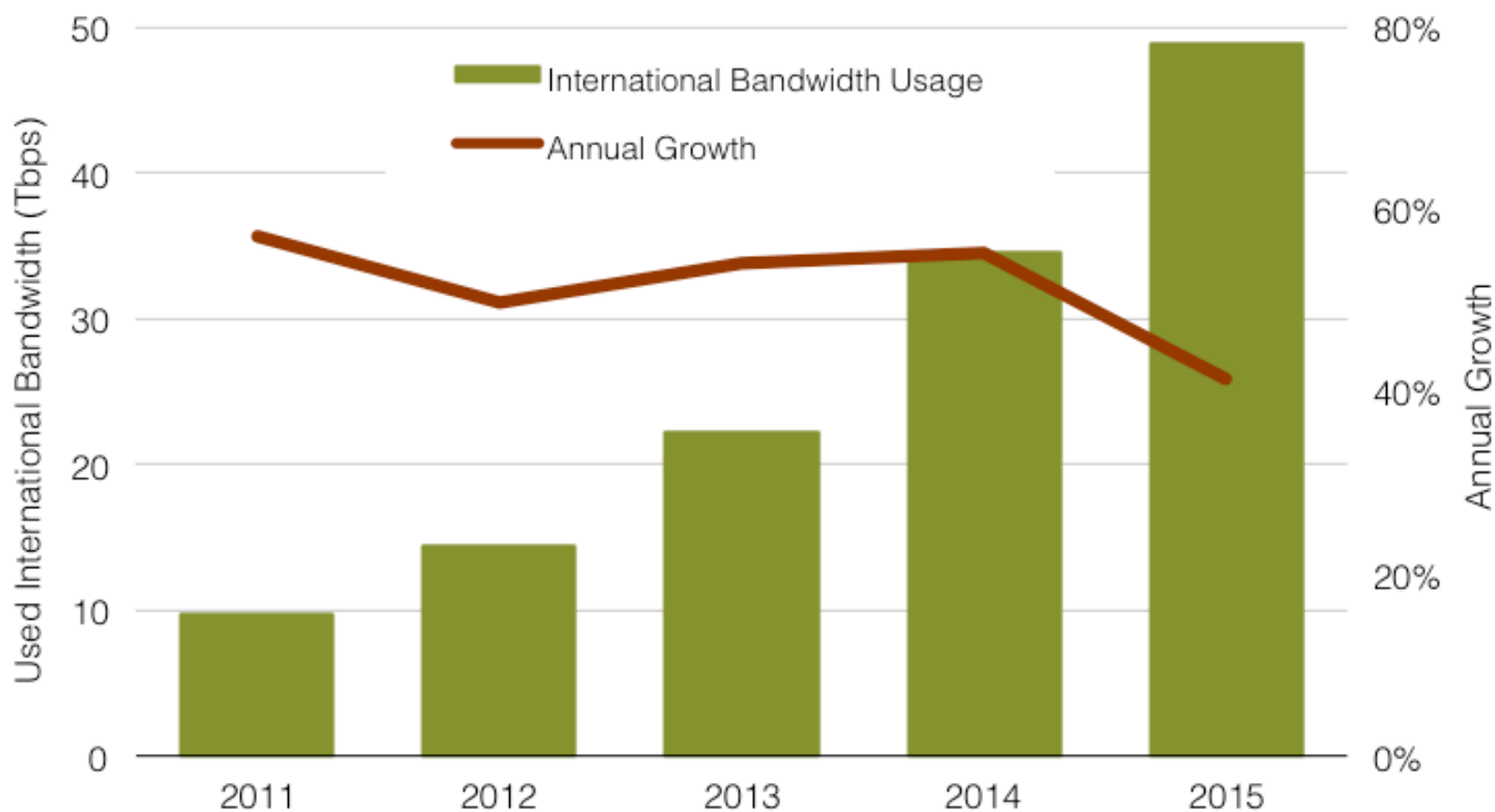


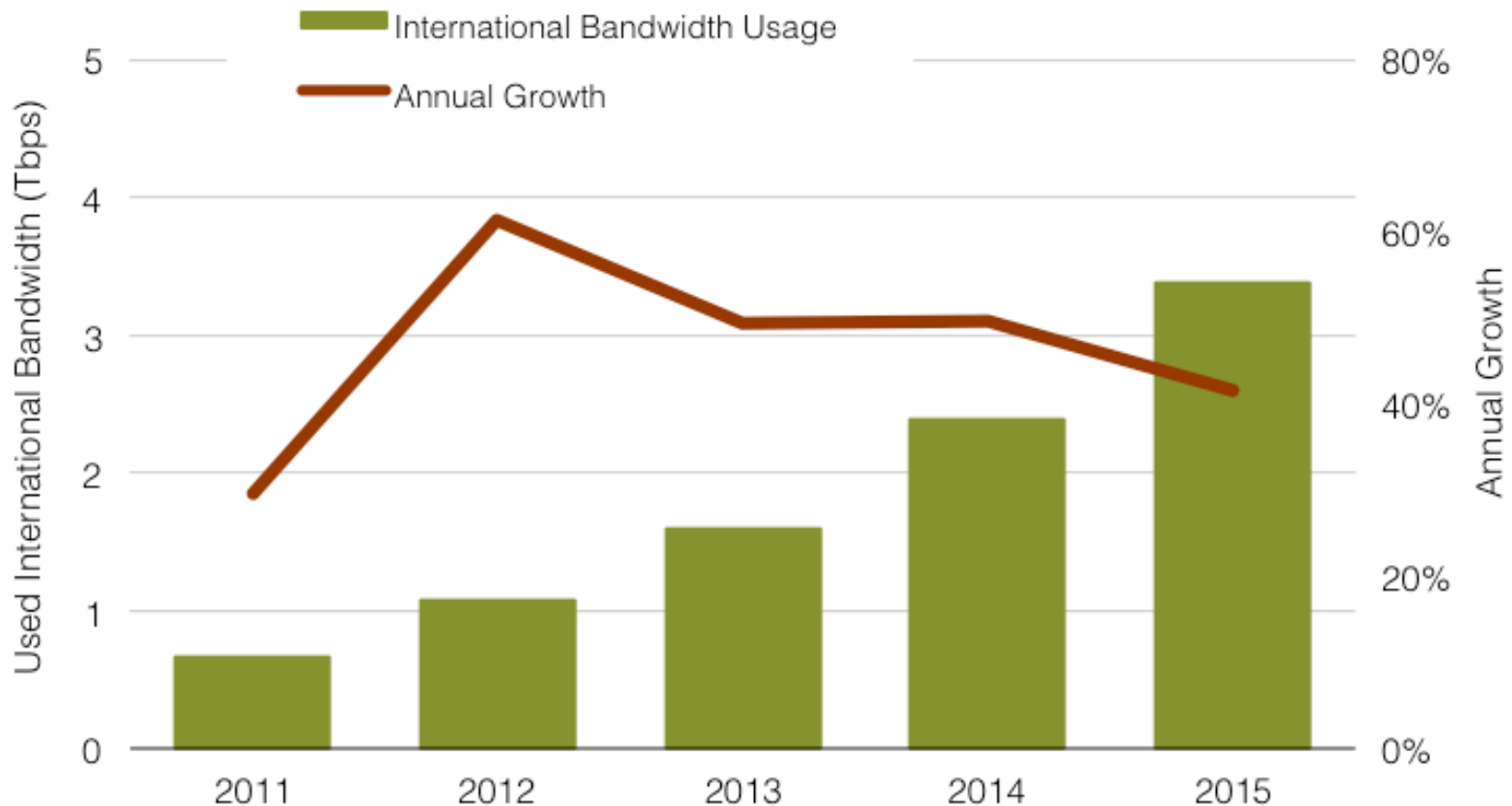
# Recent Trends in Asia & Oceania

Cody Williams

# Overall Bandwidth Growth in Asia

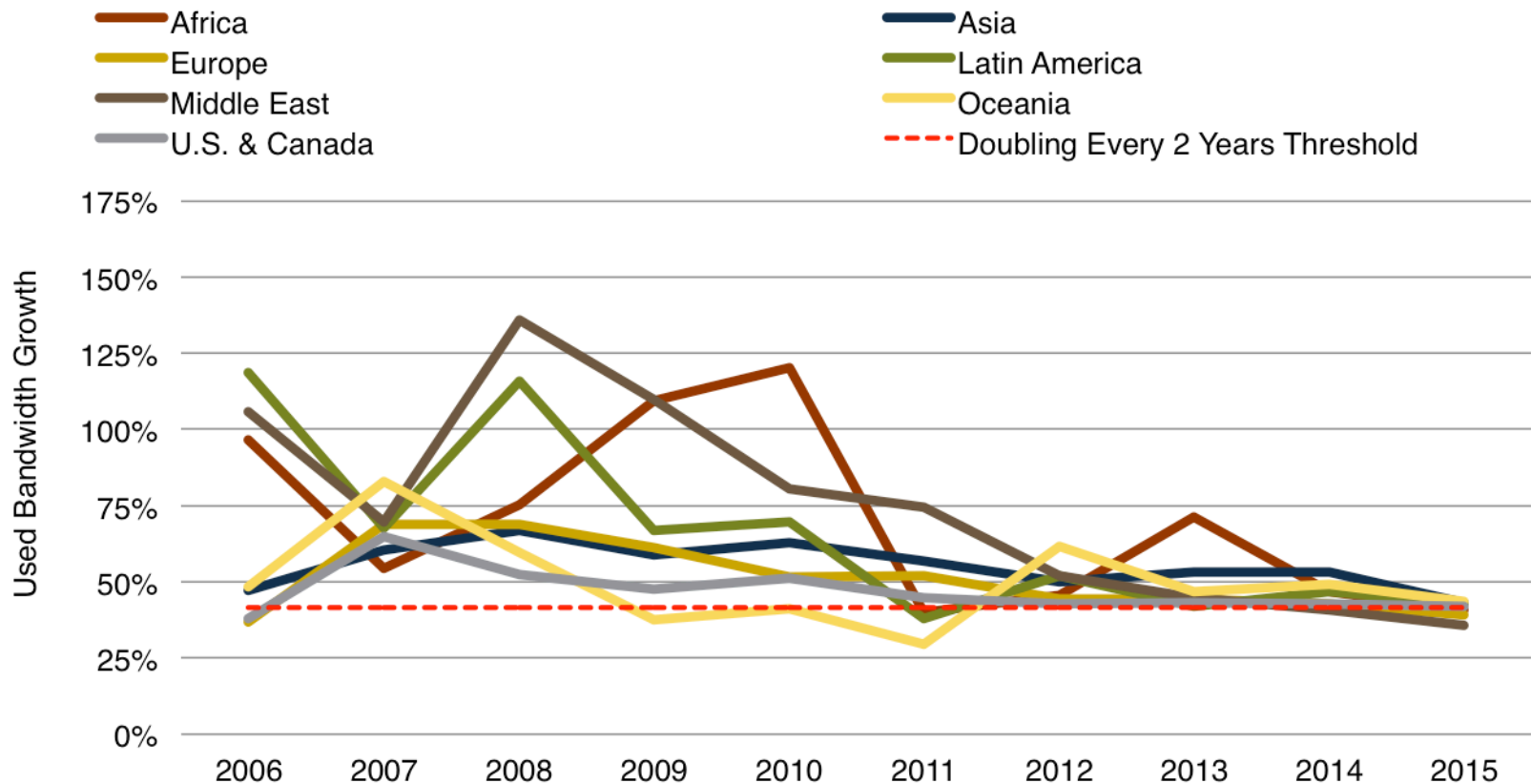


# Overall Bandwidth Growth in Oceania



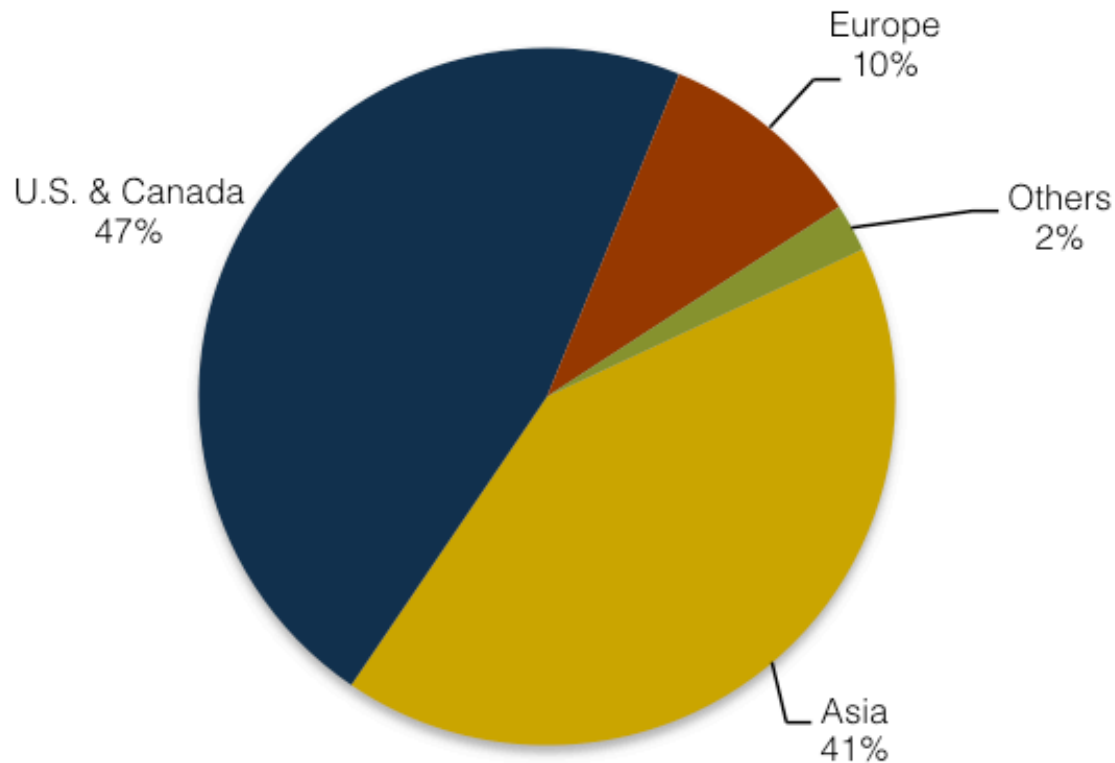
# Comparing Growth by Region

## Annual Growth in International Used Bandwidth, 2006-2015



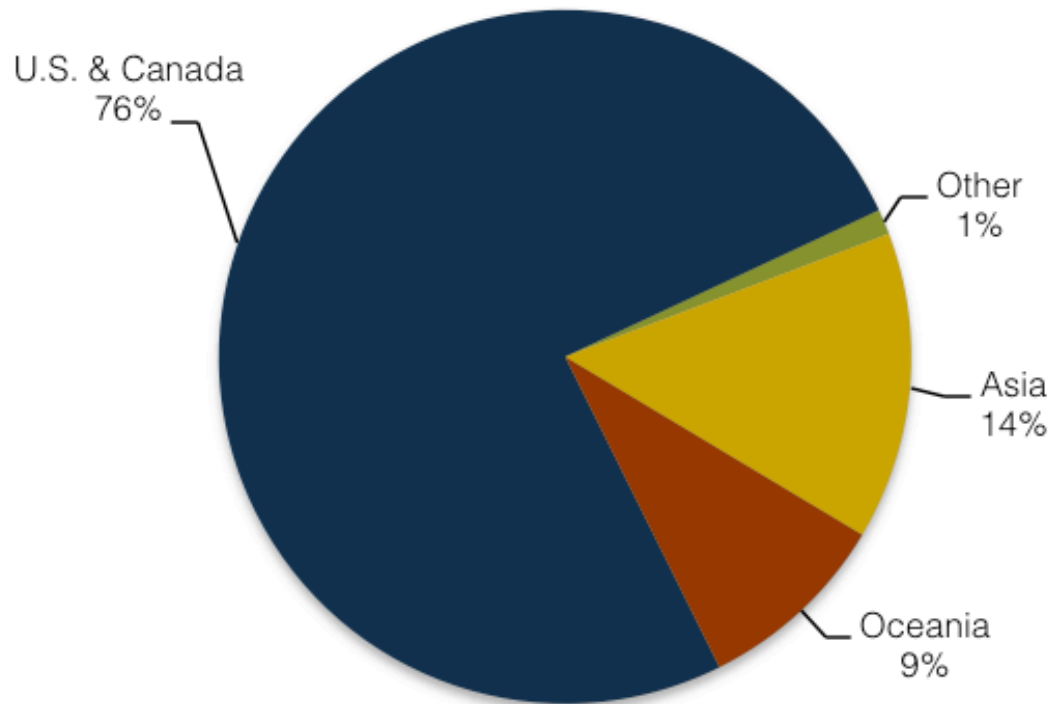
# How Asia Bandwidth is Connected

Asia Used Bandwidth Connected by Region, 2015



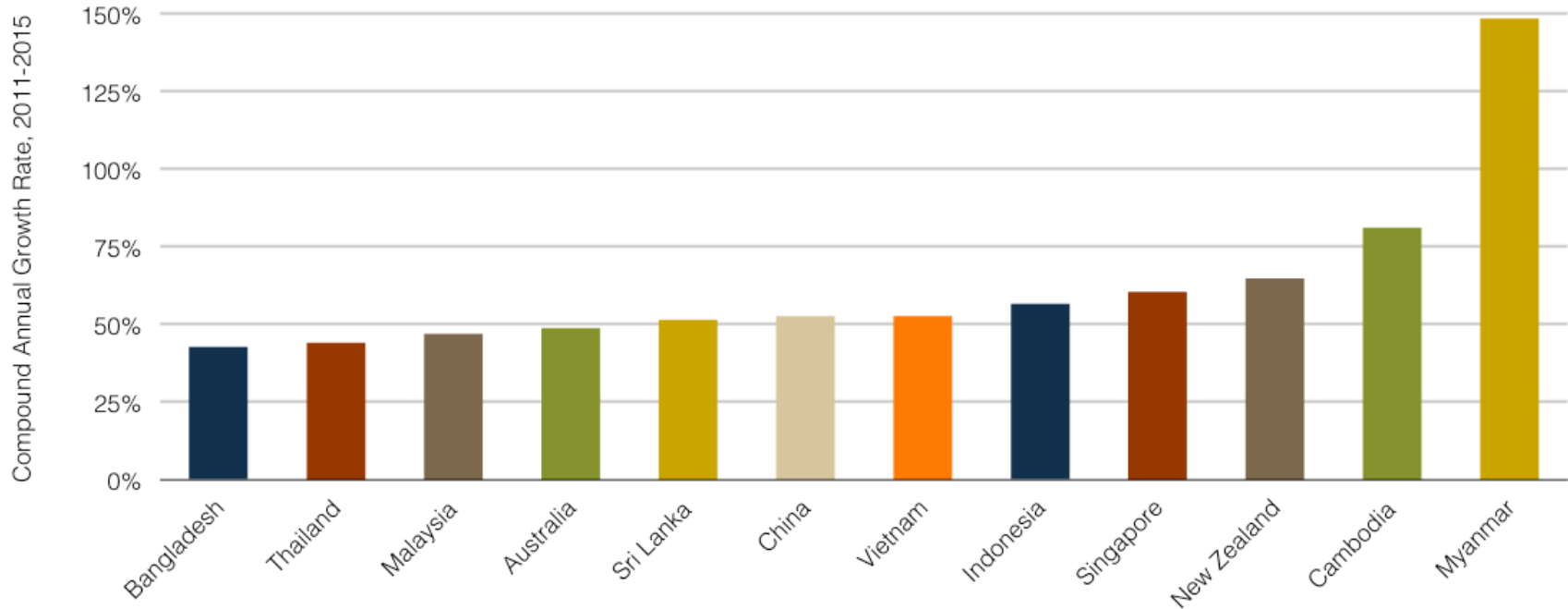
# How Oceania is Connected

Oceania Used Bandwidth Connected by Region, 2015



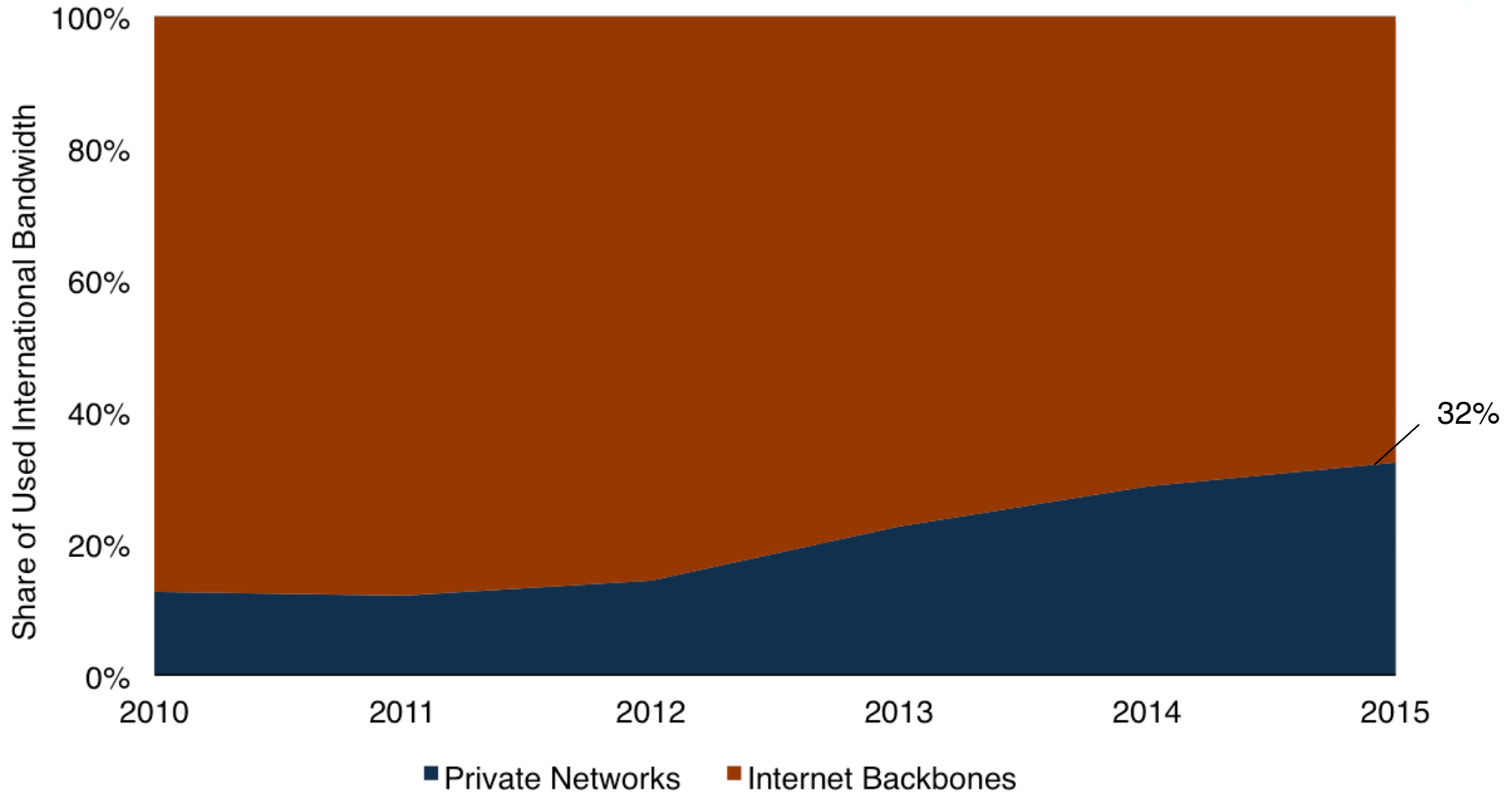
# Examining Growth by Country

## Compound Annual Growth Rate, Used Bandwidth 2011-2015



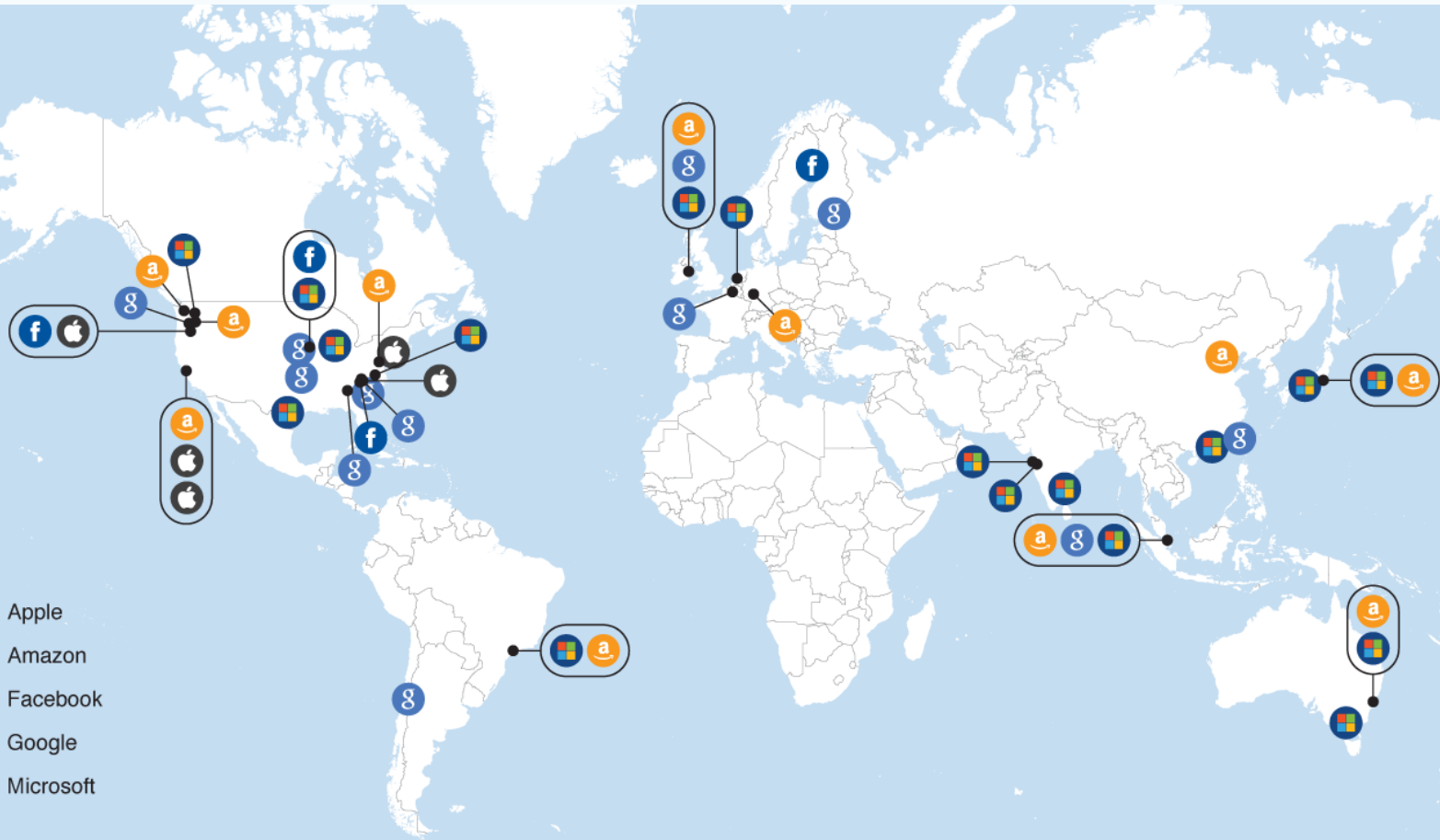
# Continued Rise of Private Networks

Used Bandwidth On The Trans-Pacific Route, 2010-2015

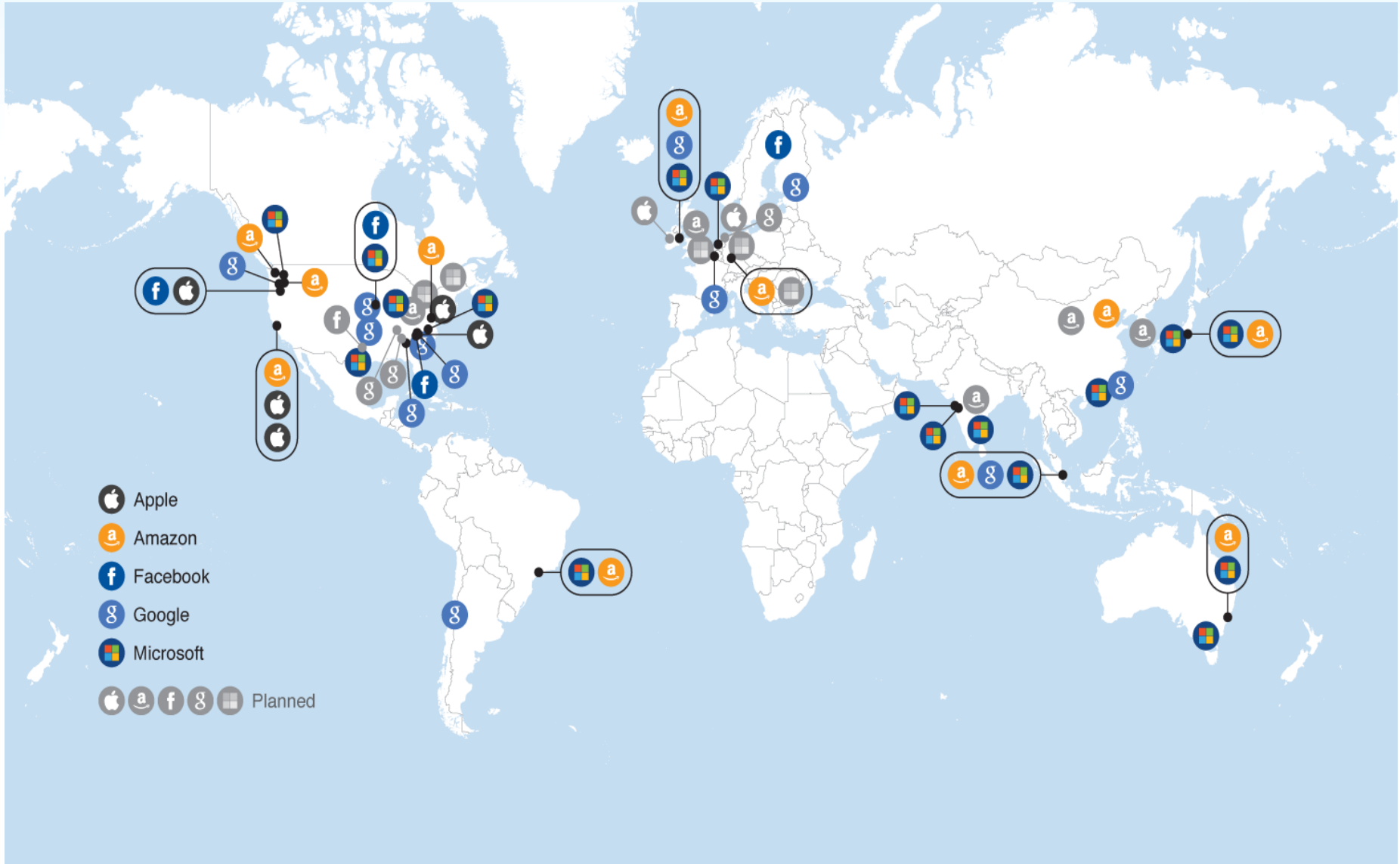




# Locations of Major Data Centers, 2015

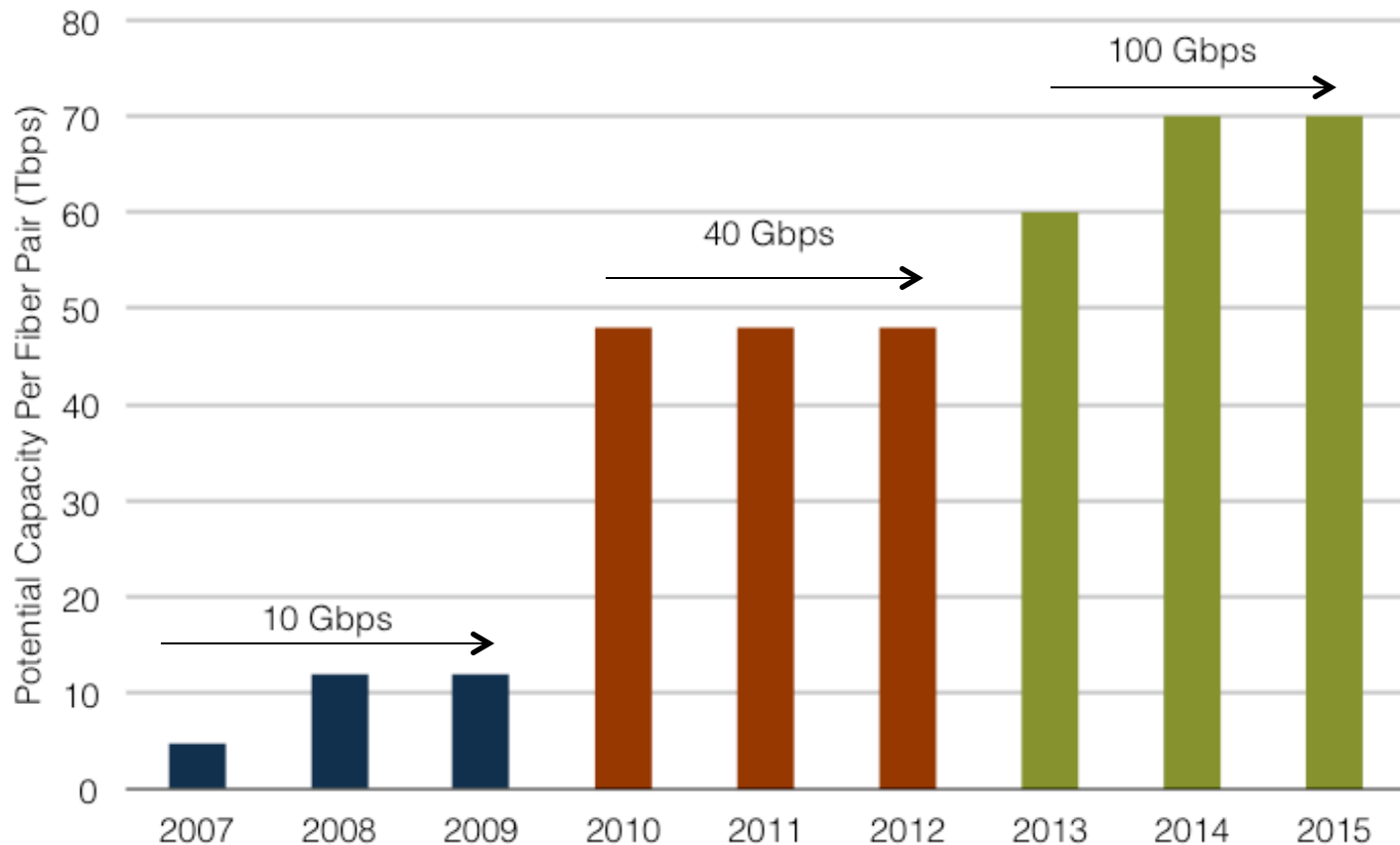


# Locations of Major Data Centers, 2017

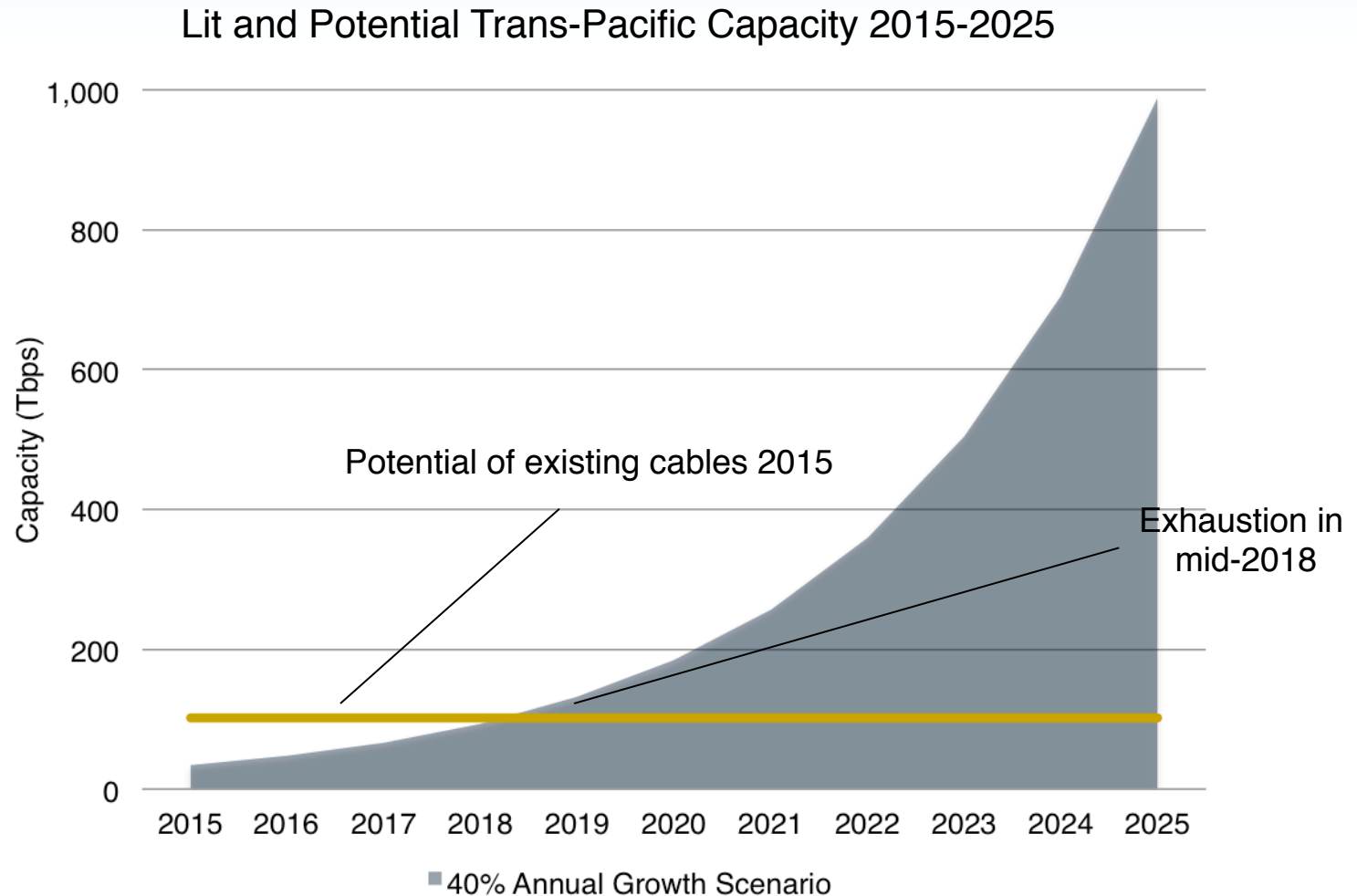


# The Move To 100 Gbps Wavelengths

Potential Capacity, Southern Cross North Leg (Tbps)

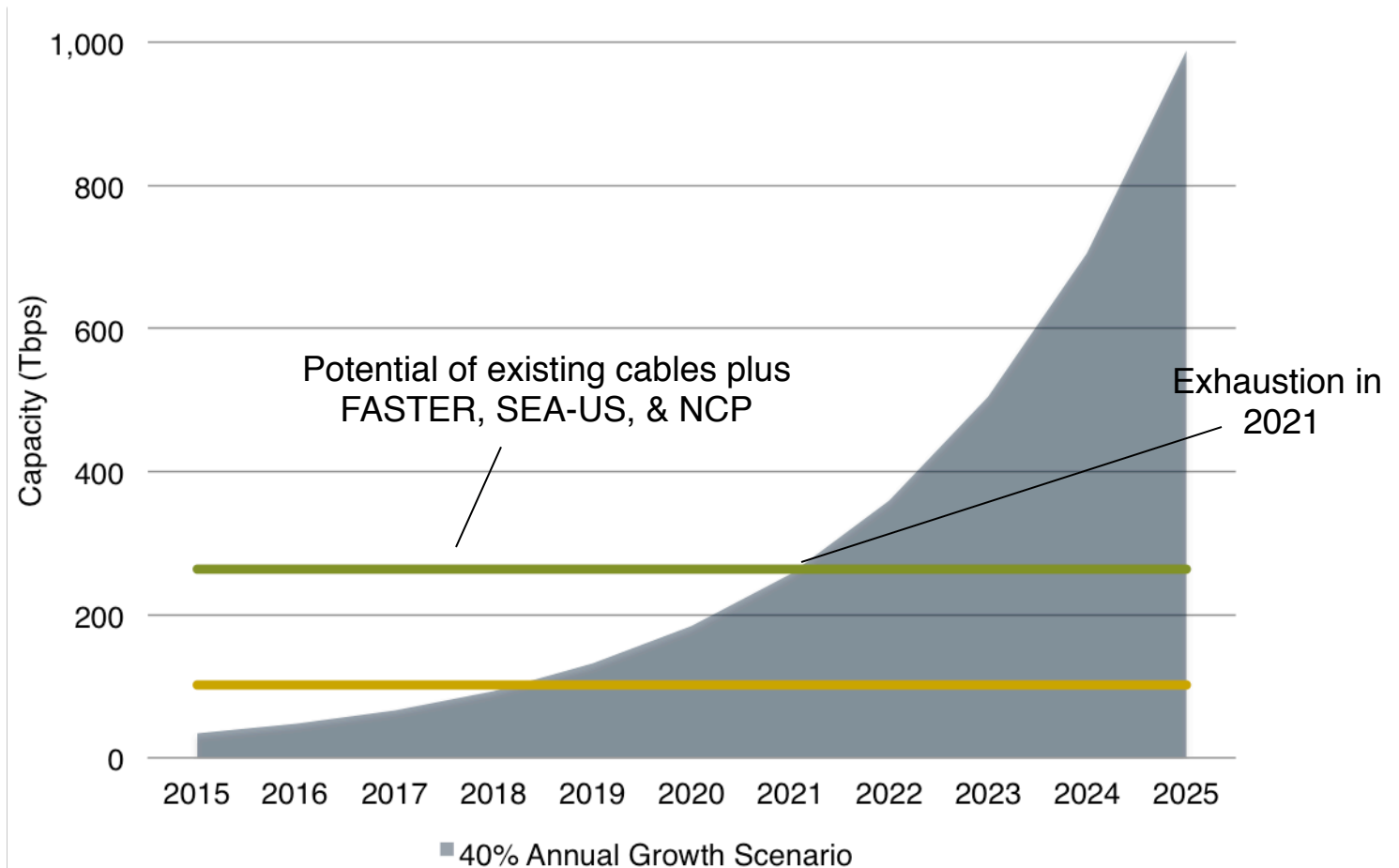


# But What About The Future?

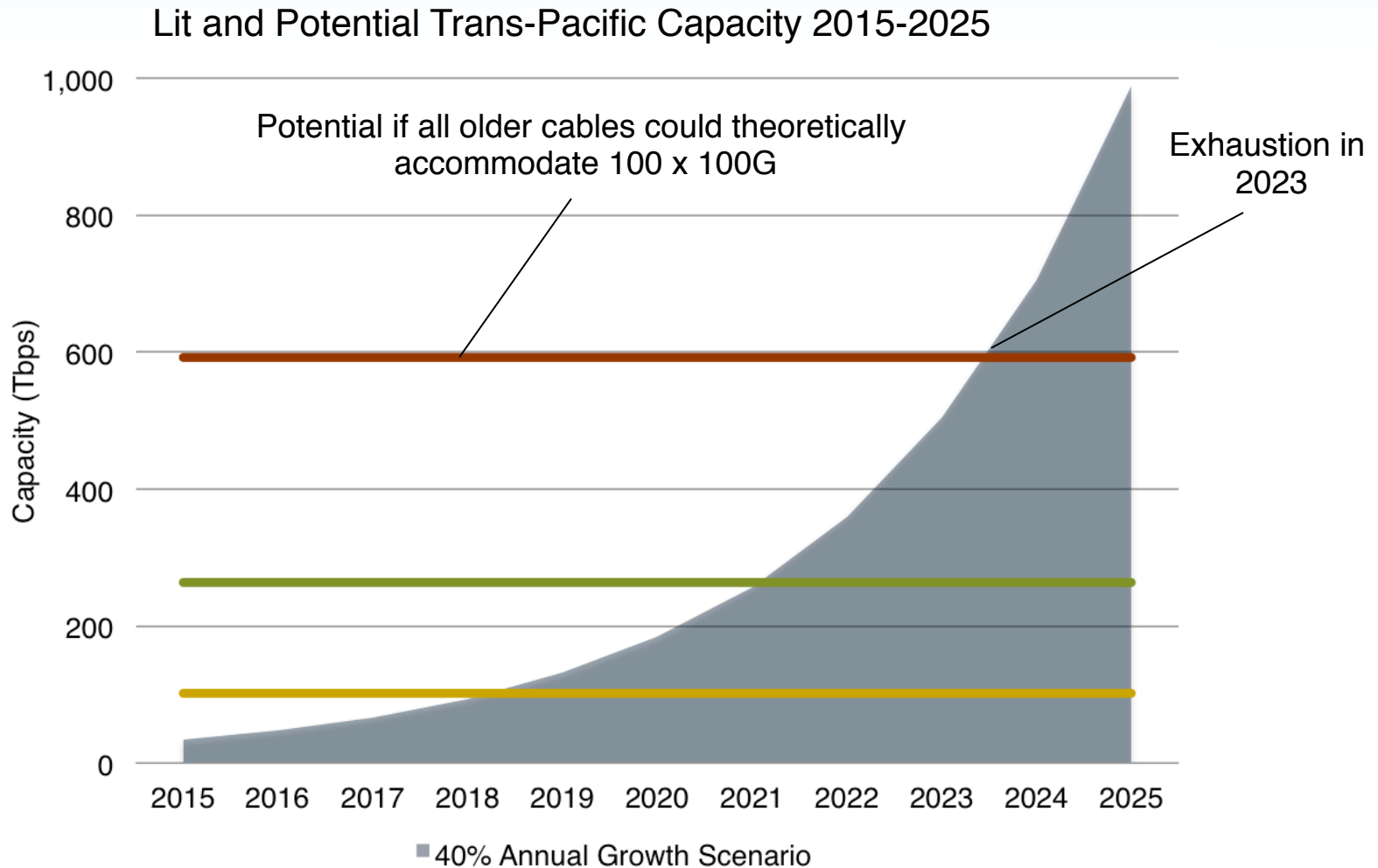


# Capacity Exhaustion Continued

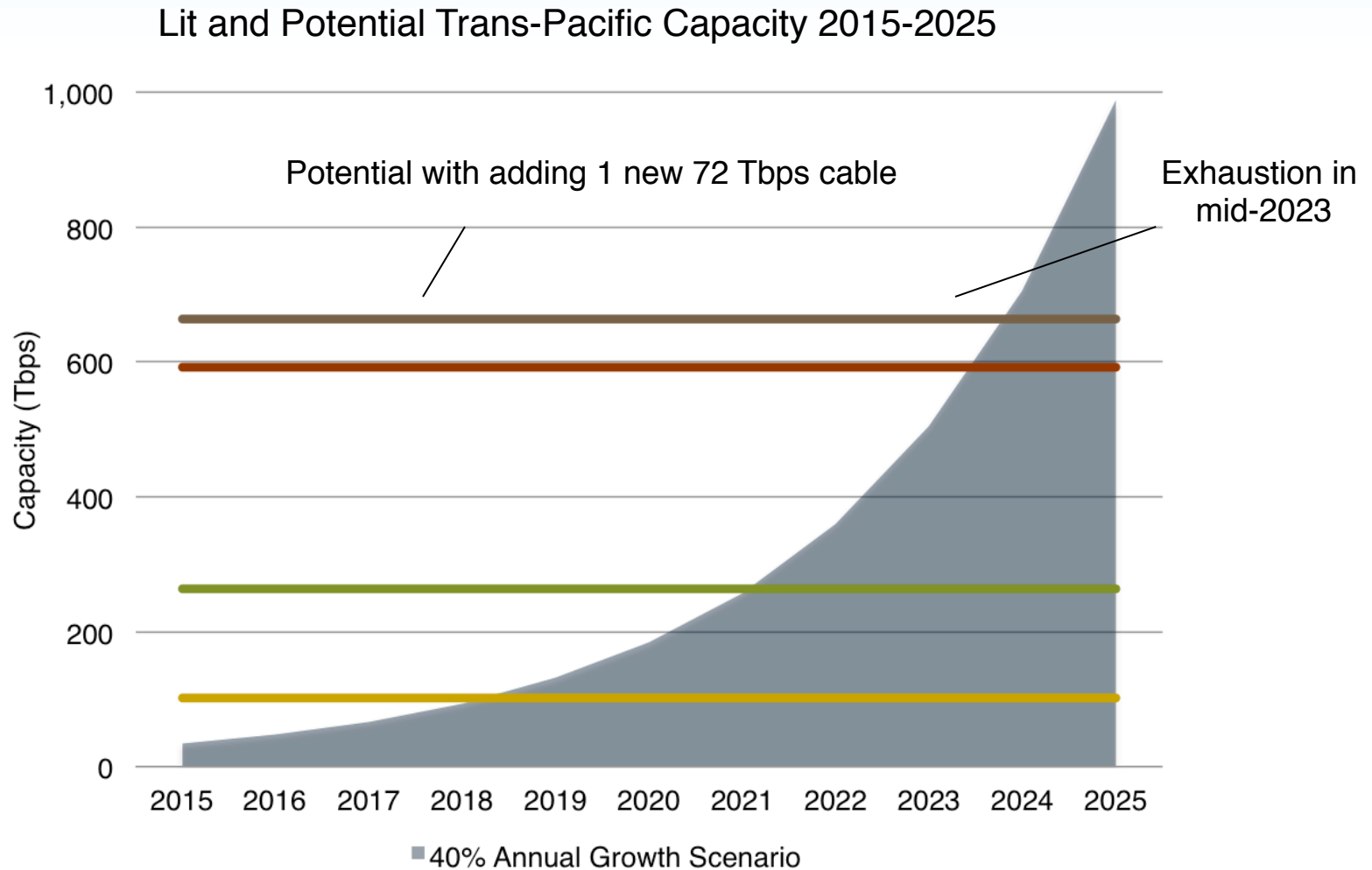
Lit and Potential Trans-Pacific Capacity 2015-2025



# Capacity Exhaustion Continued



# Capacity Exhaustion Continued

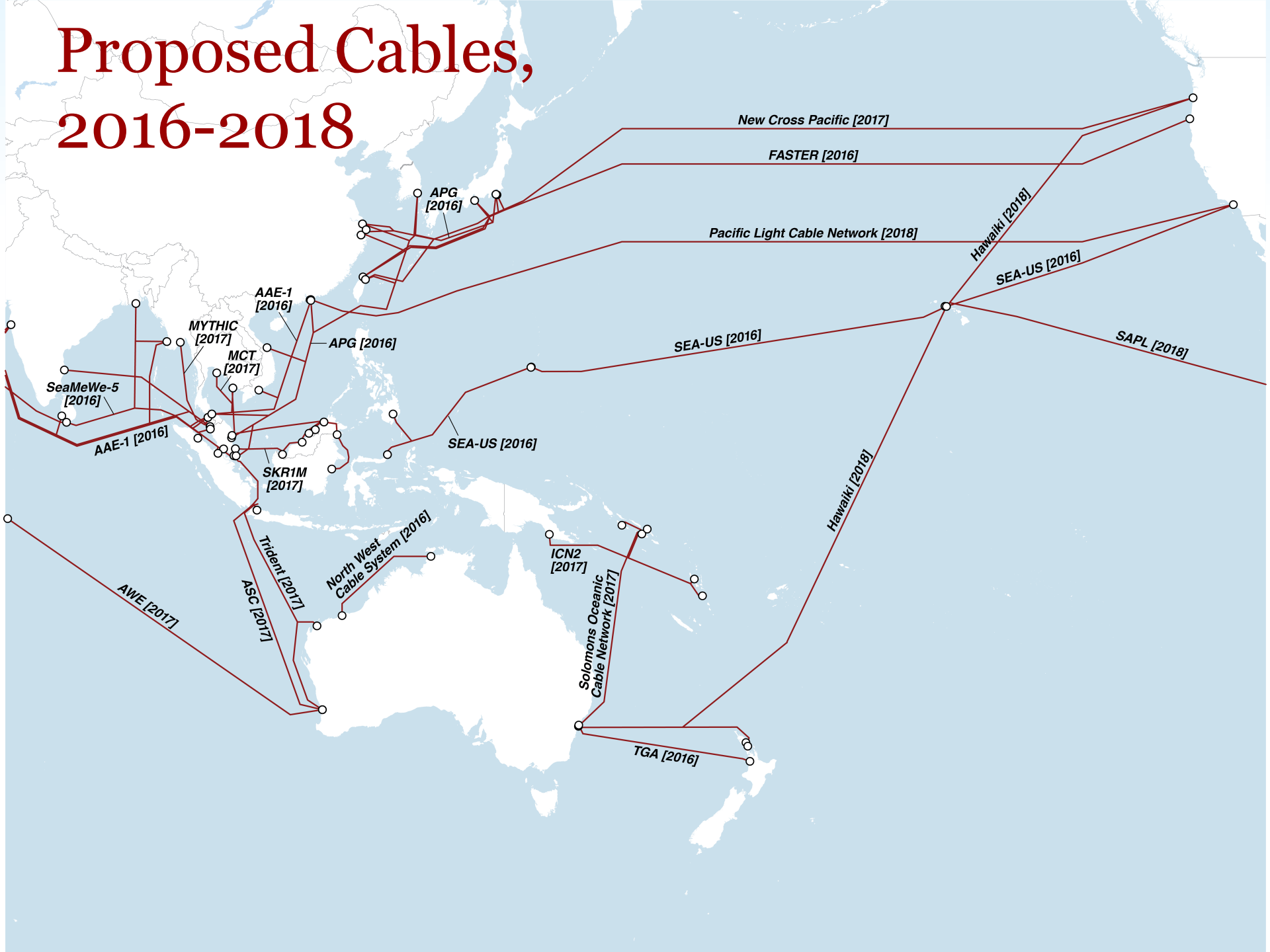


# And A Snapshot Of Spending On Cables, 2015-17



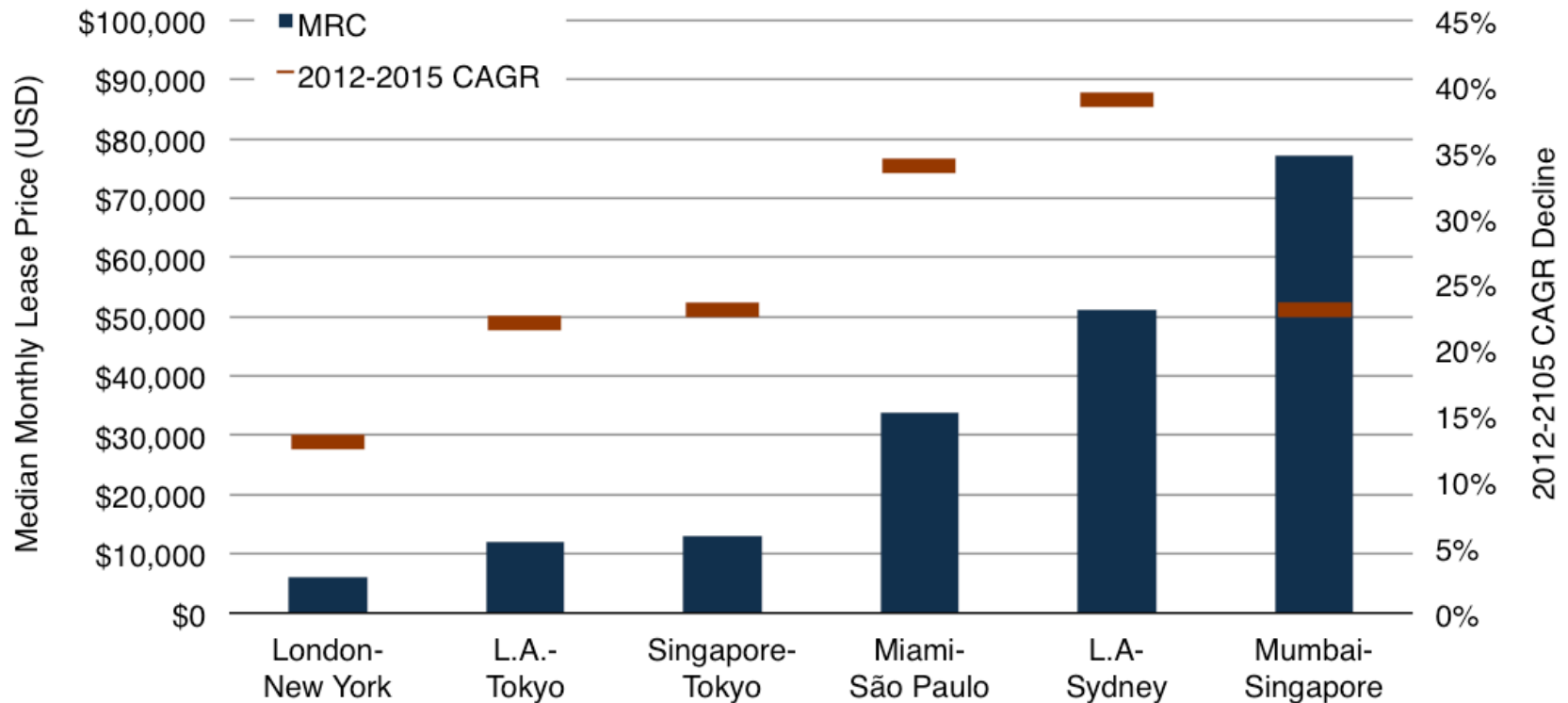


# Proposed Cables, 2016-2018



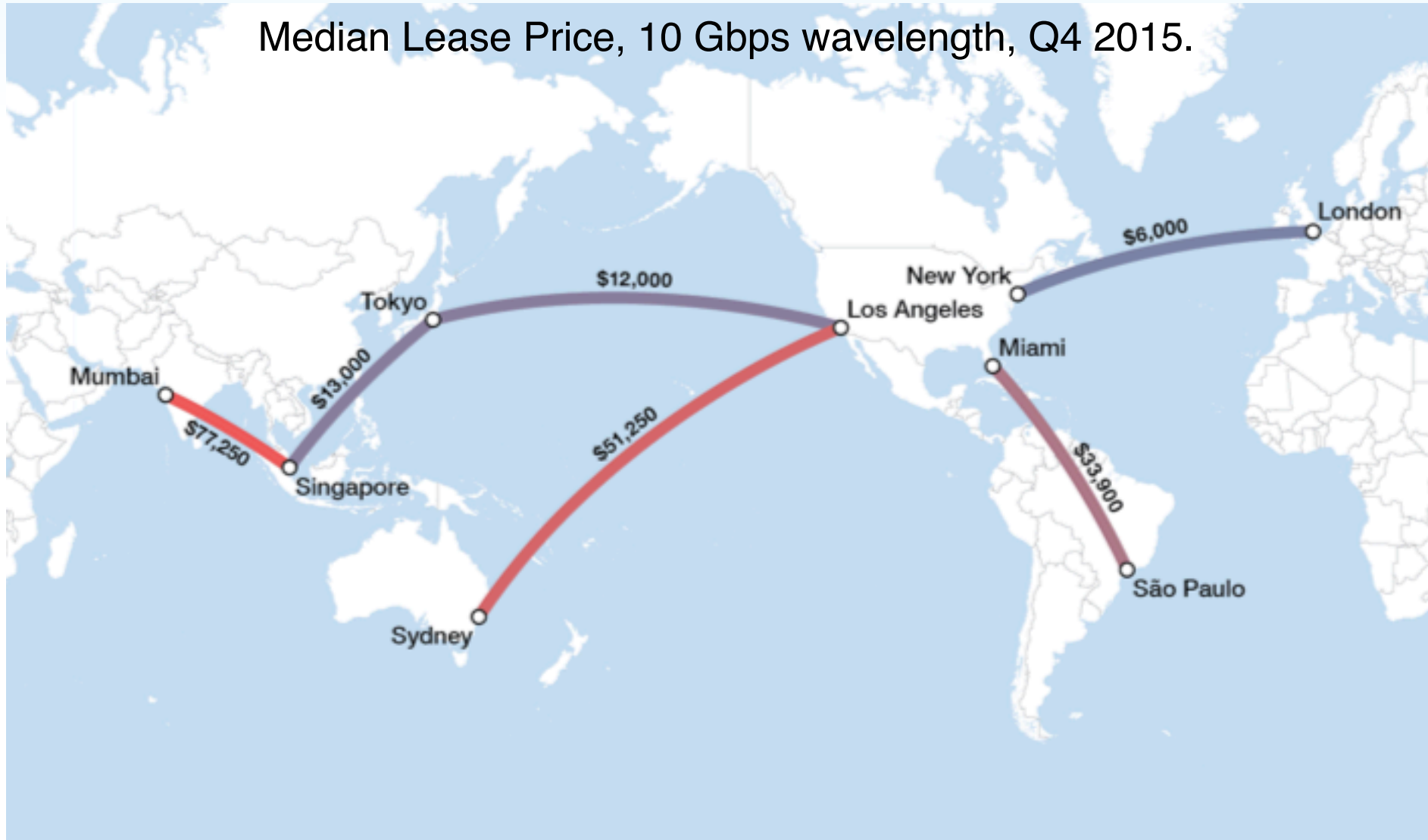
# Prices Still Falling

## Median Monthly Lease, 10 Gbps Wavelength



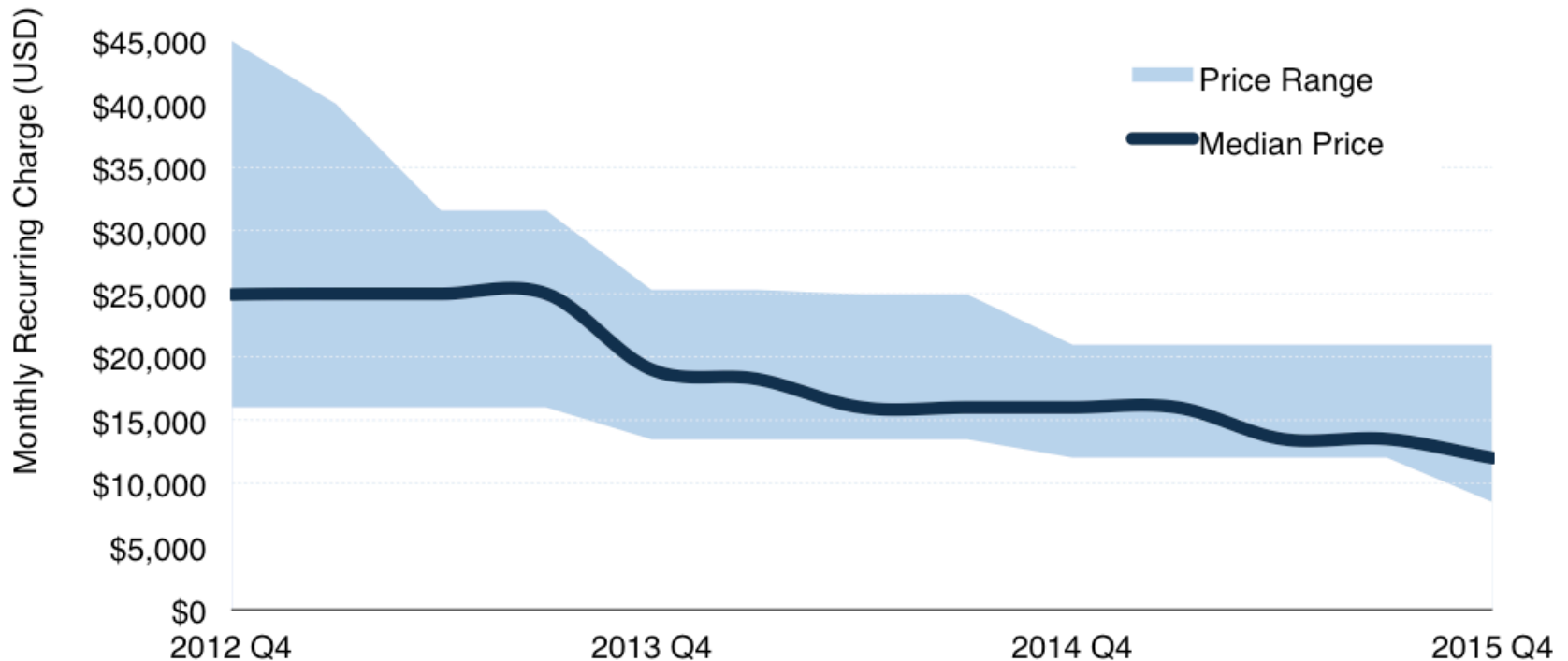
# Prices Vary By Geography

Median Lease Price, 10 Gbps wavelength, Q4 2015.



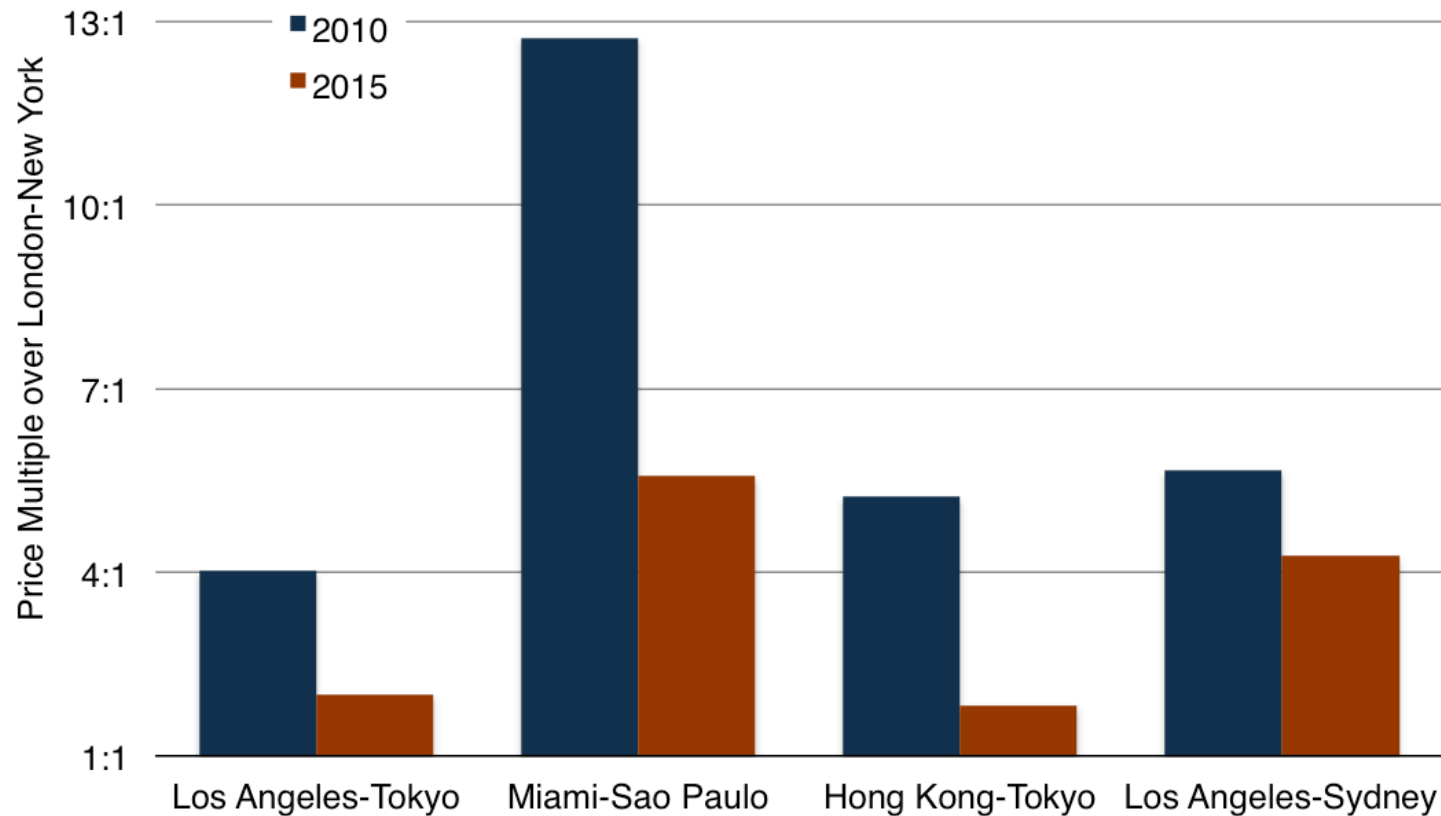
# And By Carrier

Median & Price Range for 10 Gbps on Los Angeles-Tokyo, 2012-2015



# Transport Price Differences Narrowing

10 Gbps Wavelength Lease Price Multiples over London-New York



# Overall Conclusions

- Demand remains strong, 43% growth between 2014 and 2015 for Asia and Oceania.
- Private Network demand continues to grow, 61% on the Trans-Pacific route between 2014 and 2015.
- Price variance narrowing on many routes, with multiples of the London-New York route narrowing.
- We'll need more cables, increases in optical transmission technology, or likely both to meet future demand.

# Thank You!

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