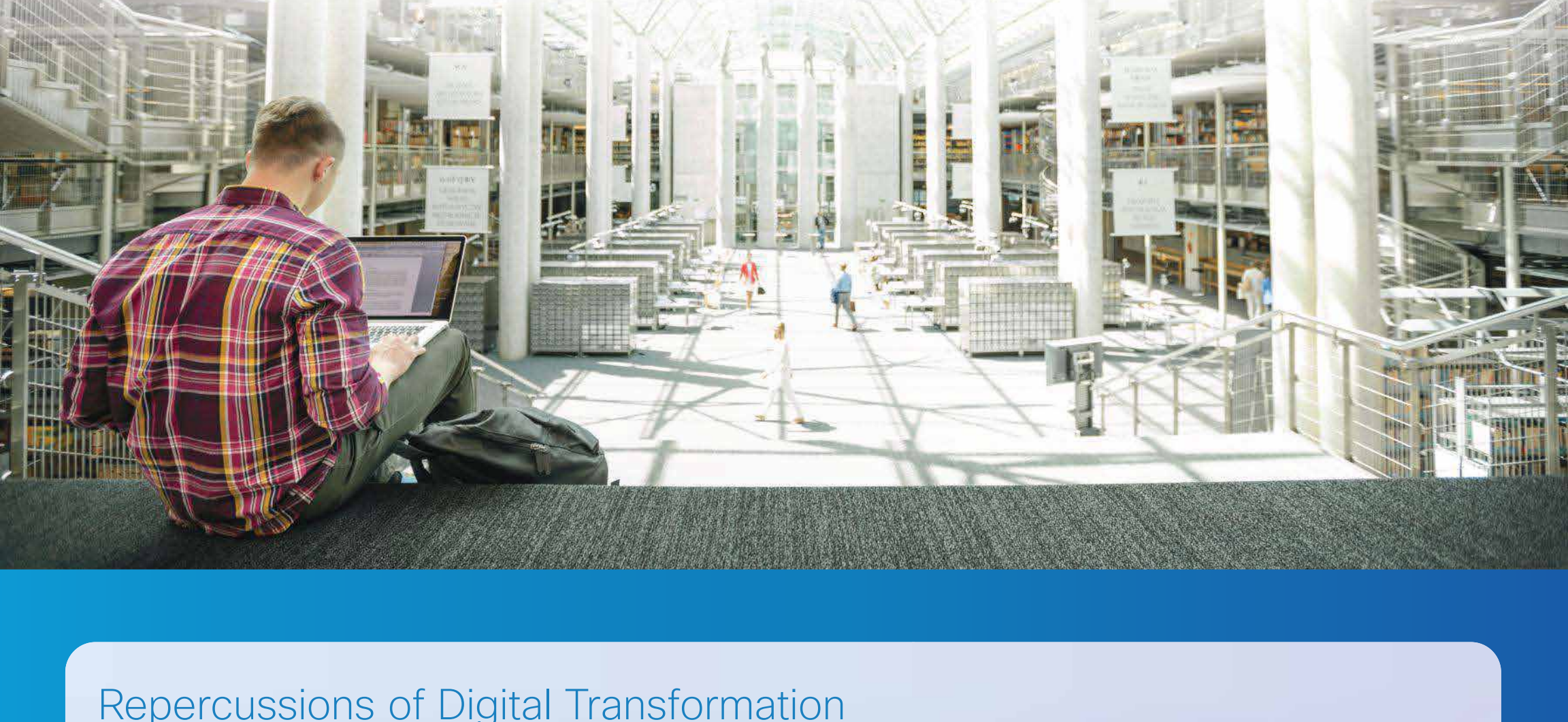**RICOH**
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Eliminate the Wired Bottleneck with Cisco Multigigabit Technology

We are living in the digital age. Always-on connectivity is driving new wireless standards like 802.1ac Wave 2 and 802.11ax. But wireless has now exceeded the capacity of your wired infrastructure, creating a bottleneck.
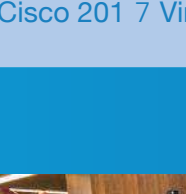

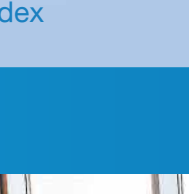## Repercussions of Digital Transformation

6X Growth in Mobile Data Traffic (2016–2021*)

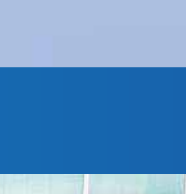### Wireless use examples: vertical markets

| Government Security Cameras | Healthcare Medical Devices | Manufacturing Machine Vision | Education LAN Handoff | Financial Attached Storage |

*Cisco GCI | Virtual Networking Index

History of Cable Installation / Port Speed / Ethernet Speed

Did You Know?

1980
Standards Were Established

Originally based on CSMA/CD; Ethernet standards are 38 years old
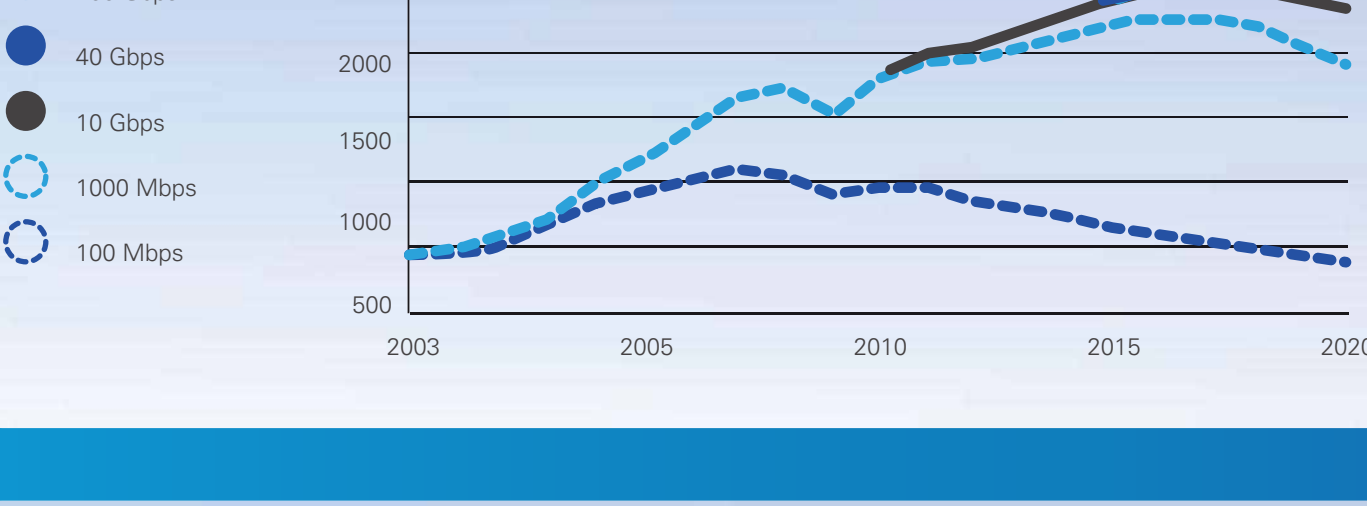
85 Billion Meters

Between 2003 to 2017, over 85 billion meters of Cat 5e and Cat 6 cabling were sold

5.6 Billion Ports

More than 5.6 billion 1000BASE-T/1000BASE-T switch ports in the last 20 years

Number of Ethernet Switch Ports Sold (By Speed)

- 100 Gbps
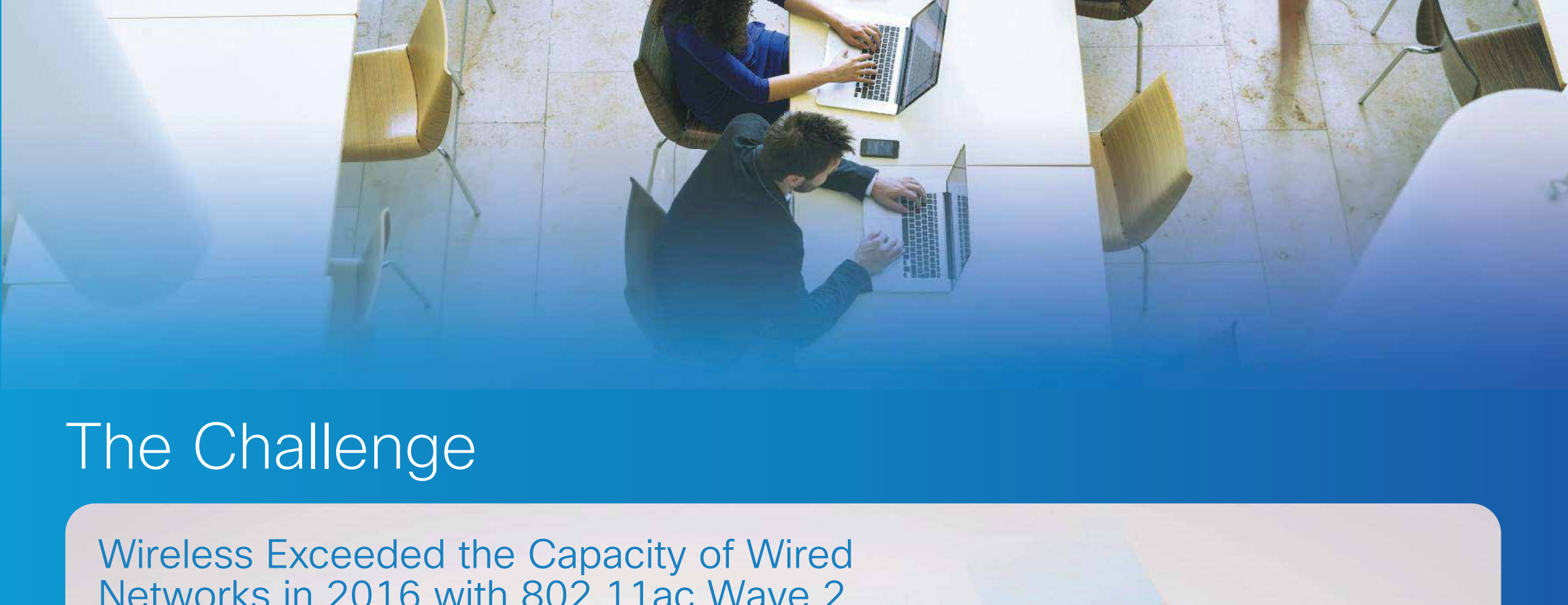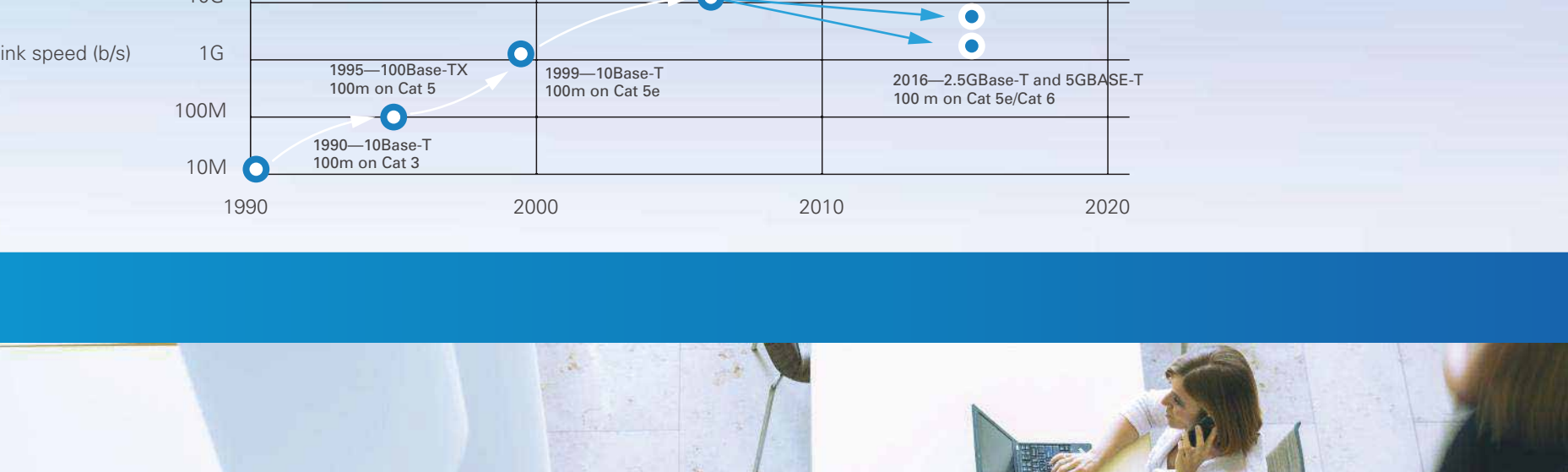- 40 Gbps
- 10 Gbps
- 1000 Mbps
- 100 Mbps

More than 5.6 billion 1000BASE-T & 1000BASE-T switch ports shipped in last 20 years.

Another 2.4 billion more ports expected to be added by 2022

Dell'Oro Group Ethernet Switch: 6 year Forecast Jan 2017
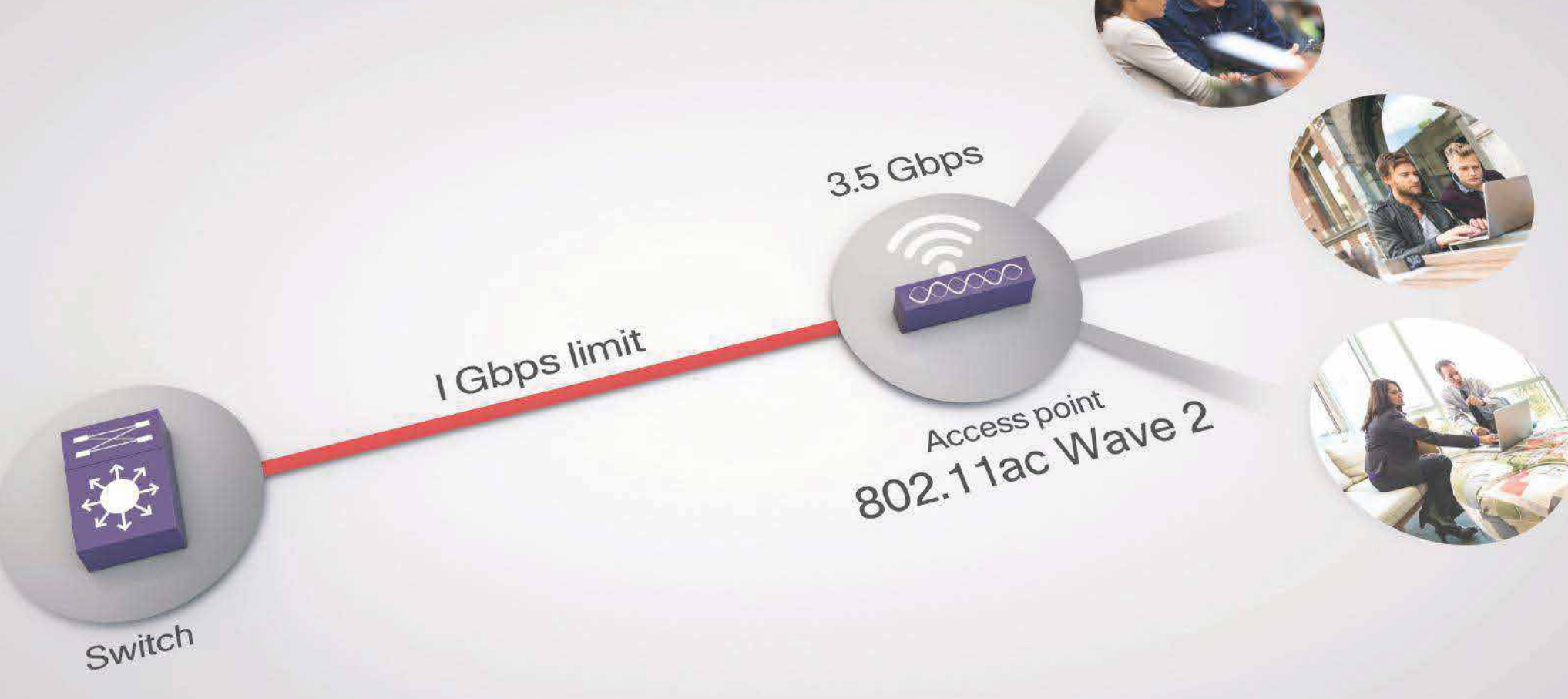
Evolution of Ethernet Speeds Over Cat Cables (3–8)

- Ethernet Speed
- Speed in Development

The Challenge

Wireless Exceeded the Capacity of Wired Networks in 2016 with 802.11ac Wave 2

802.11ax is on the horizon!

Result: Gigabit Bottleneck

1 Gbps limit

3.5 Gbps

Access point
802.11ac Wave 2

Switch

How the Industry is Solving the Problem
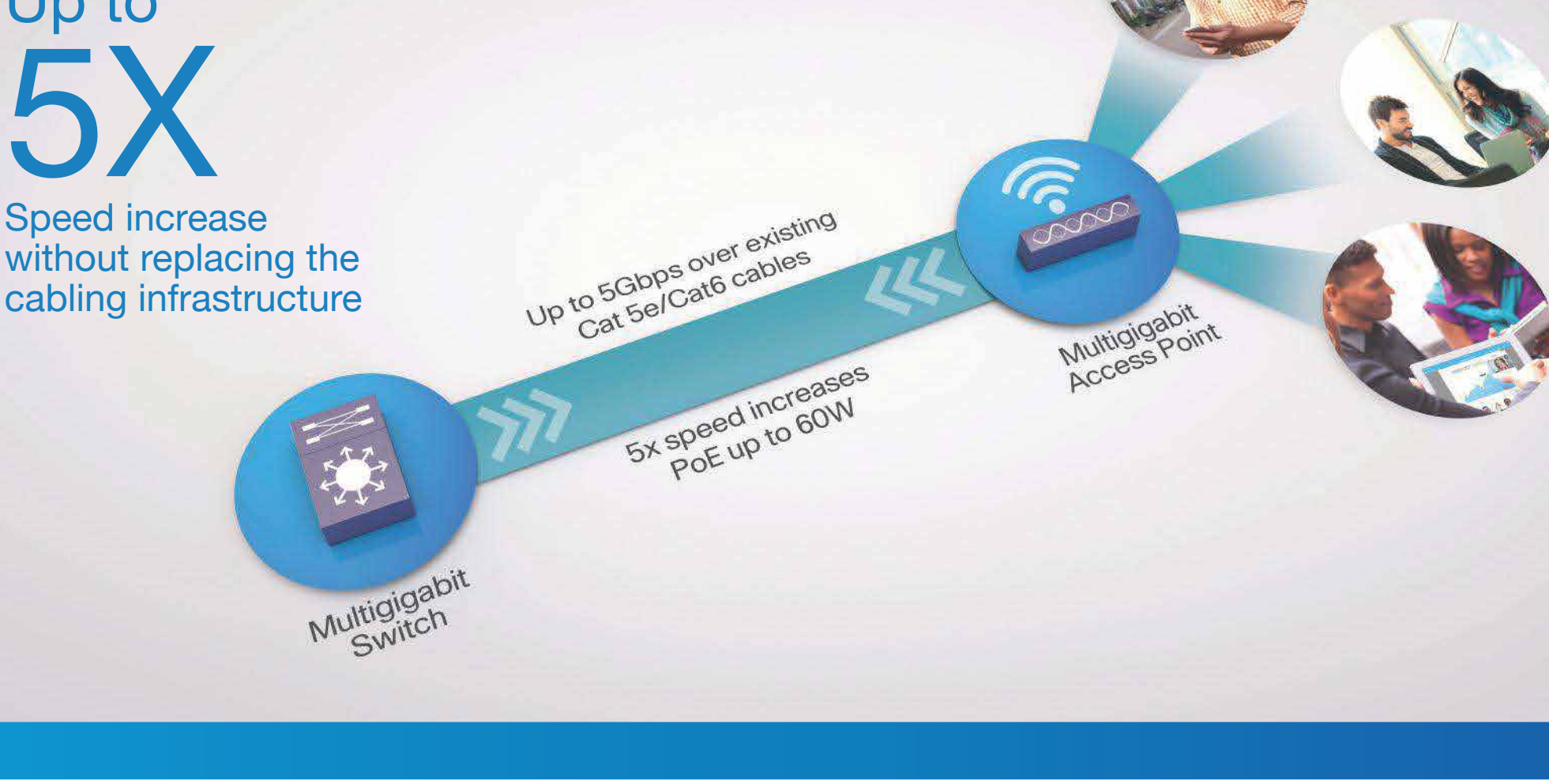
NBASE-T Alliance

Vendor alliance for 2.5G/5G BASE-T with 45+ participant companies

Components, silicon, systems, cabling, test, etc.

Enables widespread deployment, evolves specifications, facilitates interoperability.

The Solution

Cisco Multigigabit Technology

Up to 5X
Speed increase without replacing the cabling infrastructure

Up to 5Gbps over existing Cat5e/Cat6 cables

5x Speed Increase with PoE up to 60W

Multigigabit Switch

Multigigabit Access Point

Cisco Multigigabit Technology Portfolio

| Catalyst 9400 Series Catalyst 9300 Series | Catalyst 4500-E Series Catalyst 3850 Series Catalyst 3650 Series | Catalyst Digital Building Series Catalyst 3560-CX 350 Series Managed Switch Meraki MS390 Cloud Managed Switch | Aironet 3800/4800 WAP581 Meraki MR53 |

Cisco Multigigabit Key Benefits

Maintain Switch to AP Reach at Higher Speeds	Infrastructure Investment Protection	POE/POE+ /UPOE	Standards Compliant
Adaptive Rate Technology (FE, 1G, 2.5G, 5G, and 10G).	Supports 100m distance with Cat5e/Cat6 cabling up to 5G speeds.	Up to 60W PoE over 1000BASE-T to support a range of power needs.	Compliant with 1000BASE-T and 10GBASE-T IEEE standards.
	Supports Cat6a cabling deployments for higher speeds.		IEEE 802.3bz 2.5/5GBASE-T standard in progress

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Ricoh Smart Connectivity

As a leading Cisco Gold Partner Ricoh will engage with companies in Australia to help them become more efficient in how they connect, manage, secure and share their data. Do more than keep up with the latest technology.

Contact us to build a smarter IT ecosystem where everything just flows.

For further information, please visit:
https://www.ricoh.com.au/services/smart-connectivity or contact 13RICOH