



Marvell's Carrier Optimized Networking Switches

Introducing latest Prestera[®] Switches

December 8, 2020

Most complete data infrastructure portfolio

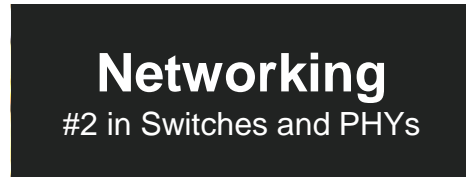
Semiconductor solutions that
move, store, process, secure
the world's data faster and
more reliably than anyone else



Processors
#1 in baseband and
data plane processors



Storage
#1 in HDD and SSD
controllers, Fibre Channel



Networking
#2 in Switches and PHYs



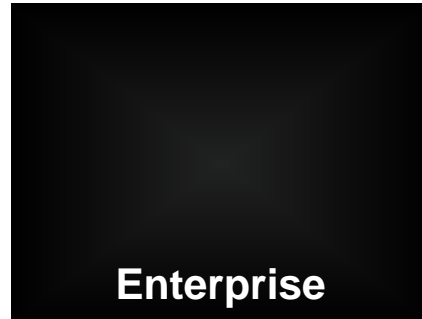
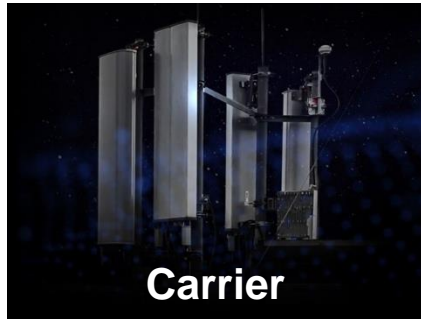
Security
#1 in security processors



Marvell Switches - Networking, done right

20 years of customer-driven innovation and leadership

#1 in Access Switching | #1 in Multi-Gigabit PHYs



Market drivers for carrier optimized networking



Analytics
and AI



Security



5G
Connectivity



Timing and
network slicing



Multi-Cloud

Comprehensive switching silicon offering 400G connectivity, integrated security, small footprint, low power, 5G data plane and Marvell IQ software for carrier optimized networking

Announcement summary

- **Industry's first low density 50G PAM4 switching silicon (1.2T/16.T)** for Carrier Optimized Networking
- New devices enable **low power, low density, feature rich switching** for Mobile Edge Computing and 5G Fronthaul Networks
- Accelerating Data Center Interconnect (DCI) transformation to Ethernet Switching with integrated security (**MACsec**) and pluggable **400G coherent optics**



Carrier optimized networking

Introducing new Prestera 7K, optimized for Carrier and DC Edge switching

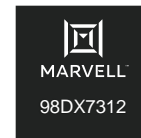
State-of-the-art switch silicon-based on 50G PAM4 for service providers and edge data centers

New Prestera 7K series:

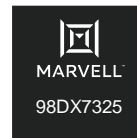
- 98DX7312: 300G (12 x 25G SerDes)
- 98DX7325: 1.2T (24x 50G SerDes)
- 98DX7335: 1.6T (32x 50G SerDes)

Key use cases:

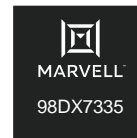
- Edge switch for 5G fronthaul networking
- Metro Access switch for 400G backhaul
- Small footprint switch for Mobile Edge Computing
- Data Center Interconnects (DCI) with 400G & MACsec



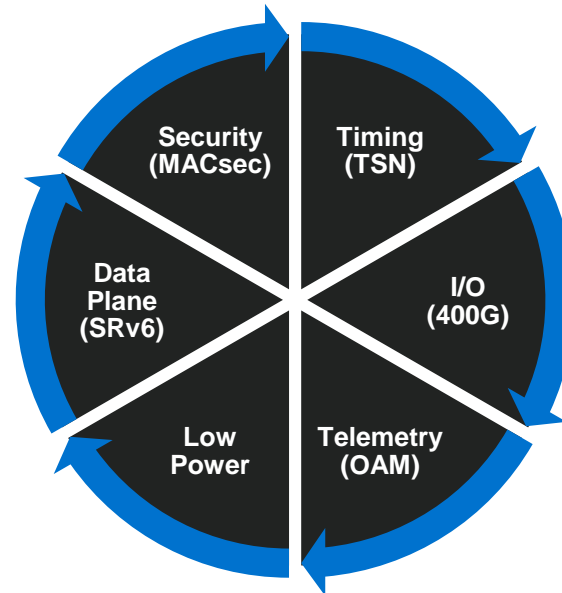
0.3T



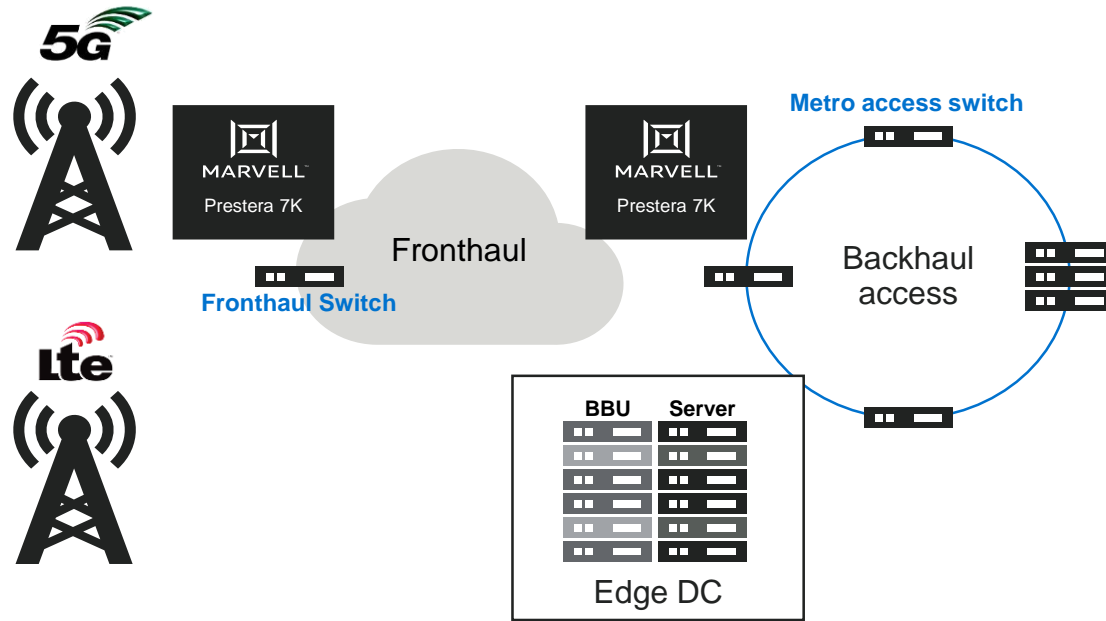
1.2T



1.6T

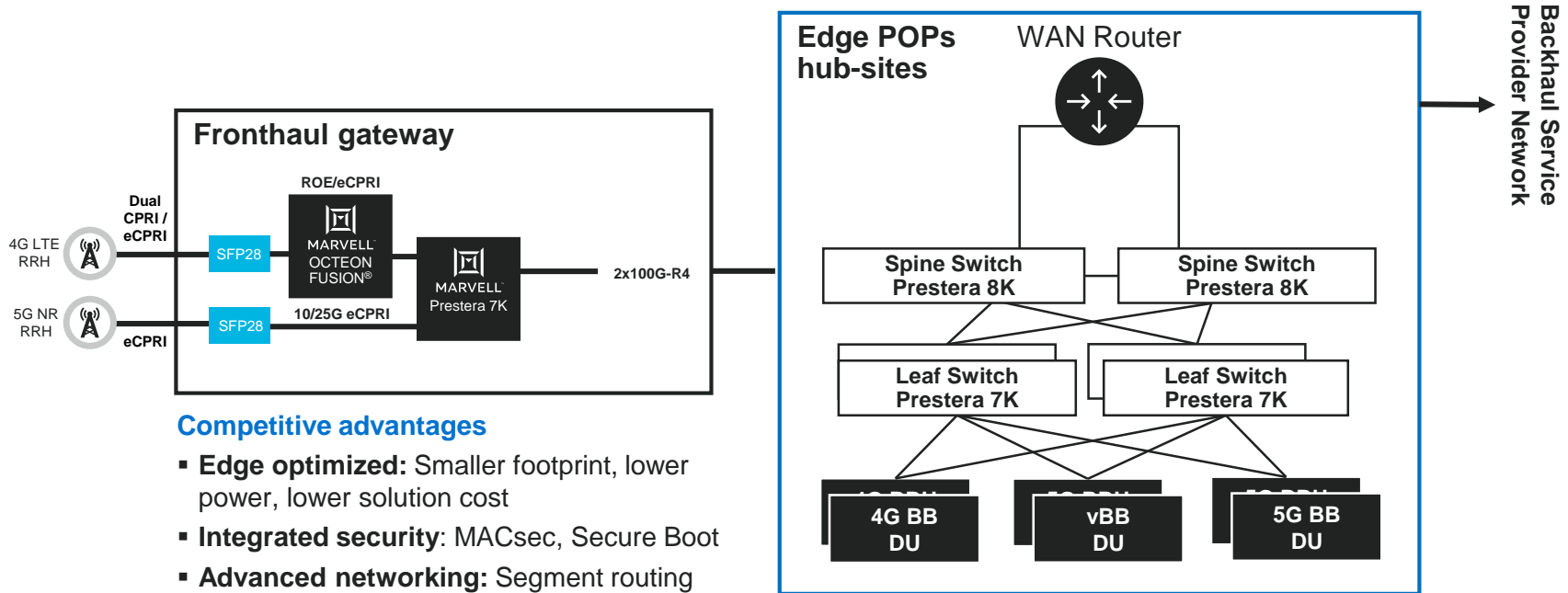


Presterera 7K: Switches for Radio & Metro Access



Fronthaul gateways, Carrier Ethernet switch, Edge connectivity

Scalable and secure O-RAN fronthaul switching

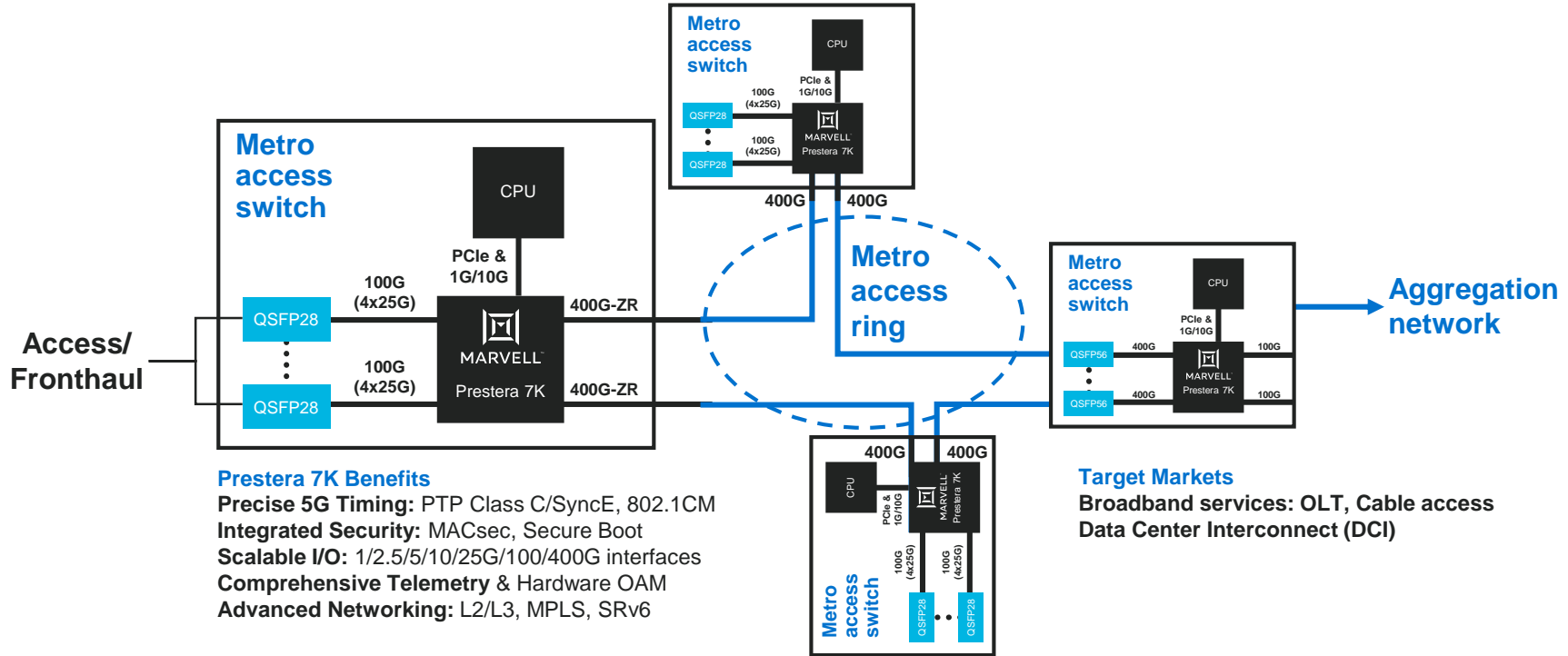


Competitive advantages

- **Edge optimized:** Smaller footprint, lower power, lower solution cost
- **Integrated security:** MACsec, Secure Boot
- **Advanced networking:** Segment routing

O-RAN fronthaul switching with integrated timing, security & telemetry

Metro access switch with secure 400G interfaces



Ethernet switching in metro networks powered by 400G coherent pluggable optics

Marvell end-to-end portfolio



Visibility

Actionable Analytics



Aggregation and Core Switches

2T, 4T, 12.8T



Performance

Service assurance
5G network timing

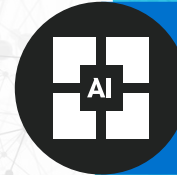
Security

Zero-Trust Access
MACsec encryption



Access Switches

0.3T, 1.2T, 1.6T



Intelligence

AI Enablement
Smart TE (SRv6)



Visibility for actionable analytics



Zero-trust integrated security



Intelligent processing acceleration

AI application
enablement
Infrastructure
automation

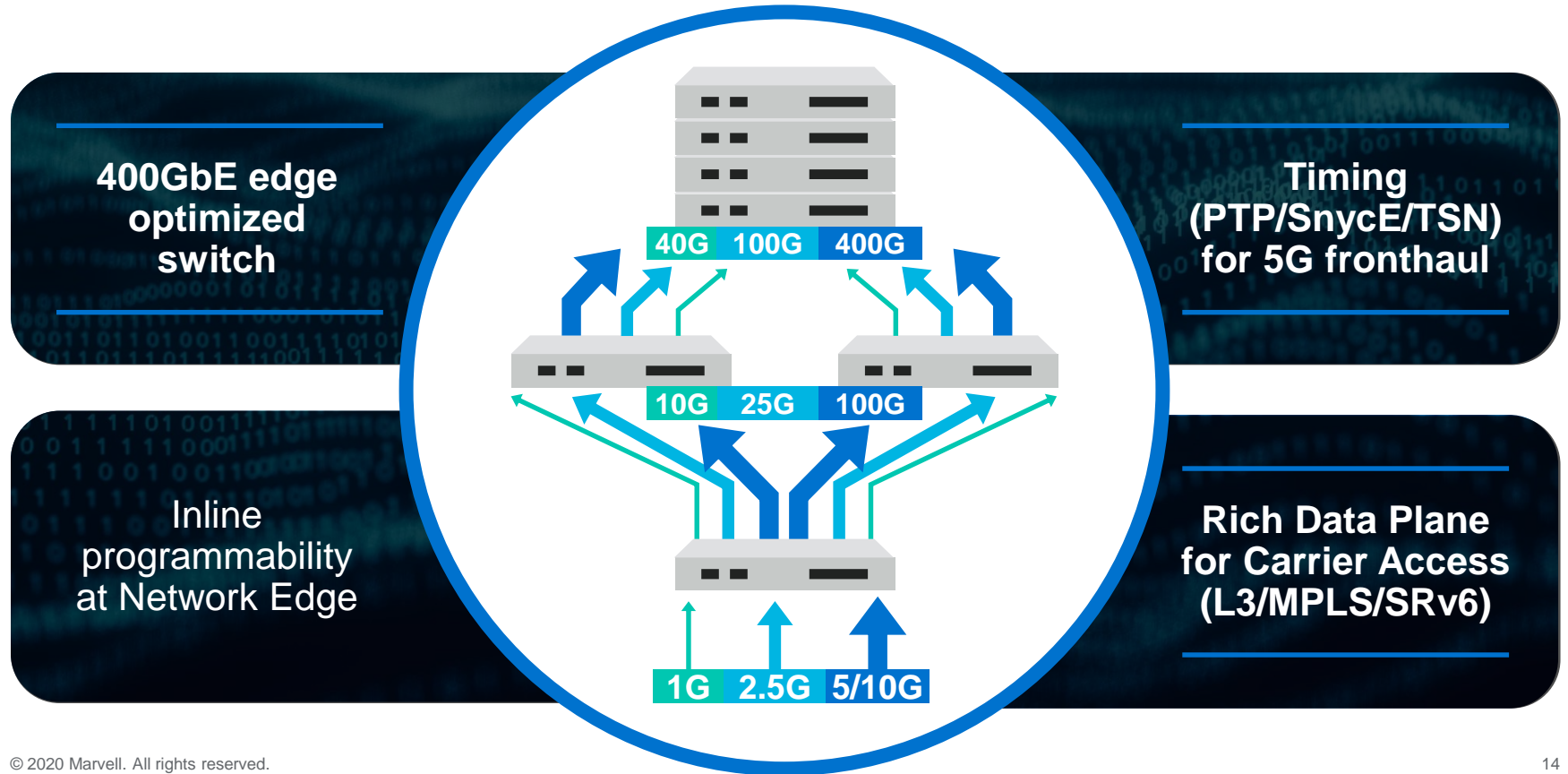
Smart services
offload
In-network
computing

Autonomous
networks
enablement

Smart Traffic
Engineering
(Segment Routing)

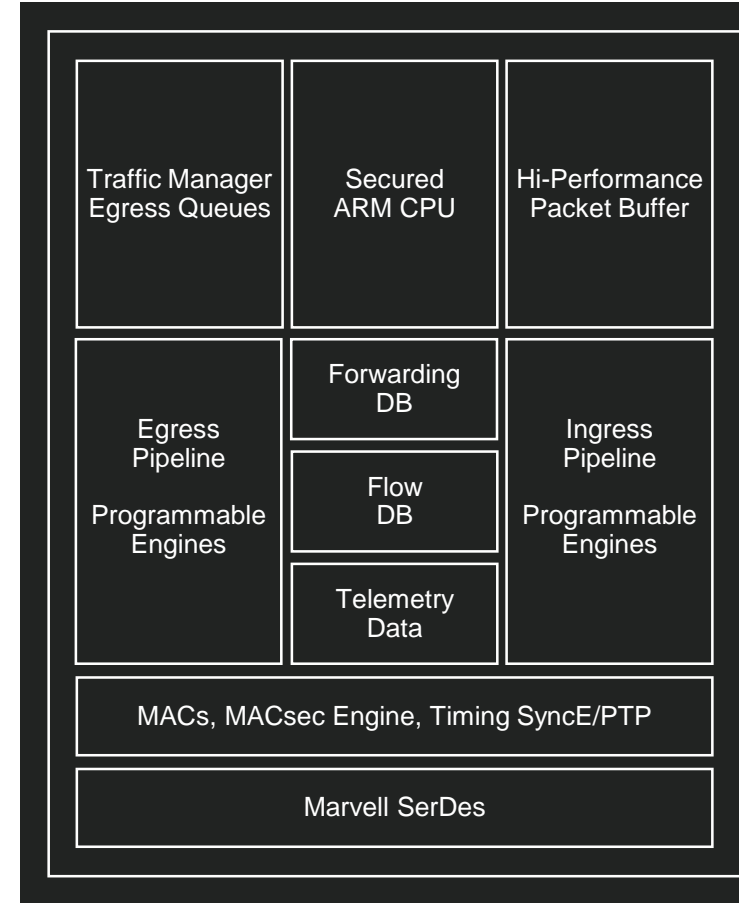


End-to-end high performance and resiliency



Scalable Prestera architecture

- Programmable feature-rich processing pipeline
 - Flow-aware data processing and traffic management
 - Integrated MACsec, secure boot and storage
 - Security sensors for traffic anomaly detection
 - Line-rate telemetry collection and flexible reporting
 - Multi-core Arm[®]-based CPUs to run embedded software
 - Accurate timing synchronization for SyncE / PTP
- Common architecture across access to core switches minimizes customer development costs and time-to-market**



Multiple software offerings enabling customers



**NOS
partners**



**Software
Development Kit
(SDK)**

Industry standard
application interfaces

**Industry
proven Network
Operating Systems**



Edge to cloud
infrastructure
eco-system

Disrupting status quo with key innovations and eco-system partners

Marvell optimizing the Edge

1

Industry-leading edge optimized networking portfolio

2

State-of-the-art telemetry and visibility

3

Built-in intelligence and AI capabilities for smart services

4

Best-in-class timing and slicing features for 5G edge

5

Optimized embedded security for edge and access networks

6

Broad software support for most comprehensive networking portfolio



Q&A



Essential technology, done right™