

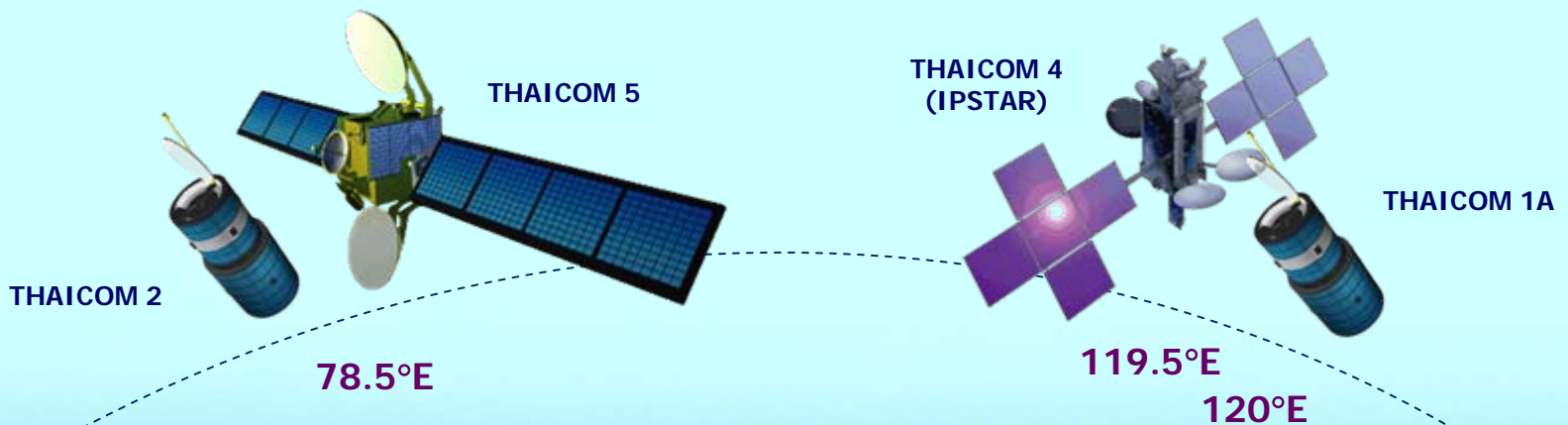
# THAICOM Services



Product Marketing THAICOM and Video Service Dept.

# Agenda

- THAICOM Product Update:
  - THAICOM Facts
  - THAICOM Video Broadcasting Services
  - THAICOM Teleport & DTH Center
  - THAICOM ProTrunk Service



- Satellite Fleet

- THAICOM 1A @ 120°E
- THAICOM 2 @ 78.5°E
- THAICOM 4 (IPSTAR) @ 119.5°E
- THAICOM 5 @ 78.5°E

- Key Features

- 78.5°E is a South Asia's and Indochina's prime orbital slot for broadcasting business carrying more than 200 satellite TV channels
- Choices of Ku-Band, C-Band Regional and C-Band Global

- Service Coverage

- More than 120 countries in Asia, Australia, Africa and Europe

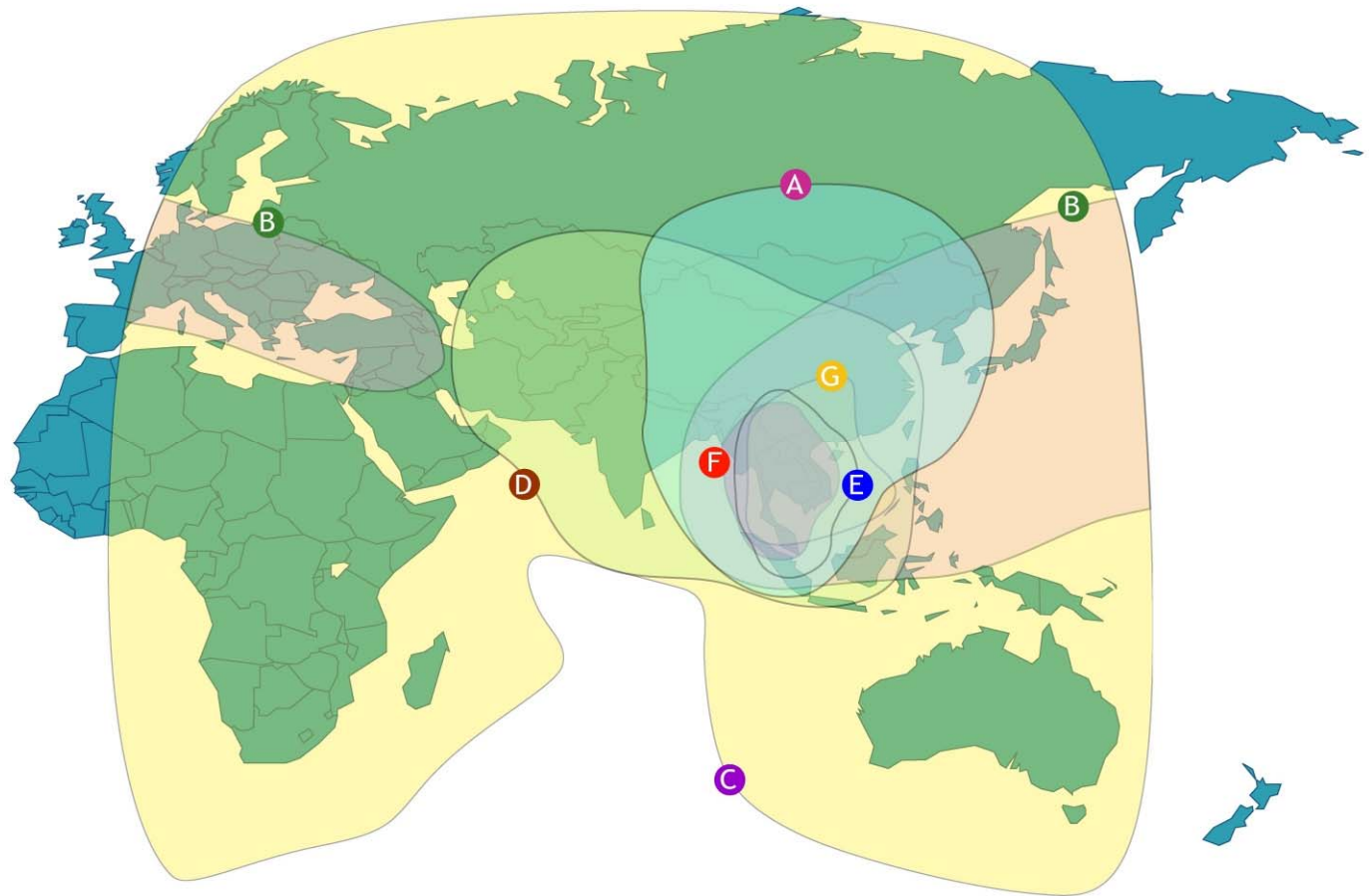
# THAICOM 1A, 2 and 5 Satellite Description

	THAICOM-1A	THAICOM-2	THAICOM-5
Manufacturer	Boeing Company, USA	Boeing Company, USA	Alcatel Alenia Space, France
Satellite Model	Boeing 376	Boeing 376	Spacebus-3000A
Lifetime	15 Years	15 Years	Minimum 12 Years
Stabilization	Dual-spin stabilized	Dual-spin stabilized	3-axis stabilized
Orbital Position	120°E	78.5°E	78.5°E
Transponders	12 C-Band (36 MHz) 3 Ku-Band (54 MHz)	10 C-Band (36 MHz) 3 Ku-Band (54 MHz)	25 C-Band (36 MHz) 12 Ku-Band (36 MHz) 2 Ku-Band (54 MHz)
Launch Date	December 17, 1993	October 7, 1994	May 28, 2006

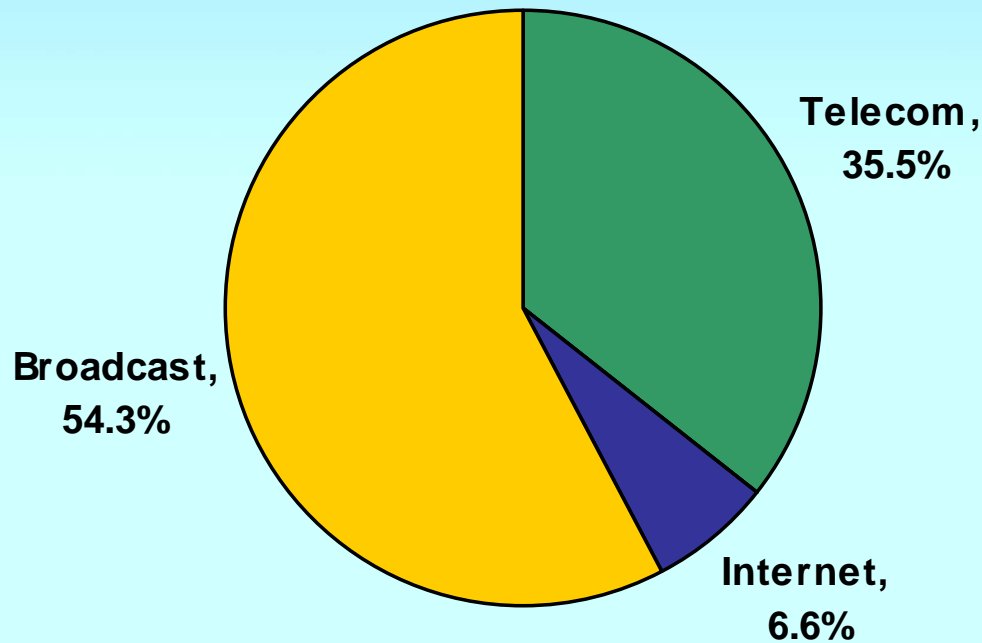
# THAICOM 1A, 2 and 5 Satellite Footprints

## THAICOM 1A, 2 and 5 Service Footprints

- A** THAICOM-1A  
C-Band Regional Beam
- B** THAICOM-2  
C-Band Regional Beam
- C** THAICOM-5  
C-Band Global Beam
- D** THAICOM-5  
C-Band Regional Beam
- E** THAICOM-1A & 2  
Ku-Band Thailand Beam
- F** THAICOM-5  
Ku-Band Thailand Beam
- G** THAICOM-5  
Ku-Band Indochina Beam



# Existing THAICOM Customers by Application



## THAICOM 1A, 2 & 5

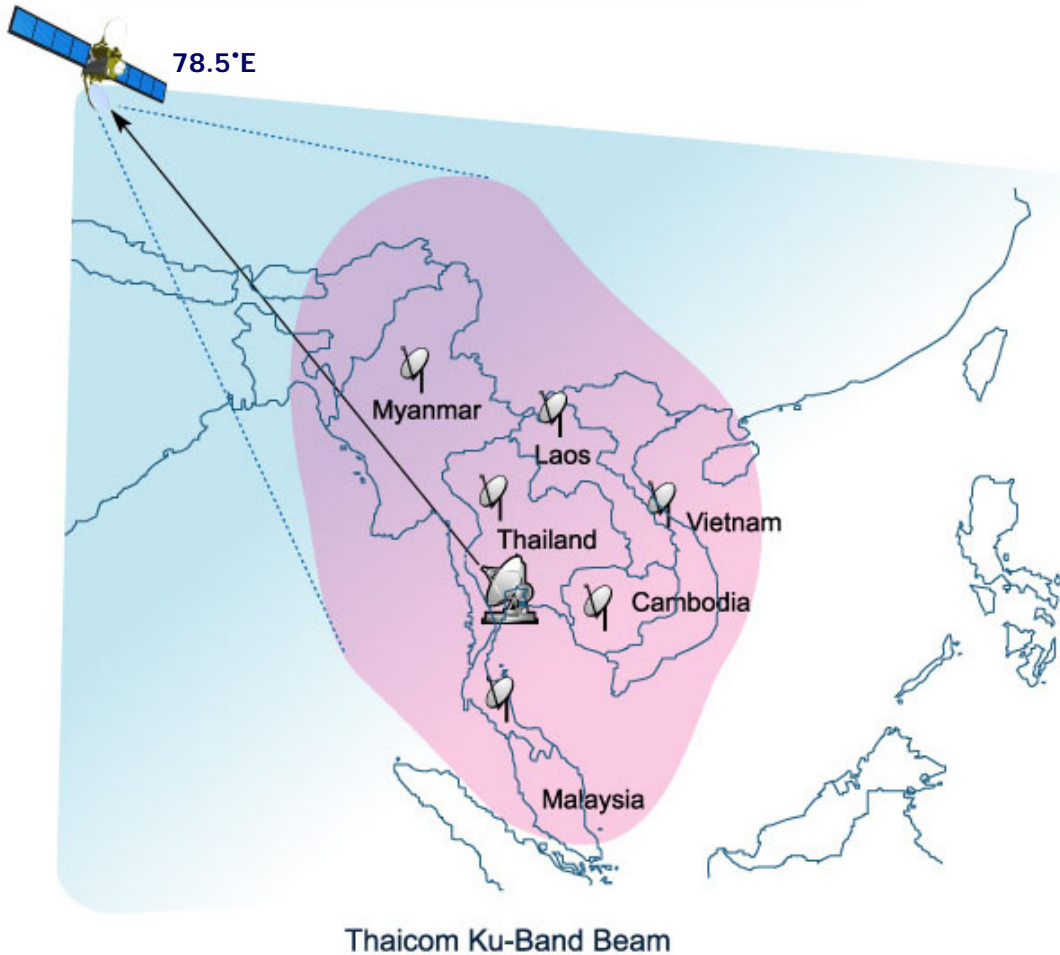
- Broadcast
  - C-Band TV Broadcasting
  - Ku-Band TV Broadcasting
  - Business/Educational TV
- Telecom
  - Domestic VSAT
  - International VSAT
  - Rural Telephone
  - Cellular Trunking
- Internet
  - Internet via Satellite

# THAICOM Video Broadcasting Services



# Existing Video Channels on THAICOM 78.5° E

## Direct-to-Home Broadcast Platform



## Key Features:

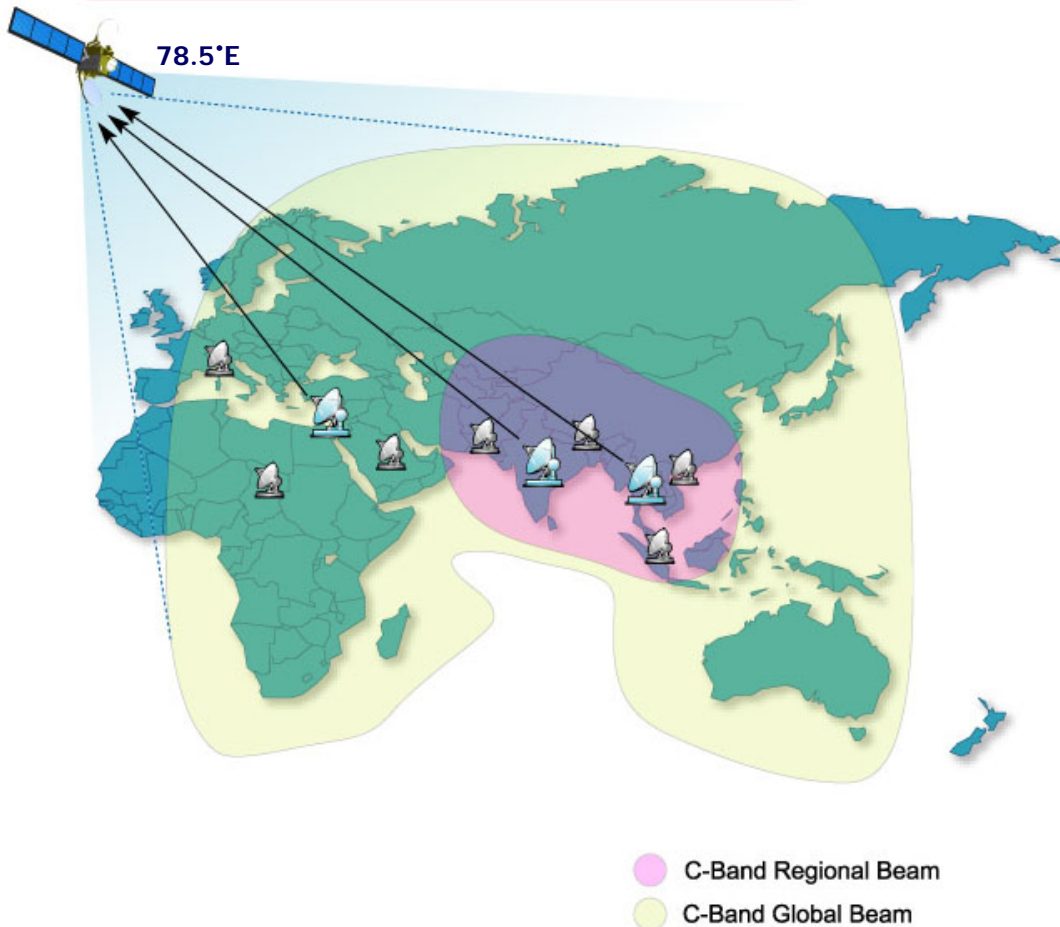
- Powerful, effective and established DTH platform for the region
- High performance Ku-Band EIRP over Thailand and Indochina

Platform	7 Full Ku-Band TP MCPC Platforms
U/L Station	THAICOM Teleport and DTH Center, Thailand
Beam	Ku-Band Beam
No. of Channels	80+ Channels
Channel Type	Thai and Western channels



# Existing Video Channels on THAICOM 78.5° E

## Channel Distribution Platform



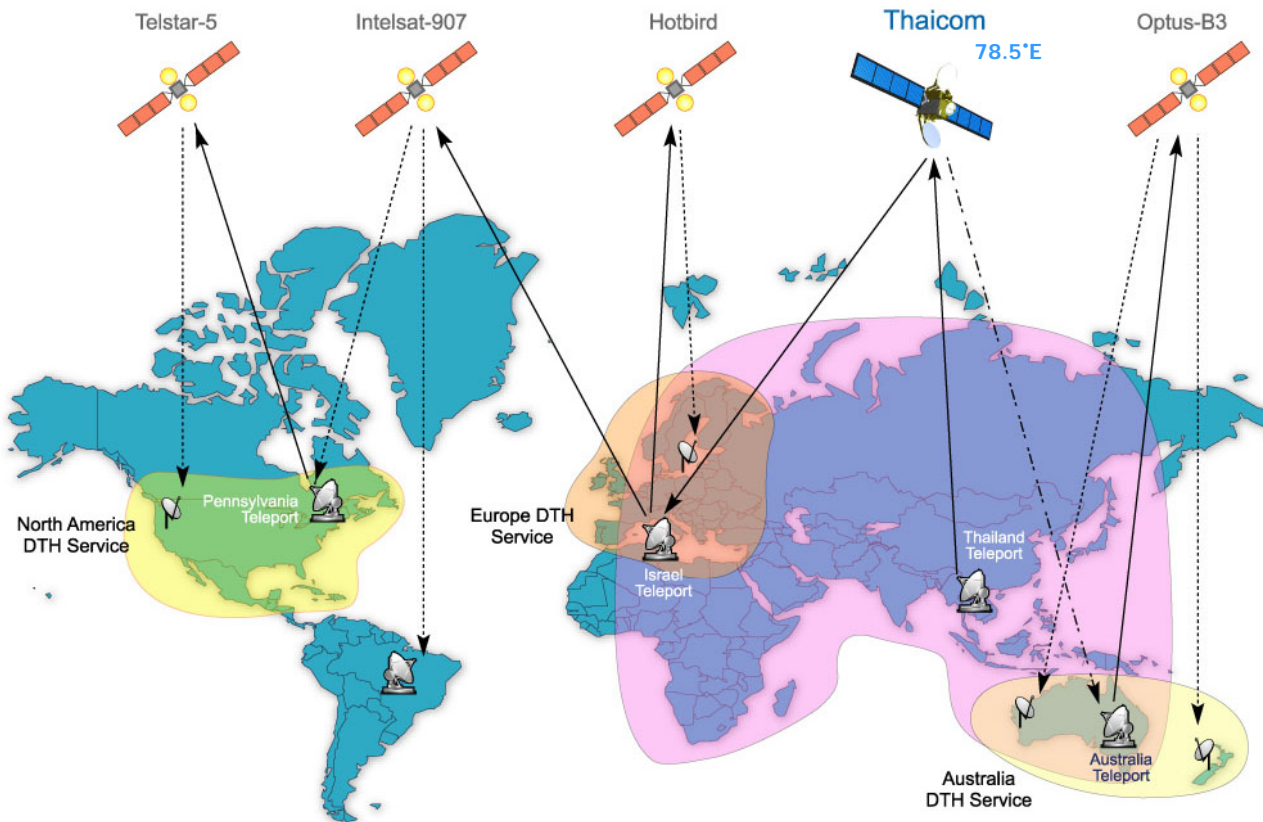
## Key Features

- Feed links from Europe to the Middle East, South Asia, Southeast Asia and Australia
- Immediate access to over 70,000 cable headends in South Asia (over 1 billion population)
- Powerful C-Band Regional Beam EIRP over South Asia and Indochina

Platform	9.5 C-Band TP MCPC Platforms
U/L Station	<ul style="list-style-type: none"> <li>• THAICOM Teleport and DTH Center, Thailand</li> <li>• Other Partners' Sites</li> </ul>
Beam	C-Band Regional or Global Beam
No. of Channels	70+ Channels (*exclude those who uplinked by themselves)
Channel Type	<ul style="list-style-type: none"> <li>▪ Thai &amp; Indochina: 20+ chs</li> <li>▪ South Asia: 40+ chs</li> <li>▪ Others: 10 chs</li> </ul>

# Existing Video Channels on THAICOM 78.5° E

## Thaicom Global Television Platform



\* Satellites subject to change

## Key Features:

- One-stop shopping solution
- Effective for reaching ethnic communities overseas
- Ideal for national, ethnic and niche markets programming such as religious or shopping channels, that demand a global audience
- Receivable by 70 million satellite households in North America, Europe and Australia
- Covering more than 150 countries in 6 continents

# Customers' Key Benefits

- Strategic Orbital Slot: 78.5° E
  - 200+ channels with downlinking to cable headends, satellite stations and viewers' homes
  - Prime channels catering for the South Asia and Indochina markets
- Long-term Satellite Player
  - One of the most established and experienced satellite operator in Asia, since 1991
  - Pioneering and innovative
  - Follow-on satellite systems to ensure long term viability
- One-Stop Shopping Solution
  - End-to-end service delivery including compression, transmission and space capacity
  - Additional service such as downlink, tape play, conditional access, etc.
  - Turnaround and connectivity with other satellites for global coverage
  - Consultancy services for teleport design and installation
  - Assistance for operator's staff accommodation, visas and work permits
- Best Value for your Money
  - Flexibility to meet customers' requirement
  - Variety of service packages

# THAICOM Teleport and DTH Center



# THAICOM Teleport and DTH Center

- Located at "Lad Loom Kaew, Pathumthani, Thailand"
- 25,000 square meter area
- Operated since 1996
- The World's first ISO 9000 certified operator for satellite and teleport services
- Top-three World Teleport Association finalist for the "2006 Corporate Teleport Operator of the Year Award" 
- One back-up station (*THAICOM Satellite Control Station*) at Nonthaburi, Thailand





- Comprehensive network operations and services
- Teleport Services
  - Uplink/Downlink Services
  - Digital Compression Service
  - Turnaround Service
  - Automatic/Manual Tape Play Service
  - Studio Service
  - Conditional Access Service
  - Satellite News Gathering Service
  - Fiber Optic Links
  - Microwave Links
  - Satellite System Integration





# Our Facilities



Microwave



Fiber Optic



Studio



Manual Tape Play



Automatic Tape play



Downlink



Video Server System



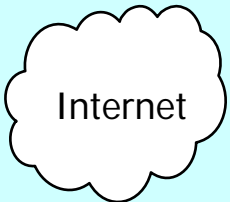
Digital Signal Processing



Digital Compression



Uplink



Internet



3x500 KVA UPS



1275 KVA Generator

# THAICOM Video Broadcasting Platforms

- THAICOM Teleport and DTH Center is operating digital MCPC platforms on both Ku-Band and C-Band beams at our 78.5° E strategic orbital slot
  - 7 Ku-Band MPEG-2/DVB-S MCPC platforms
  - 5 C-Band MPEG-2/DVB-S MCPC platforms
- Total ~150 satellite TV channels
- Broadcast quality: 3-8 Mbps per channel

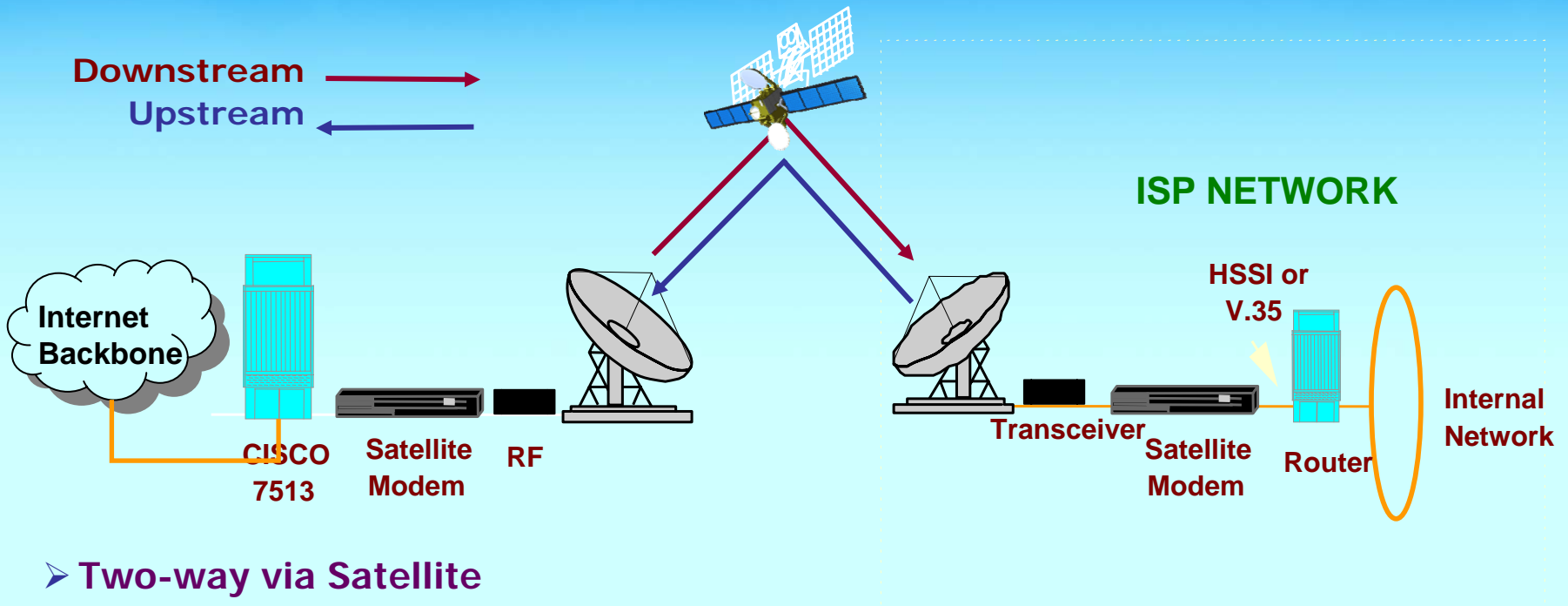
# THAICOM ProTrunk Service



## ProTrunk Service (Internet via Satellite)

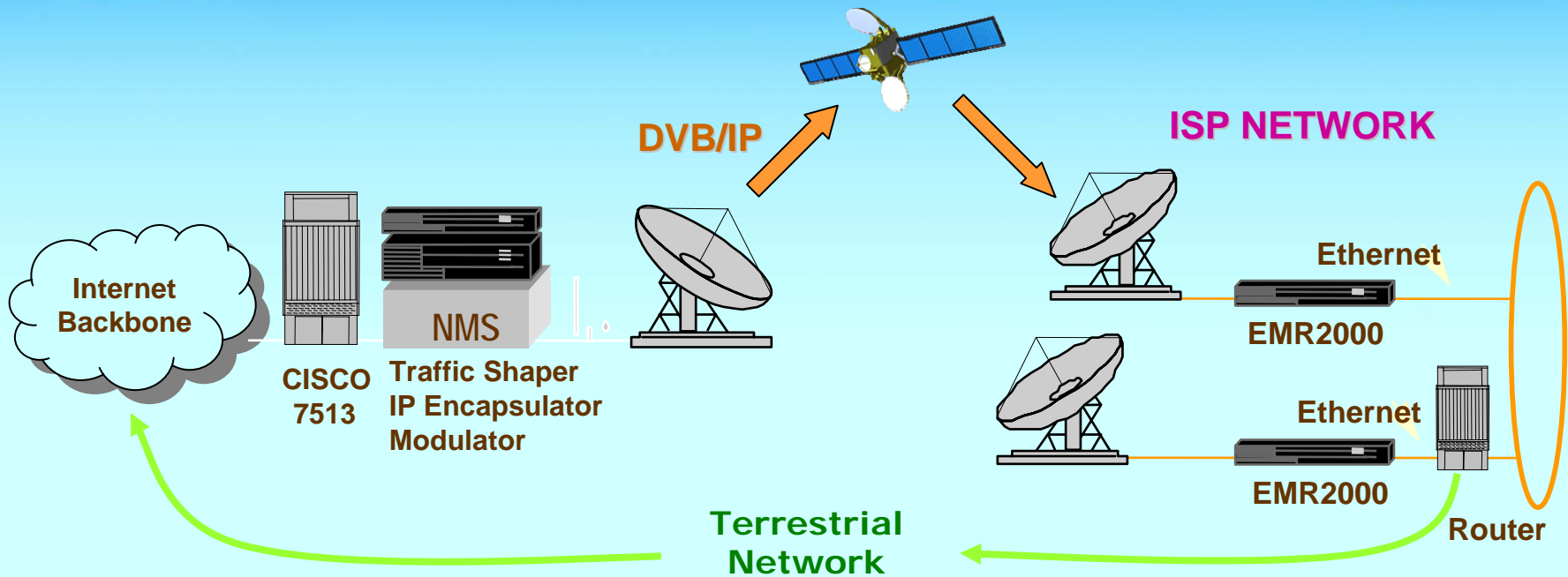
- High speed Internet Backbone Connectivity
- Service via THAICOM Satellites
- Network designed for ISPs/Carriers/IAPs
- Speed range from 64 Kbps till 43 Mbps
- Direct to roof-top solution
- Full Duplex(43/43Mbps), Asymmetric(8/2Mbps), Simplex(8Mbps)

# ProTrunk: Full Duplex and Asymmetric



- Two-way via Satellite
- Full Duplex : Downstream = Upstream
- Asymmetric 4:1 :Downstream higher than upstream  
(2 Mbps/512 Kbps, downstream/upstream)
- EQUIPMENT REQUIRED : 3.2-3.8 m Antenna, Transceiver, Satellite Modem

# ProTrunk: Simplex



- **Simplex service provides only downstream adding inbound capacity to ISP's network**
- **Using existing request path via terrestrial network (Submarine Fiber or leased circuit)**
- **EQUIPMENT REQUIRED : 3.2-3.8 m Received Only Antenna, Receiver (EMR2000)**

# Thank You

