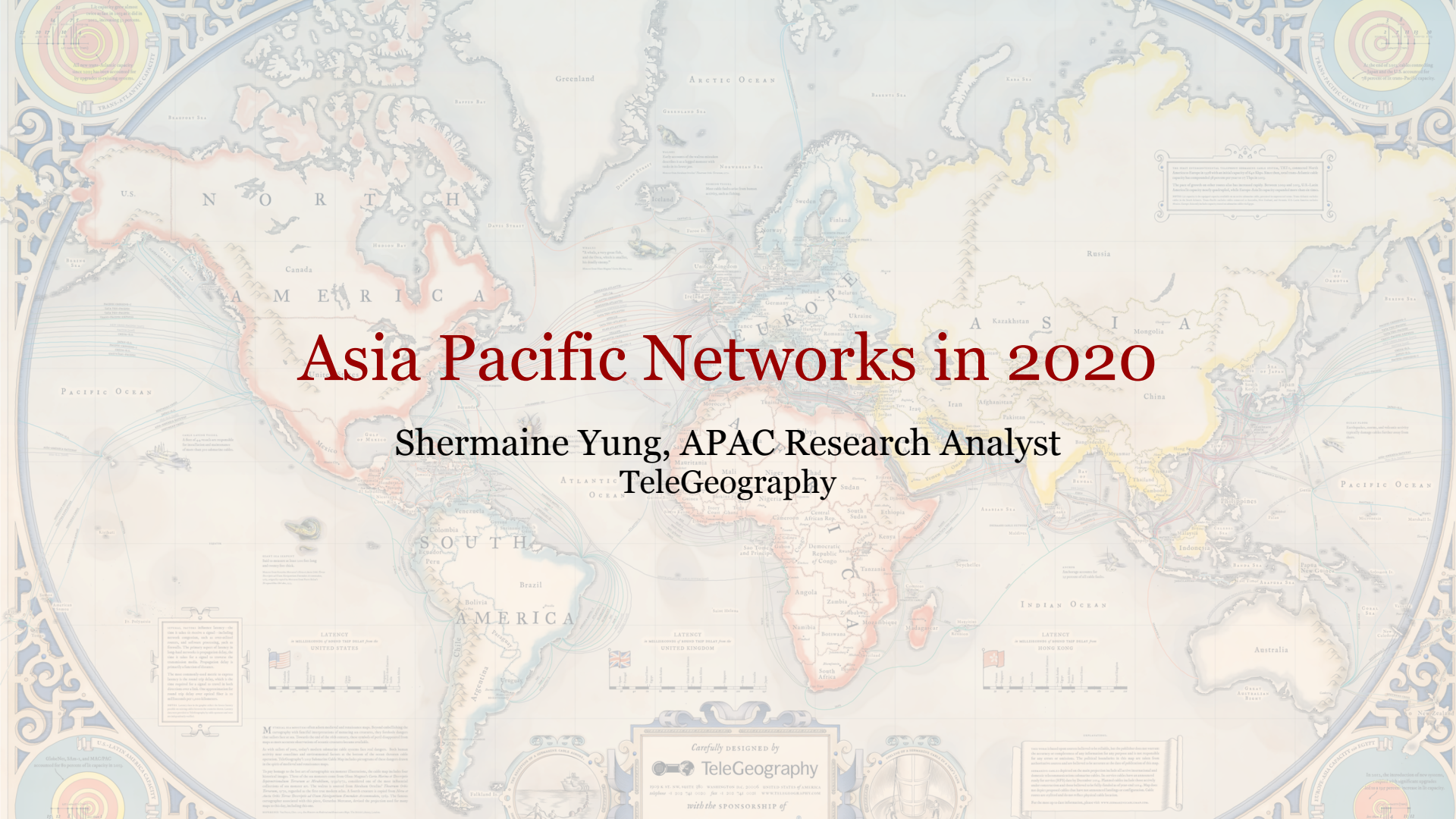


Asia Pacific Networks in 2020

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TeleGeography



Asia Pacific Networks in 2020: COVID-19 & Geopolitics

COVID-19 pandemic highlights submarine cables as critical infrastructure

Netflix Consumption Surges 115 Percent in Southeast Asia Amid Virus Lockdowns

11:29 PM PDT 4/20/2020 by Patrick Brzeski



Internet use in Singapore surges as more work from home amid COVID-19 pandemic | Video

By Jeraldine Yap

30 Mar 2020 11:25PM

Managing Network Capacity Amid Surging Demand in Asia-Pacific

Written on

Team Telecom Opposes United States-Hong Kong Communications Link

Crowell & Moring LLP



Covid-19 forces Australia broadband upgrade as internet use surges

BUSINESS

U.S. Allows Google Internet Project to Advance Only if Hong Kong Is Cut Out

National-security concerns had held up approval of 8,000-mile line from Los Angeles to Hong Kong

COVID-19's impact will evolve the telecommunications industry

COVID-19 accelerated internet bandwidth growth by 4% in Asia and 12% in Oceania

Impact of COVID-19 on International Internet Bandwidth Growth, 2019-20

	Forecasted	Observed	Implied COVID-19 Acceleration Effect
Africa	42%	45%	2%
Asia	36%	41%	4%
Europe	23%	34%	9%
Latin America	26%	32%	5%
Middle East	34%	39%	4%
Oceania	24%	39%	12%
U.S. & Canada	23%	30%	5%
Global	26%	35%	8%

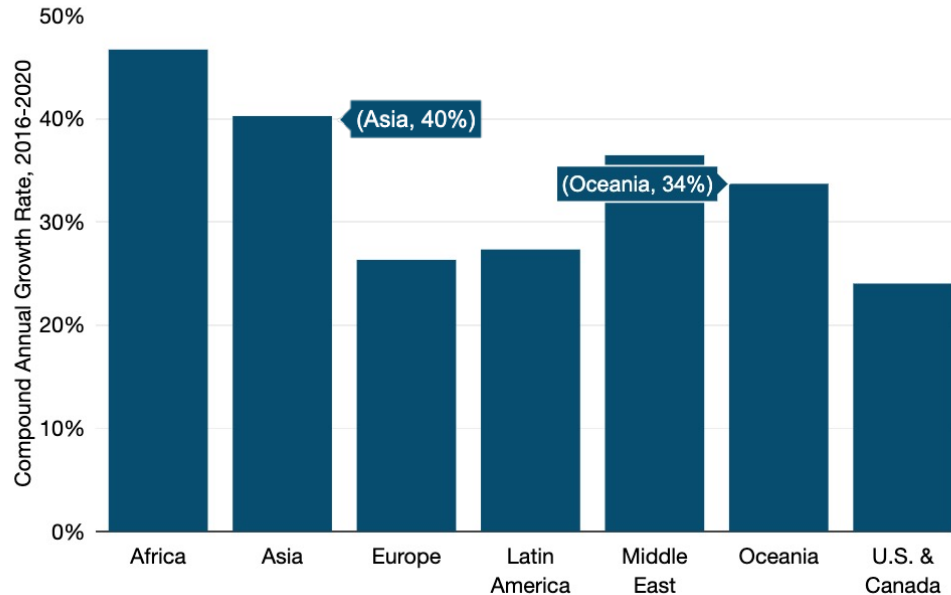
Networks are running hotter as they become increasingly utilized

International Internet Bandwidth and Traffic Growth, 2019-20

	Bandwidth	Peak Traffic
Africa	46%	49%
Asia	41%	51%
Europe	34%	44%
Latin America	32%	51%
Middle East	39%	42%
Oceania	39%	50%
U.S. & Canada	30%	44%
Global	35%	47%

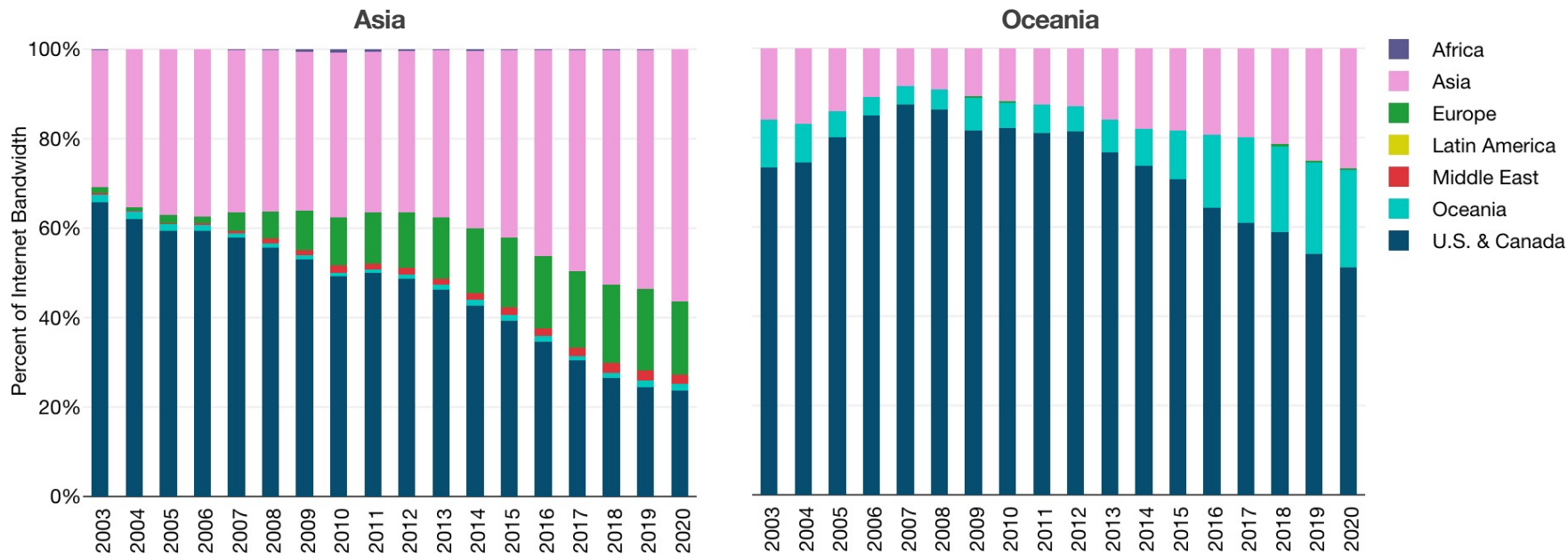
Asia is the second fastest growing region for international internet bandwidth

International Internet Bandwidth Growth by Region (2016-2020)

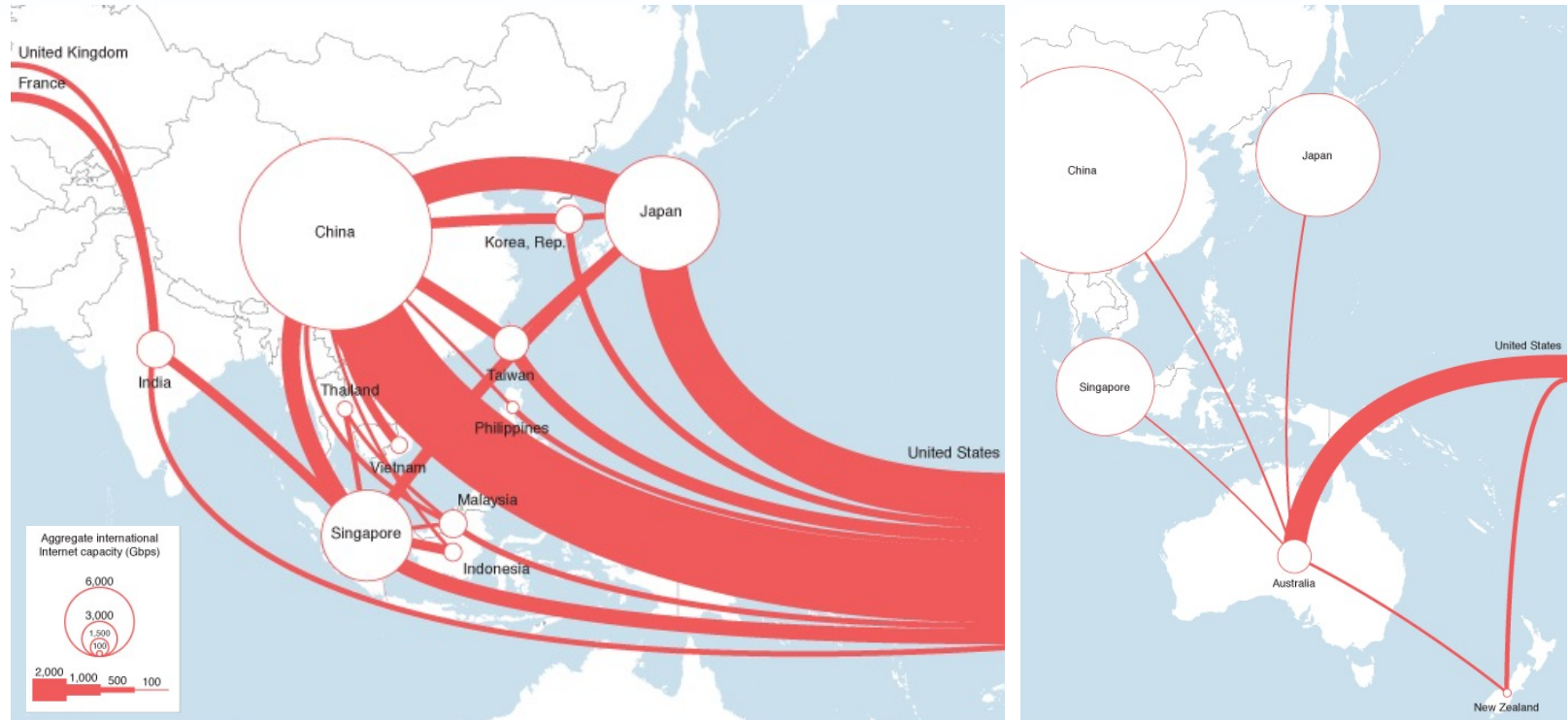


Interconnectivity within APAC is steadily increasing

Share of International Internet Bandwidth by Region, 2003-2020

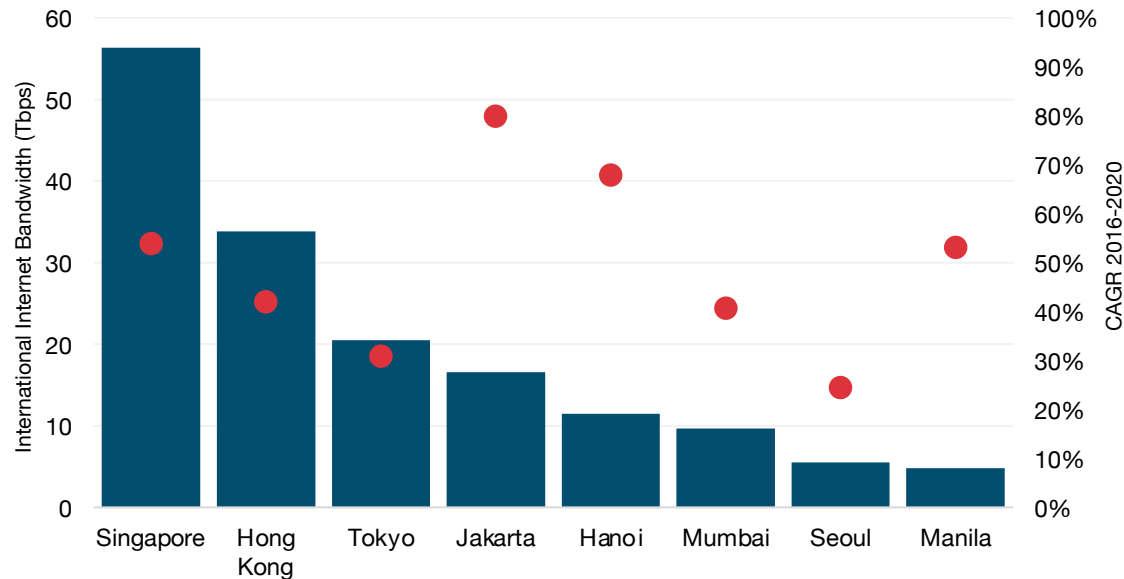


China (inclusive of Hong Kong), Japan, and Singapore continue to act as APAC's internet hubs

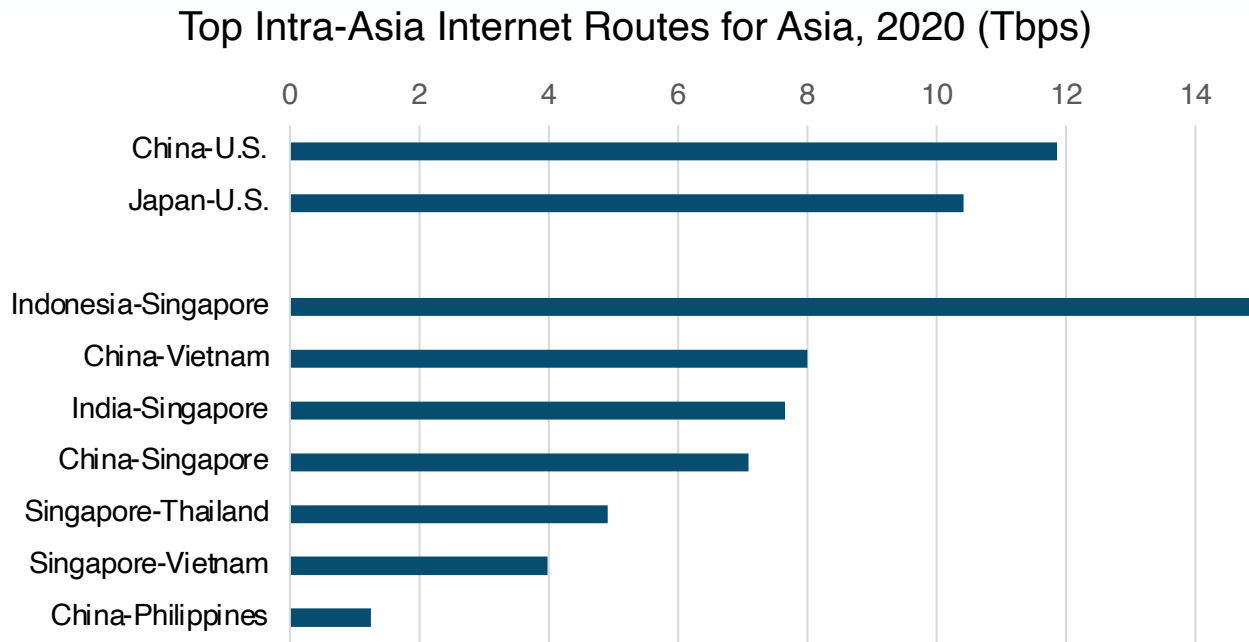


Singapore dominates APAC with highest internet bandwidth usage and fastest growth rate

International Internet Bandwidth of Asia Pacific Cities, 2020



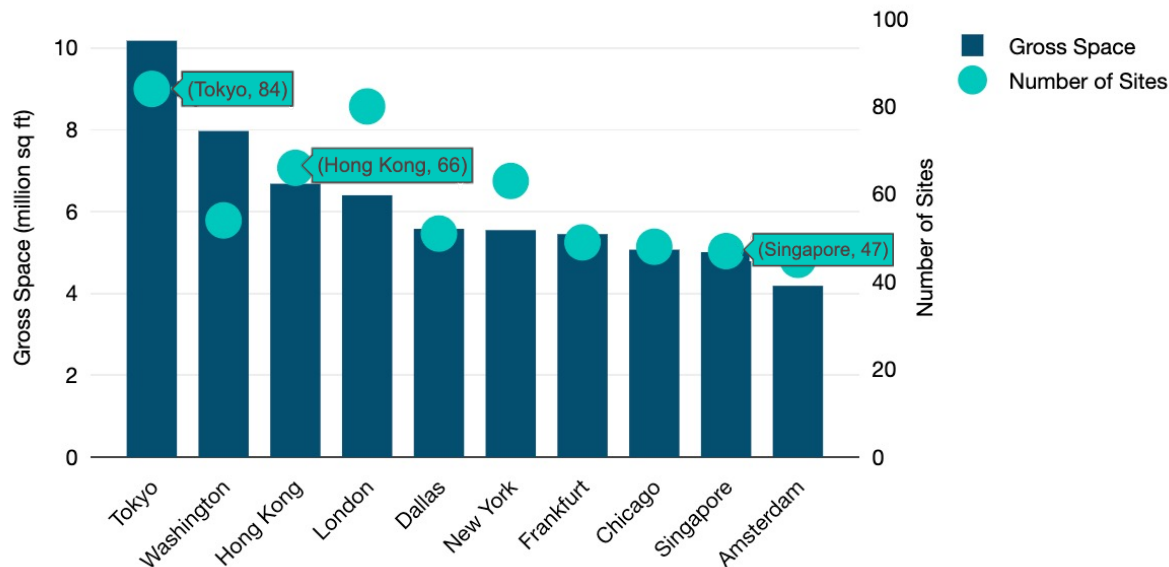
An intra-Asian route overtook trans-Pacific route for the first time in 2020



*China is inclusive of Hong Kong in our country level datasets.

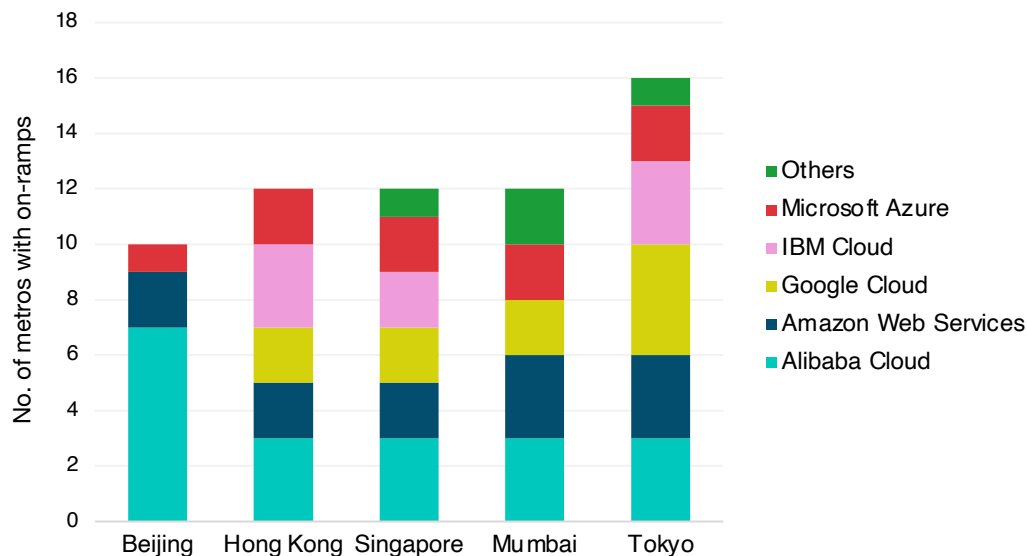
Where networks converge, the data center market grows

10 Largest Metro Areas for Colocation Globally, 2020



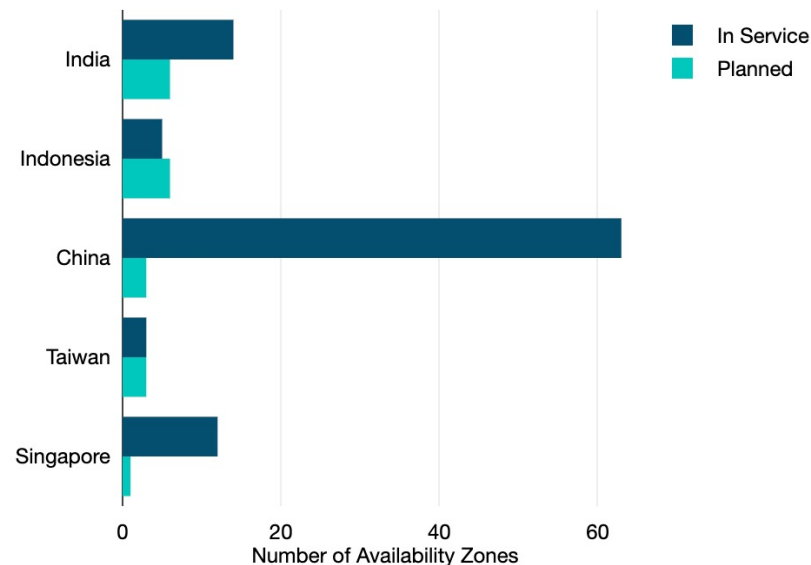
Tokyo features the most on-ramp services to major cloud service providers

On-Ramp Services to Major Cloud Service Providers in Asia Hubs, Q1 2021



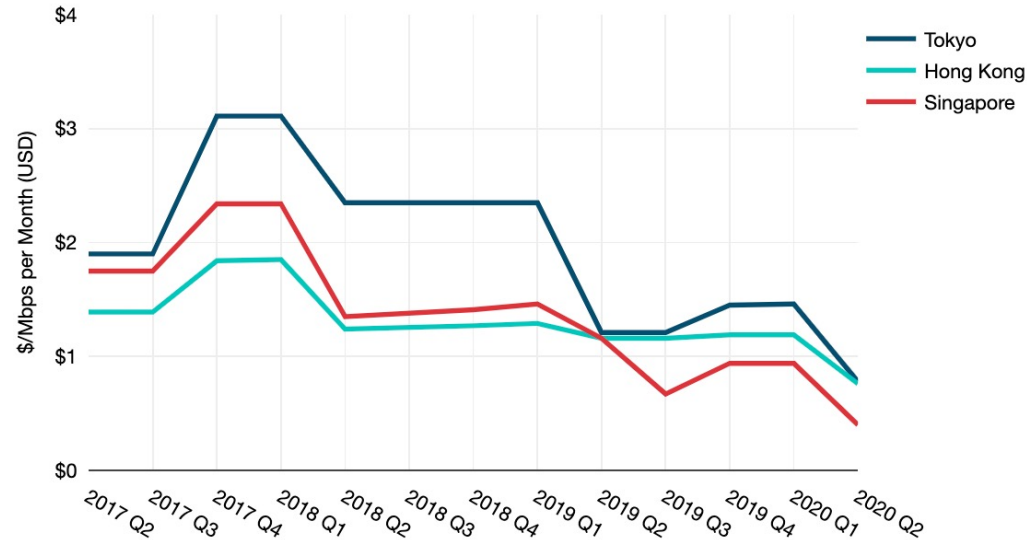
CSPs continue to build out zones in Asia with promising internet demand growth

Planned Cloud Data Centers in Asia, Q1 2021

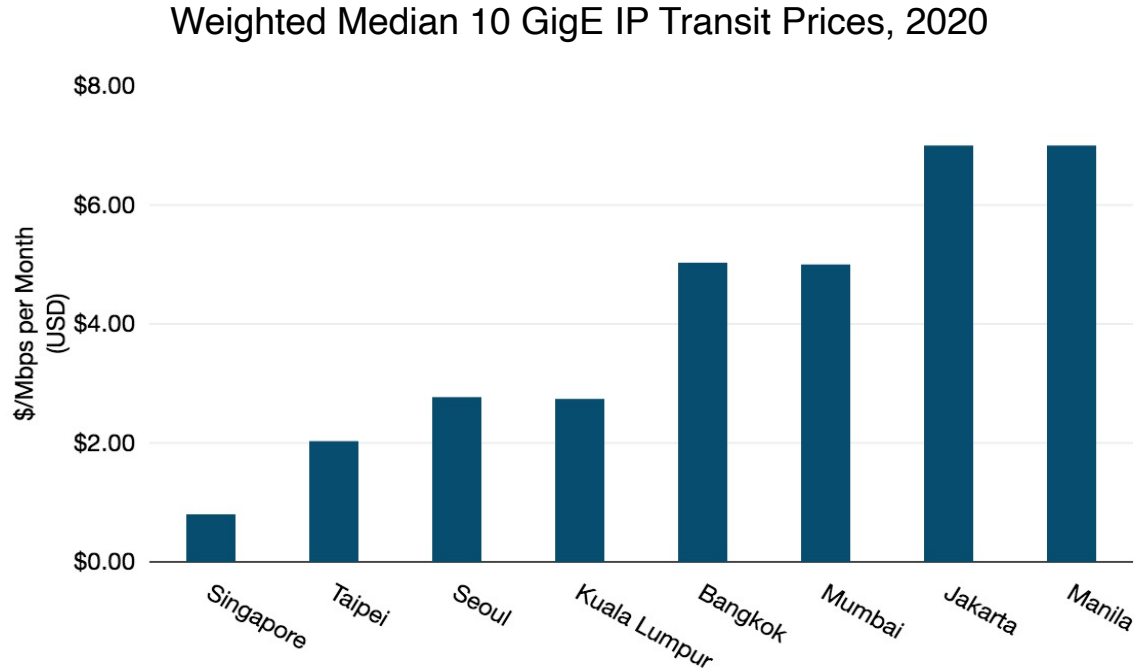


As 100 GigE IP transit becomes increasingly prominent in Asia, prices will continue to erode

Weighted Median 100 GigE IP Transit Prices in Key Asia Pacific Hubs



IP Transit prices are generally falling in the region, but still vary significantly in different cities



Moving Forward

1. Thus far, Asia Pacific carriers have managed to cope with COVID-19's impact by employing a wide variety of measures. The rate of traffic acceleration show signs of moderating, but new capacity will continue to be needed.
2. Hong Kong, Singapore, and Tokyo will remain dominant hubs, but there is an increasing focus to develop secondary hubs in the region.
3. The postponement of several subsea cables to Hong Kong is leading providers to focus alternative trans-Pacific routes, but new intra-Asian cables to the city are still planned.
4. Price erosion remains constant and within our expected bounds, suggesting that COVID-19 has thus far not caused disruption to pricing schemes.

Thank you!

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If you have any questions or comments, please feel free to reach out to me at
syung@telegeography.com