

# PTC Beyond

The Academy Master Class



## Ensuring the success of the CABLES Program Train the trainer

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Eric Handa



# Purpose and Goals of this Training

- Prepare Posts to maximize the impact of the CABLES program
- Prepare Posts to obtain maximum benefit from CABLES Training to bolster undersea cable security portfolios
- Why the CABLES program is important for U.S. foreign policy
- What undersea cables are, why they are critical infrastructure, and how they can be corrupted by malign actors
- Understanding Trusted vs. Untrusted suppliers/networks
- Understanding PRC intentions and actions regarding undersea cables
- Importance of educating stakeholders on the risks of untrusted cables





# Post's Critical Role

## Pre – Event

- Identifying and engaging stakeholders and government and industry participants
- Logistics, venue, etc.
- Identify potential host country requirements or restrictions on U.S. sponsored communications infrastructure security-focused events

## During The Event

- Present welcome or opening statement of support for the program
- Active engagement as a CABLES program participant to bolster undersea cable expertise
- Set and join 1:1/side meetings with industry and government participants to ensure continuity and follow-up

## Post – Event

- Managing project leads and contacts
- Portfolio management
- Coordinate and follow up with participants to encourage/advocate for trusted undersea cable solutions
- Identify and regularly share with EAP/CDP updates on anticipated new cables, potential cable upgrades or opportunities to discourage the landing of untrusted cables



# Promoting Connectivity and Security in Commercial Undersea Cables Systems (CABLES)

- CABLES is an important U.S. diplomatic initiative that is receiving POTUS-level visibility due to its importance to the U.S. foreign policy initiatives in the region
- This slide deck provides an overview of CABLES
- These slides prepare Posts to better cover the undersea cable security portfolio following the CABLES program launch
- This slide deck is intended to help Posts understand the CABLES program and its importance to the security of the U.S. and its allies and partners
- Undersea cables, a strategic resource under threat
- Posts must understand the threats of untrusted vendors and advance projects using trusted vendors





# Reliance on the Internet

- Undersea cables carry 99% of Internet traffic
- Unprecedented boom driven by insatiable bandwidth demand
- Societies, Governments depend on broadband connectivity
- Cables underpin trillions of dollars in economic transactions daily





# What's at Stake?

## National Security Risks of Utilizing Untrusted Solutions, Vendors and Equipment in Networks

1

- Untrusted networks can intercept, degrade, divert or deny critical communications

2

- Untrusted vendors, backed by malign actors can exert influence over sovereign nations by providing funding for cables on terms that result in crushing debt for those nations and loss of control over their own cable assets

3

- In the worst-case scenario, malign actors can cut cables, thus potentially isolating a country from the Internet and causing severe economic losses



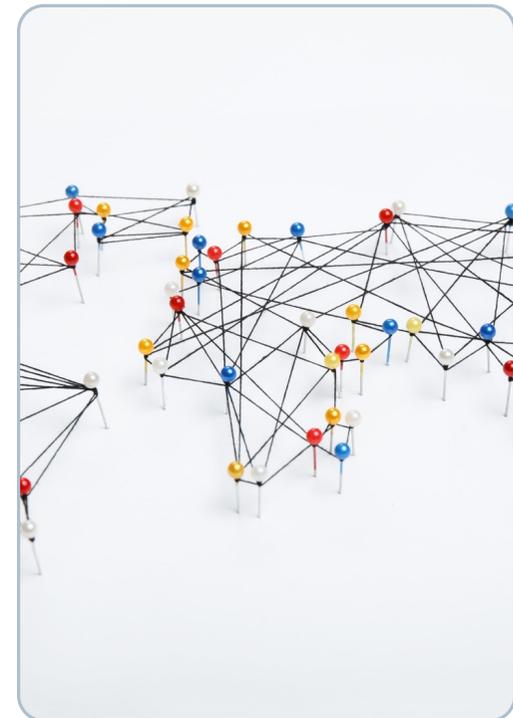
# CABLES: Countering the Threats



- **CABLES Program Objectives:**

- To promote the security and development of commercial undersea cable systems in the Indo- Pacific region
- To highlight the importance of selecting trusted vendors to build, supply, maintain and repair critical communications cable infrastructure
- To raise awareness of the security risks and quality/reliability issues with using untrusted vendors to build and maintain undersea cables
- To provide stakeholders with evaluation criteria to better enable trusted vendor selection
- To discourage selection of untrusted vendors
- To promote potential U.S. project finance, insurance and project assistance that can enable the development of trusted cable alternatives

- Allowing untrusted vendors to install undersea cables leaves the United States and our allies and partners vulnerable to malign activity and surveillance



# Promote – Impede – Expand



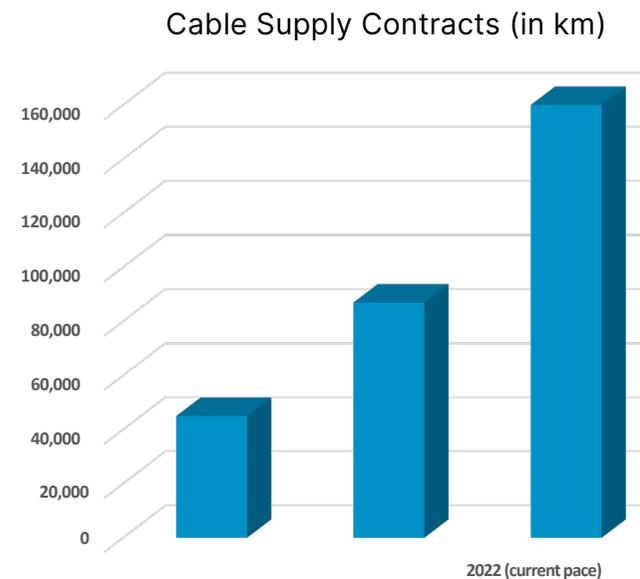
- **CABLES Program Effectiveness Goals:**
  - Increase the use of trusted vendors for installation and maintenance
  - Reduce routing risks
  - Impede the ability of untrusted high-risk vendors to win contracts
  - Expand connectivity through new undersea cable systems





# Unprecedented Undersea Cable Demand

- **Mid-1980:**
  - 3 to 4-year boom and bust cycles
- **2009-2013:**
  - modest growth, averaging 45,000km/yr
- **Today:**
  - 9-year growth cycle, averaging 87,000km/yr
- And there is no end in sight



# Advantages/Benefits of the CABLES Program to Posts and Stakeholders



## Increase the use of trusted vendors for installation CABLES Program Planned [Performance] Outcomes:

- Improve understanding of policymakers and private sector stakeholders on risks, vulnerabilities and threats from the selection of untrusted vendors
- Provide technical assistance on trusted vendor selection and procurements
- Encourage external reviews of the security risks of untrusted vendors
- Perform threat briefings and technical assistance on the security and protection of undersea cables
- Identify potential trusted cable projects for U.S. support
- Assist Post in making the economic and business case for selecting trusted vendors in addition to the security case
- Access to country research and reports on known and potential cables in development to assist Posts reporting





# CABLES and Development/Connectivity – Building an Enabling Policy Environment

- CABLES Program Planned [Performance] Outcomes:



## Number 1

Provide technical assistance on market dynamics, maintenance and operations, legal issues, and innovations and new technologies



## Number 2

Capacity building to improve business environment for undersea cables



## Number 3

Addressing technical, legal, and regulatory obstacles that undersea cable firms face (E.g. cable licenses and repairs)



# Commercial Model: Trusted vs Non-Trusted Submarine Cables

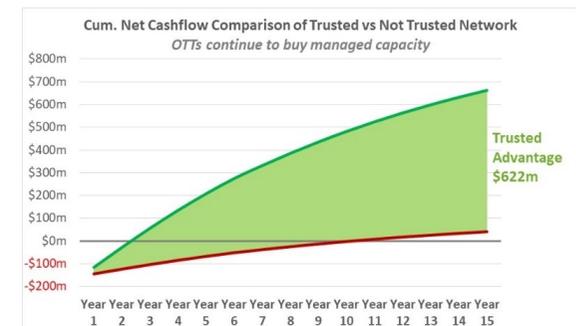
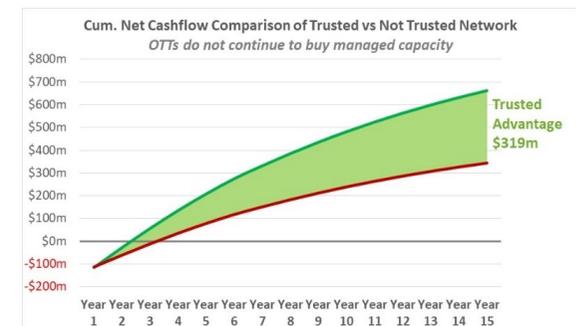
Dimension	Trusted Submarine Cable	Non-Trusted Submarine Cable
<b>Addressable Market</b>	~76% of total subsea demand (OTTs + Trusted Telcos + other carriers)	~24% of total demand (excludes OTTs & Trusted Telcos)
<b>OTT Participation</b>	Fully accessible to OTTs (Google, Amazon, Microsoft, etc.)	Largely excluded due to security, governance & compliance concerns
<b>Demand Concentration</b>	High, diversified, long-term anchor customers	Fragmented, smaller buyers, price-sensitive demand
<b>Revenue Ramp-Up</b>	<b>Faster early-year sales</b> , critical in a declining price environment	Slower sales ramp due to limited buyer pool
<b>Pricing Power</b>	Stronger – supports long-term IRUs, upfront payments	Weaker – relies on discounted capacity and shorter-term deals
<b>Cost Recovery</b>	<b>Rapid payback</b> , lower financing and interest burden	Prolonged payback period, higher financing cost
<b>Subsidy Dependence</b>	Limited or none required	Often relies on <b>state subsidies</b> to offset weak demand
<b>Subsidy vs Revenue Impact</b>	Incremental revenues <b>far exceed any subsidy advantage</b>	Subsidies insufficient to compensate for lost market access
<b>Long-Term Sustainability</b>	High – aligns with global security, ESG, and compliance frameworks	Low – increasing risk of exclusion as trust standards tighten
<b>Strategic Risk</b>	Lower geopolitical, regulatory, and customer-concentration risk	Elevated geopolitical, reputational, and stranded-asset risk



# Commercial Model: Illustration

## Financial Comparison (Example: 3,000km Cable)

Feature	Trusted Cable	Non-Trusted Cable
Initial Build Cost	\$255.0M	\$255.0M
Subsidy (30%)	\$0	(\$76.5M)
Year 1 Sales	\$138.8M	\$64.9M
15-Year Net Advantage	+\$557.0M	Base



Cable Build Cost Assumptions		Trusted	Non-Trusted
Cable Length	3,000km	Cost / Km = \$85.0k	Cost for 3,000km Trusted @ \$85.0k / km = \$255.0M
Non-Trusted Cost Subsidy	30%	Non-Trusted @ \$85.0k / km less 30% subsidy = \$59.5k	Non-Trusted Cost Subsidy of 30% = \$76.5M
Cable Capacity Assumptions			
Total Fiber Pairs in Cable	16		
Fiber Pair Sales in Year 1	4		
Remaining Fiber Pairs	12	Capacity per Fiber Pair = 16.0%	Total Capacity Available for Wavelength Sales = 103.2%
Subsea Cable Market Share			
OTT	60%		
Trusted Telco	16%	Trusted Telco Share of Non OTT = 40%	
Others	24%		
Total Non OTT	40%		
Price Assumptions			
Fiber Pair Price - Markup on Build Cost	40%	OTM Rate per	RUU to Lease Factor
Trusted Fiber Pair Prices			
Fiber Pair Capital Cost + 10%	\$17.53m		
Annual Price Erosion	20%		
RUU 100Gb Wave Capital + 33x lease	\$1.98m	\$1.98m	\$1.27m
Lease 100Gb Wave per month	\$0.06m	\$0.04m	\$0.03m
Non-Trusted Fiber Pair Prices			
Fiber Pair Capital Cost + 10%	\$12.27m		
Annual Price Erosion	20%		
RUU 100Gb Wave Capital + 33x lease	\$1.98m	\$1.58m	\$1.27m
Lease 100Gb Wave per month	\$0.06m	\$0.04m	\$0.03m
Sales Channel			
Markets Share	Total	Year 1	Year 2
OTTs	60%	Trusted Only	2.40
Trusted Telcos	16%	Trusted Only	0.64

APTelecom has built a financial model that is customizable to meet Individual country/business requirements



# Case Study: Adamasia Cable System 1 (Solomon Islands)



## Trusted Partners & Government Support

- Lead OTT: Google (Bulikula System)
- Co-investors: Telstra, ATH, APTelecom
- Government Financing: Australia (AUD 104M - AUD 71.9M grant + AUD 31.9M loan)
- Project: 1,015-km Adamasia Cable connecting Solomon Islands to Bulikula



Australia's funding of the Solomon Islands—Bulikula interconnection exemplifies how strategic public finance can underwrite trusted digital infrastructure

## Strategic Value of Trusted Infrastructure

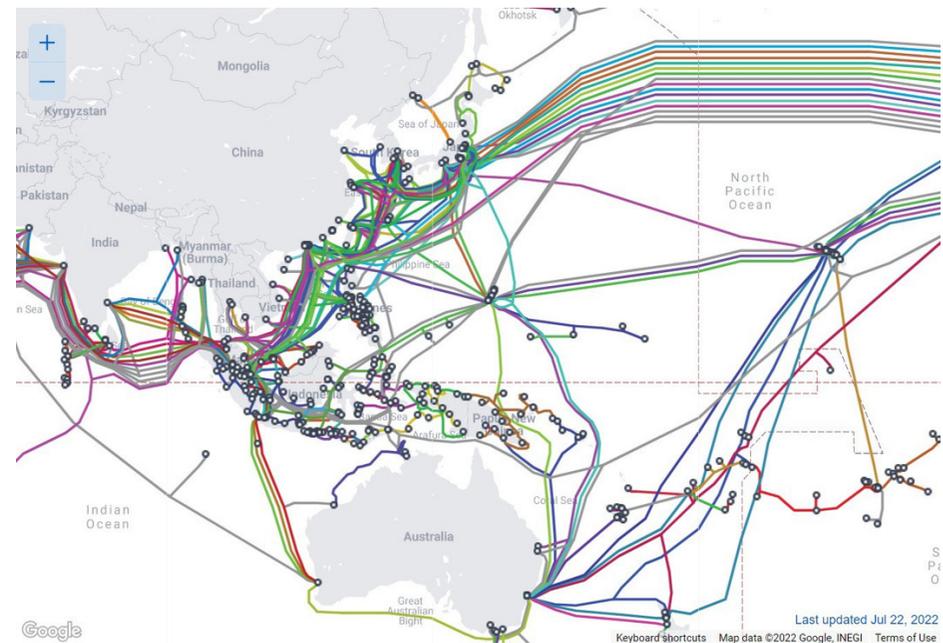
- Enhanced disaster resilience & redundancy for island nation
- Replaces single-cable dependency (Coral Sea Cable)
- OTT-backed infrastructure attracts sovereign investment
- Demonstrates trusted ecosystem driving government support

**Demonstrates how trusted infrastructure drives sovereign investment, disaster resilience, and redundancy**

# CABLES Program Launch – Outcomes and Successes



- The CABLES program has already seen success:
  - May – June 2022 Workshops
  - Hosted in 6 Southeast Asian countries
  - Attended by 242 individuals
  - 2 post workshop surveys indicate positive responses to the material presented
  - 11 specific Deals, Impede/Intelligence opportunities, and Internal Capacity Building opportunities identified during workshops





# Cooperation = Success

- Visits conducted in May and June 2022 demonstrated that the local post's cooperation is vital to the success of CABLES.
- This cooperation is both on the front end in identifying participants, promoting stakeholder participation, engaging/learning during CABLES workshop training sessions, joining 1:1/side meetings with interlocutors from government and industry, and following up with stakeholders to maintain a robust undersea cable security portfolio
- Opportunities for U.S. Government support emerged during these visits and follow-up needs to be coordinated and aggressively pursued.
- Local support and advocacy are key to achieving success. E.g. Malaysia – Joint Cyber Security Working Group – Post efforts resulted in inter-agency exposure E.g. Vietnam – Post introduced ministry of Information and Communication; resulted in meetings with regulators, a key goal of CABLES.

# Super Sistem – Success Story



- **Super Sistem in Indonesia affirmed its commitment to building a trusted network and APTelecom brought USTDA to the conversation during CABLES sessions in Jakarta**
- Super Sistem has secured \$300 million in equity/debt to get cable built
- Only non-PRC built intra-Indonesia system
- Other vendors with systems beyond the PRC are the French and Japanese
- This would be first U.S.-backed system going in right now, the timing is perfect for vendor diversity
- Super Sistem will be doing the permitting and provide an Indonesia-flagged vessel for the lay

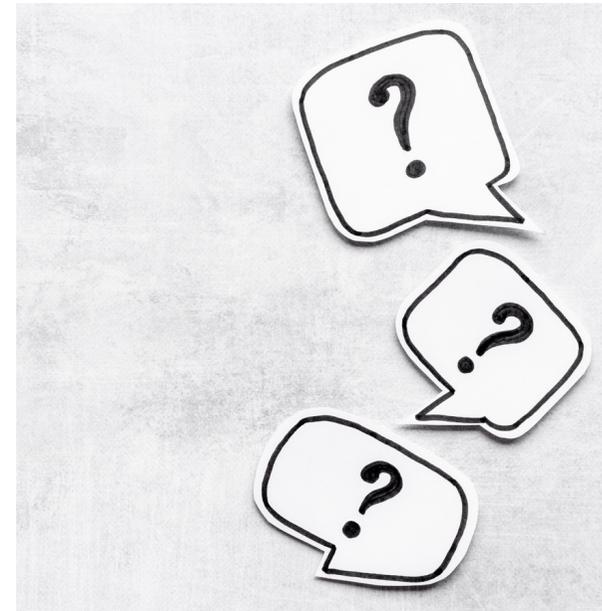


# Questions



- APTelecom is available if you have any questions post visit, so please reach out.
- The following is a link to the CABLES library that provides resources to support your efforts:

<https://drive.google.com/drive/folders/18fIN-%20xjfLexaPwDo14yV1L1NwVxoGwtM?usp=sharing>



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Thank you

[eric@aptecom.com](mailto:eric@aptecom.com)