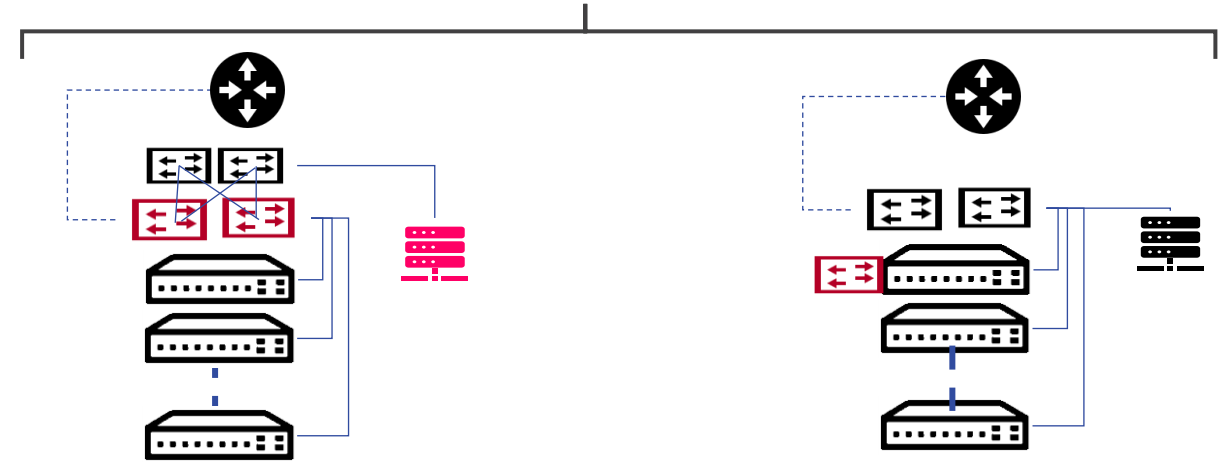
- OLTs in a Ring
- Connected to Central BNG
- (ToR-less)

- OLTs connected to redundant ToRs
- ToR connected to Central BNG

1

2

Control Plane on compute (Centralized)



- OLTs connected to Leaf/Spine in POD
- Service Edge (BNG) on Leaf switches
- Management & PON Controller on local compute

- OLTs connected to ToR
- ToR connected to Central BNG
- PON Controller on local compute

3

4

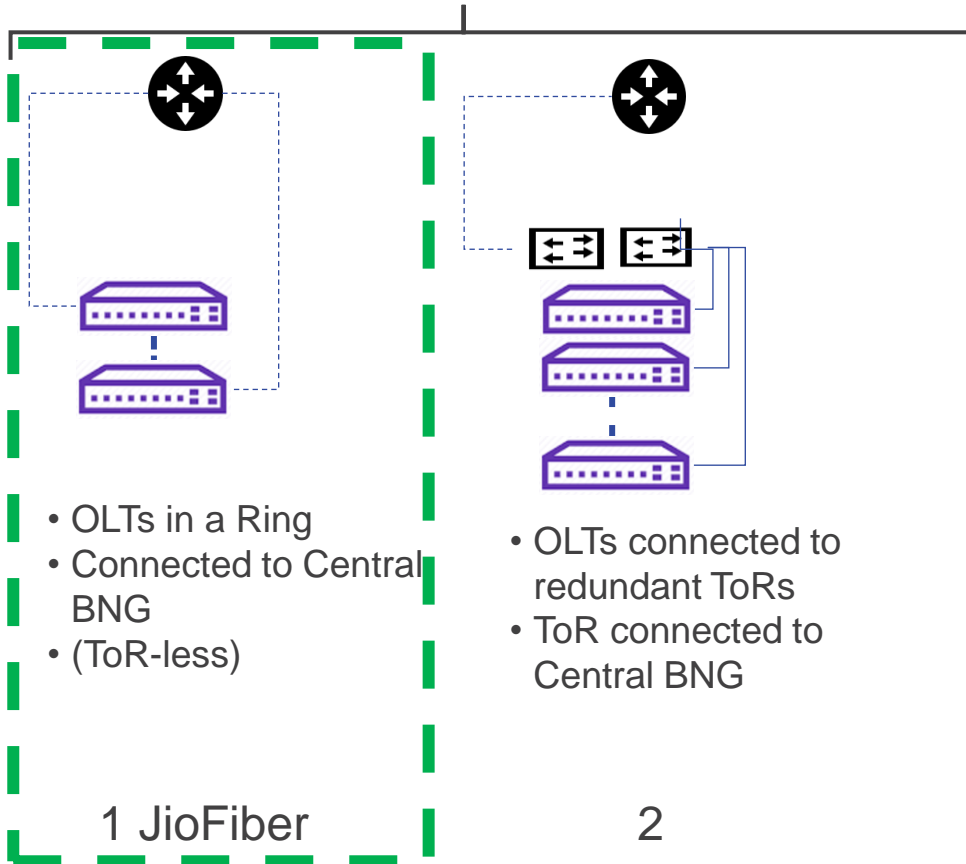
Deployment Models



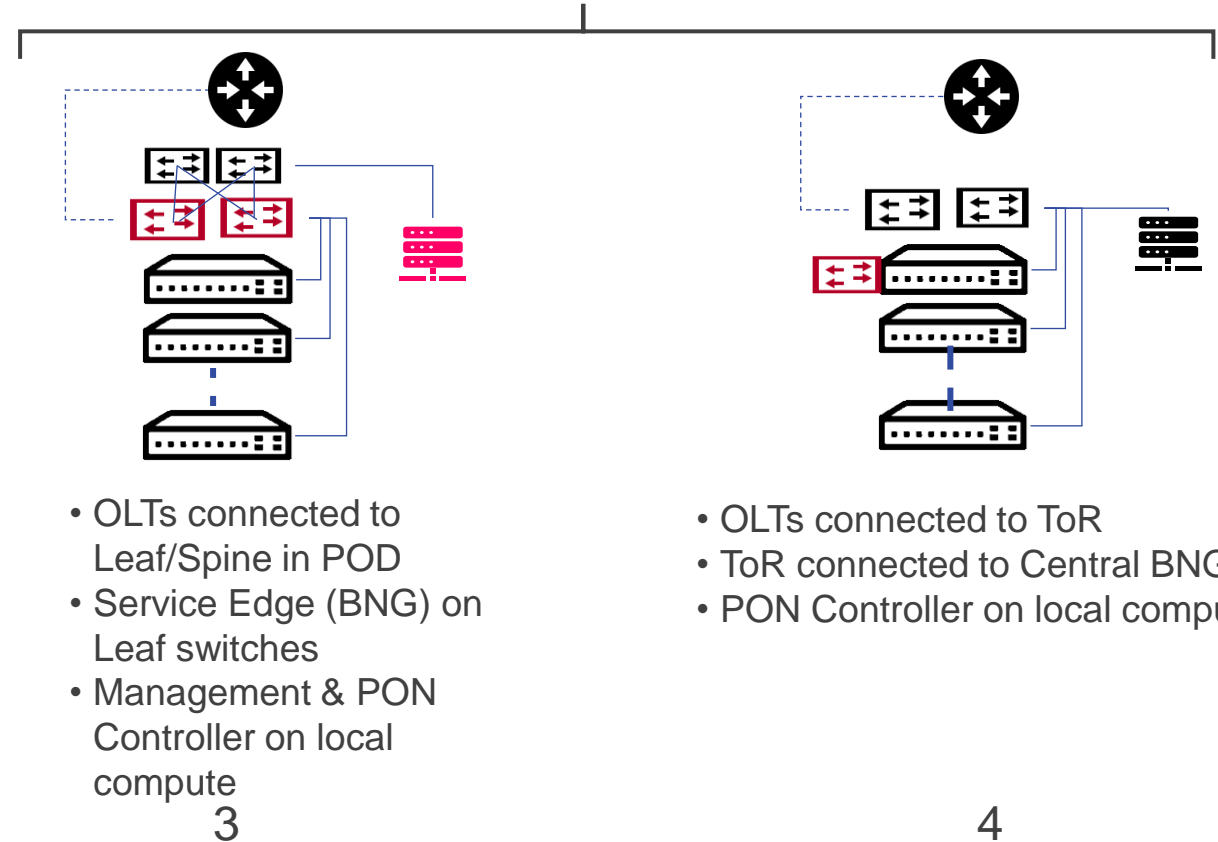
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Central Management
 Inventory, Topology, Configuration, Assurance

Control Plane on pOLT (Distributed)



Control Plane on compute (Centralized)



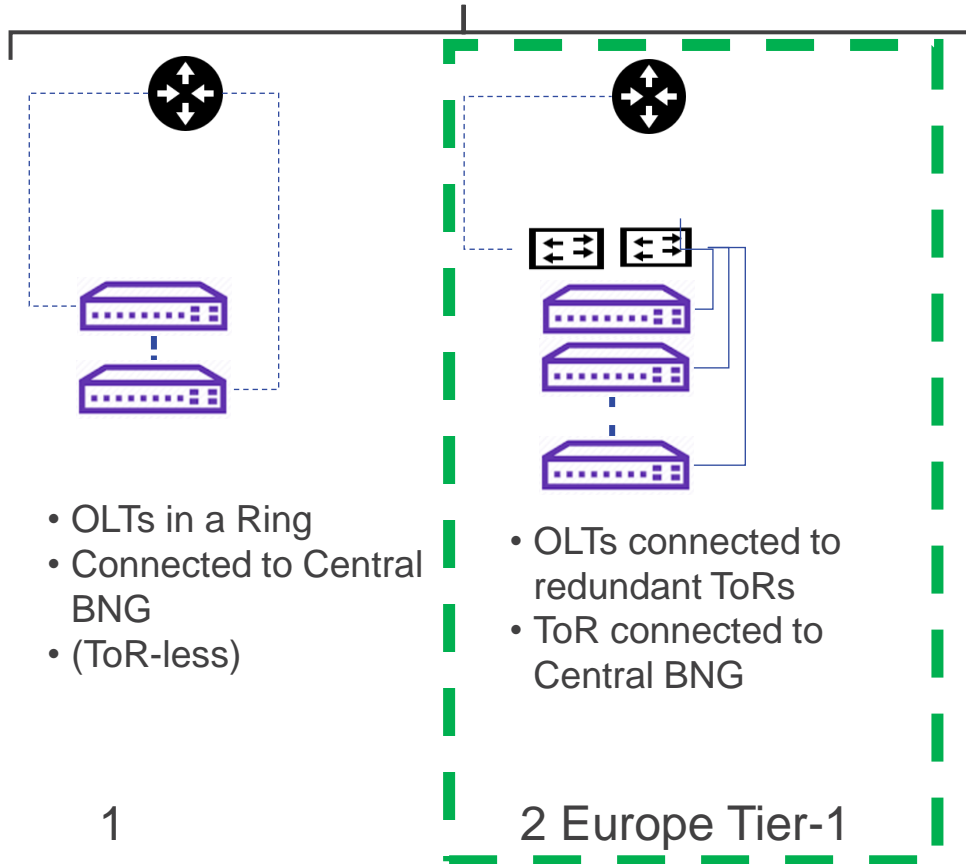
Deployment Models



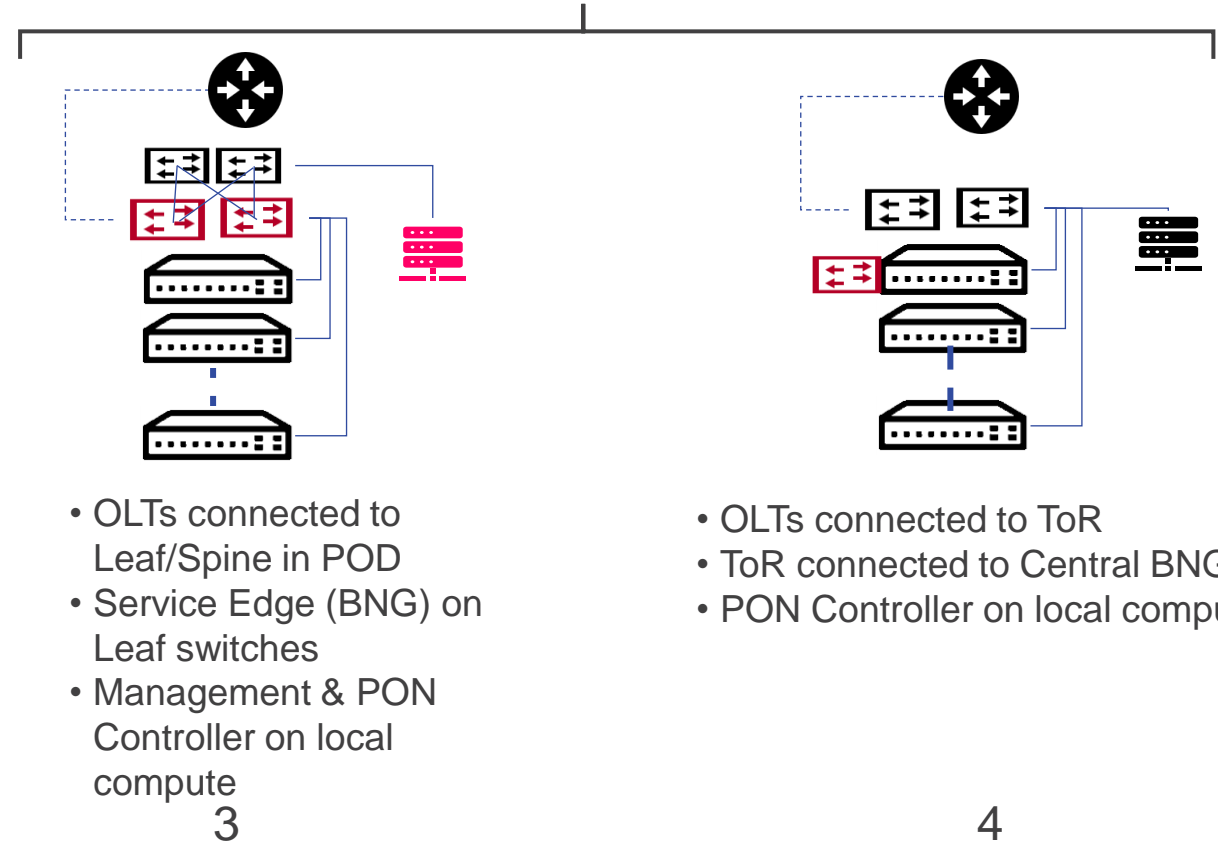
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Central Management
 Inventory, Topology, Configuration, Assurance

Control Plane on pOLT (Distributed)



Control Plane on compute (Centralized)



- OLTs connected to ToR
 - ToR connected to Central BNG
 - PON Controller on local compute
- 4

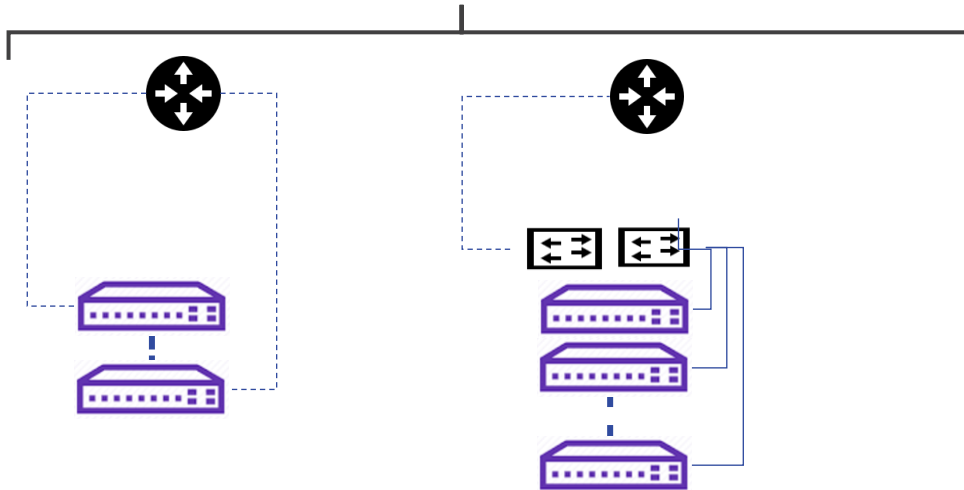
Deployment Models



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Central Management
 Inventory, Topology, Configuration, Assurance

Control Plane on pOLT (Distributed)



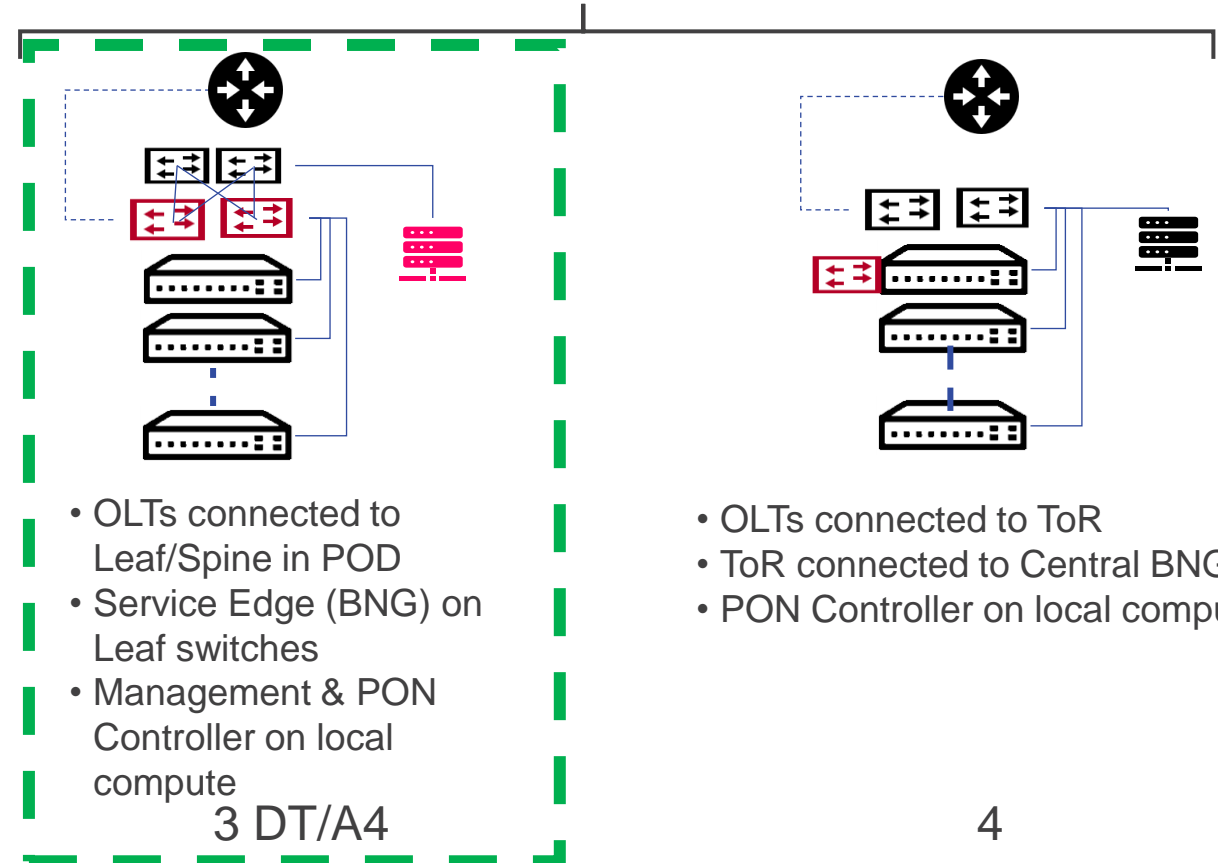
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1

2

Control Plane on compute (Centralized)



- OLTs connected to Leaf/Spine in POD
- Service Edge (BNG) on Leaf switches
- Management & PON Controller on local compute

- OLTs connected to ToR
- ToR connected to Central BNG
- PON Controller on local compute

3 DT/A4

4

A vibrant nighttime cityscape featuring several illuminated skyscrapers. The buildings are lit up with various colors, including blue, purple, and red. The sky is dark, and the city lights create a bright, colorful glow. The overall scene is a panoramic view of a modern city at night.

Radisys

Thank You