# Guam: Cables, Datacenters and IXPs





## **Current State of Guam**



#### Key Issues:

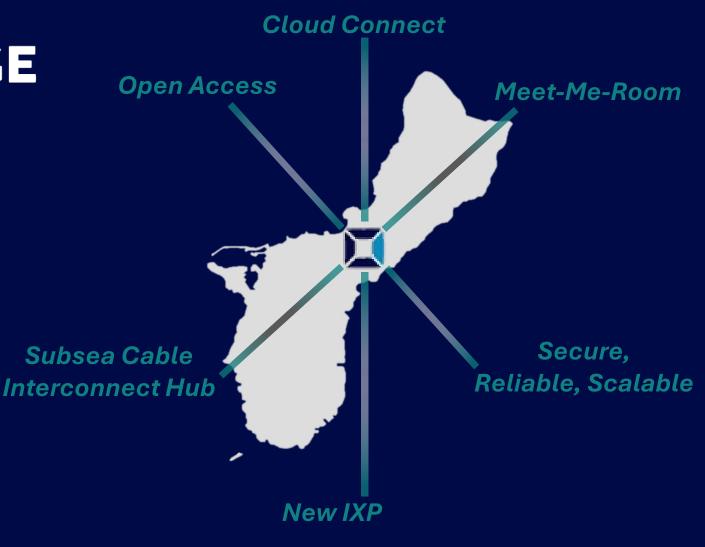
- X No common interconnect point for all subsea cables
- X Current datacenter options are retrofitted CLS facilities not meant for traditional colocation
- X No Central peering point for IX traffic





#### Interconnect Ecosystem:

- Central hub to access all <u>Subsea</u>
  <u>Cables</u> traversing Guam via
  x-connect at the MRR in Harmon
- New Internet Exchange Point to tap into the 100 Tbs' of new subsea capacity traversing Guam
- <u>Cloud Connect Gateway</u> to prominent Cloud Service Providers





## Harmon Campus & New Subsea Cables



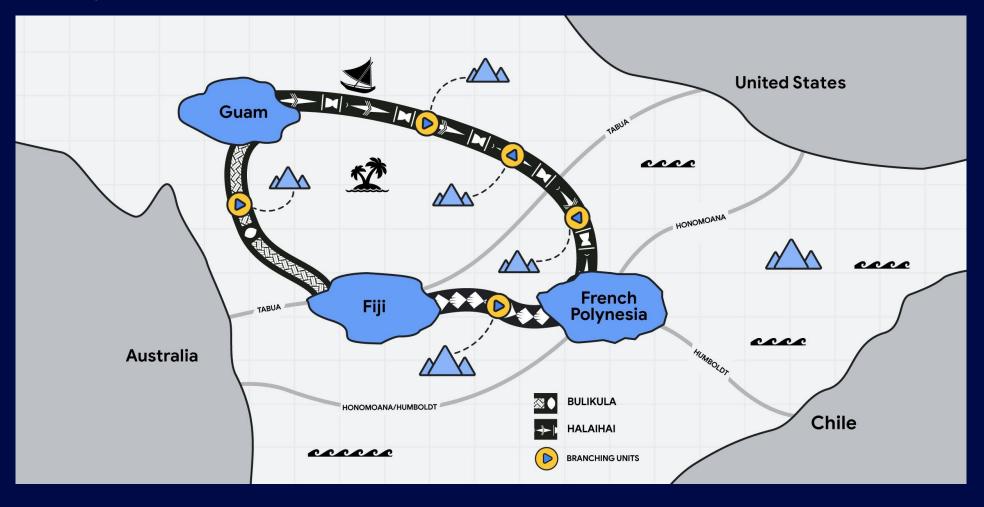
#### Harmon Campus

- + Key industrial center of Guam
- + Fiber dense, open access
- + Fully interconnected with every CLS via protected buried fiber
- + 33m above sea level
- + Ample utility power feeds for growth



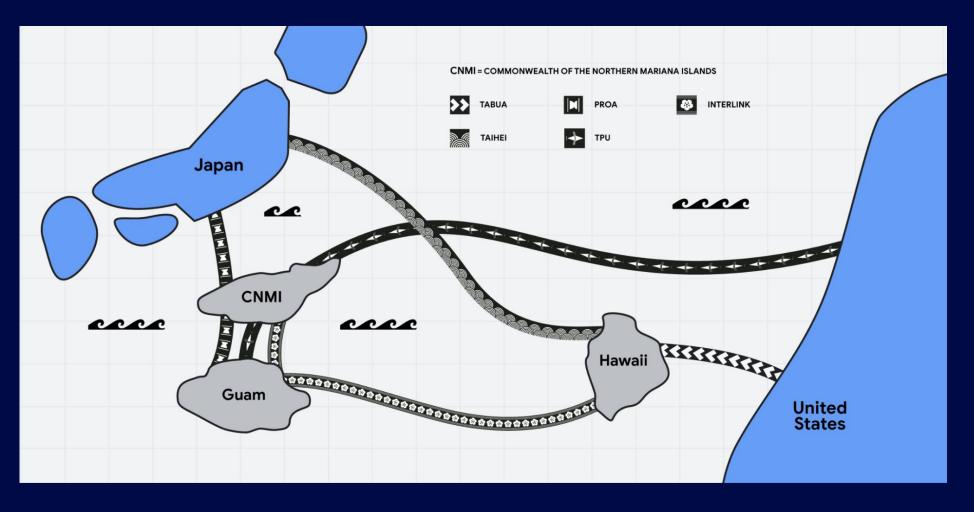
#### Google Pacific Connect Cables

January 2024

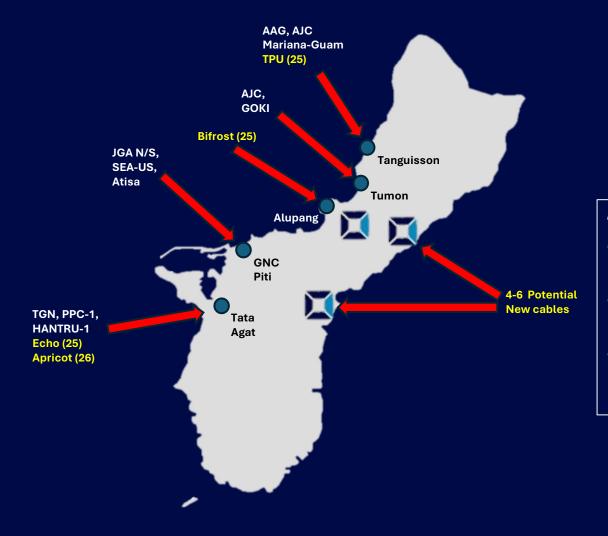


## Google Pacific Connect Cables

April 2024



## Possible East Coast Cable Landing

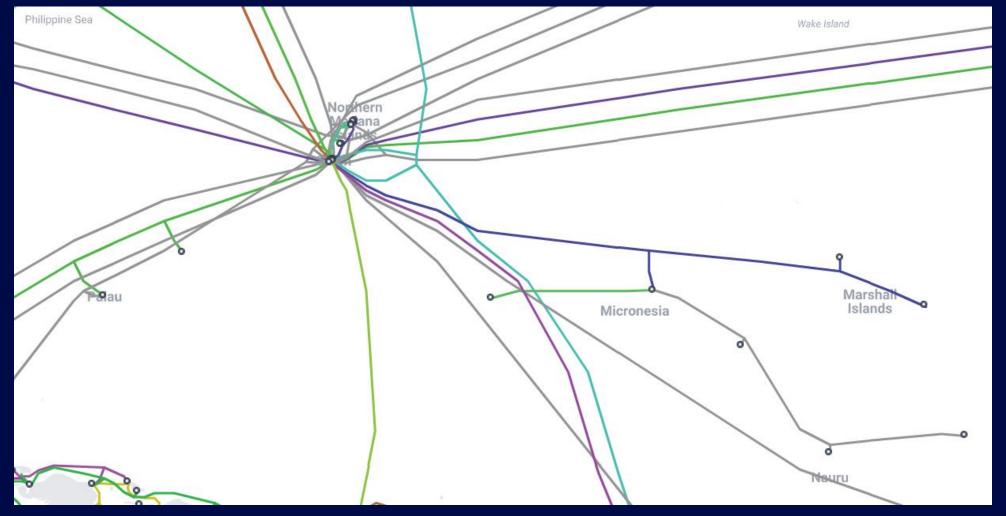


#### **Proposed East Coast Landing Stations**

- Investigating new landing points, bolstering possibilities for diversity in Guam
- New fiber builds would interconnect back to Harmon in a ring configuration
- Marine surveys and permitting in progress



#### Submarine Cable Map of Micronesia



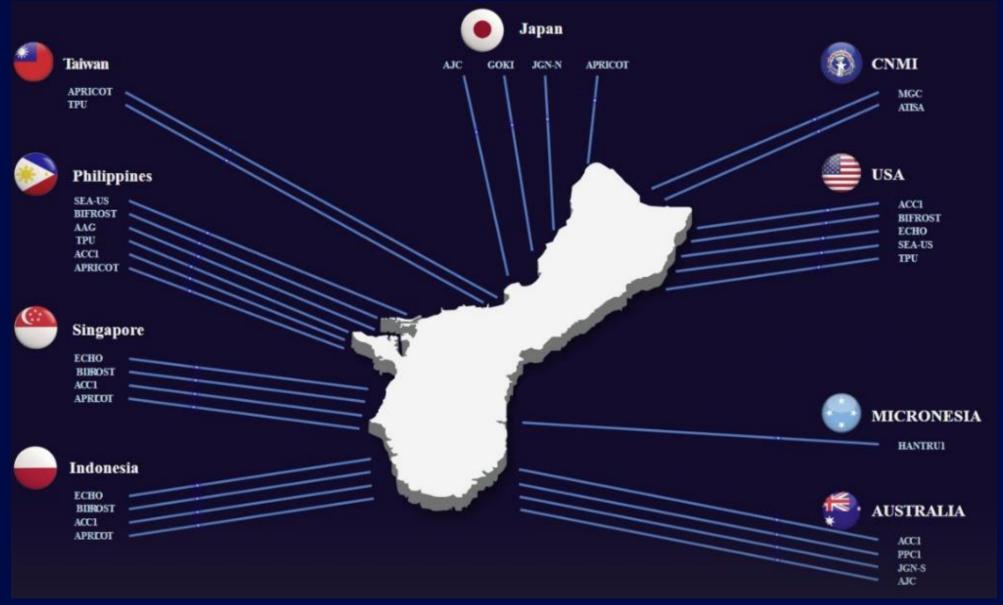


## Submarine Cable Map of the Marianas





#### Guam, Nationally Connected





#### Facilities on Guam



Name A <sup>°</sup> z ~ Management	CLLI NPA-NXX	City Country	State Postal Code	Networks
<u>Guam Exchange</u> Guam Exchange	-	Harmon GU	GU 96913	1
<u>IT&amp;E Guam</u> IT&E	-	Tamuning GU	GU 96913	1
MCV Guam Datacenter Guam Cablevision, LLC.	-	Dededo GU	GU 96929	2
RTI Guam GNC RTI Connectivity Pte. Ltd	-	Piti GU	Guam 96915	8
TATA Communications - Piti Cable Landing St TATA Communications Ltd	-	Piti GU	GU 96925	7
<u>UoG - Office of Information Technology</u> University of Guam	-	Magilao GU	- 96923	4



## IXPs on Guam



Name ₄ź ∽	Media Type	Country	City	Networks
GOREX Guam Open Research & Education Exchange	Ethernet	GU	Tumon	1
<u>GU-IX</u> Guam Internet Exchange	Ethernet	GU	Guam	1
Guam IX	Ethernet	GU	Harmon	1
MARIIX Mariana Islands Internet Exchange	Ethernet	GU	Mangilao	9



# GUAN IX

#### IXP Service Partners



- AS 42 / AS 3856
- Largest authoritative DNS service, Anycasting nearly 400 TLDs and multiple root letters



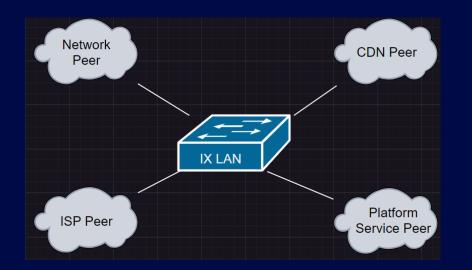
#### AS 19281

Anycast the 9.9.9.9 DNS



AS 197000 / AS 25152 AuthDNS and K-Root Server

#### AS152735



#### **Current Root Servers on Guam**



