

Cable Expansion in Asia





Somchai Treerattananukool

First Senior Vice President International Business Symphony Communication Public Company Limited

Mr. Somchai is now the First Senior Vice President Marketing and IMC Division of Symphony Communication Public Company Limited (SYMC), taking care of international business focusing on **Southeast Asia region such as Myanmar, Laos, Cambodia, Malaysia and Singapor**e etc.

Mr .Somchai has experienced more than 25 years in Telecommunication industry, 13 years in Domestic and 12 years for international business. He has good understanding of the end to end product delivery of international service namely, Data, Internet, and Colocation. Prior to join with SYMC, he was a General Manager, a key person of JasTel Network Co., Ltd and Jasmine Internet Co., Ltd.

In 2014, Mr. Somchai led SYMC to join the **MCT Submarine Cable** investment (Malaysia –Cambodia – Thailand) which be launched service in April, 2017.



SYMPHONY COMMUNICATION



Symphony Communication Public Company Limited was established in November 2005 and been converted to a Public Company Limited since 6 May 2010.

The company's objective is to serve clients demanding in connecting with high speed circuit into the oversea.

Value Proposition

Premium Quality Services

The Neutral Policy

Concentration on
Peopleware lead to Service
Mind

Symphony were the first licensee of the Telecommunication Service License Type II, permitted by The National Telecommunications Commission (ICT Government Department). Our mission is to deliver the best solution above premium level and reliable service to customers as "Super Premium International Telecom Service Provider".

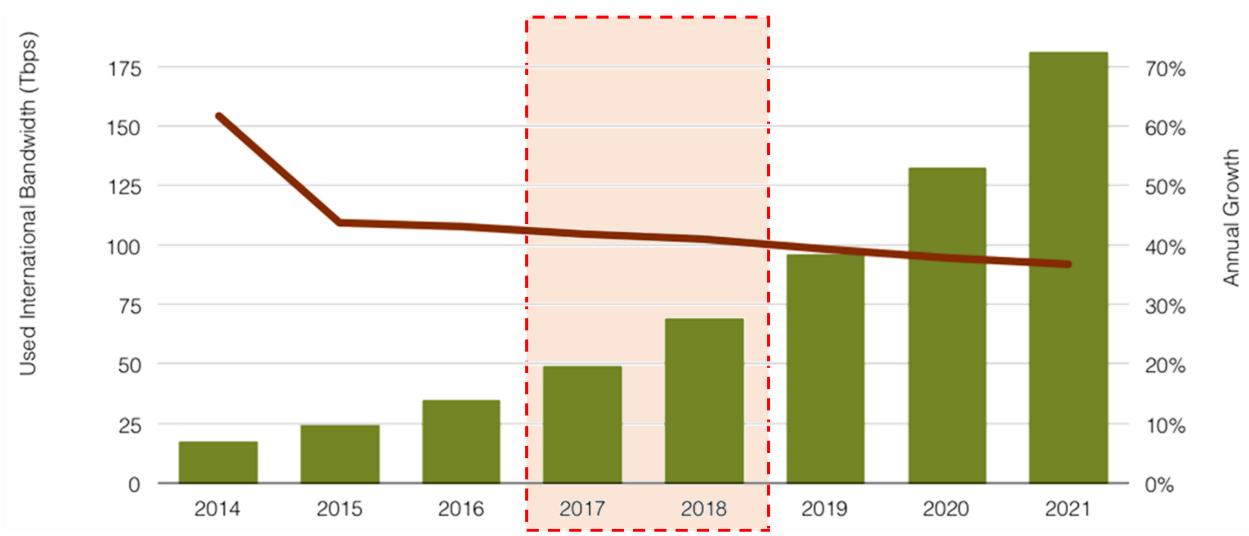


The Licenses to provide Domestic and International Services granted by National Broadcasting and Telecommunications Commission (NBTC)

- The License to provide Domestic Circuit Service
- The License to provide IPLC / IPVPN Service
- The License to provide IP Port / IP Transit Service
- The License to provide Internet Service



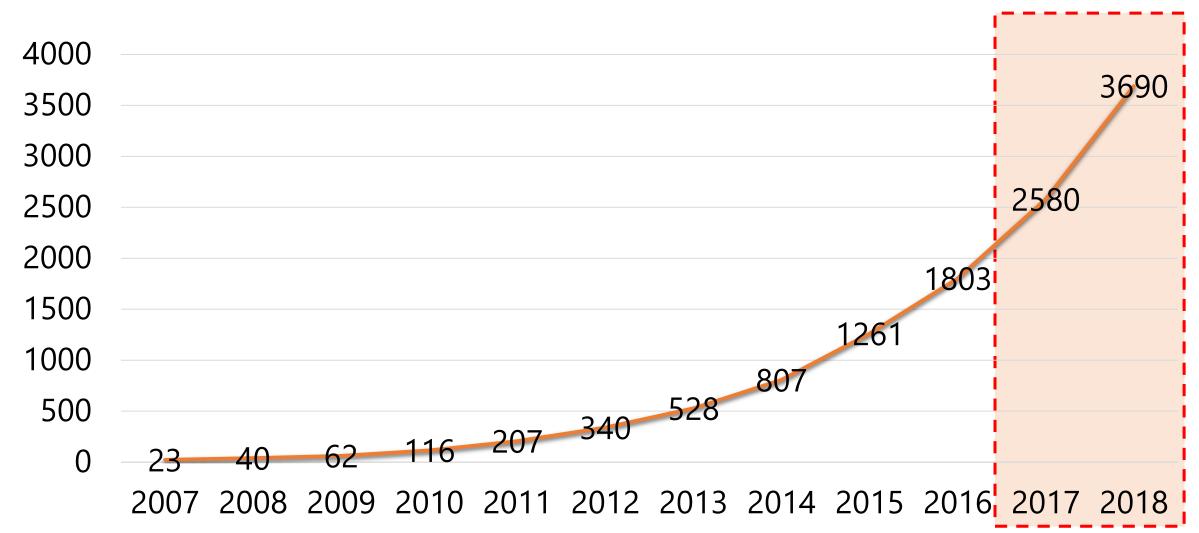
Bandwidth Forecast For the Intra-Asia Route



Source: Telegeography, Global Bandwidth Research Year 2015



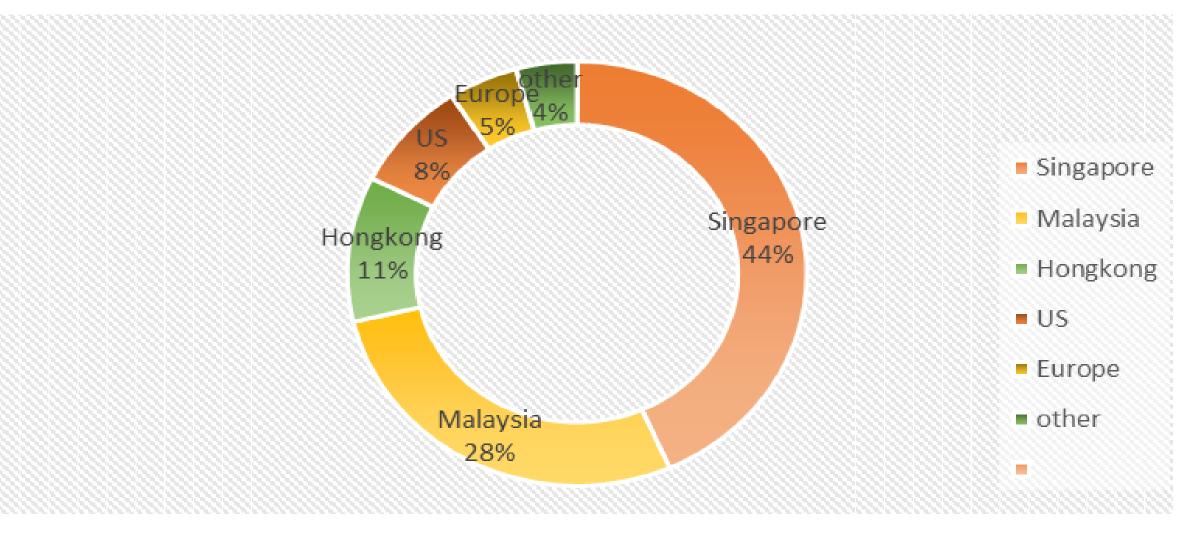
Thailand International Bandwidth Forecast (Gbps)



Source: MICT, NECTEC Thailand 2016



Thailand Internet Bandwidth to Oversea Hub Year 2016

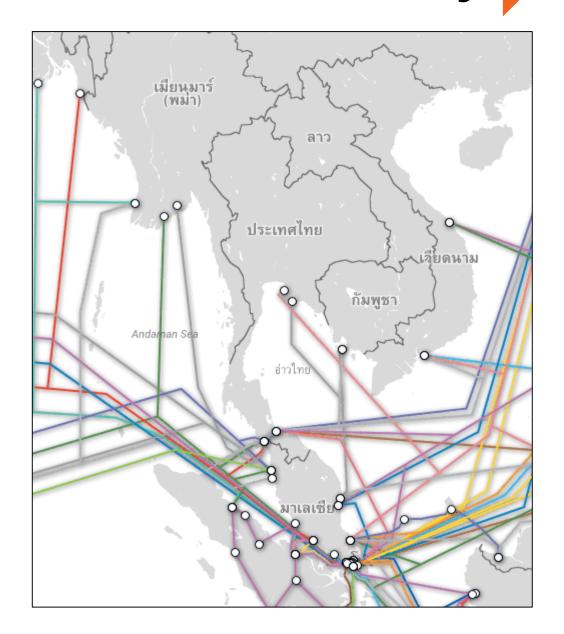


Source: NECTEC, Thailand 2016



Thailand International Gateway

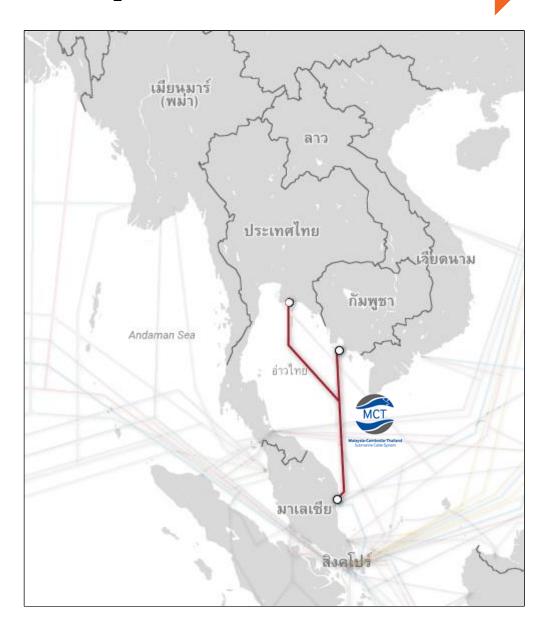
- Thailand has international gateways through landlines and submarine cables with growth rate of Bandwidth at 40 % per year
- Submarine cable systems are mainly used for global network connection both direct connection from Thailand and via landlines to Malaysia and Singapore.
- Thailand Internet traffic to Hong Kong is around 10 % of total bandwidth and keep growing because of diversity requirement
- Thailand network can be a transit gateway for CLMV to connect to global network





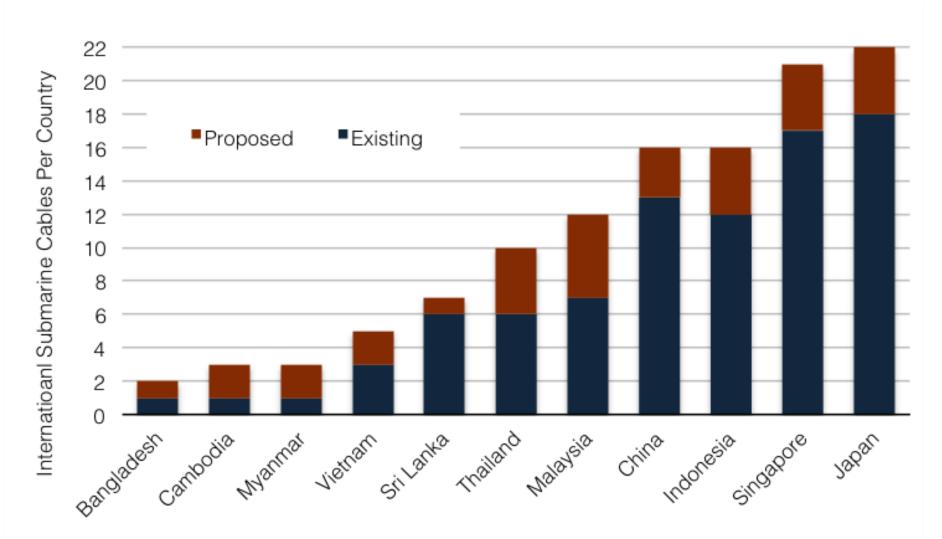
Key Driver for Cable Expansion in Asia

- Thailand international bandwidth is still growing around 40% per year
- Thailand plan to be the hub of digital economy in the region
- The private company now allow to operate sub-sea cable with own cable landing station in Thailand
- The lacks of sub sea cable in Thailand compare to Malaysia and Singapore
- Content providers would like to establish own POP in Thailand to access eyeball by using sub sea cable to be the gateway



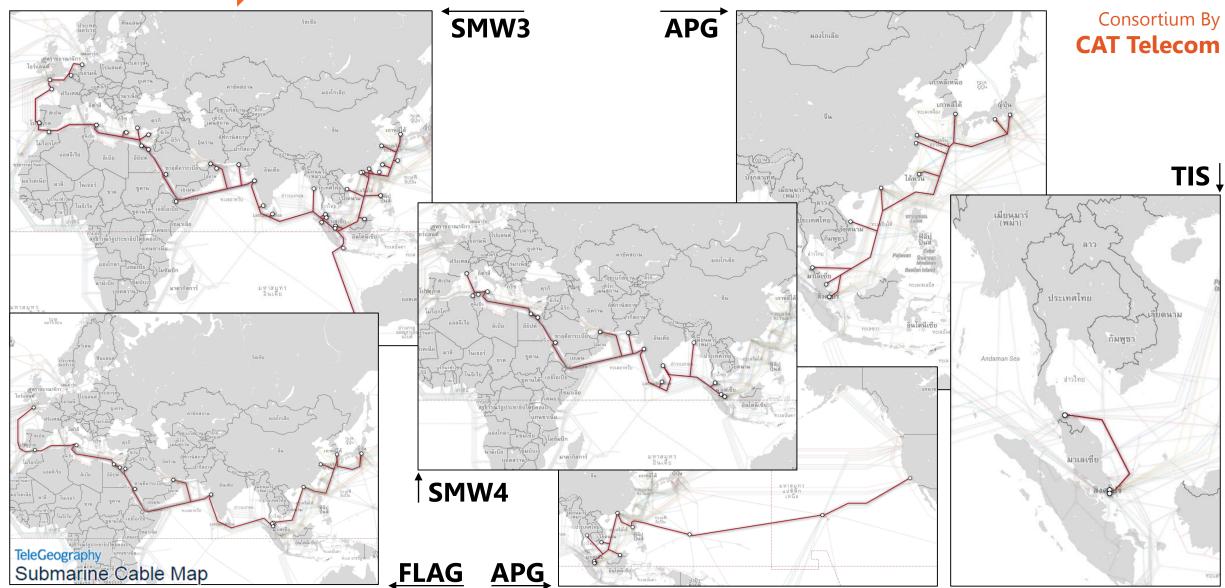


Current and Proposed Cables Per Country



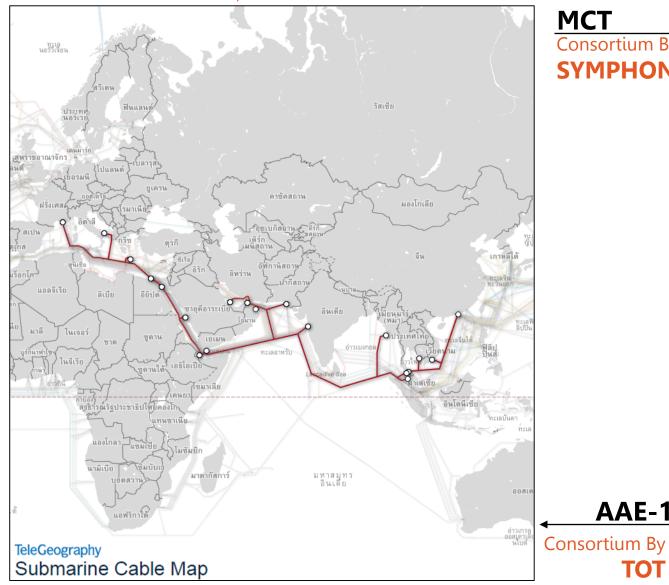


Thailand Submarine Cable





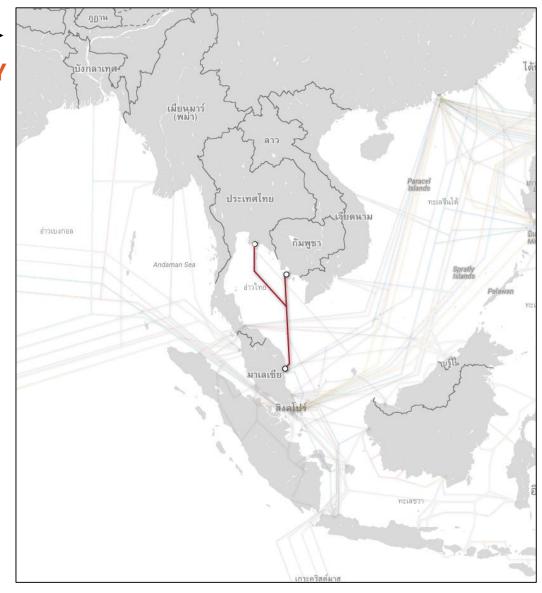
Thailand Submarine Cable



MCT Consortium By **SYMPHONY**

AAE-1

TOT



* Rayong, THAILAND Sihanoukville, CAMBODIA Cherating, MALAYSIA

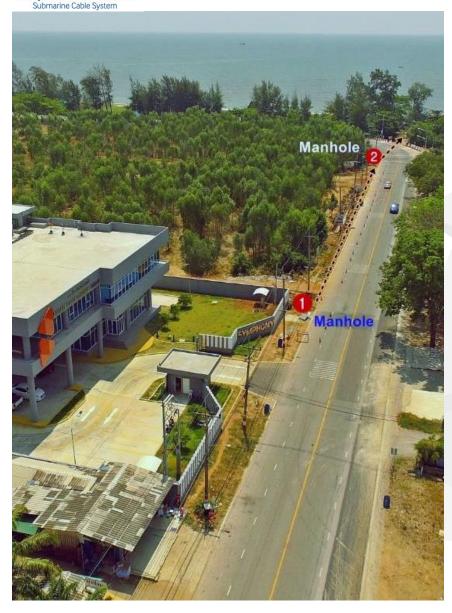
MCT Submarine Cable System

Malaysia-Cambodia-Thailand Submarine Cable System Project (MCT) is Thailand's first submarine cable system operated by a private company, will be ready for service in April 2017.

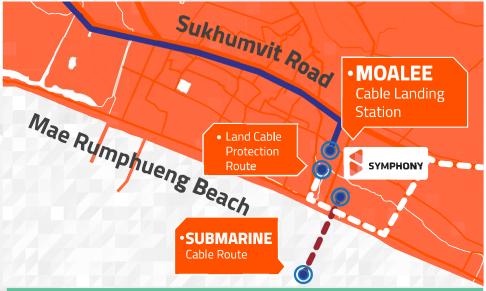
Owners	Symphony Communication
	Public Company Limited
	Telcotech Company Limited
	Telekom Malaysia Berhad
Landing points	Thailand : Rayong
	Malaysia : Cherating
	Cambodia : Sihanoukville
Cable Length	Approximately 1,300 km.
Designed Capacity	Support up to 30 Tbps
Ready for Service	April 2017



THAILAND'S 1ST SUBMARINE CABLE INVESTED BY PRIVATED COMPANY



Large-scale enterprises from 3 countries, Symphony Communication, Telcotech and Telekom Malaysia, entered into an agreement for construct Submarine Cable with 1,300 KM. The investment is over 2 billion baht to promote effective connection and access to information, stimulate economic expansion, merchandising and investment and to bring communication and regional business through technology that designed to transmit up to 100G with the expansion up to 30T.



Branch Unit

Burial Under Sand 1.5 Meter Depth Cable Landing Station

Beach Manhol

Burial Under Sand

2 Meter Depth

Moalee Cable Landing Station

Beach Manhole

Burial Under Sand

2 Meter Depth

Ready for Service: April 2017

: Cable Length: 1,300 KM

■ Owner: Telekom Malaysia,

Telcotech, Symphony

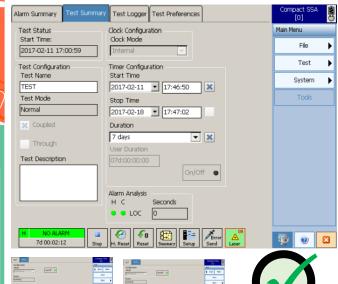
■ Design Capacity: At least 30T

Economic catalyst to ASEAN

Total diversity access with end-to-end cost and price control

Terrestrial links to Myanmar, Laos, Cambodia and Vietnam

Provides transit services, interconnection, IP Port and co-location



INSTALLATION AND TEST

CABLE LANDING CEREMONY

January 30, 2017









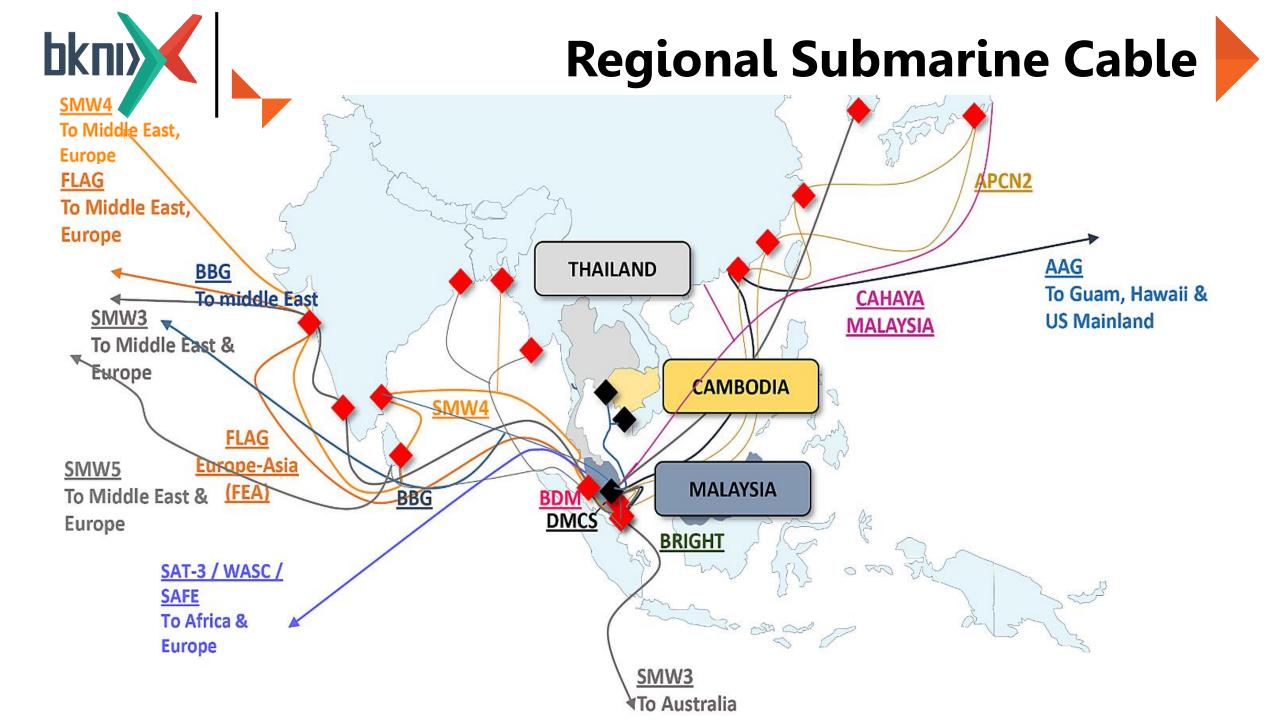


Rayong, THAILAND Sihanoukville, CAMBODIA Great Flooding in the Southern of Thailand Cherating, MALAYSIA

MCT Submarine Cable System

Benefit of MCT Cable:

- Alternative gateway from Bangkok to Malaysia Singapore Hong Kong and rest of the world
- Provides both unprotected and fully protected with terrestrial route
- Open access for Thailand backhaul to Bangkok and other sub sea cable
- Low latency and robust network with 100G technology
- Transit network to Myanmar Laos and Vietnam via terrestrial network





VETWORK CONNECTIVITY

Thailand Backbone

SYMPHONY fiber cable over 18,000KM with 100G protected network

Domestic Coverage

- Bangkok 90% Coverage Provincial 47 Major Cities
- Industrial 45 Industrial Estate Service 17 Service Center

International Cross Border

- Myanmar Myawaddy, Tachileik Cambodia Poi Pet
- Laos Vientiane • Malaysia Padang Besar &

Bukit Kayu Hitam

Submarine Cable Network (MCT Cable)

First private submarine with own cable landing station in Thailand

IP Service

- IP Transit Service (Global IP) AS132876
- Internet eXchange Point (L2 Exchange) AS132880
- Direct Internet Access, Broadband Internet Service AS132280



International Telecom Network Provider