



Teralynx[®] 10 51.2T Ethernet Switch for AI

July 25, 2024

Forward-looking statements

Except for statements of historical fact, this presentation contains forward-looking statements (within the meaning of the federal securities laws) including statements related to future revenue, future earnings, and the success of our product releases that involve risks and uncertainties. Words such as “anticipates,” “expects,” “intends,” “plans,” “projects,” “believes,” “seeks,” “estimates,” “can,” “may,” “will,” “would” and similar expressions identify such forward-looking statements. These statements are not guarantees of results and should not be considered as an indication of future activity or future performance. Actual events or results may differ materially from those described in this presentation due to a number of risks and uncertainties.

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Overview

Company founded

1995

FY24 revenue

\$5.5B

Employees

6,800+

Patents worldwide

10,000+

Global fabless semiconductor supplier

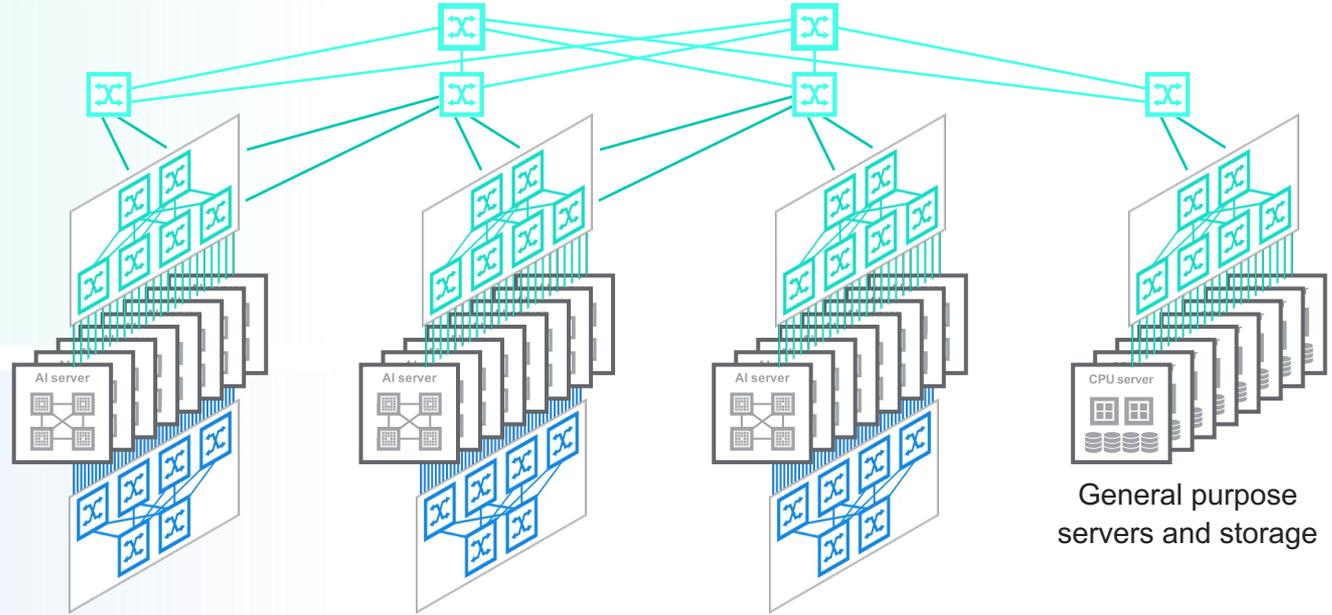


 Nasdaq-100

Switching is the **core fabric** for AI clouds

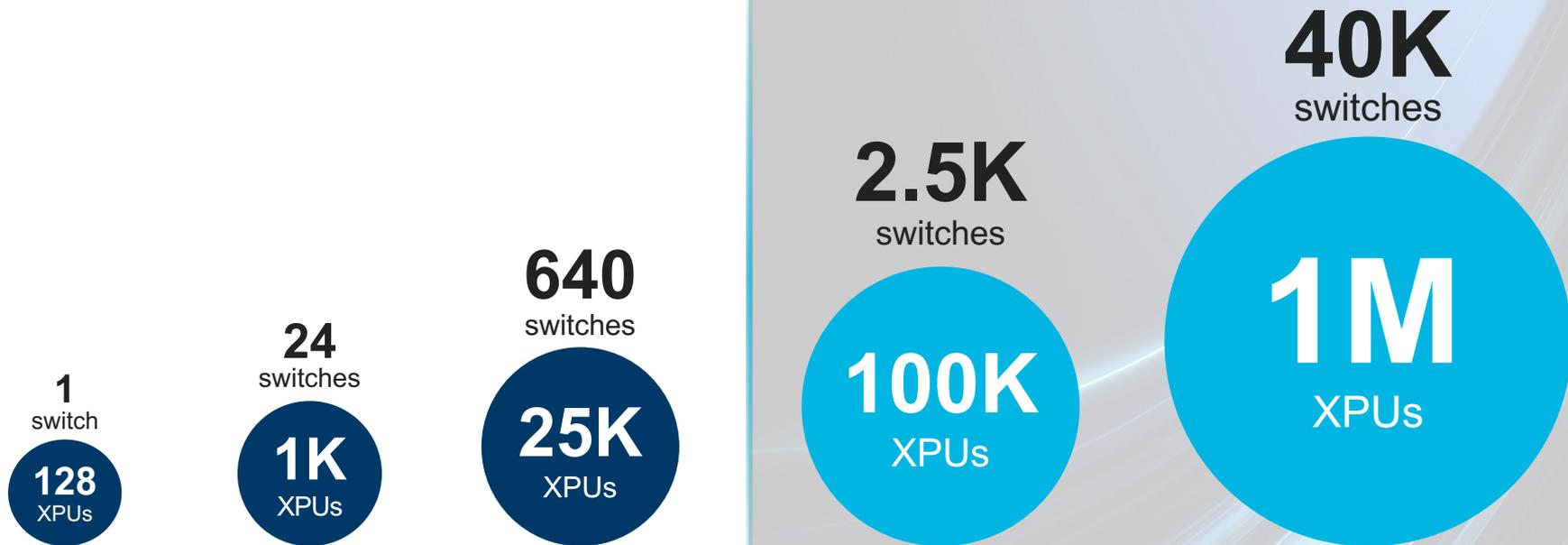
Frontend network
Ethernet

Backend network
InfiniBand
Ethernet



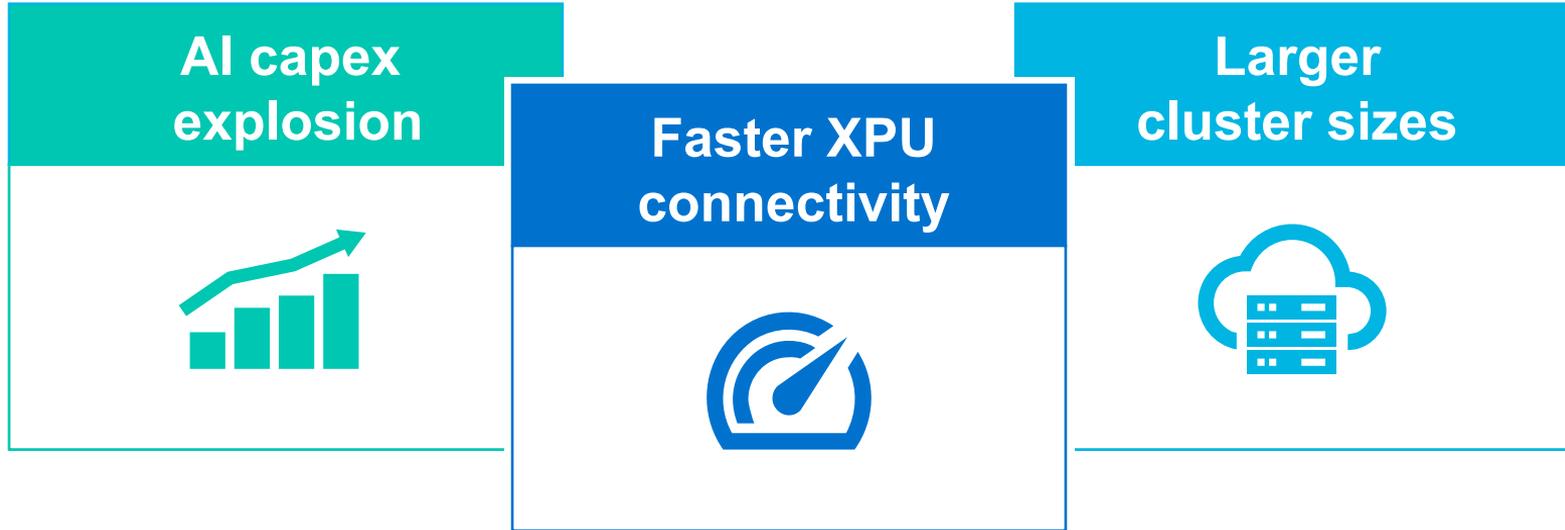
Ethernet is the network of choice for cloud data centers

Large AI clusters accelerate switch demand



Network expands exponentially as cluster size increases

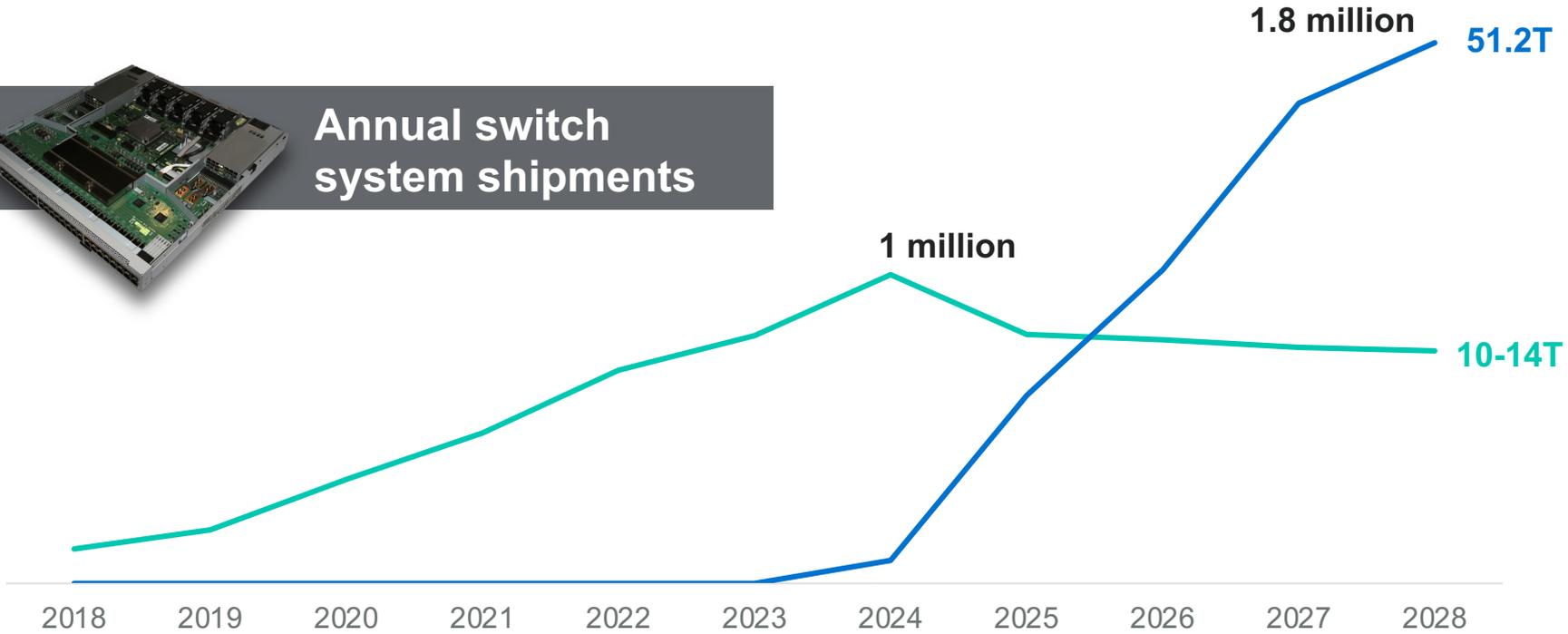
A perfect storm for data center switching



Exponential market growth



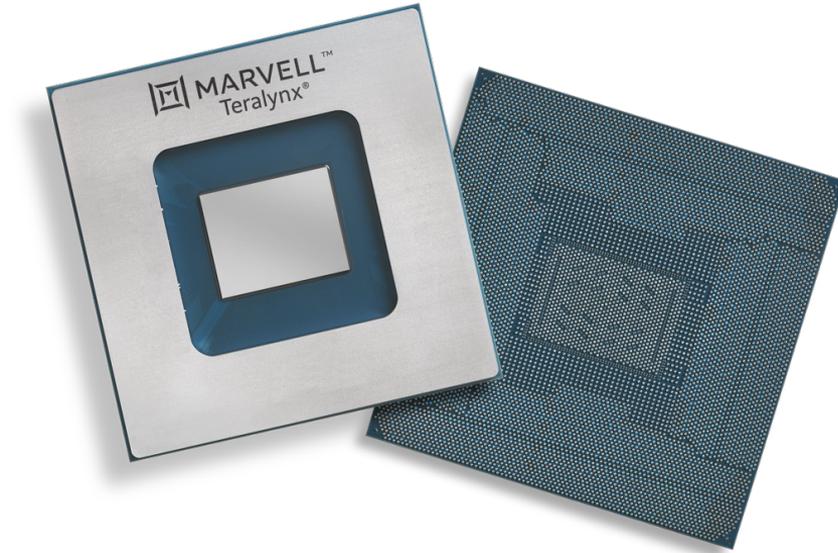
Annual switch system shipments



Multi-billion \$ market for 51T cloud DC switching

Source: 650 Group
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Teralynx[®] 10: low-latency 51.2T Ethernet switch



In volume production today, deployments underway

Marvell® Teralynx® Ethernet Switch

Clean-sheet architecture for cloud data center

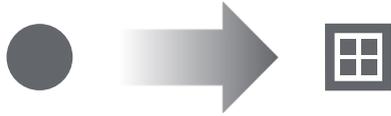


The most balanced AI cloud switch: no compromises

AI calls for **deterministic** low latency

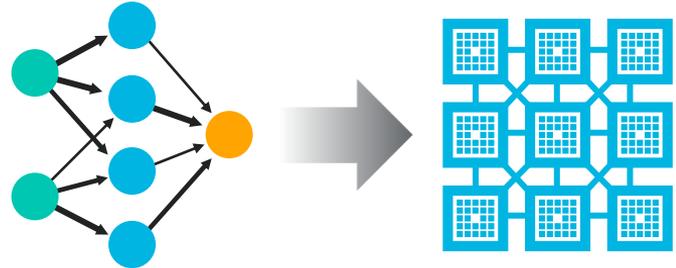
General purpose

One workload,
one processor



Accelerated

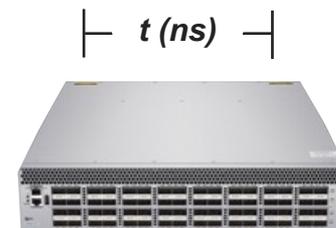
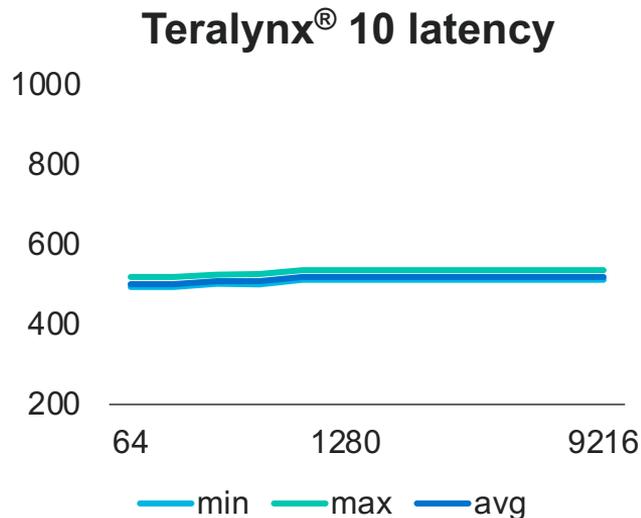
One workload,
many connected processors



Low latency networks enable higher performance compute

Optimized low latency for AI fabrics

Low latency
under any conditions
is key to predictable
fabric performance

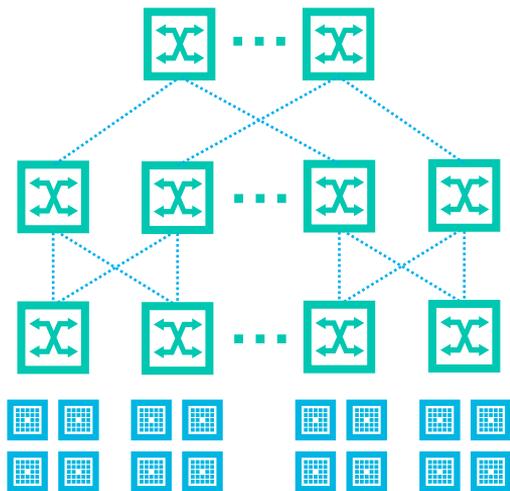


Source: Keysight

Superior architecture delivers consistent low latency

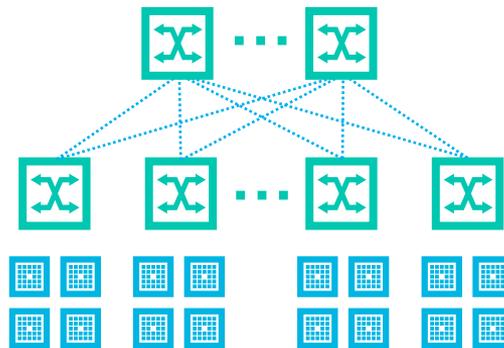
Market-leading radix: optimized for AI fabrics

256 radix



64K cluster

512 radix



64K cluster

33% fewer networking layers

2 vs 3

40% fewer switches

768 vs 1280

44% fewer connections

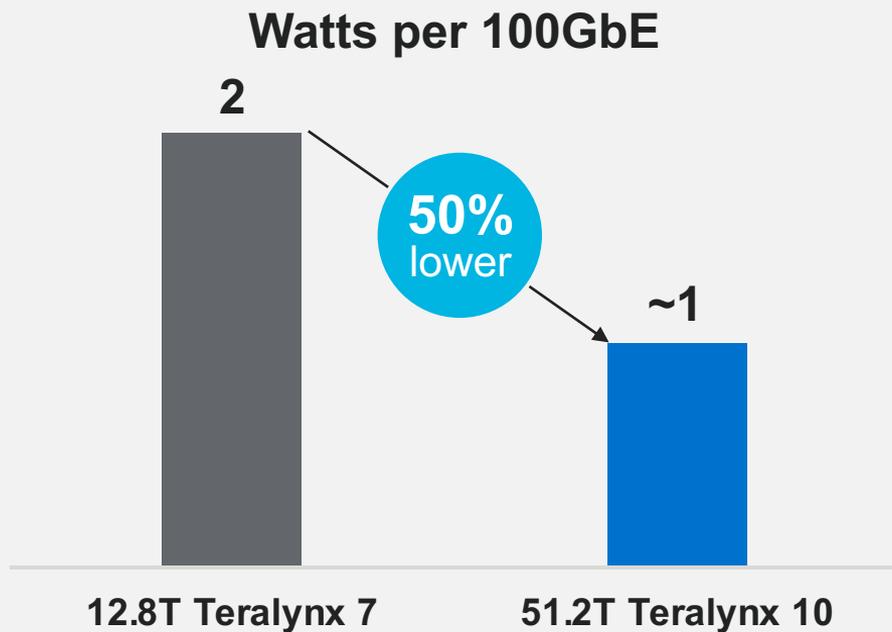
80K vs 144K

40% lower latency

3-hop vs. 5-hop

Network-level innovation to reduce latency, cost, and power

Proven low power



Teralynx 7 test conditions:
12.8 Tbps with 32 optical modules
(12W each) at 25°C. Average packet
size 1518 bytes; 100% loading.

Teralynx 10 test conditions:
51.2 Tbps with 64 optical modules
(18W each) at 25°C. Average packet
size 1518 bytes; 100% loading.

Teralynx 10

- <520W typical power
 - Independently validated¹
- Advanced 5nm process
- Power-efficient architecture

1. Delta Networks Inc.

Marvell Teralynx **programmable** architecture

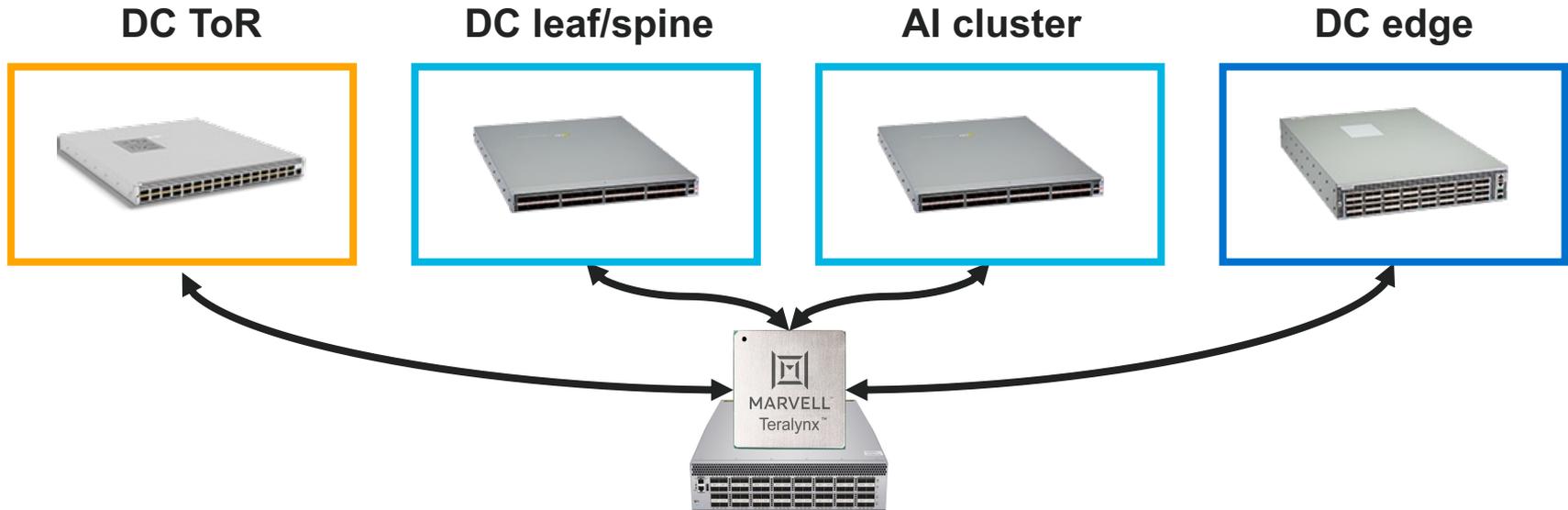
Future-proofing



Inventory flexibility



Reconfigurable for cross-cloud applications



One device can serve multiple DC use cases

Complete deployment-ready solution



Silicon

Production-quality
silicon



System

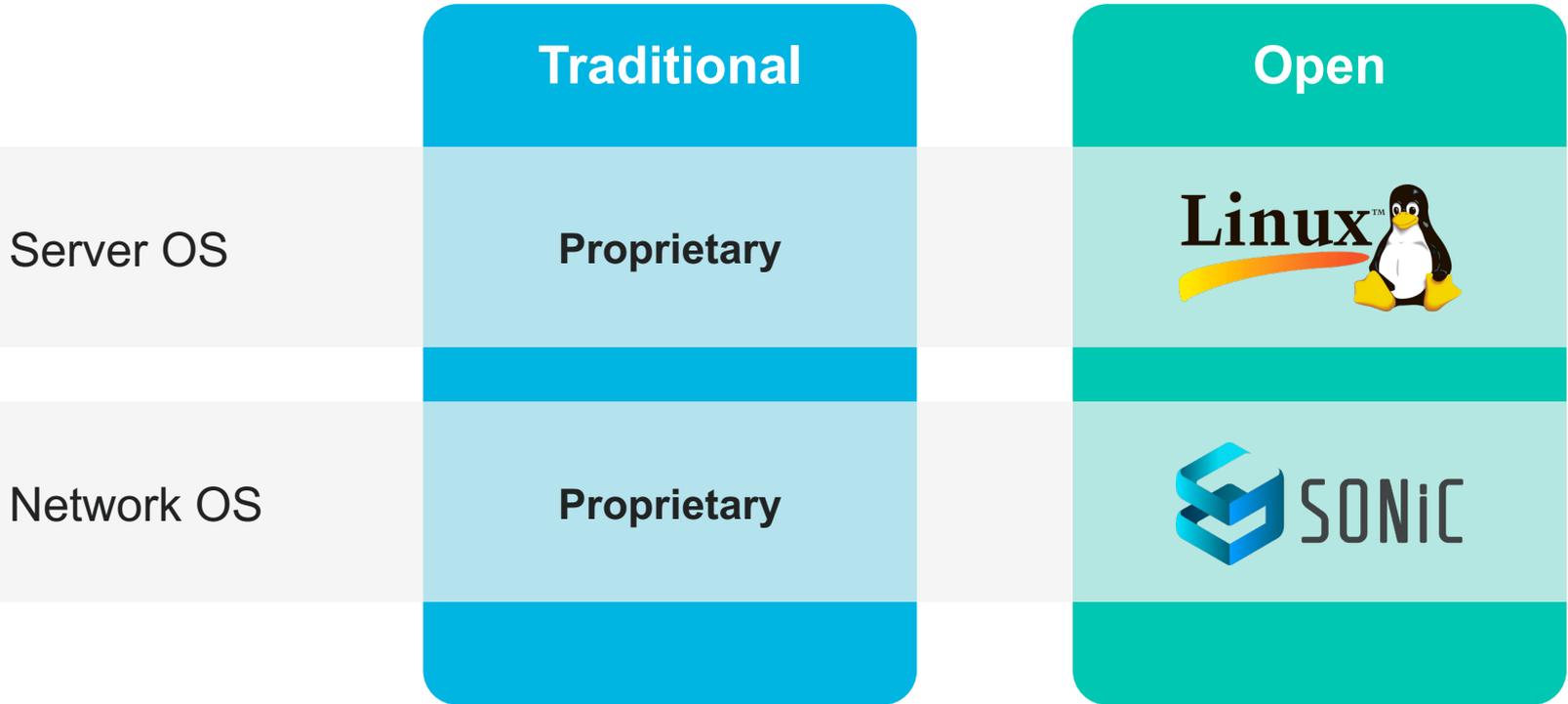
High-speed,
characterized reference
designs



Software

ODM/OEM | Open-source
design tools | SAI & SONiC

Industry shift to **open operating system** software



Open software enables **deployment flexibility**



Faster
development



Normalized
feature set



Multi-vendor
interoperable



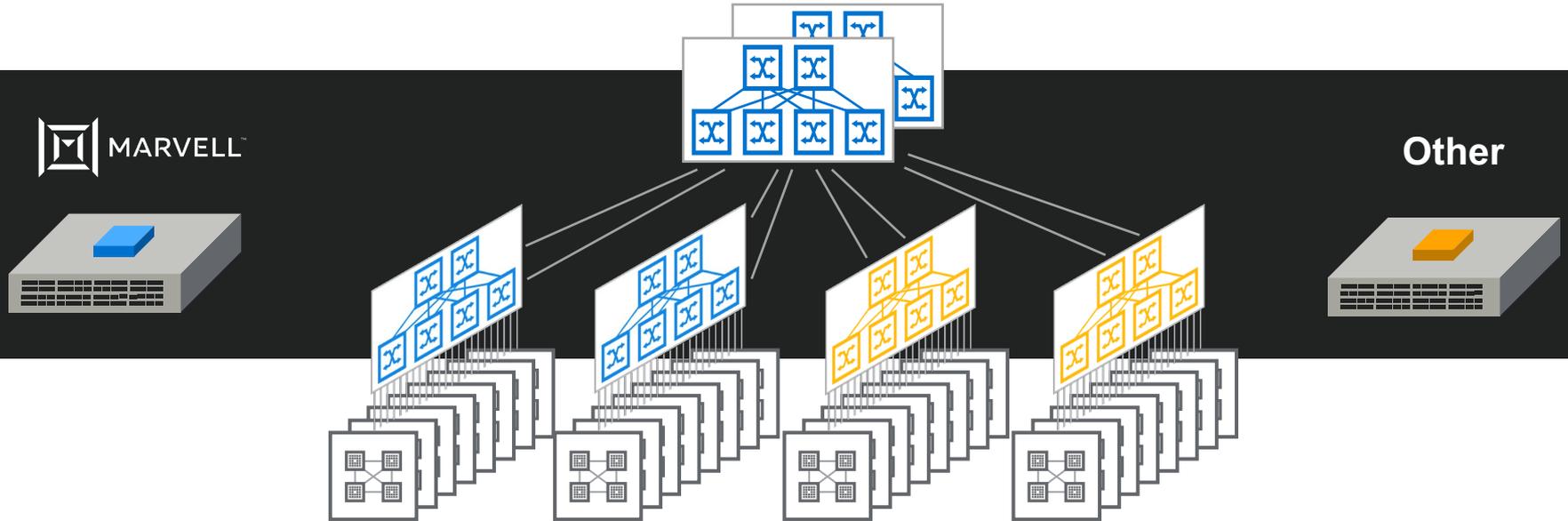
Freedom
from lock-in



Rapid
supply scaling

The new paradigm for hyperscale network deployment

Democratizing data center network infrastructure



Mixed-vendor HW environment enables rapid network scaling

Key takeaways

1

Marvell 51.2 Tbps in production and shipping in volume now

2

Architecture optimized for AI and cloud network demands

3

Low-latency, low-power, high-bandwidth, programmable platform

4

Full HW/SW solution enabling cloud AI shift to open networking



Thank You



Essential technology, done right™