Worldwide Telecommunications,
Networks, and Data Center IT

Dell'Oro Group

Data Center Ethernet Switch and Server Bandwidth Assessment for IEEE

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Ethernet Speed Transitions Through 2023

Data Center Ethernet Switches

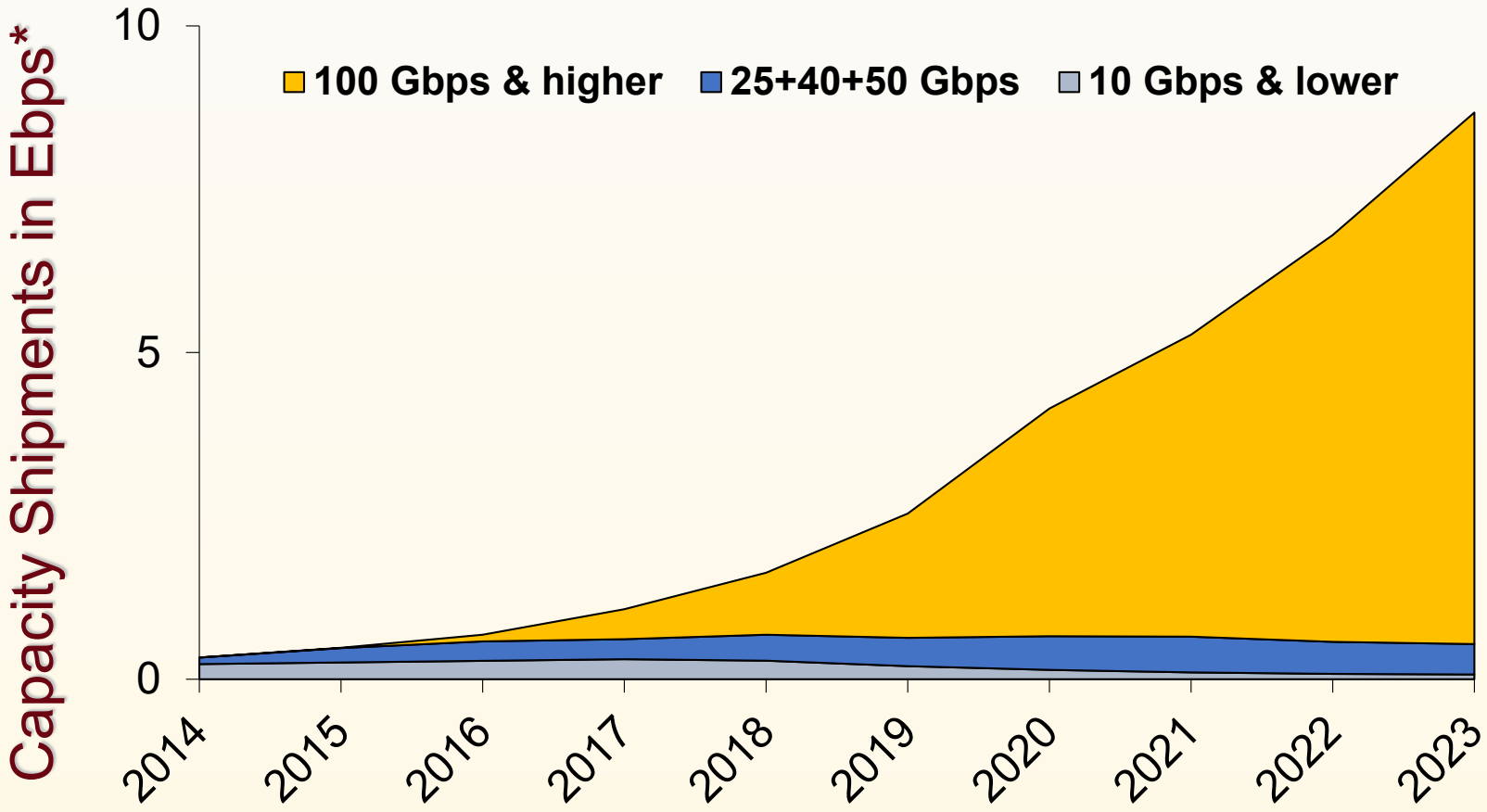
- Capacity shipments: Compound annual growth rate of 40% from 2018 to 2023, consistent with historical trends
- Ongoing demand for 100 GE: Total port shipments approach 100 million over the next five years
- Rapid transition to 400 GE: Ramps to the majority of capacity shipments by 2021
- The ratio between network bandwidth shipped on switches vs. bandwidth shipped on servers has been increasing over the years. It has been around 2:1 at the beginning of the decade (2012) and approaching 7:1 by the end of the decade (2020/2021).

Servers

- Multiple speed transitions for server Controllers and Adapters over the next five years: 10 GE to 25 GE to 50 GE to 100 GE
- Majority of Cloud servers will be deployed with 50 GE or 100 GE by 2023

Data Center Ethernet Switches

Ethernet Port Speed Transitions



* Annual port capacity shipped on Data Center Ethernet Switches measured in exabits per second

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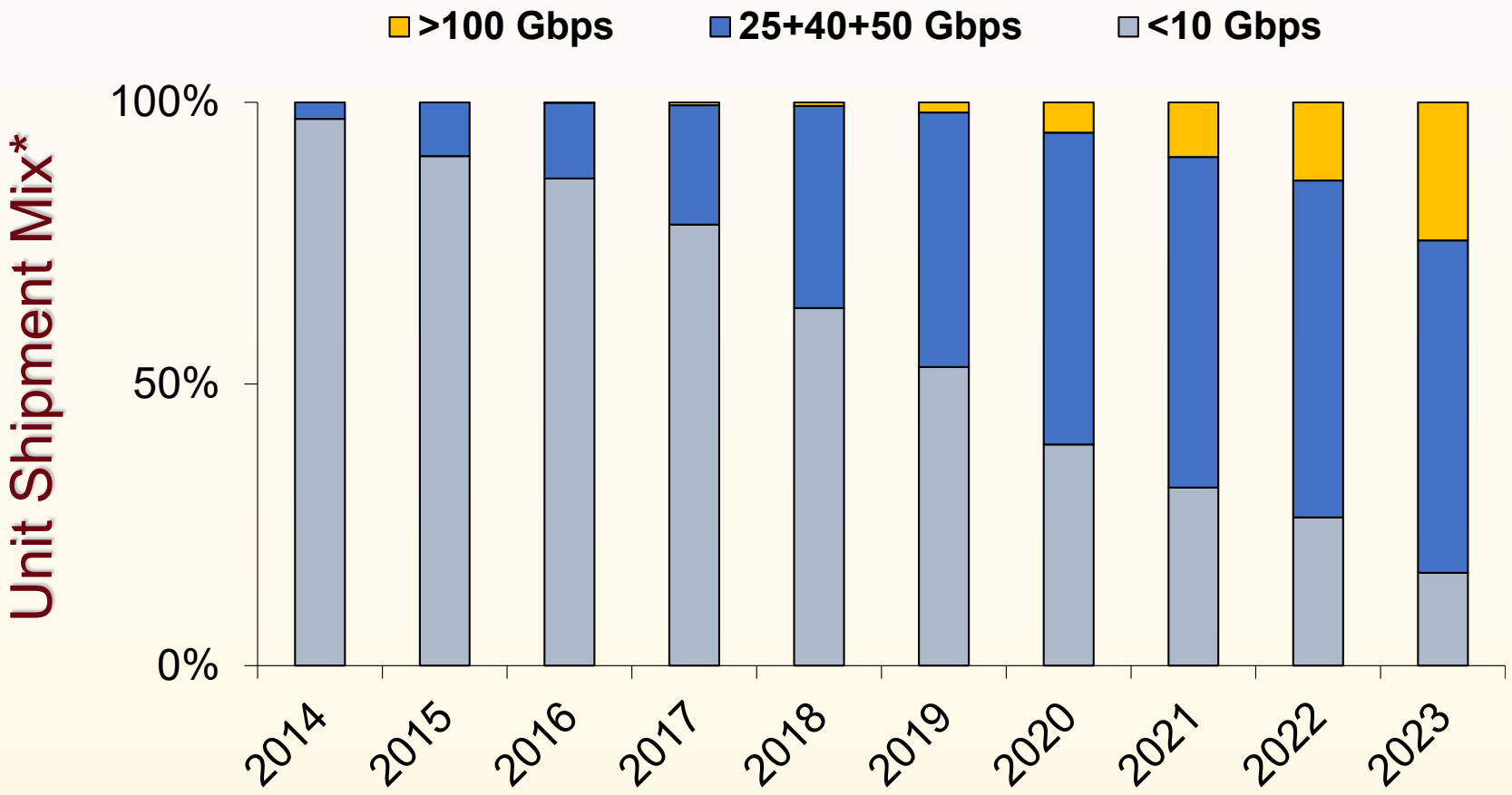
Enterprise and Cloud Servers

Controller and Adapter Speed Transitions



* Percent of annual server shipments categorized by speed of the attached Controllers and Adapters

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