

Colocation Market Update

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Digital Realty/TeleGeography Joint Webinar

Outline

- Network Growth
- Colocation Growth
- Colocation Pricing Trends
- Conclusion

Network Growth

Growth where networks and content meet

International Internet
Capacity, 2012 (Tbps)

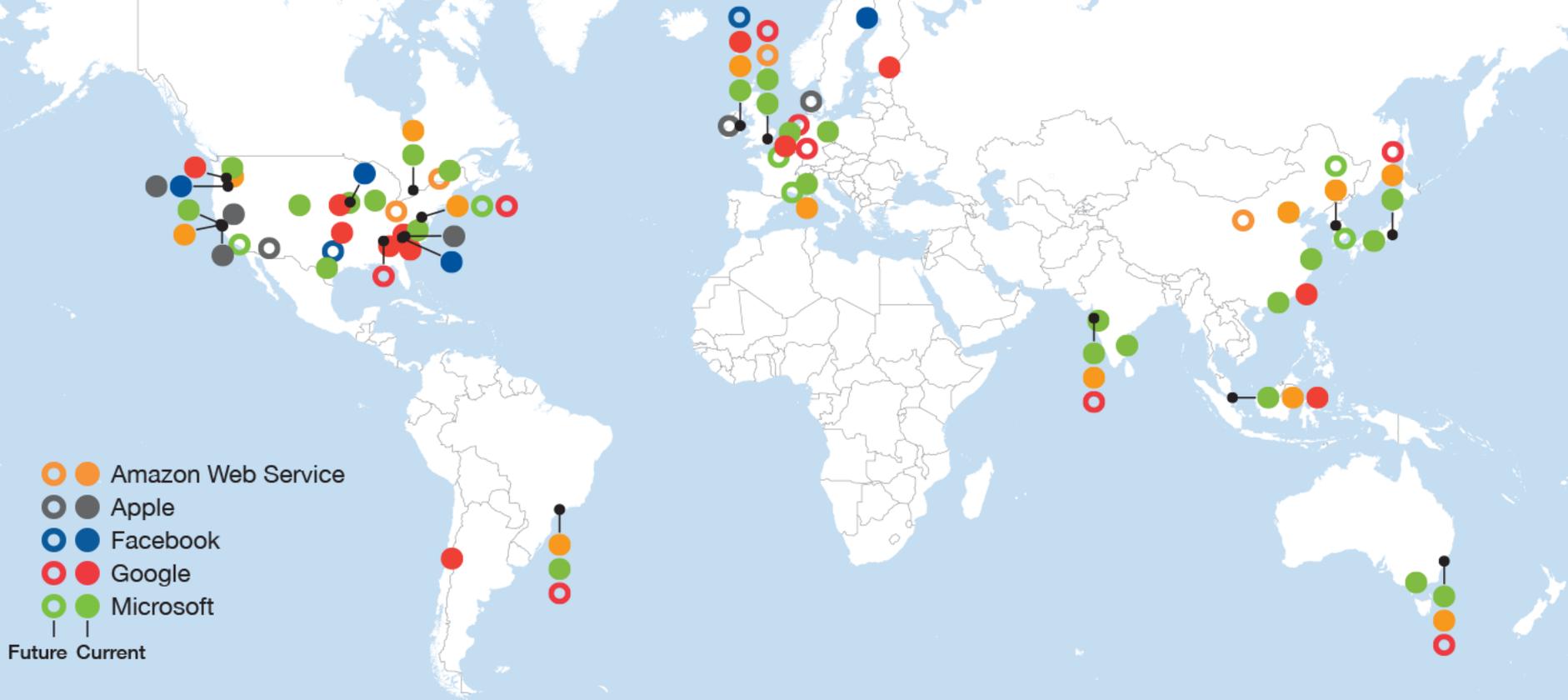


Growth where networks and content meet

International Internet
Capacity, 2016 (Tbps)

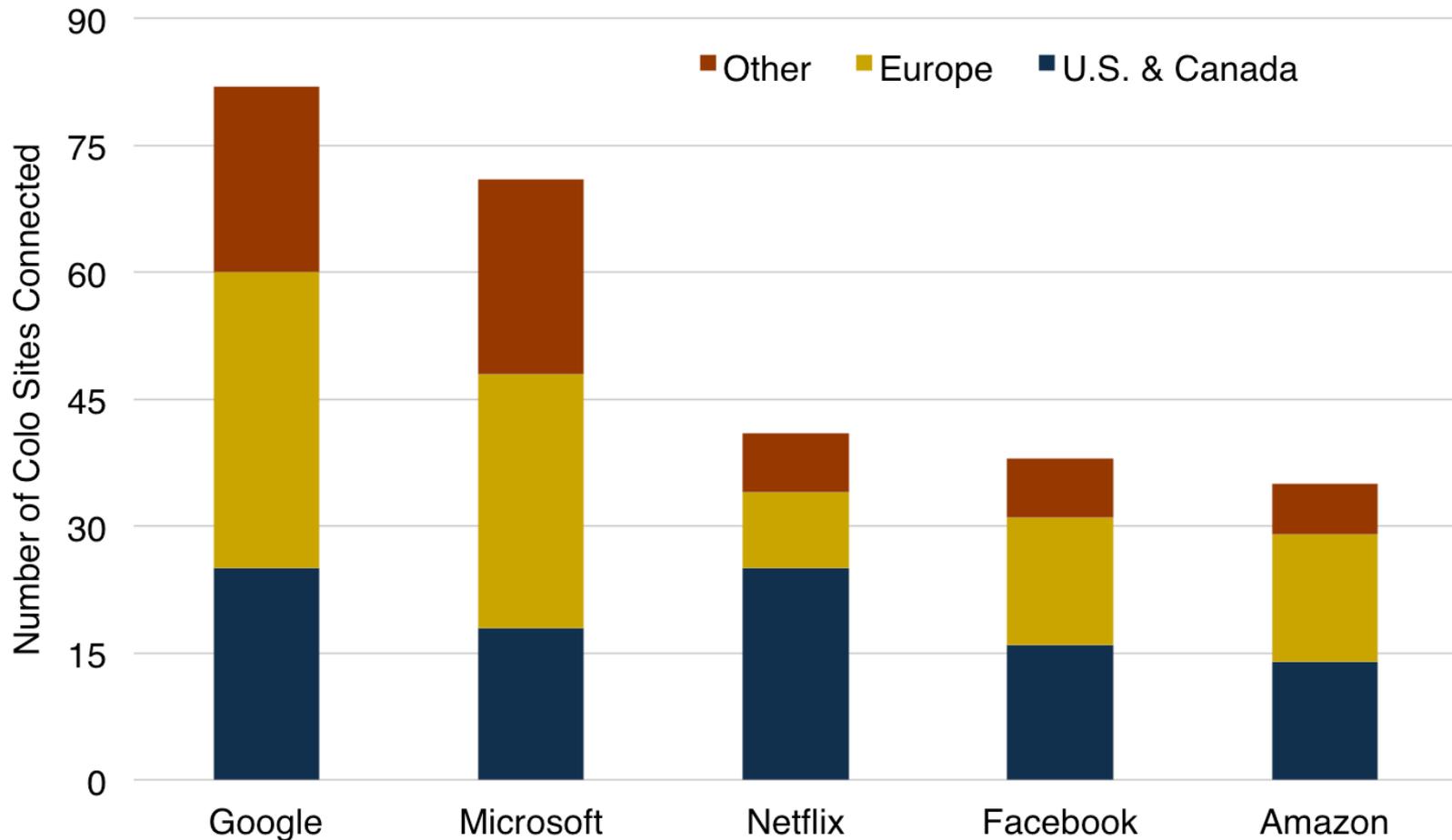


Content moving closer to the edge...



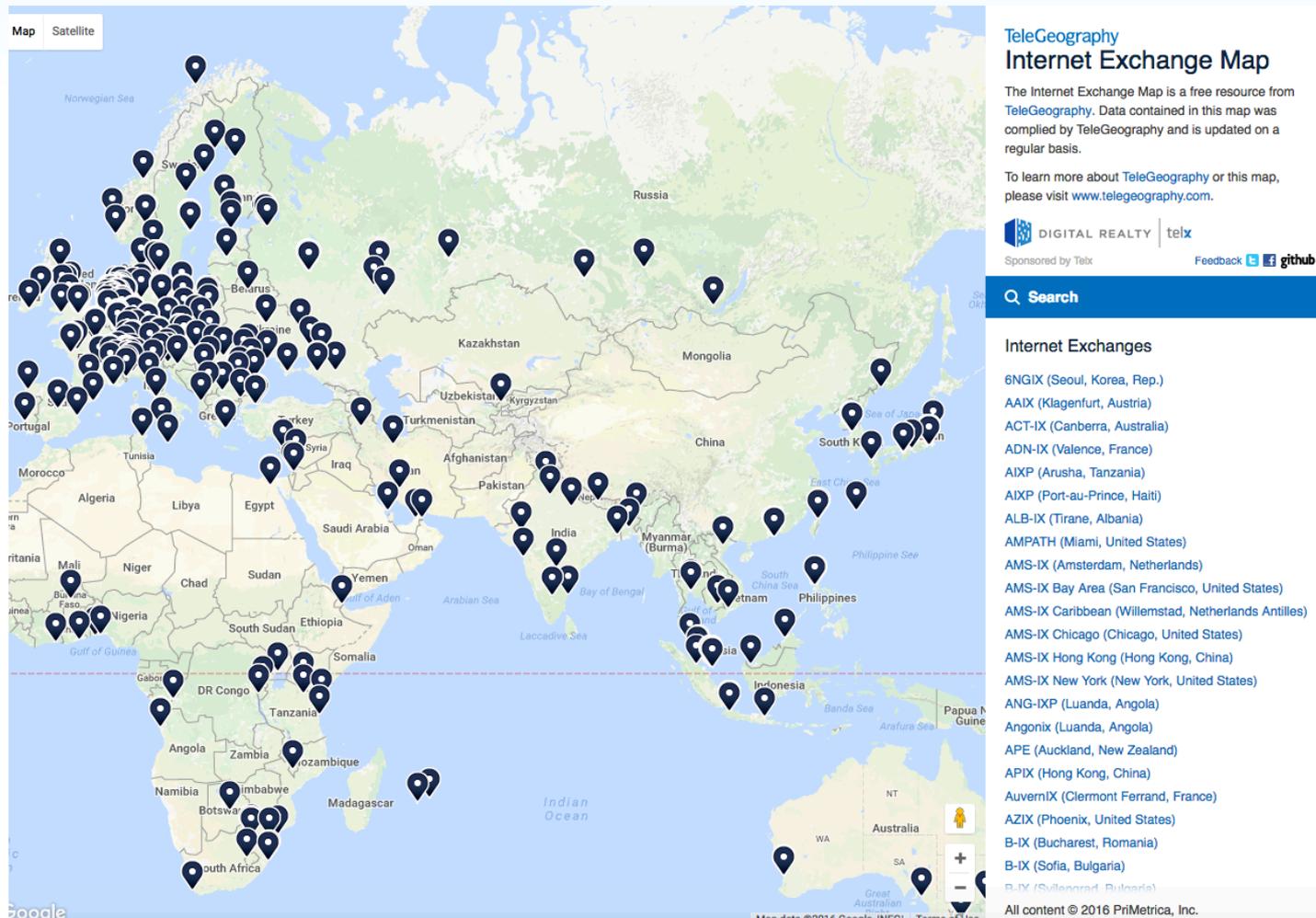
...and peering across the globe

Regional Colocation Presence, Select Content Providers



Source: PeeringDB

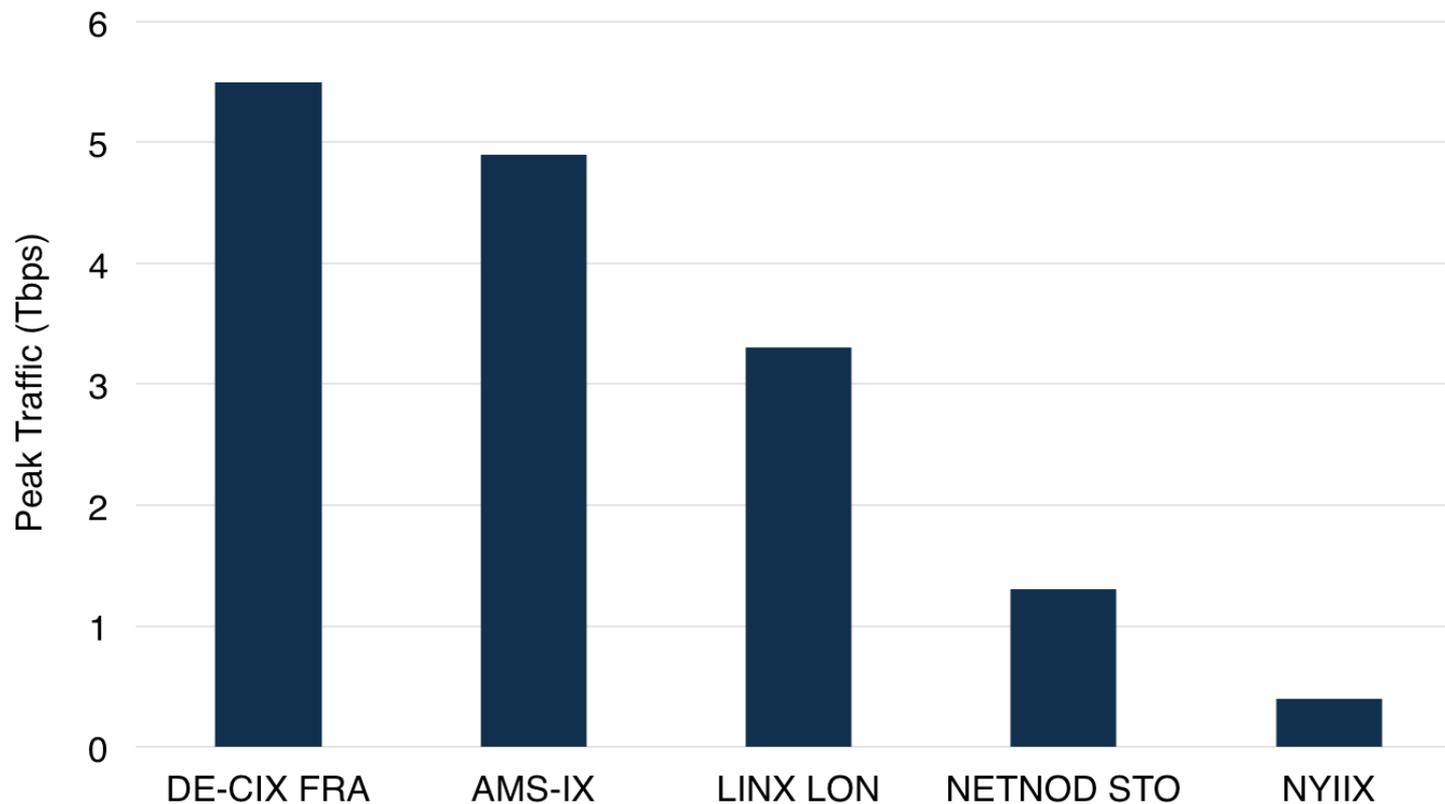
Ubiquitous local peering



Source: TeleGeography's Internet Exchange Map, www.internetexchangemap.com

Record-breaking traffic at top IXs

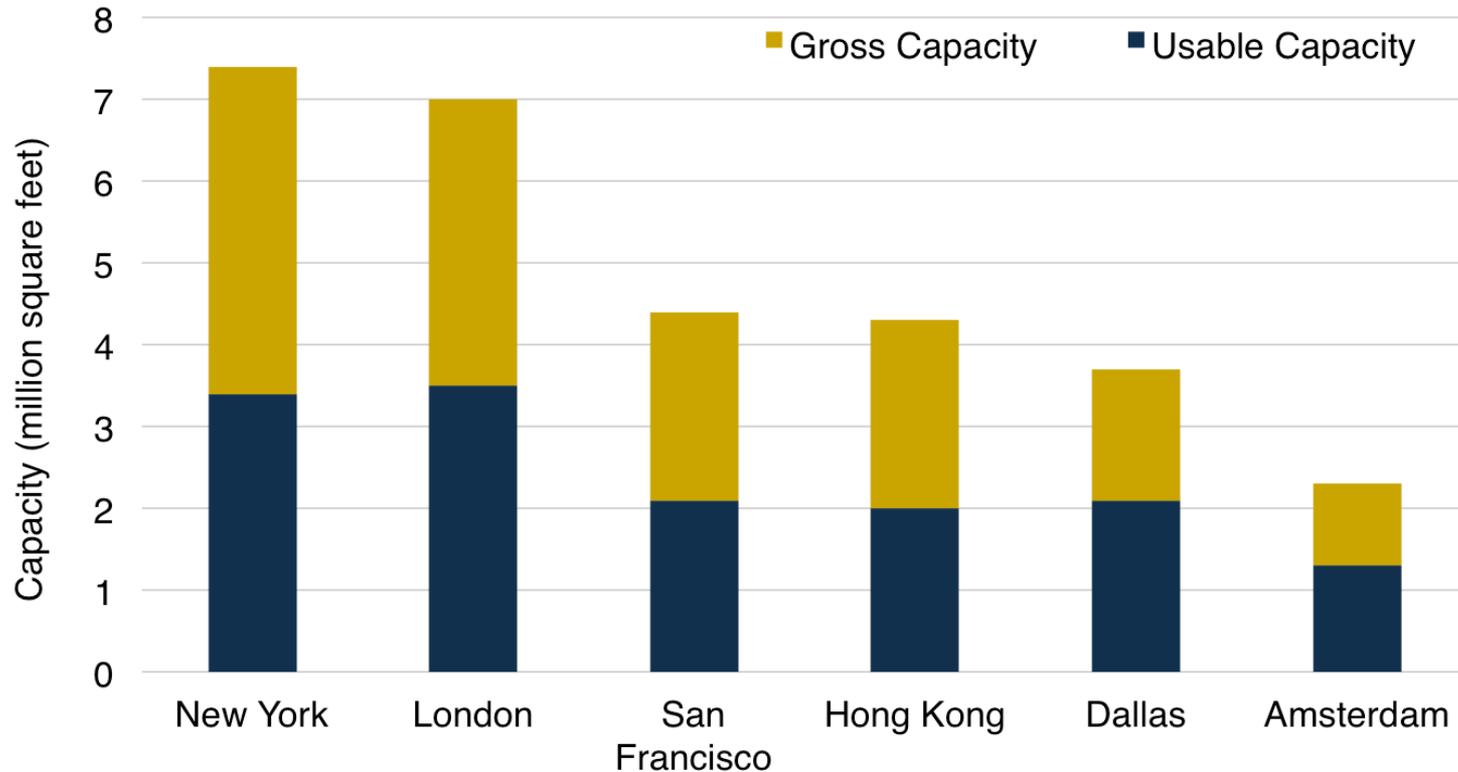
Peak Traffic, Select Internet Exchanges, Q4 2016



Colocation Growth

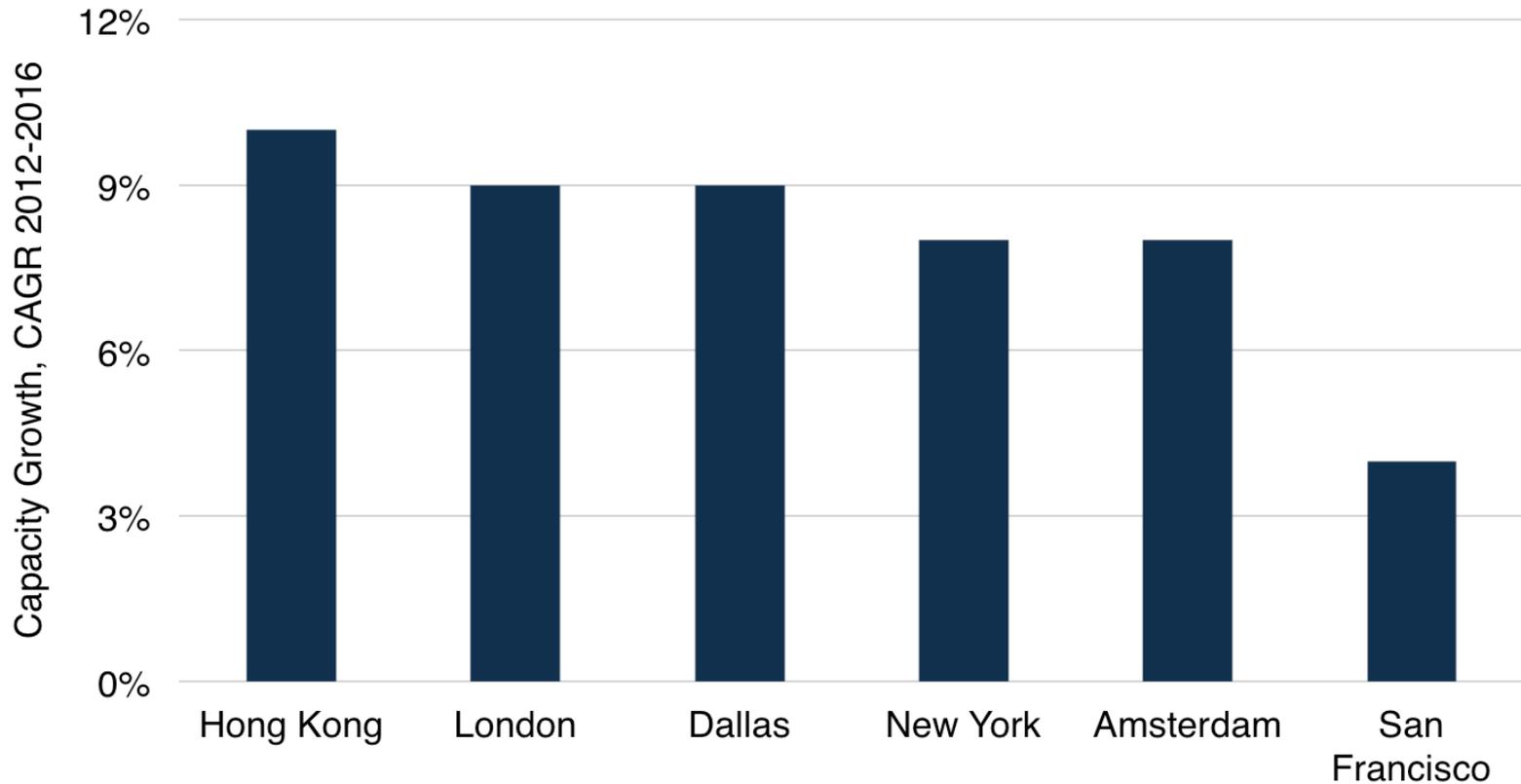
Large colo footprints in core markets

Retail Colocation Floor Space, 2016



Steady capacity increases

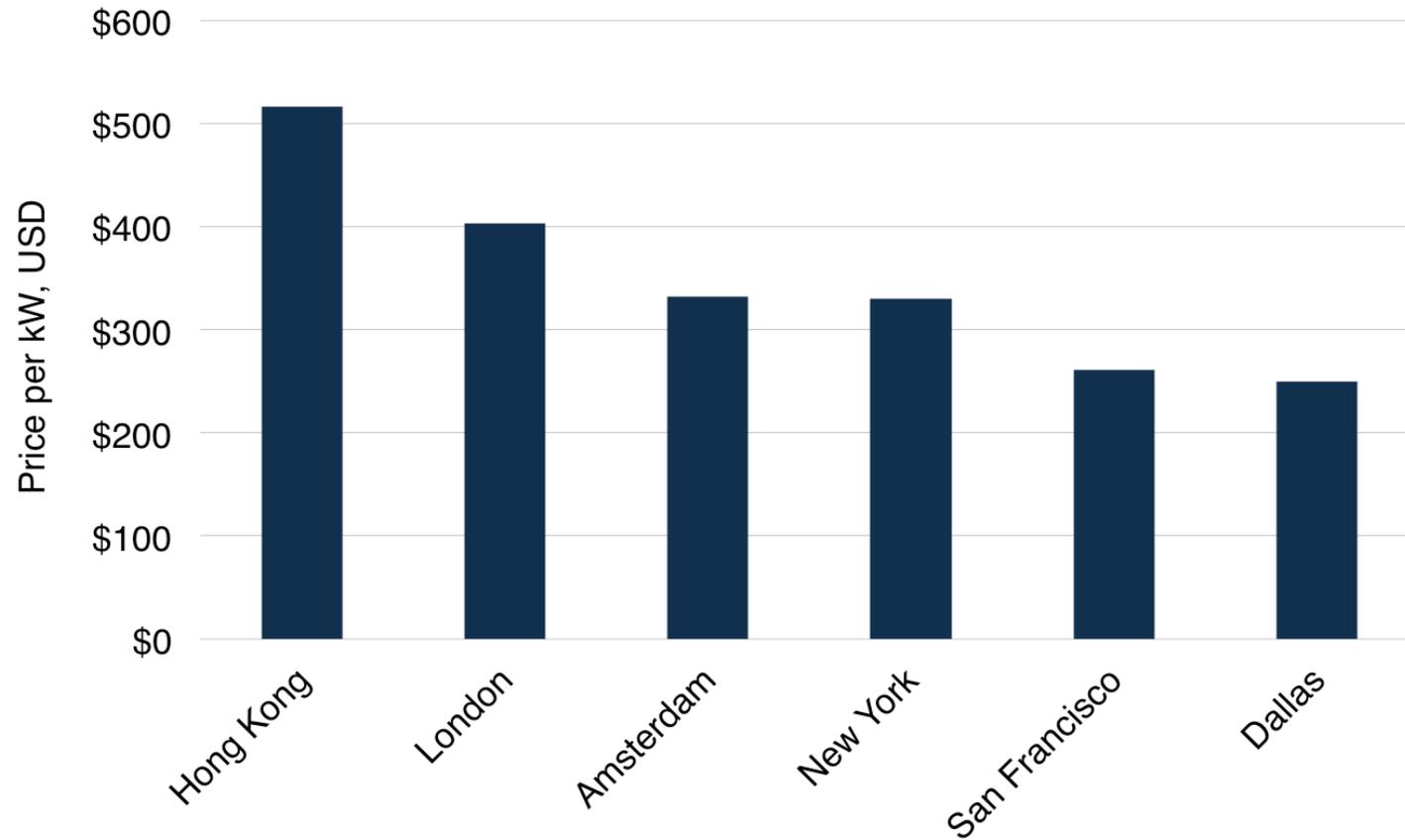
Growth in Retail Colocation Floor Space, 2012-2016



Colocation Pricing Trends

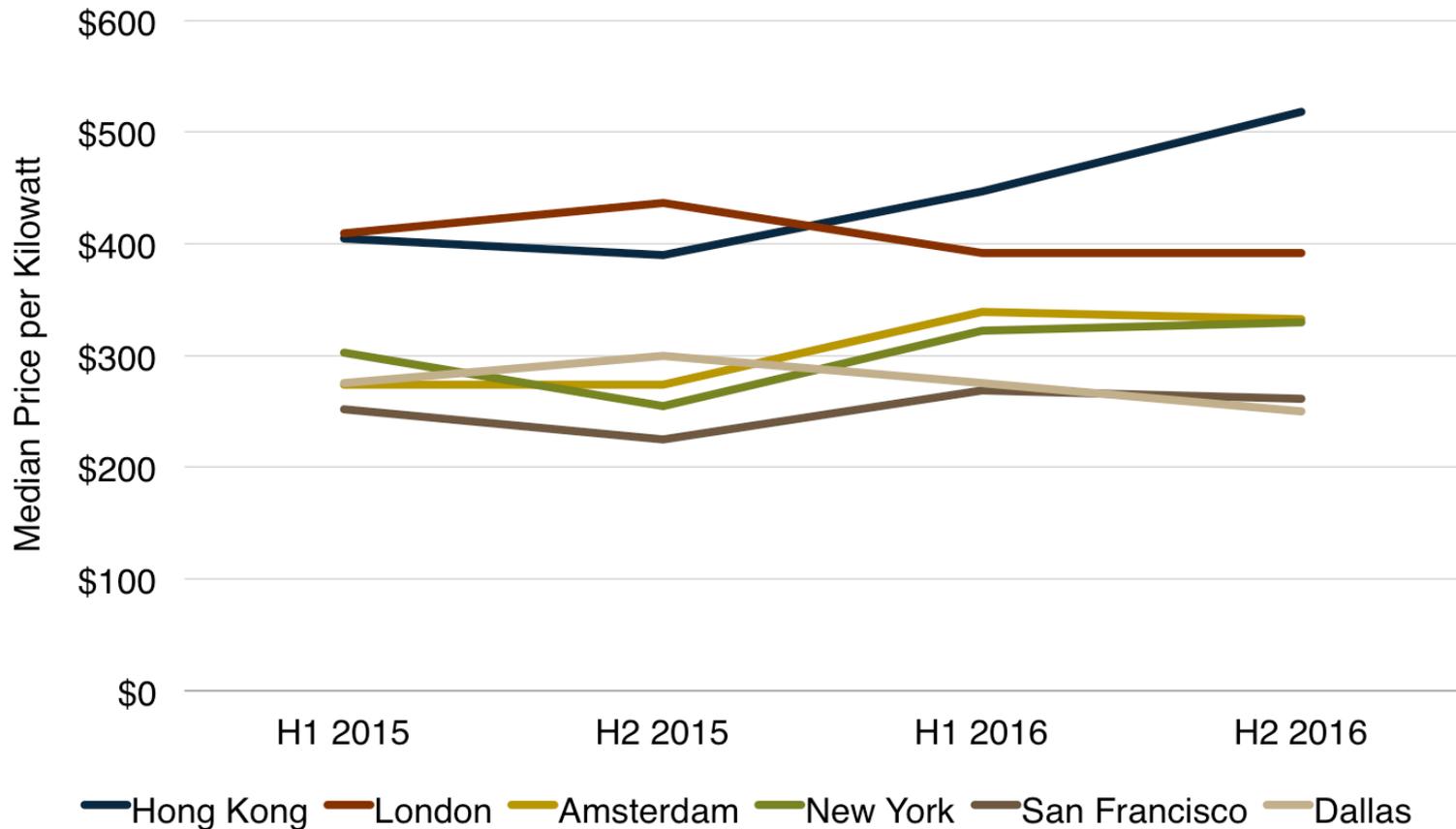
Some markets much pricier than others

Median Monthly Price per Kilowatt at 4-Kilowatt Density, H2 2016



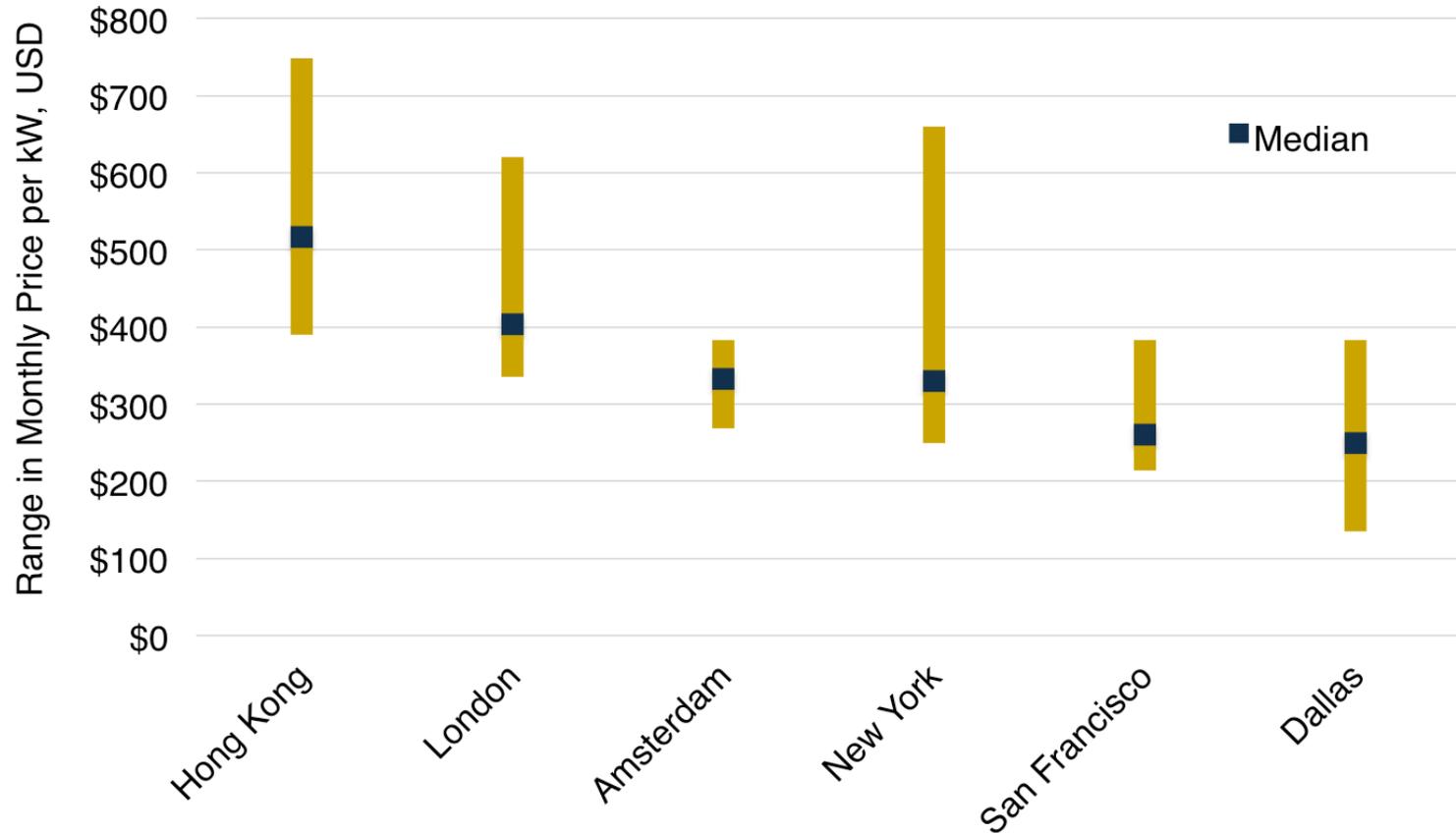
Historical rates have been fairly buoyant

Changes in Price per Kilowatt at 4-Kilowatt Density, H1 2015 - H2 2016



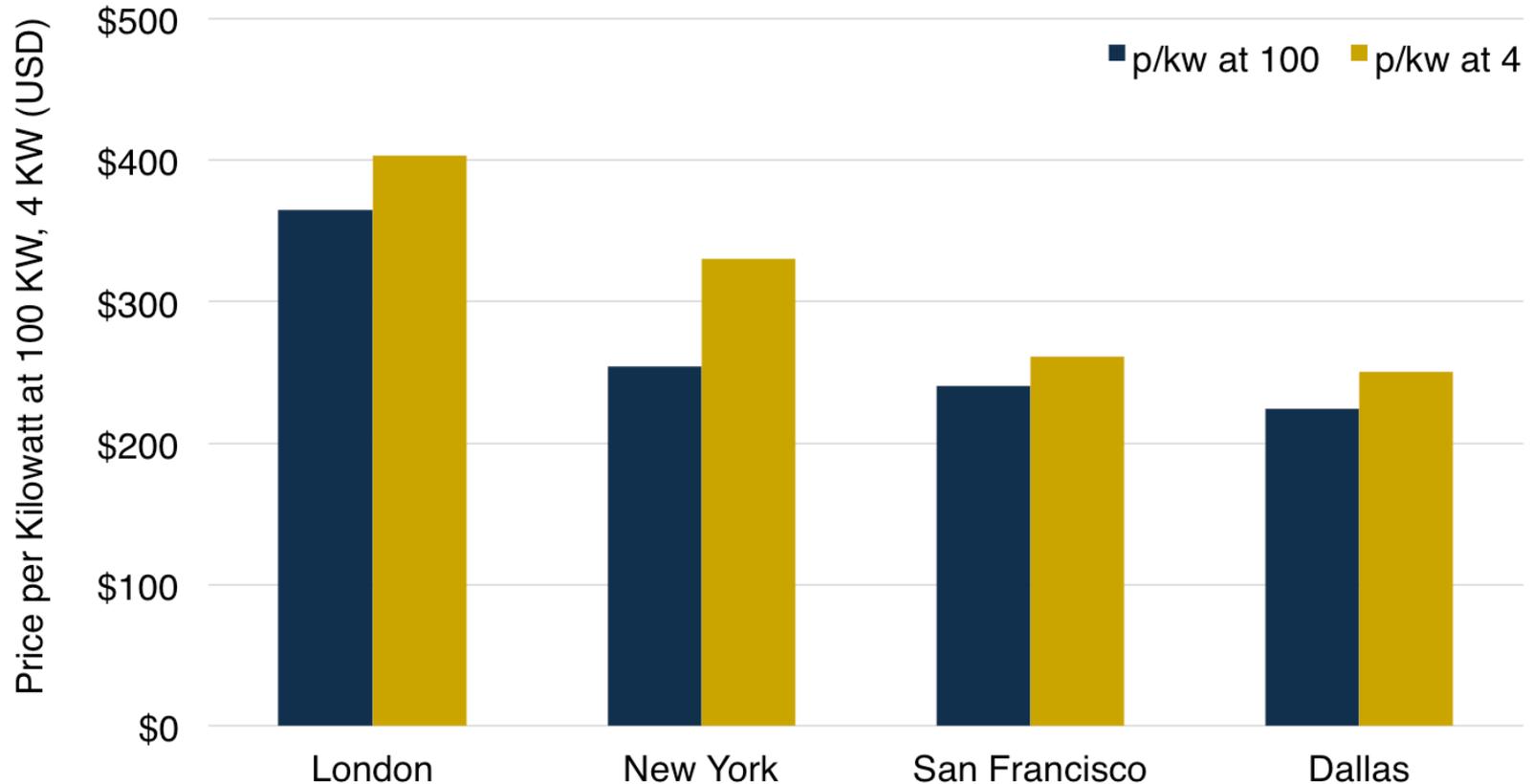
Price competitiveness within markets

Range in Monthly Price per Kilowatt at 4-Kilowatt Density, H2 2016



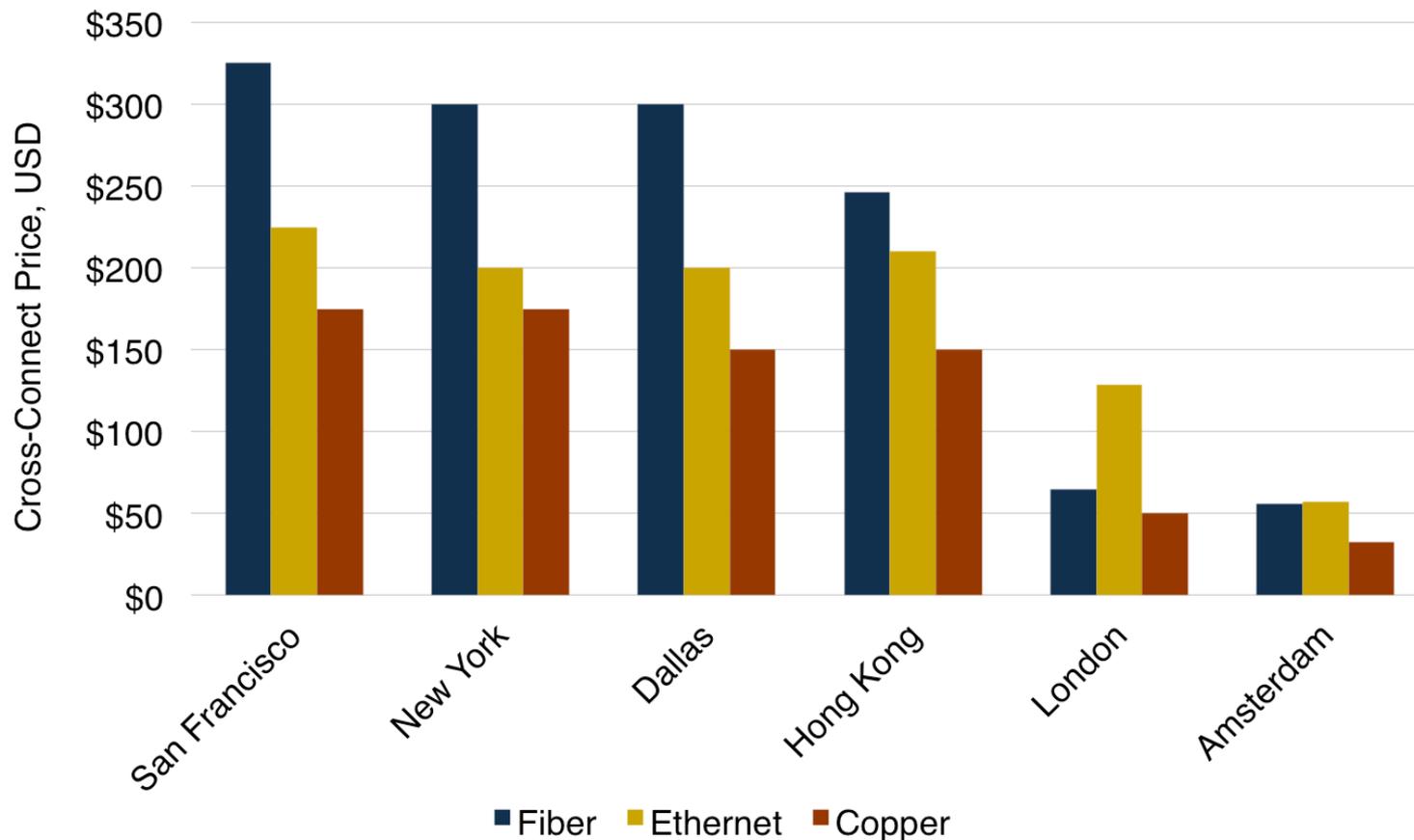
Discounts at a larger lease level

Comparison, Median Price per Kilowatt at 100 KW and 4 KW, H2 2016



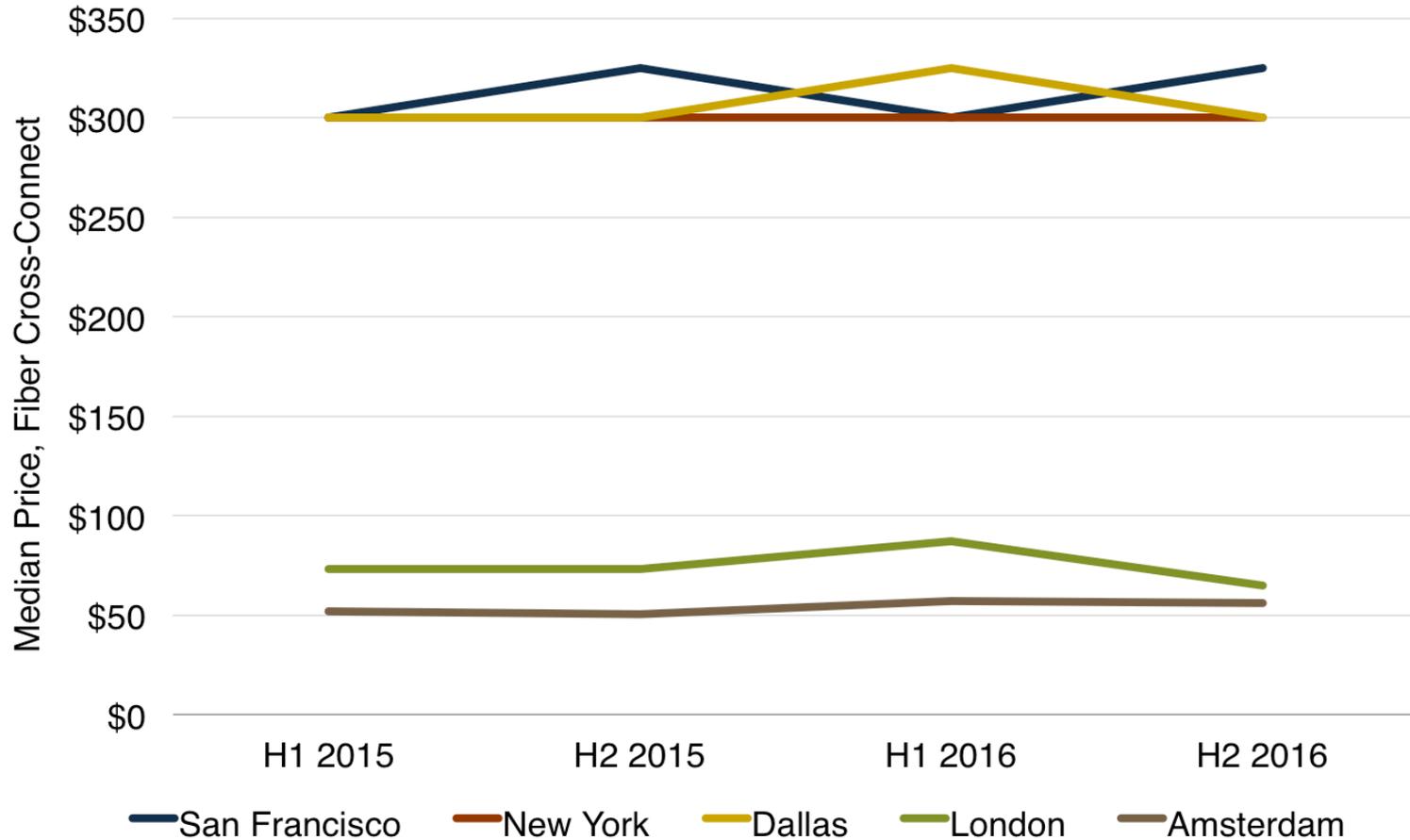
Cross-connects still far pricier in US than in Europe

Median Monthly Cross-Connect Price, H2 2016



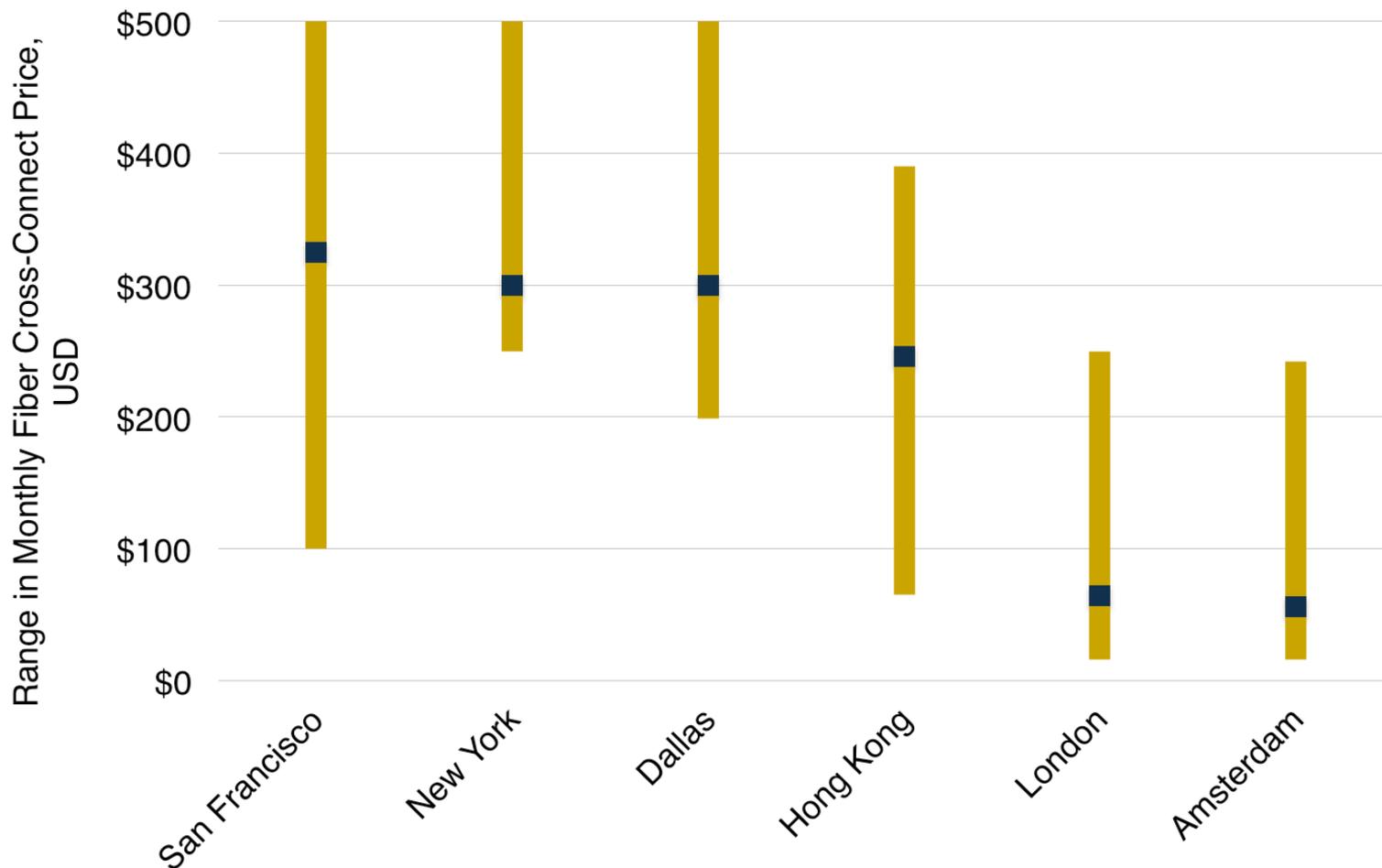
No surprise, given the historical pattern

Changes in Fiber Cross-Connect Prices, H1 2015 - H2 2016



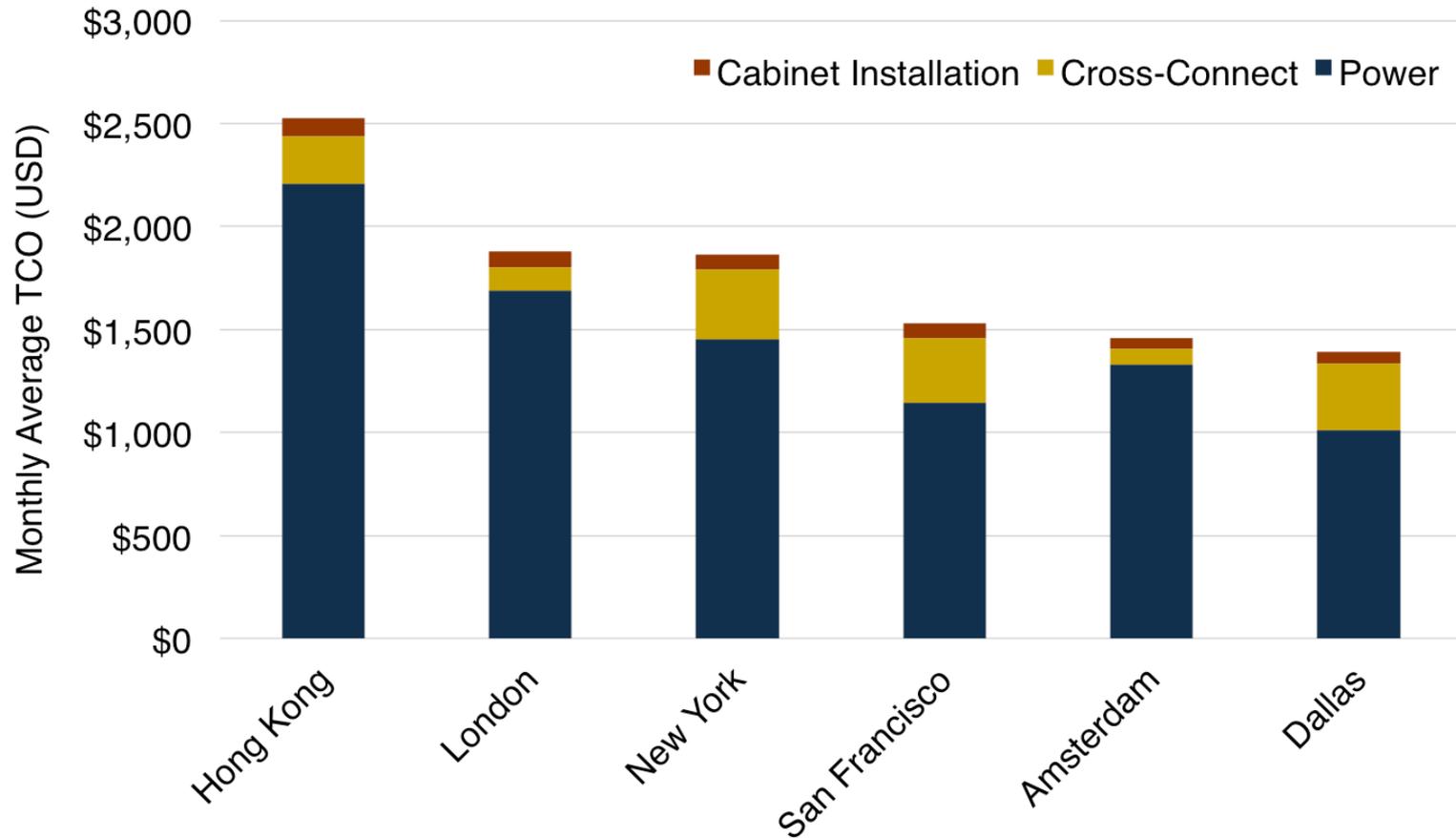
Tremendous variance within markets

Range in Monthly Fiber Cross-Connect Price, H2 2016



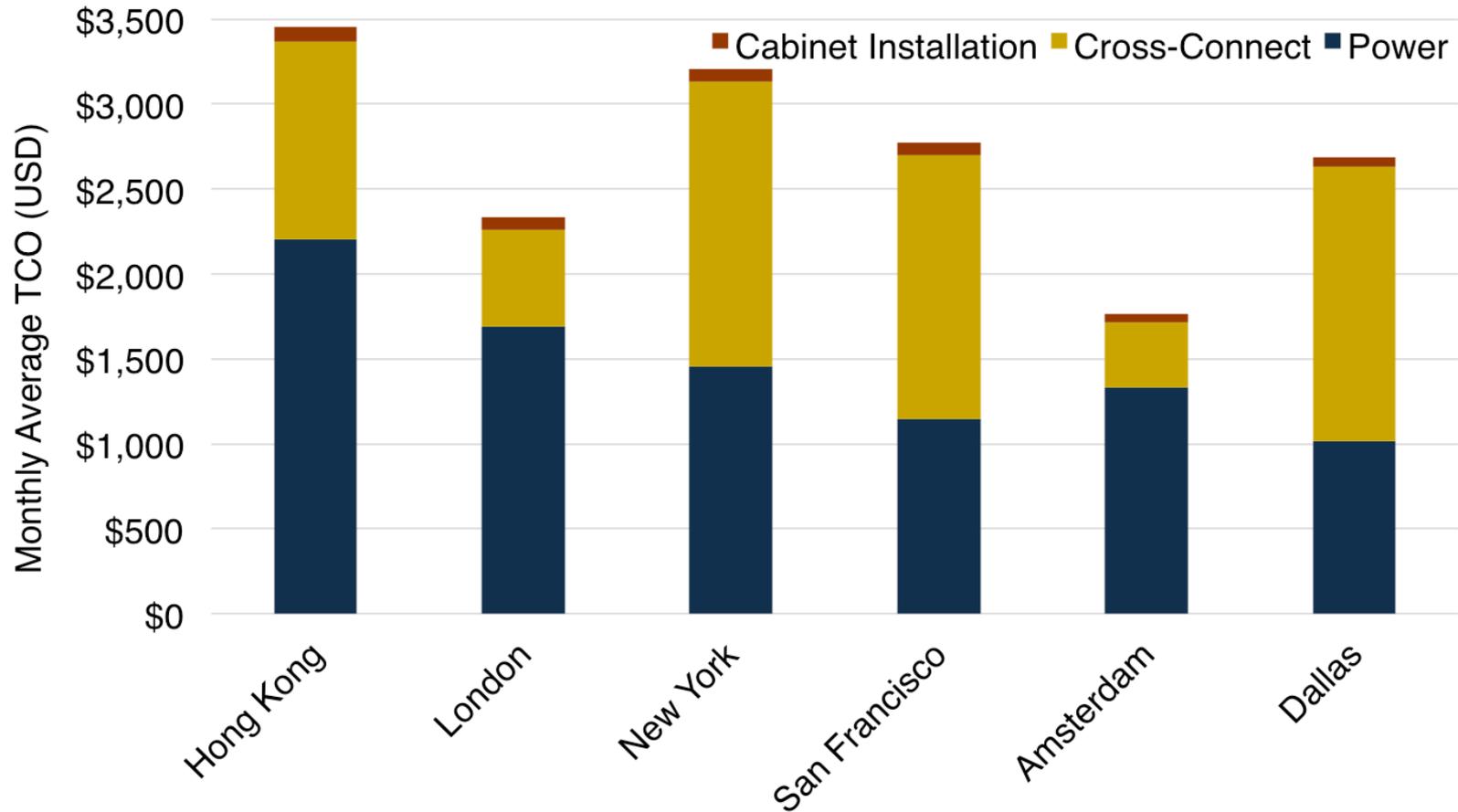
US/Europe similar with 1 XC

Total Cost of Ownership per Month, One Cross-Connect, H2 2016



...but vastly different with 5

Total Cost of Ownership per Month, Five Cross-Connects, H2 2016



Conclusion

- Network growth and peering and content demand growth feed into the colocation sector
- Stable growth within the colocation market
- Demand for key markets and ecosystems supports a trend in stable pricing

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Product Portfolio – One Cabinet to Multi-Megawatt Interconnected with Network & Cloud Providers

Space & Power

Scale

Scale from medium 300+ kW to large compute deployments

Execute solution for medium to large deployment in weeks, contract for 5-10+ years

Customize data center to specific deployment needs

SPACE

- Suites, Cage, Powered Based Building and Build to Suit

POWER

- Power KW and Metered Power

Colocation

Enabling small (1 Cabinet) to medium (300kW Cage) deployments

Ability to quickly deploy computing infrastructure in days, contract for 2-3 years

Consistent designs, operational environment and power expenses

SPACE

- Cabinets & Cages

POWER

- kW model and Breakered

Interconnectio

n

CONNECT

- Cross Connect & PACK
- Riser Connect
- Campus Connect
- Metro Connect
- Cloud Connect

EXCHANGE

- Internet Exchange
- Service Exchange

IP ACCESS

- Dedicated Internet Access

Services

REMOTE HANDS

IMPLEMENTATION

- Rack & Stack, Structured Cabling, Electrical Fit Out*, Data Center Migration*

EQUIPMENT RESALE

- Cabinets, PDU/Power Strips, Fiber Tray, Ladder Rack

Enablement

CUSTOMER PORTAL

MARKETPLACE

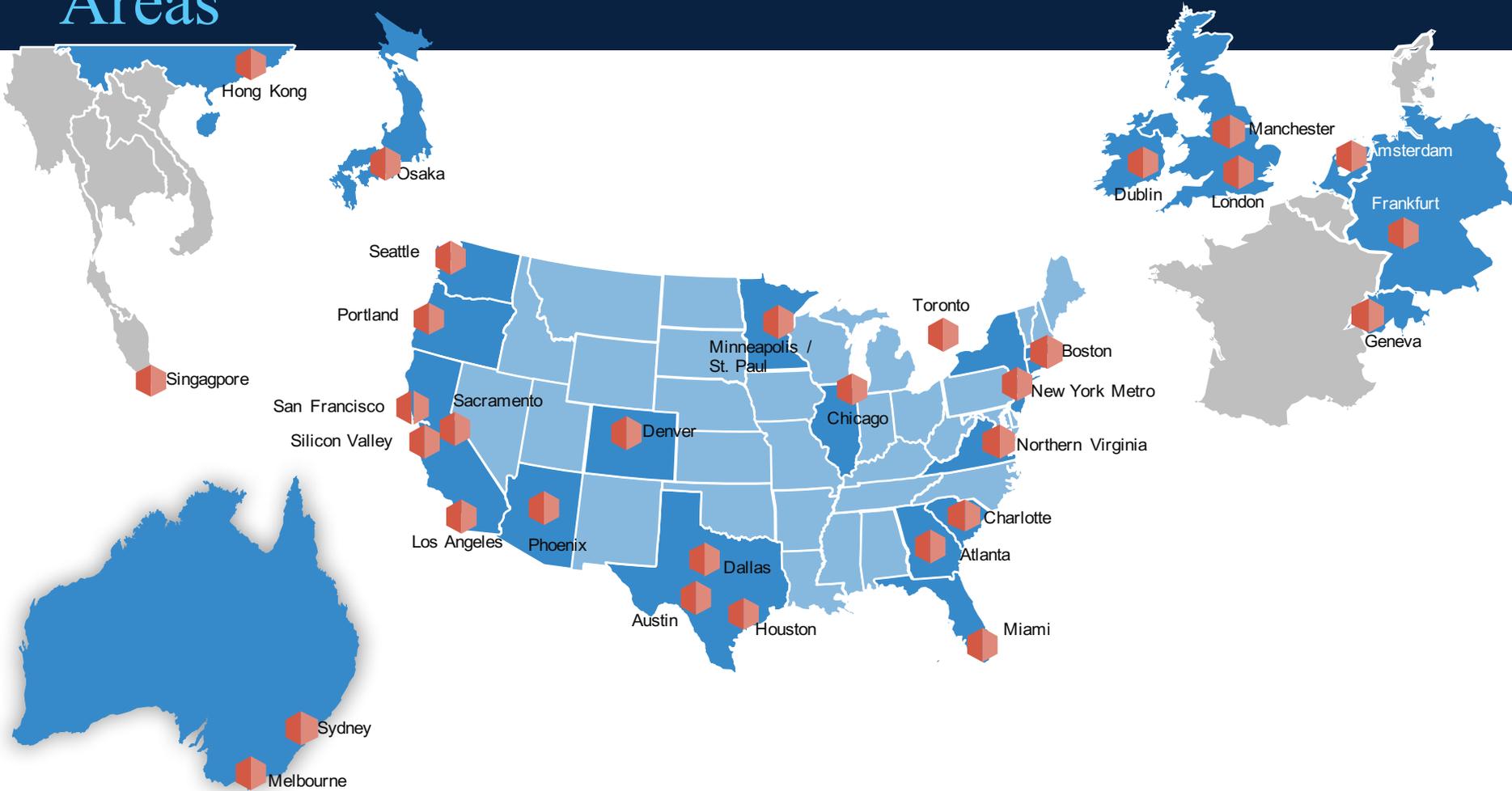
DCIM (Data Center Infrastructure Management)

BCM (Branch Circuit Monitoring)

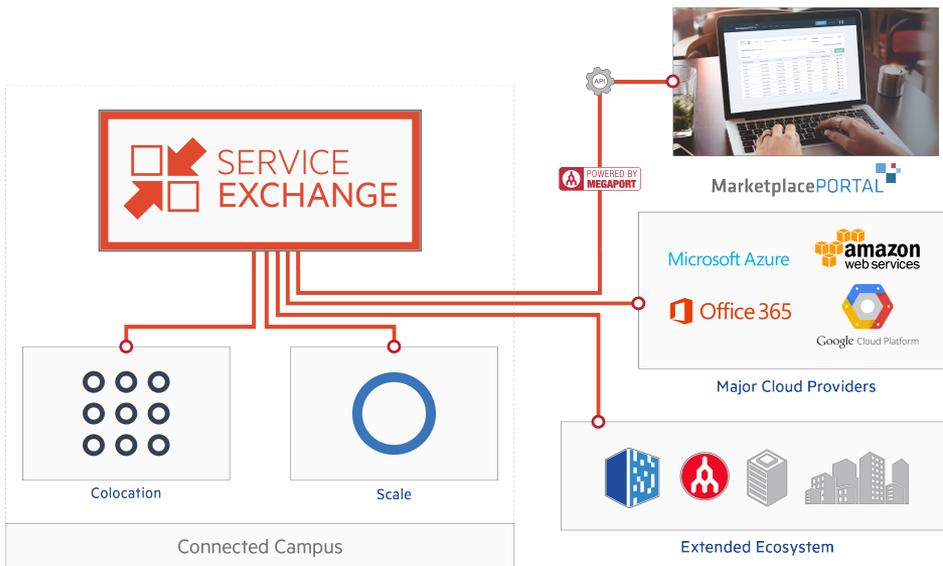


Unmatched Global Scale

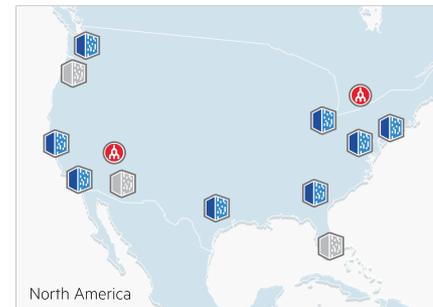
Providing Customer Solutions in over 33 Metro Areas



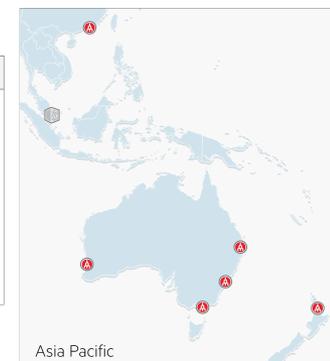
Service Exchange Value Proposition



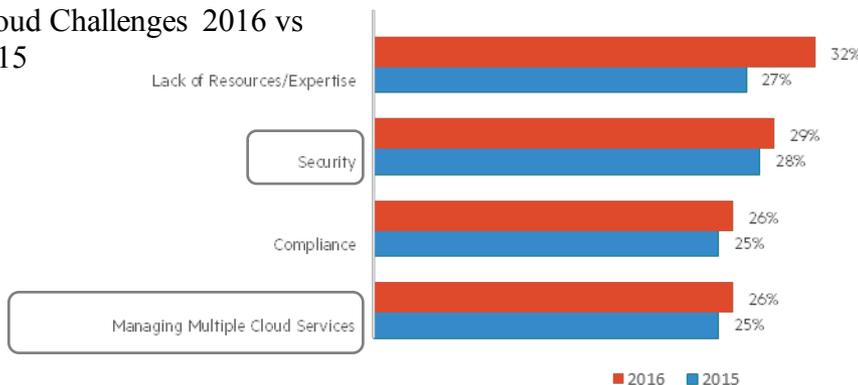
- Secure/Private Cloud & Service Access – Avoids the Public Internet
- Simplify Multi-Cloud Access – Single port to leverage leading Cloud providers
- Provisioning at Cloud Speed – Automated



Service Exchange Markets		
Available (Nov2016)	Planned (thru 2Q2017)	Additional Markets supported by Megaport (thru 4Q2016)
Ashburn Atlanta Chicago Dallas Los Angeles New York San Francisco Seattle	Amsterdam Dublin London Miami Phoenix Portland Singapore	Athens Auckland Berlin Brisbane Bucharest Dusseldorf Frankfurt Hamburg Hong Kong Kiev Las Vegas Luxembourg Melbourne Moscow Munich Perth Skopje Sofia Stockholm Sydney Toronto Vienna



Cloud Challenges 2016 vs 2015



Q&A

Thanks for joining us!

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