

# HITS | SPRING |

# HOLLYWOOD INNOVATION & TRANSFORMATION SUMMIT

Presented by



## Analyze Your Move to the Cloud, It's Still an On-Prem Play



Sean Tajkowski – MEDCA / Tajkowski Group  
Technical Director / Technical Planning

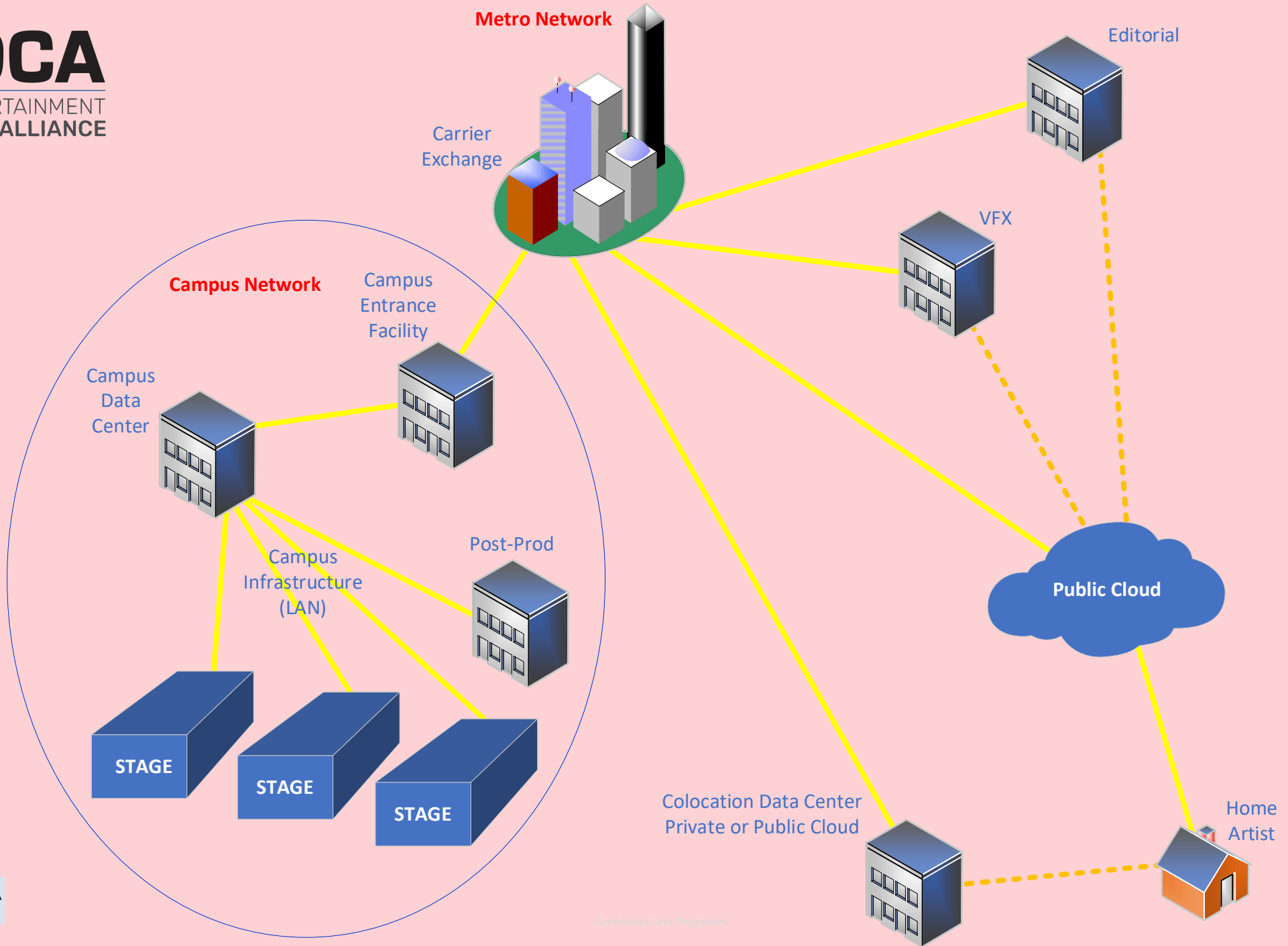


Jason Bautista - Commscope  
Solutions Architect, Enterprise Strategy and  
Technology



Tony Grayson – Compass/Quantum Data Centers  
General Manager







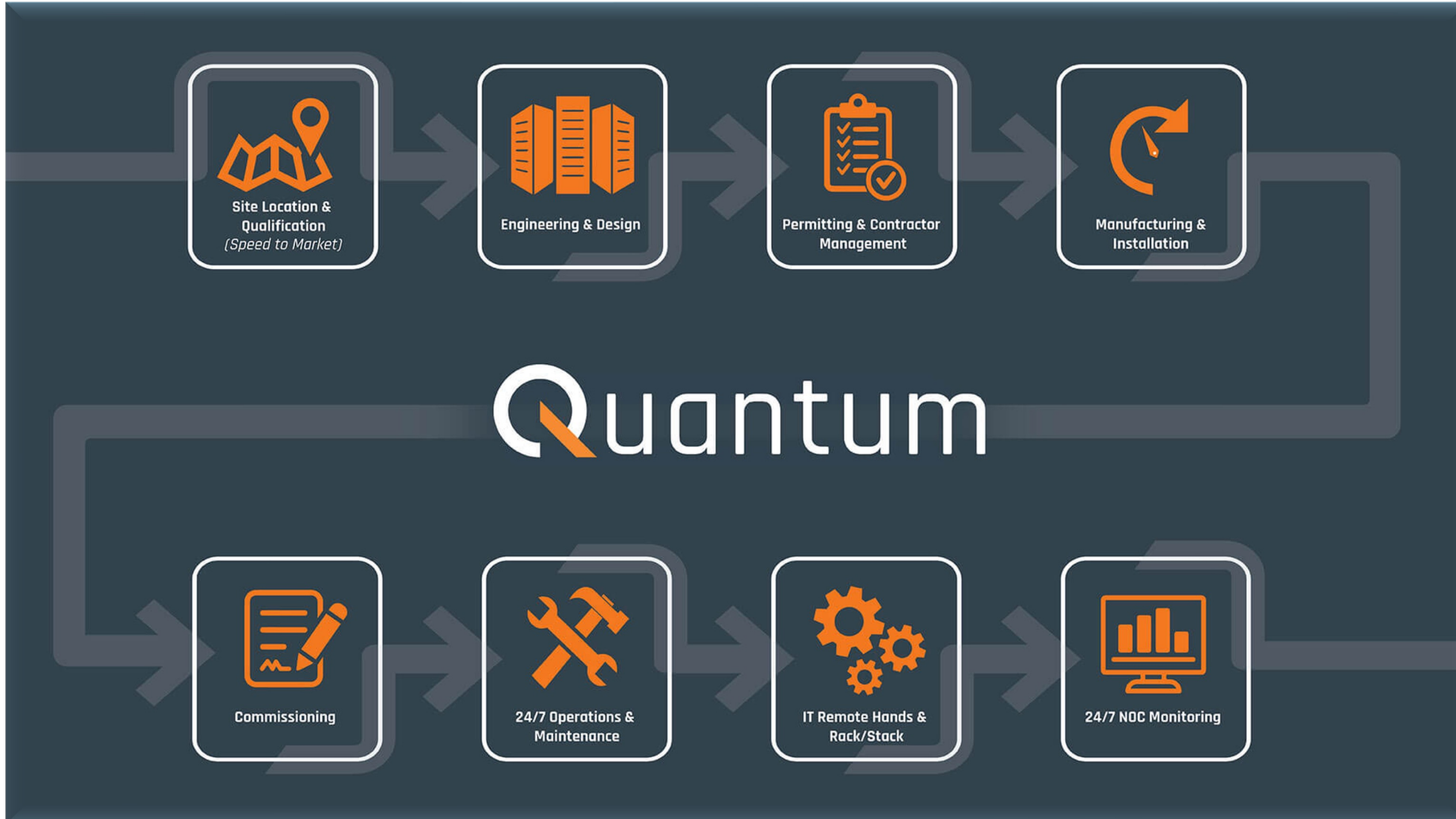
# Quantum

May 2022

# Introduction

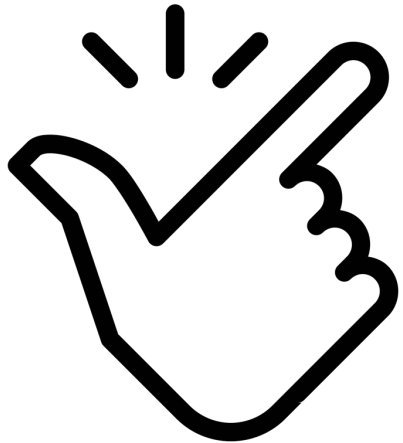


# White Space as a Service



# Service Benefits

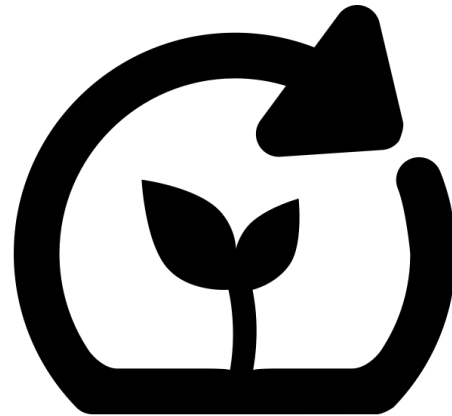
**Easy**



**Anywhere**



**Sustainable**



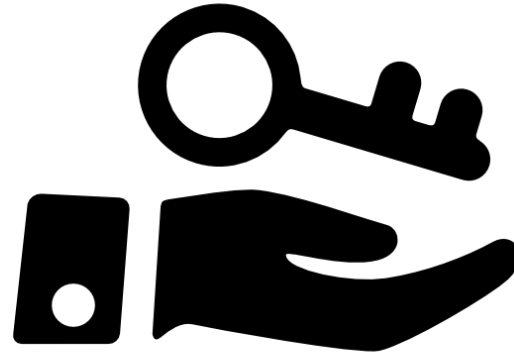
**Remotely  
Managed**



# Installation Benefits

## Turnkey

- Logistics
- Land
- Permitting



## Unique Pier Design

- No Minimal Geo-tech
- Any seismic condition and surface
- Minimal environmental impact
- 4-hour install





# Datacenter Benefits

## Remote Management

- Full monitoring and control

## Reliable and Secure

- Tier Ready, TIA Ready, UL Listed
- Can withstand 200mph winds
- Ballistic rated
- Diesel backup

## Speed to Market

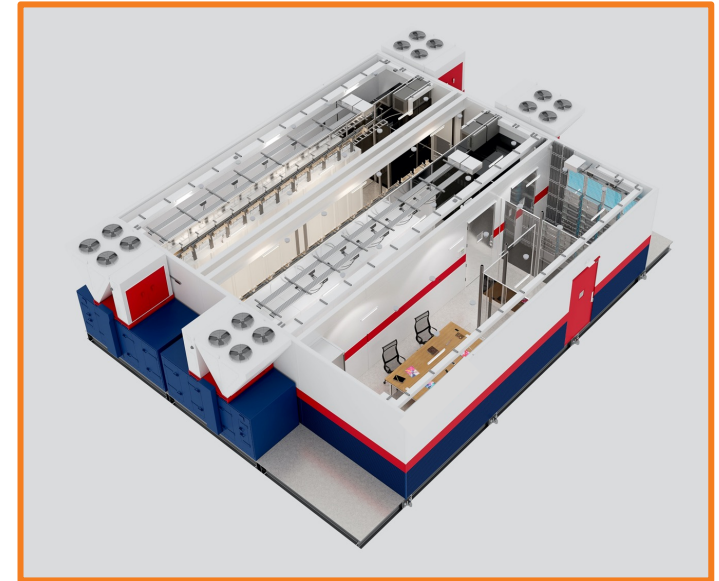
- Industry leading manufacturing timeline
- 100kW can ship within one month from contract

## Scalable Form Factor

- Twelve positions
- 100kW @ 2N; 200kW @ N
- Scalable in 100kW increments

## High Quality

- Standardized, sustainable, repeatable design



# Managed Offering Benefits

- Central NOC & onsite services
- Out of band management backup
- Monitoring and custom alerts
- SLAs set to customer's needs

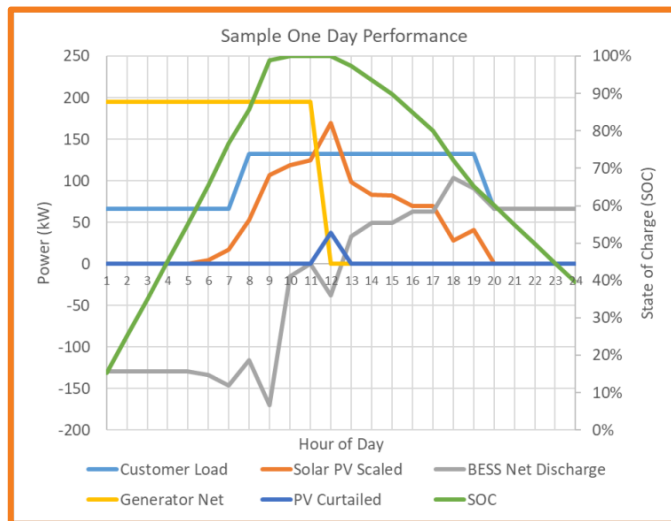


# The Quantum 'Edge'

Segment	Distributor	Segment Competition	Quantum
Capital approach	CAPEX	OPEX	OPEX
Remote management			✓
Sustainable design			✓
Global	✓		✓
Delivered to customer	✓	✓	✓
Site selection		✓	✓
Permitting		✓	✓
Manufactured in a month or less			✓

# Product Roadmap

- Remote breaker control - 2022
- Rear-door heat exchangers for high power racks - 2022
- Different sizes and number of positions - 2023
- Fuel cell for backup - 2023
- Microgrid for primary - 2023



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# Modern networks are complex.

PLACES

PEOPLE

NETWORKS

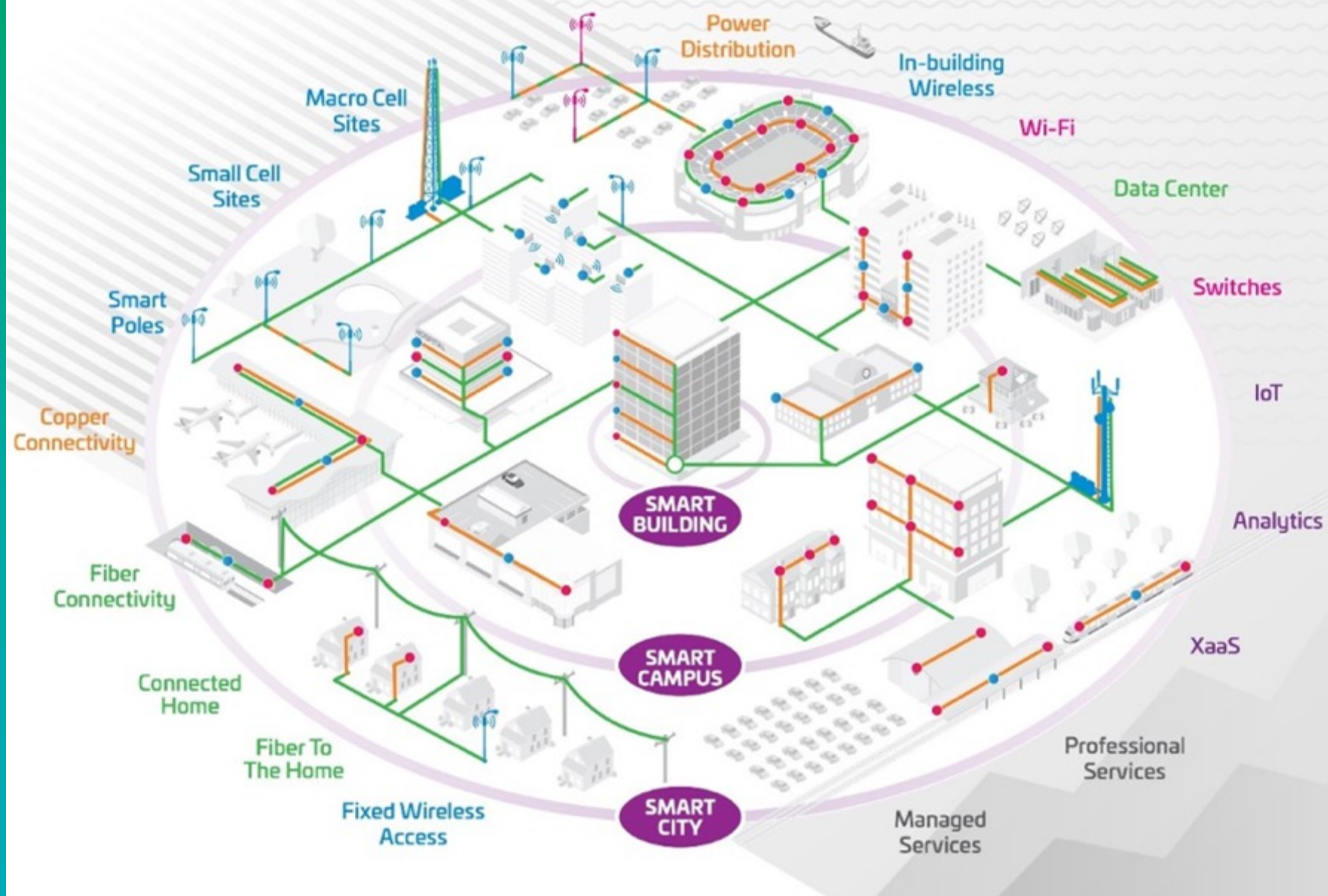
## COMMSCOPE®

### We can help.

With simplified networks that speed time-to-revenue and lower TCO

**Broadest, global solutions sets for:**

- Wired and wireless connectivity
- Service providers, data centers and end customers
- Partner network



Copper



Fiber



Wireless



Wi-Fi



IoT

## Connecting the future

**\$8.5B** revenue (2021)

**30,000** employees

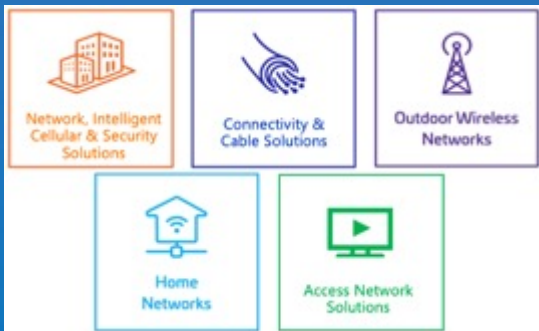
**15,000** patents

**\$800M** R&D investment

**Global** R&D, manufacturing & distribution

**10,000** global partners

**Committed** to environmental & social sustainability



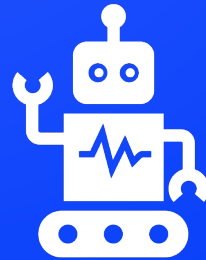


# AI, Machine Learning and Deep Learning Timeline

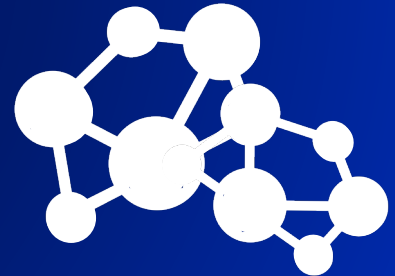
## Artificial Intelligence



## Machine Learning



## Deep Learning



**2011**  
Watson wins Jeopardy

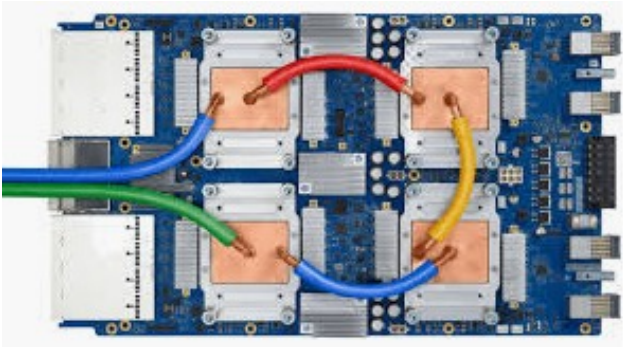
**2017**  
Google Deepmind beats 9th Dan Go champ

**2030**  
Fully Automated Transport?

**2040**  
Artificial General Intelligence?

# Servers With Accelerators Deliver Deep Learning

Google TPU



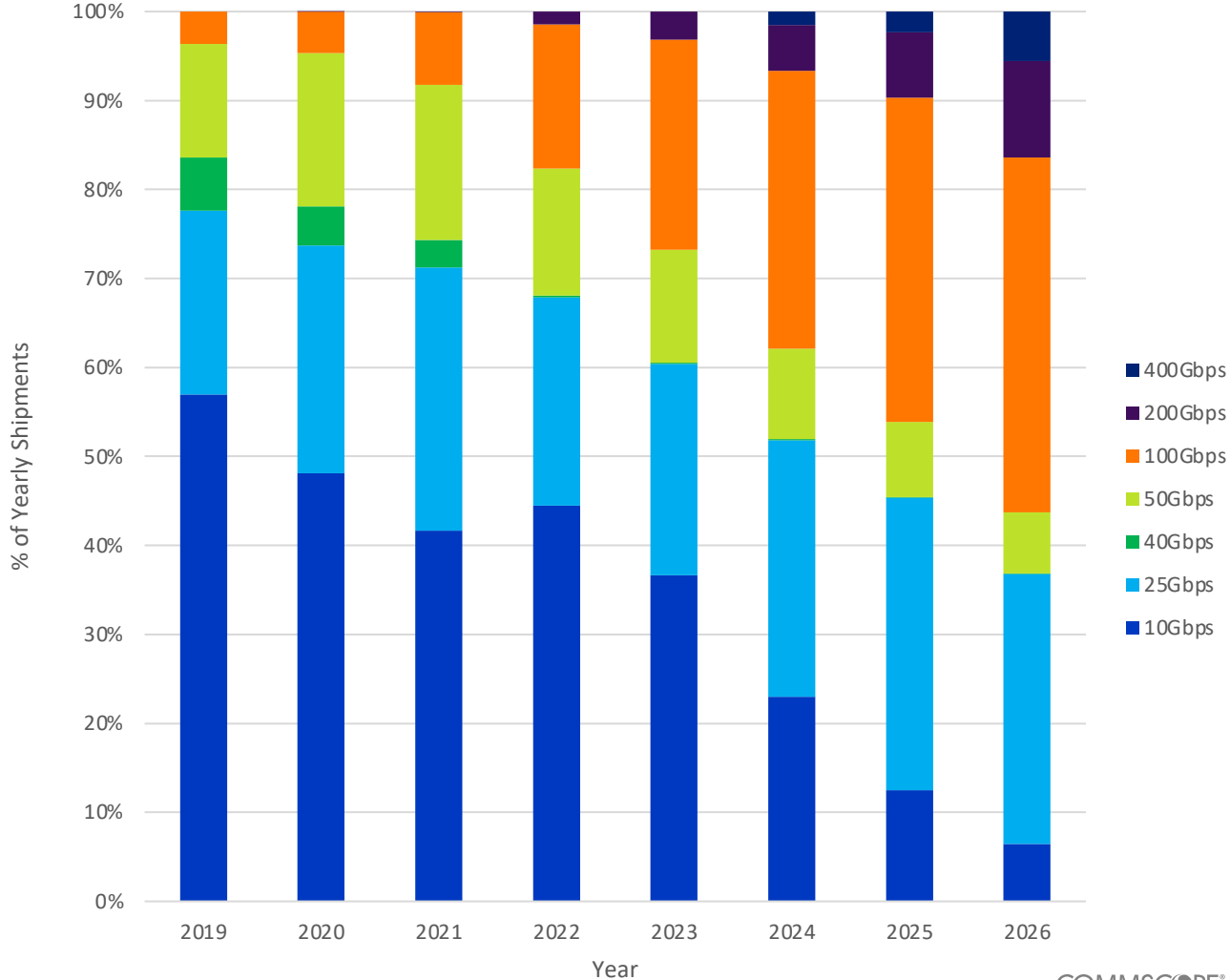
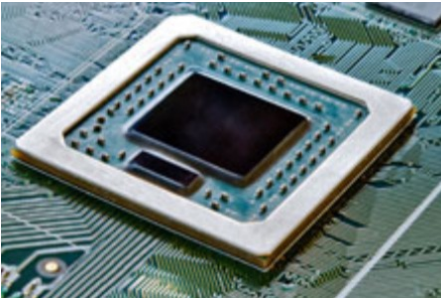
FPGA



CPU



GPU



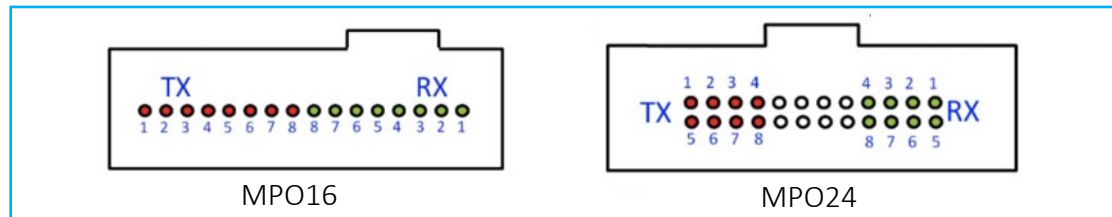
## Next Steps for Fiber Infrastructure

- 400G Cabling Supports 8 lanes  
16f MPOs, VSFF
- 1.6T and Beyond Will Use  
8 or 16 lanes of 100G/200G

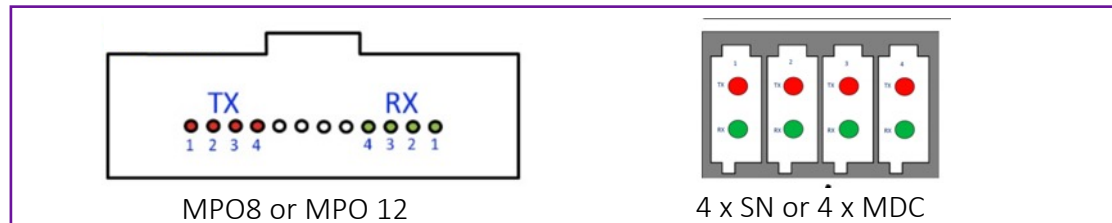
## Waves of Speed Migrations

## Connectivity Needs to Support

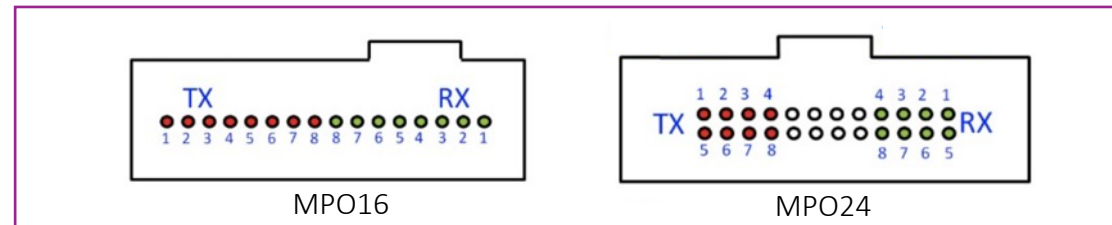
400G Port  
400GBase-SR8 (8x50G)



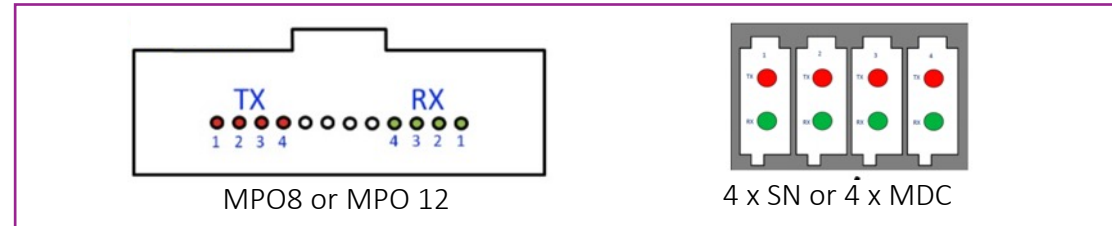
400G  
400GBase-DR4 (4x100G)  
400GBase-SR4.2 (4 x 2x50G)



800G Port = 8x100G Lanes  
800GBase-DR8  
800GBase-SR8



800G Port = 4x200G Lanes



# SERDES Speeds Will Drive Future Connectivity Needs

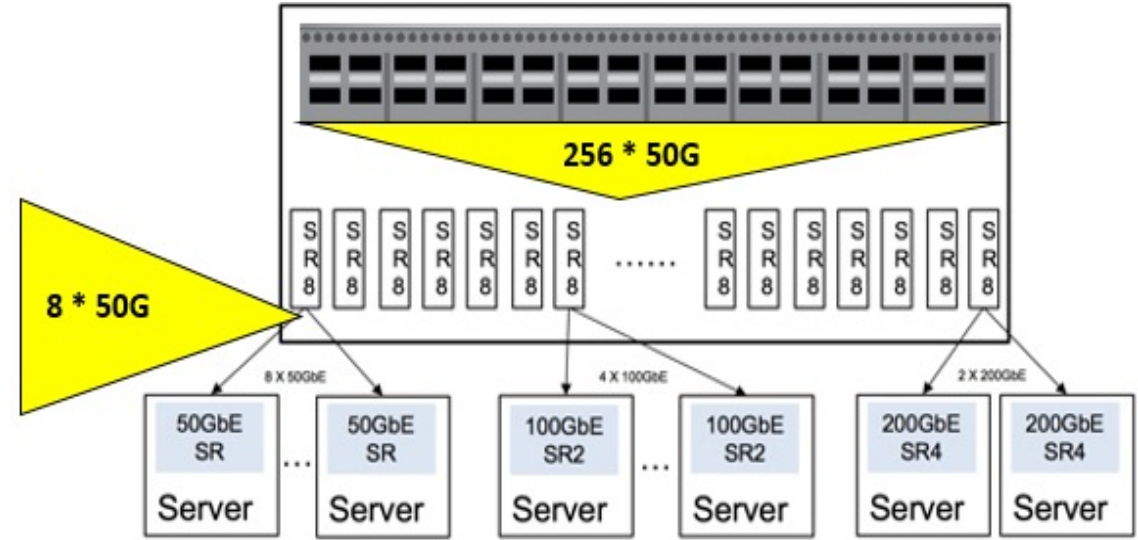
# QSFP-DD SR8 MPO16 (f)

192 Server Connections  
Per 1U Switch (3:1)

QSFP-DD SR8



MPO16 (f)  
Male Shown



8\*50G = 400G 16Fiber SR8 MMF Server Connections



It's about Capacity Planning...  
and reducing latency

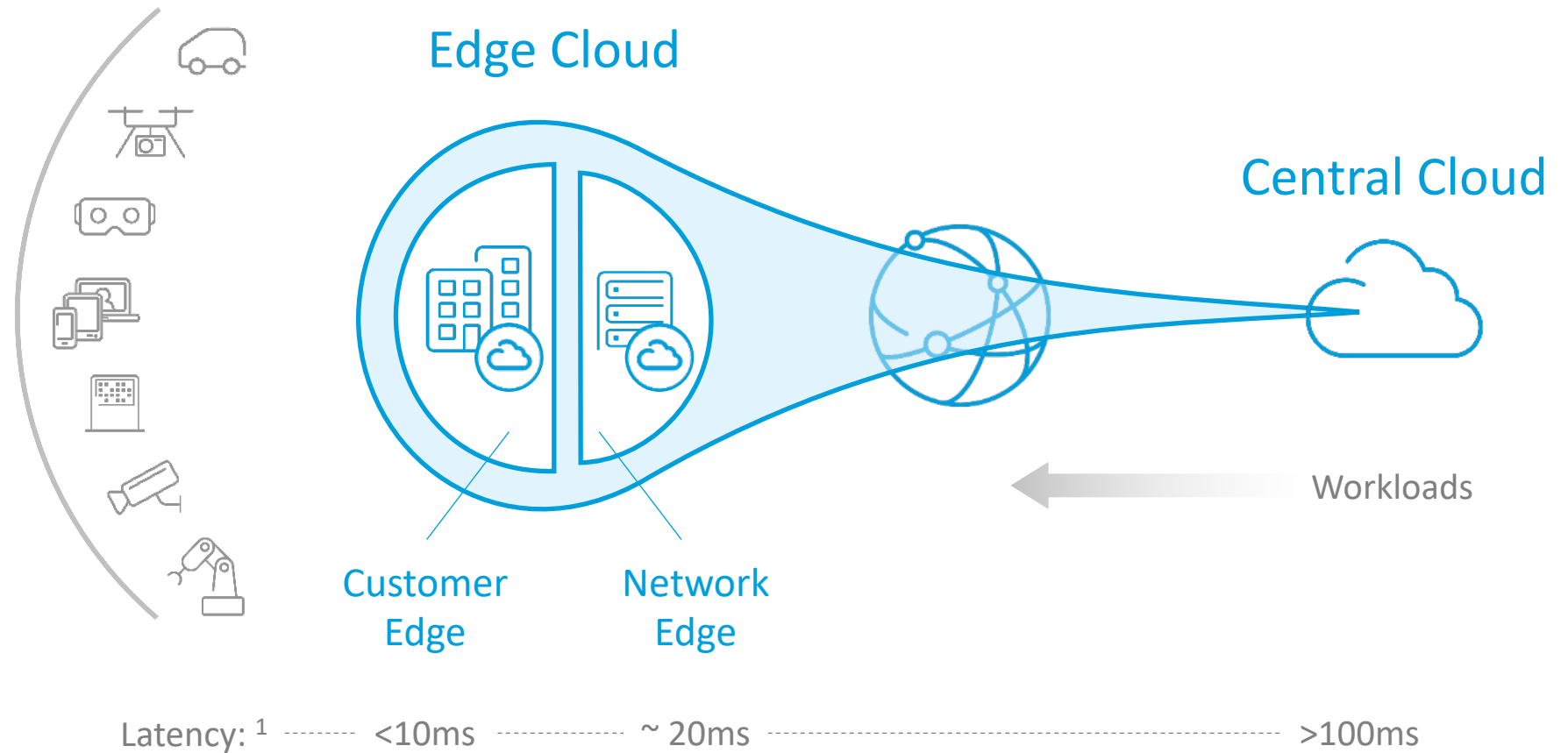
Network response defines  
the user experience

# Edge-Cloud // Central Cloud

93%

Of companies intending to invest in Edge in next 12 months

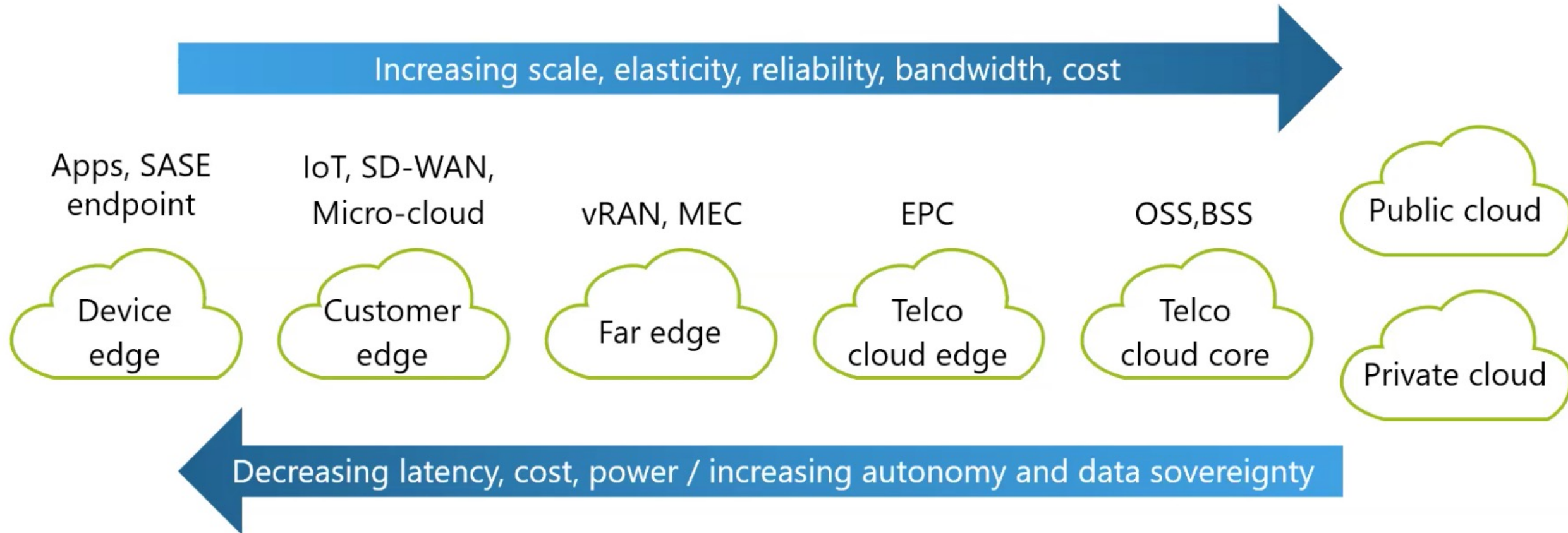
– Futurum



Many M2M connections will originate at the Edge

# Where is the edge?

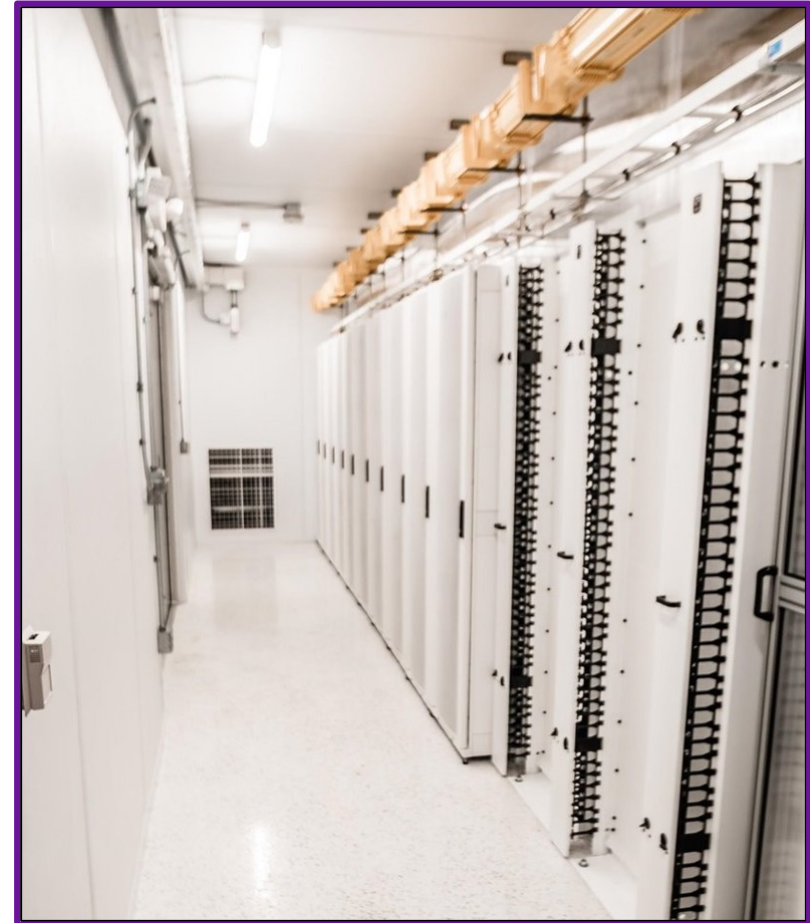
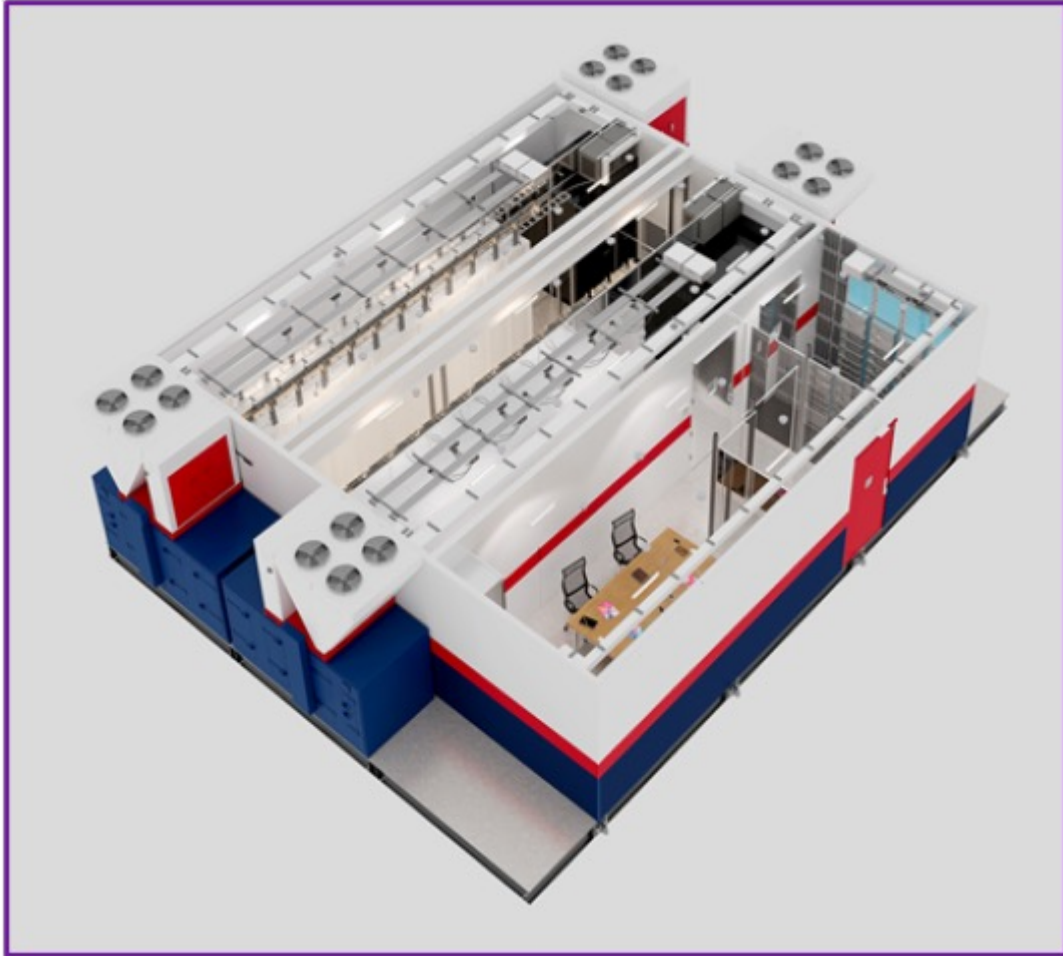
A Telco would view the edge from their current network perspective





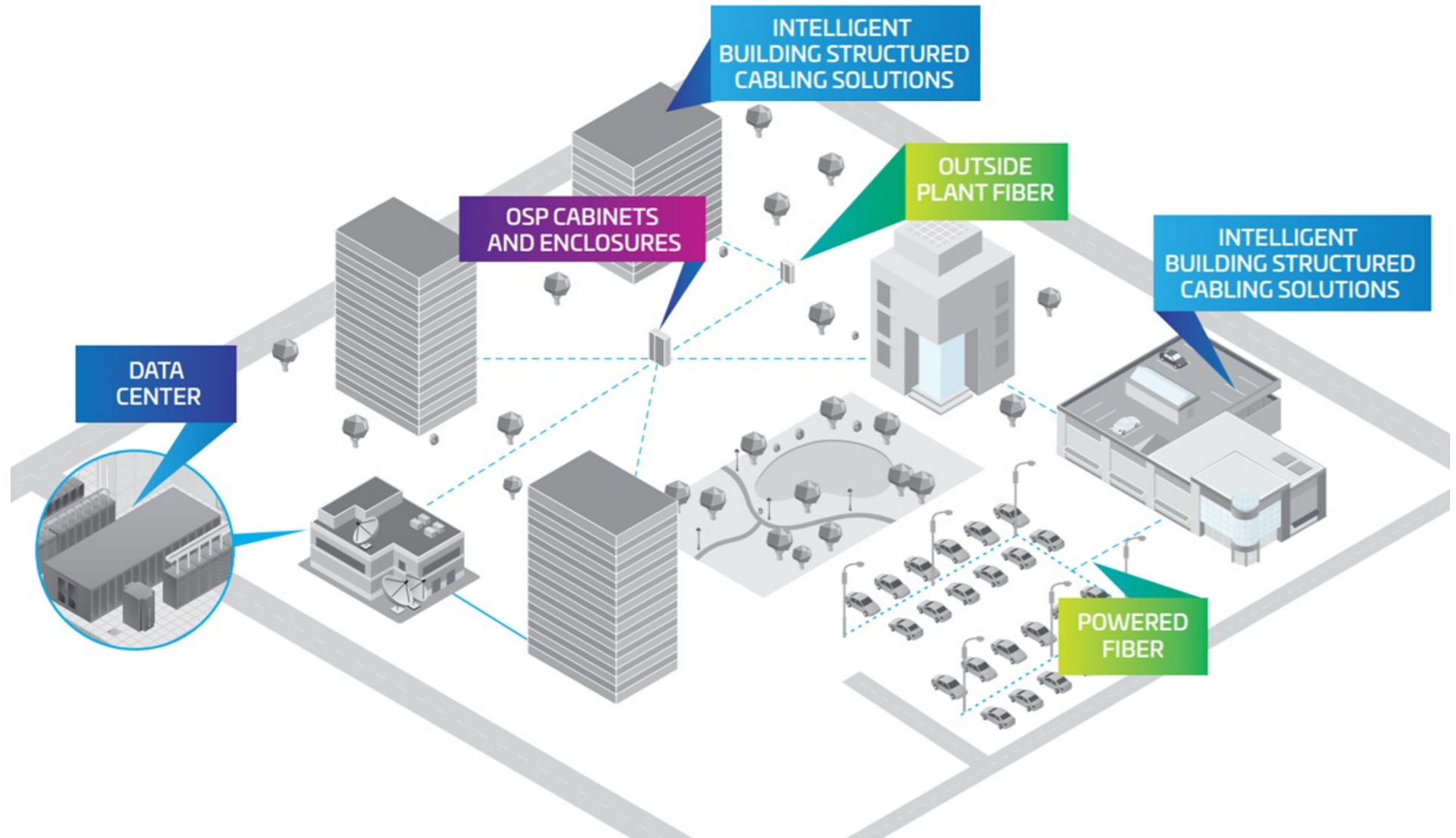
# Edge DC cabling infrastructure

## Pre-terminated high speed cloud infrastructure

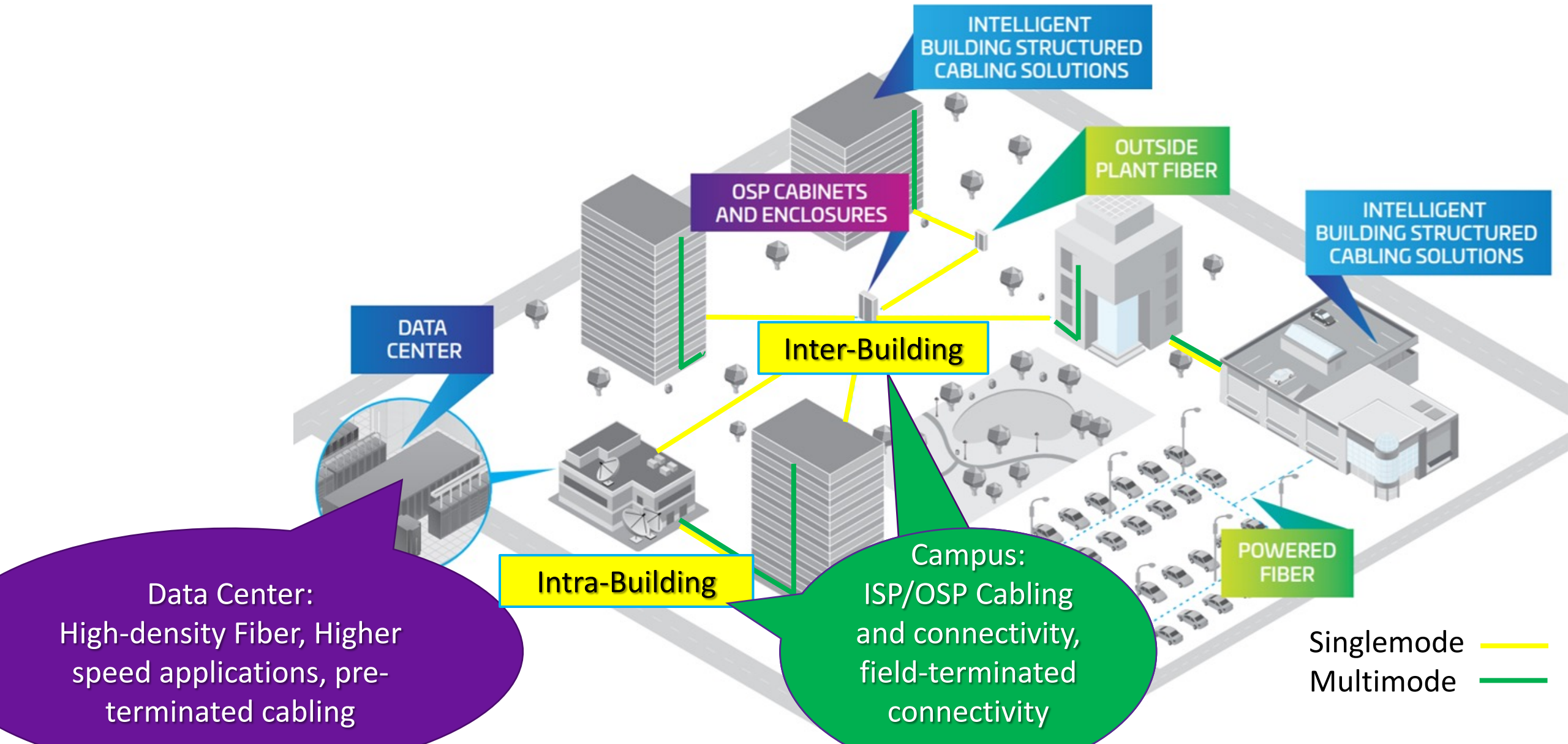


# Where does Fiber Impact the Campus?

Focus on the  
“Backbone”



# How does CommScope Fiber Impact the Campus?



# Entrance Facility



Cloud/ Hyperscale

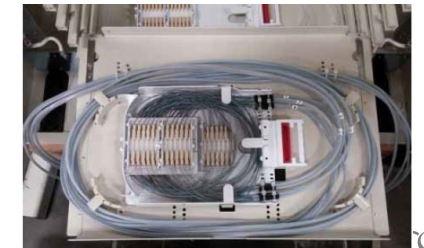
- Compatible with both ribbon and stranded cable
- >10,000 fibers in single cabinet using ribbon cable makes landing 1728f and 3456f cables possible
- Intuitive cable routing and slack management
- Key differences between the two styles

Style	FEC Floor Mount	FEC Wall Mount
Mounting Place	Floor/Wall	Wall
Cable Entry	Top OR Bottom	Top/Bottom/Side
Splice Style	Wheel	Tray
Size	24"W x 12"D x 84"T (1/2 floor tile)	36"W x 13"D x 62"T
Max Fiber Density	11,520	10,368

**FEC Floor Mount**



**FEC Wall Mount**



# CommScope Optical Distribution Frames (ODF) Lineup

NG4Access



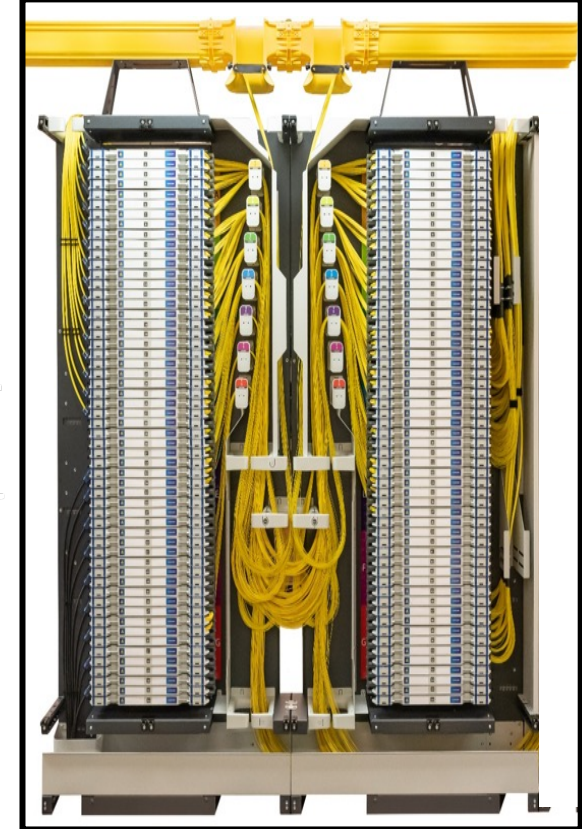
3,456F  
30" x 24" x 7' (Cross-connect)  
42" x 24" x 7' (cross & interconnect)  
Splice at base

FLEX

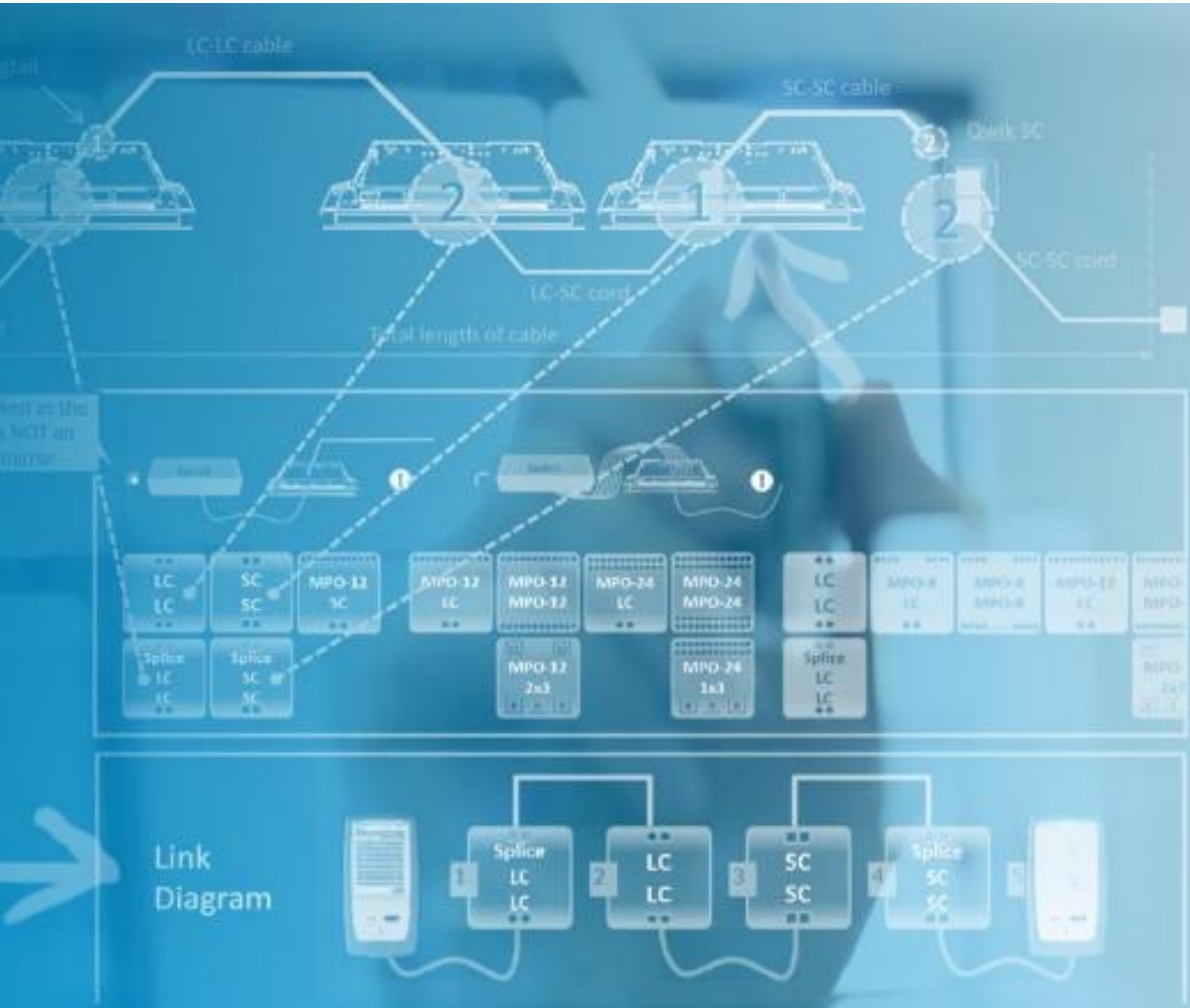


5,184F  
50" x 24" x 7'  
Splice closure on back

FACT



2,688F  
41" or 47" x 12"  
Front access  
Splice, term



Designing to meet the challenge

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