



PH INTERNET LANDSCAPE

(INFRASTRUCTURE PERSPECTIVE: 2020 BC-BEFORE COVID)

Achie Atienza
Peering Asia 2021v
9 November 2021



Achie Atienza

KAMUSTA :)



Globe Telecom

Peering, Interconnection & Strategy
IP Ecosystem

Internet Society Philippines (ISOC-Ph)

Board of Trustee

Philippine Network Operators Group (PhNOG)

Chair

APNIC Executive Council (APNIC EC)

Member / Secretary

DISCLAIMER



Ph in Numbers

vs pre- covid (2020)

7,641
Islands
(high tide)

2,000
Inhabited (26%)
3 Major Island groups

111.53M
Population +3.4M
(as of Nov 4 2021)

MANILA
Capital

8+6

International Submarine Cable
systems (3 Ongoing)

554+70

Autonomous System
Number (ASNs)

7+2

International Cable Landing
Stations (1 ongoing)

9

Local IXPs

9+1

DC
Facilities

Key Drivers

“ *Kahapon?* ”

Need it yesterday ?

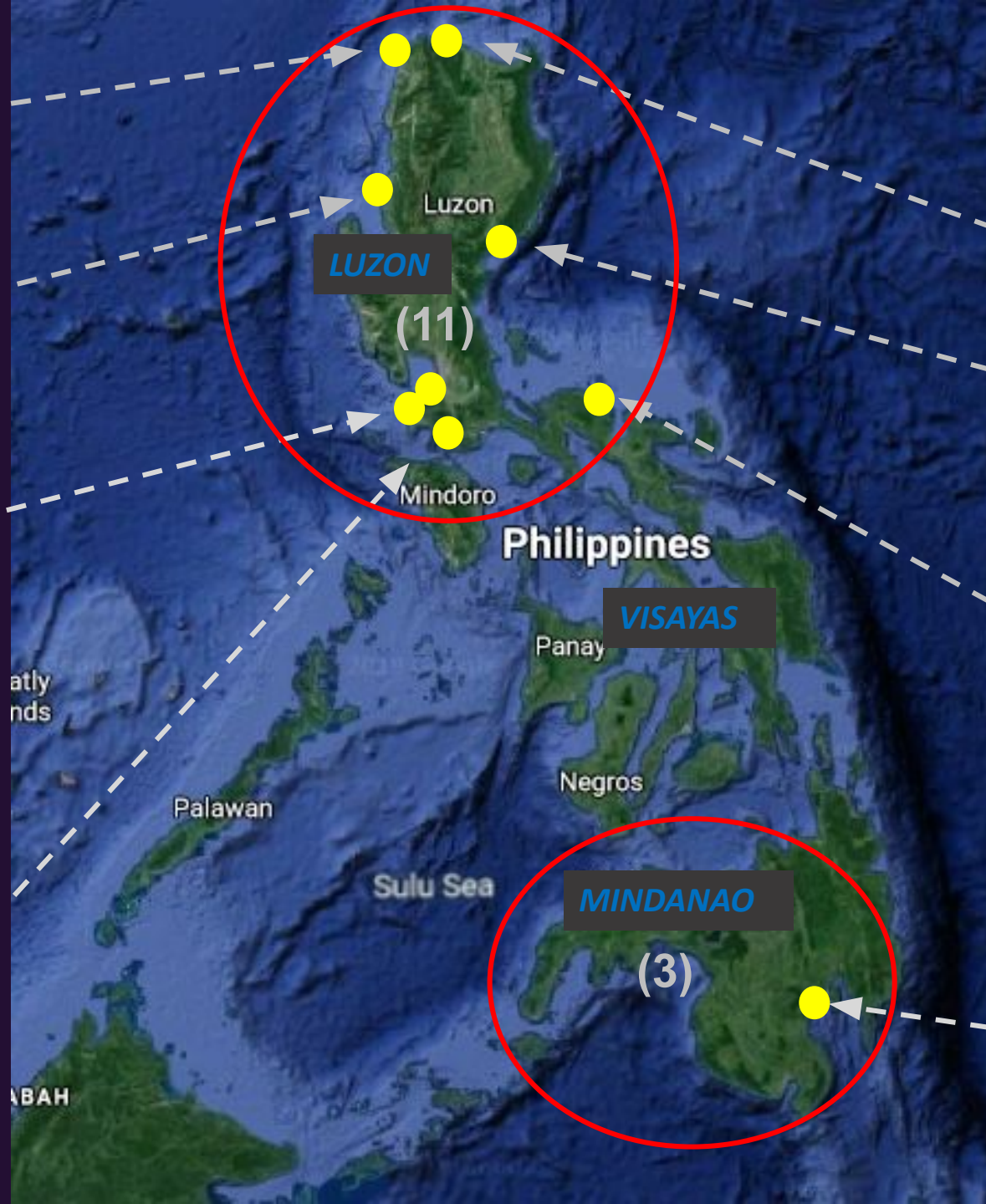
“ *Kulang pa!* ”

Need more !

“ *Kaya naman pala :)* ”

Needs can be accomodated :)

International Cable systems



Pagudpud:
CAP-1
Q4 2022

La Union:
AAG
Nov 2009

Batangas:
SJC
Jun 2013
APCN2
Dec 2001
SMW3
Sep 1999
ADC
Q4 2022

Cavite:
EAC
Nov 2002

Ballesteros:
TGN-IA
Mar 2009

Aurora:
PLCN
APRIL 2020

Daet:
JUPITER
2020

Davao:
SEA-US
Aug 2017

ASE
Aug 2012

Bifrost
2024

APRICOT
2024

Subsea Cables

8+6

● CLS

7+2

Reference: <https://www.submarinecablemap.com/#/country/philippines>

Domestic Backbone

Nationwide

CDSCN - Converge Domestic Submarine Cable Network (Q4 2021)

DFON - Domestic Fiber Optic Network

FOBN - Fiber Optic Backbone Network

NDTN - National Digital Transmission Network

NGCP - National Grid Corporation

Visayas-Mindanao

Boracay-Palawan Submarine Cable System

Sorsogon-Samar Submarine Fiber Optical Interconnection Project

Palawan-Iloilo Cable System

Sources:

<https://dict.gov.ph/wp-content/uploads/2017/09/2017.08.09-National-Broadband-Plan.pdf>

<https://www.globe.com.ph/business/enterprise/connectivity/domestic-data/domestic-network.html#gref>



Ph ASNs

Continuous growth of new networks driven by Peering!

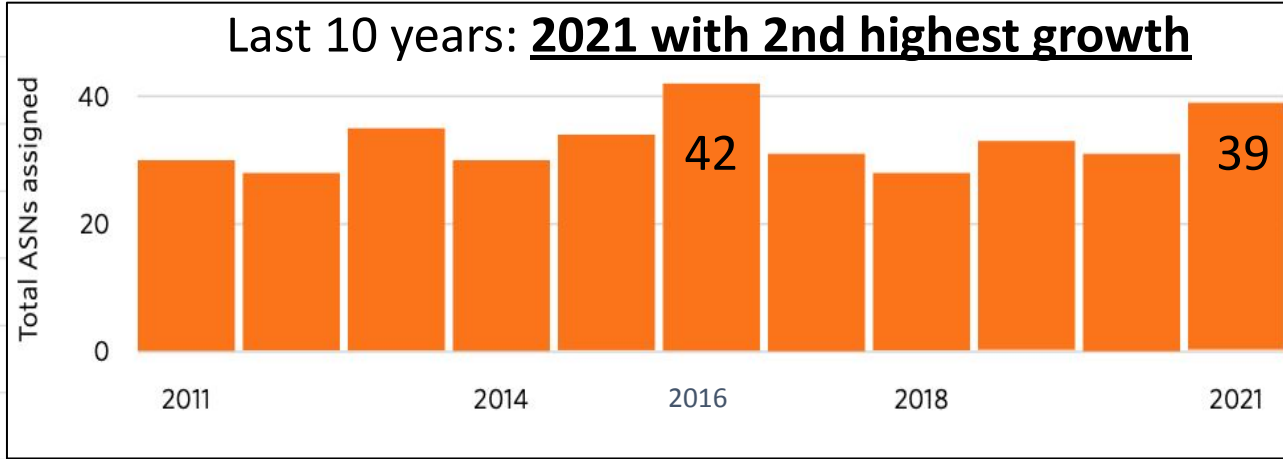
ASN Delegations 2-Byte ASNs 4-Byte ASNs
624 319 305

Cumulative

Total ASNs assigned

Growth during Pandemic

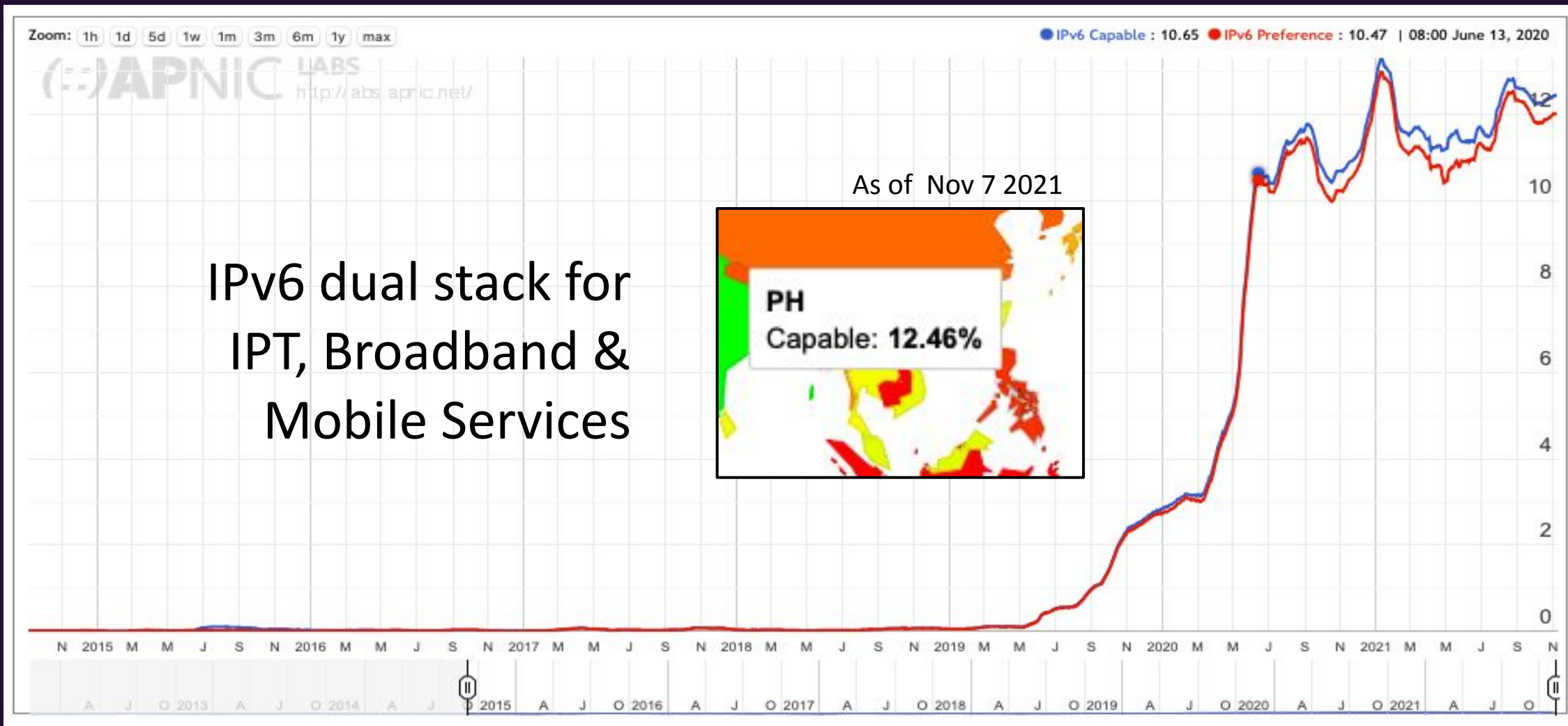
Last 10 years: **2021 with 2nd highest growth**



2021
Philippines:
624

Ph IPv6

Adoption “also” influenced the Network transformation



Ph ISPs

IP allocation (IPv4)

Majority of IPv4 space still managed by Globe and PLDT, but growth and demand drives good competition (or vice versa)

ASN	NAME	NUM IPS
AS9299	Philippine Long Distance Telephone Company	3,002,112
AS4775	Globe Telecoms	609,792
AS6648	Bayan Telecommunications, Inc.	365,568
AS132199	Globe Telecom Inc.	310,272
AS17639	Converge ICT Solutions Inc.	264,448
AS9658	Eastern Telecoms Phils., Inc.	250,624
AS10139	Smart Broadband, Inc.	176,384
AS7629	EPLDT	173,824
AS23944	SKYBroadband SKYCable Corporation	131,072
AS3550	Ateneo de Manila University	63,488
AS17970	SKYBroadband SKYCable Corporation	49,152
AS55821	RADIUS TELECOMS, INC.	47,104
AS23930	IP-Converge Data Center, Inc.	38,400
AS18190	SunValley New Oriental	28,672
AS45754	Clear Path Networks Inc	17,408
AS9927	A Multihomed ISP Company	17,408
AS56207	Converge ICT	16,384
AS4759	TEXTRON CORPORATION	16,384
AS17895	Globalreach eBusiness Networks, Inc.	16,128
AS56099	Asian Vision Cable	15,360
AS135607	Infinivan Incorporated	14,080
AS17894	AyalaPort Makati, Inc. / Data Center Operator	13,312
AS38325	WTP	13,056
AS18233	Philippine Telegraph and Telephone Corporation,	10,240
AS9821	Department of Science and Technology	10,240
AS18187	Source Telecoms Inc.	10,240
AS38553	Internet Service Provider and Data Center	9,984
AS45499	Cablelink & Holdings Corp. Transit AS Internet Service Provider Philippines	9,216
AS59243	ASI-PH	8,960

New Players / Rebrand / Expansion

DITO AS139831
(3rd Player)

eMeralco company
(Power Distribution)

Cable TV Providers
Offering Internet Services

Fiber Plans

Formerly Wifi City

Supply & Demand ...

Alibaba announces new data center in the Philippines

Also launches previously announced facility in Indonesia

June 08, 2021 By: Dan Swinhoe [Comment](#)

<https://www.datacenterdynamics.com/en/news/alibaba-announces-new-data-center-in-the-philippines/a> DC

GCash Monthly Gross Transaction Value Reaches to Around P300B as Filipinos Shift to Digital

[Partners](#), [917Ventures](#), [GCash](#) | AUG 18, 2021

<https://www.globe.com.ph/about-us/newsroom/partners/gcash-monthly-gross-transaction-reaches-p300b.html#gref>

<https://pandaily.com/tencent-ramps-up-investment-in-philippine-fintech-startup-voyager-innovation/>

Covid fuels e-commerce in PH

By Jordeene B. Lagare [April 27, 2021](#)

<https://www.manilatimes.net/2021/04/27/business/business-top/covid-fuels-e-commerce-in-ph/867797>

Tencent Ramps up Investment in Philippine Fintech Startup Voyager Innovation

STARTUPS Yupu Li [April 9, 2020](#)

hyperscalers
content localization
e-commerce
more bandwidth (WFH)

Fastly

Vitro Makati Data Center 2 - VM2	Philippines
54113	Makati City

<https://www.peeringdb.com/net/5520>

Zenlayer

Globe Data Center (CB1)	Philippines
21859	Cebu
Globe Data Center (MK2)	Philippines
21859	Makati

<https://www.peeringdb.com/net/1234>

Converge ICT rolls out free speed upgrade for Plan 1500

[Newsbytes.PH](#) [December 29, 2020](#) [12:33 pm](#)

<https://newsbytes.ph/2020/12/29/converge-ict-rolls-out-free-speed-upgrade-for-plan-1500/>

Red Fiber by Radius new broadband plans, up to 400 Mbps

by Louie Diangson · July 17, 2021

<https://www.yugatech.com/internet-telecoms/red-fiber-radius-philippines-internet-plans-review-coverage/#sthash.0j2hDHtc.dpbs>

IXP & DC Landscape

IXPs (9), DCs (9+1)

IXPs

Manila(9)

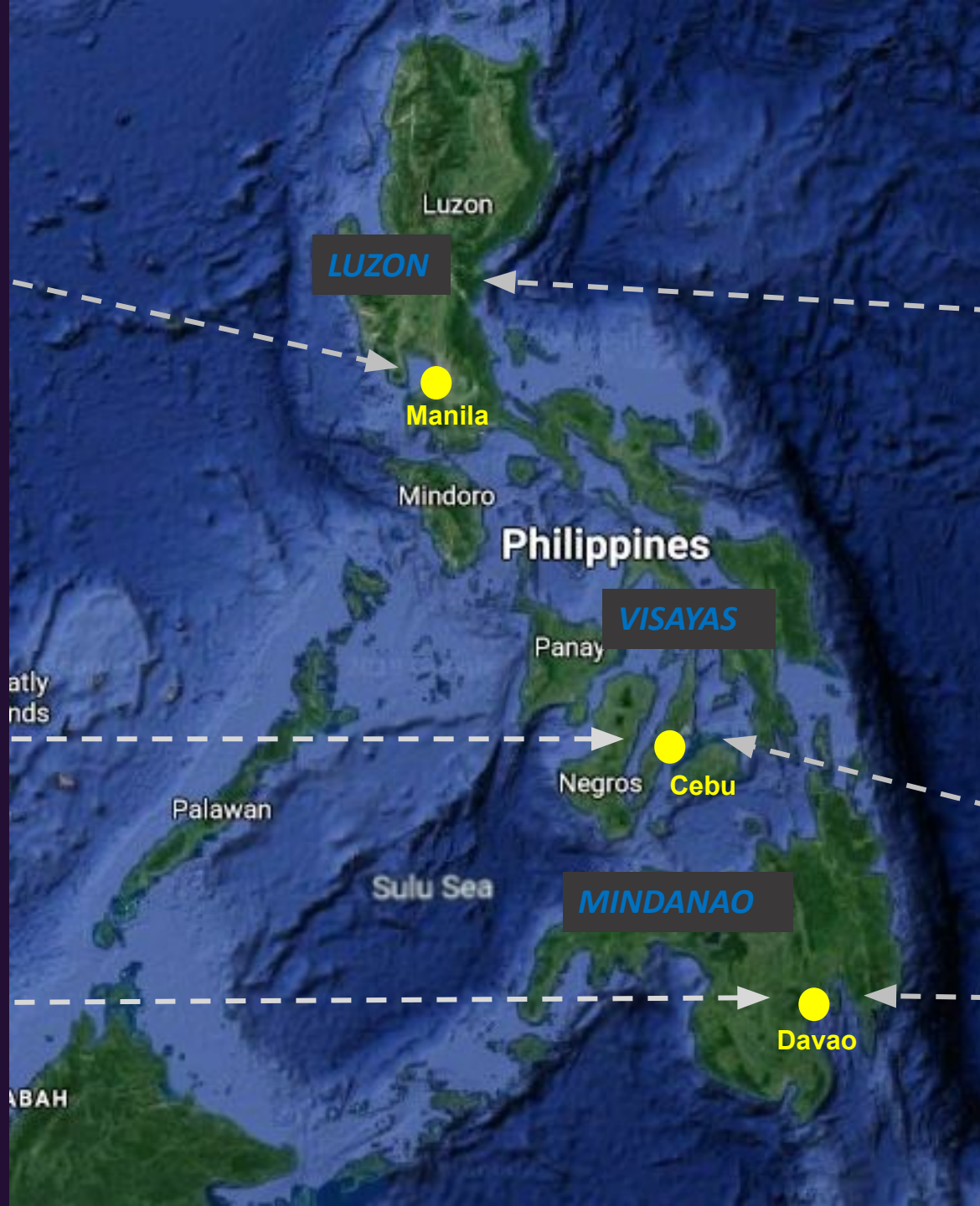
ComclarkIX
MIX
GETAFIX
GIX/NIGX
PCTA-IX
PHIX
PhOpenIX
VIX

Cebu(4)

GETAFIX
GIX
PhOpenIX
VIX

*Davao(2)

GIX
PhOpenIX
*publicly soon



Data Centers

Luzon(10)

Bee Info Tech
Comclark
DataOne
Eastern Communications
IP Converge
MSI-ECS
Globe Telecom
PHCOLO
PLDT
TIM

Visayas - Cebu(2)

Globe Telecom
PLDT

Mindanao - Davao(2)

Globe Telecom
PLDT

Local IX & Peering Perspectives:

No new IX, but . . .

+Members

GETAFIX

+23 new 2020 onwards

<https://ixp.getafix.ph/customer/details>

GIX

+5 new in 2021

+Upgrades

Port upgrades

1G to 10G

nx10G

10G to 100G

Bilateral sessions

+Locations

GETAFIX (Cebu)

GIX (Cebu & Davao)

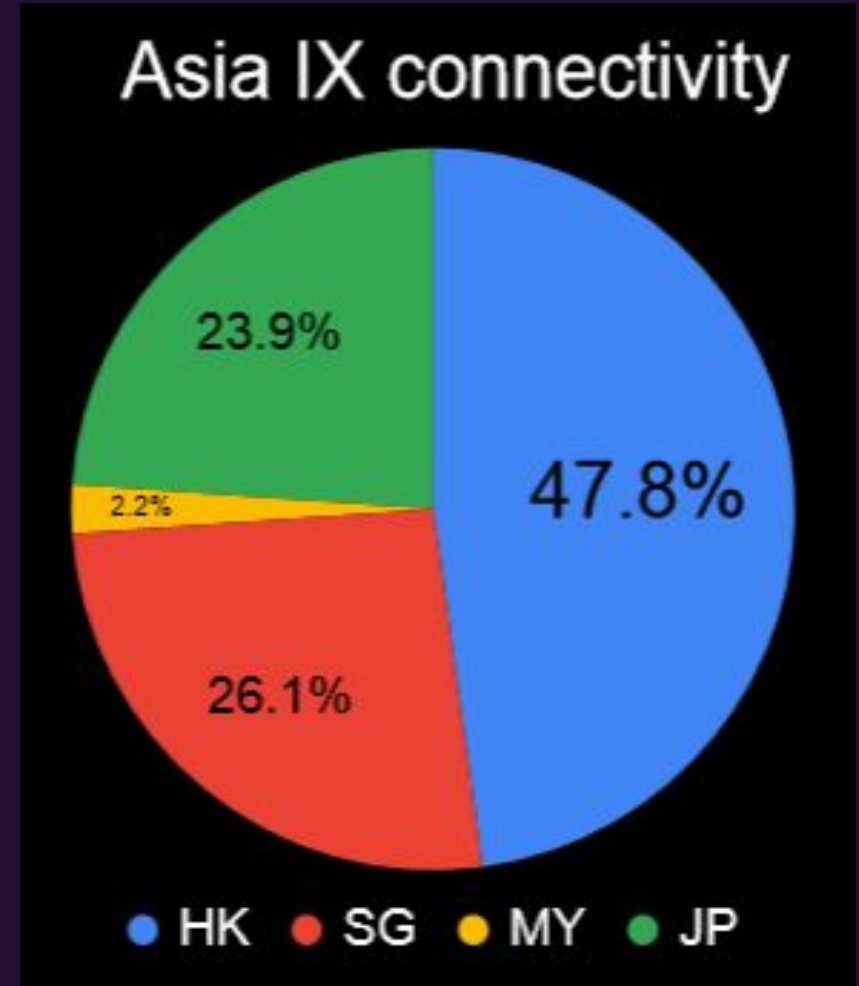
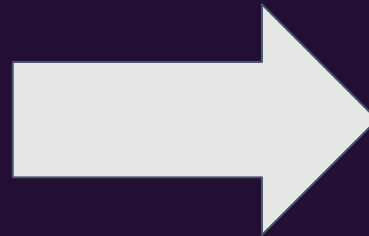
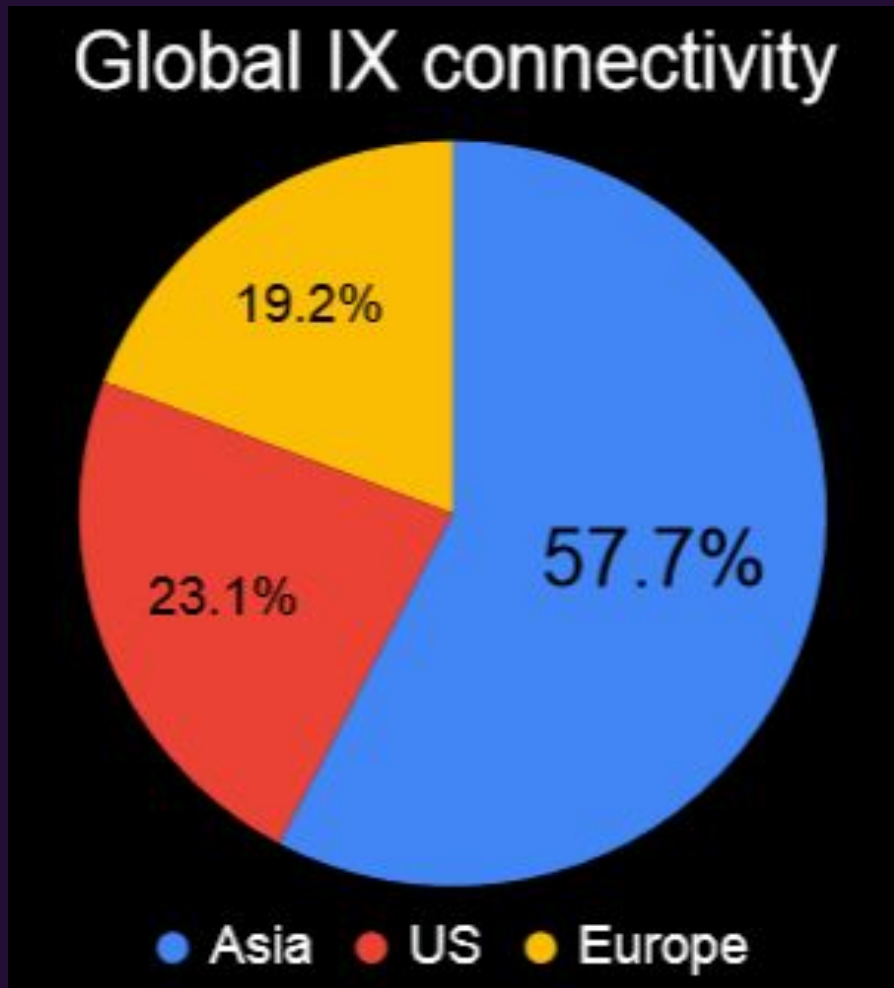
PhOpenIX (Cebu & Davao)

VIX (Cebu)

Peers with multiple
sessions

Global IX Connectivity

Traffic remains Asia centric - PNI port size increases (100G)



Key insights

“ Diskarte ”

We'll find a way :)

WALANG KATAPUSAN . . .

- No Finish Line -

Konsyensya

Conscience

MARAMING SALAMAT!

(Thank you)

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AS4775