

INTERNATIONAL TRANSMISSIONS

1. International Private leased circuit (IPLC)

1.1. Service Introduction

International Private Leased Circuit (IPLC) service is a point-to-point private line that is delivered over a fully meshed re-routable submarine and land cable networks, giving you dedicated, secured and reliable connectivity. IPLC is suitable for international enterprises and organizations that need private, secured and reliable connections.

- **Traditional IPLC** provides point-to-point private lines for customers to communicate between offices in Vietnam and overseas.
- **IPLC Transit** provides transmissions across Vietnam to connect between:
 - SMW3, AAG or APG Cable Landing Station (CLS) in Vietnam or overseas countries/territories and the Points of Interconnection (POIs). The POIs are located at the Vietnamese border with neighboring countries China, Laos and Cambodia.
 - The Points of Interconnection (POIs) which are located at the Vietnamese border with neighboring countries China, Laos and Cambodia.
- **Cross-Border Leased Circuit** provides terrestrial transmissions to connect customer's ends in Vietnam to the POIs located at the Vietnamese border with neighboring countries China, Laos and Cambodia.
- **Submarine Cable Capacity** provides large capacity transmissions between international CLSs that VNPT-I has invested and operated such as SMW3, AAG, APG.
- **IP Transit** service provides high quality Internet connections for domestic and international ISPs based on the modern, high speed IP network

1.2. Benefits

- Dedicated point-to-point private links for real-time, reliable and secured connectivity
- Diverse network routes, high redundancy and restoration
- Competitive prices for flexible committed services, flexible tariff plans and leasing terms to customers
- One-Stop-Shop service: one-stop ordering, single-end billing and one-stop fault management
- Complete solution, solid support from order placing through network establishment, operation and maintenance
- Global service coverage

1.3. Features

- Wide range of bandwidth from nx64Kbps, T1/E1, DS-3 up to STM-64
- Supporting various physical interfaces and protocols
- Supporting IP applications and enabling WAN, LAN connections
- Supporting all types of applications such as voice, fax, data, images, etc.
- Flexible Service Level Guarantee (SLG) and Service Level Agreement (SLA)

2. International Ethernet Private Line (IEPL)

2.1. Service Introduction

International Ethernet Private Line (IEPL) service is an enhanced traditional IPLC and provides point-to-point international private connections with standard Ethernet network access interface (Layer 2) over SDH (EoSDH) with bandwidth flexibility. IEPL is suitable for international enterprises and organizations that need private, secured and reliable connections with flexible bandwidth from Mbps.

2.2. Benefits

- Dedicated point-to-point private links for real-time, reliable and secured connectivity
- Diverse network routes, high redundancy and restoration
- Flexible and quick bandwidth upgrade, cost saving
- Competitive prices for flexible committed services, flexible tariff plans and leasing terms to customers
- One-Stop-Shop (OSS) service: one-stop ordering, single-end billing and one-stop fault management
- Complete solution, solid support from order placing through network establishment, operation and maintenance
- Global service coverage

2.3. Features

- Flexible bandwidth selection ranging from 2Mbps to 1,000Mbps
- Reliable and secured connections for critical applications
- Low latency and high reliability: using the latest EoSDH technology based on the new generation SDH equipment (MSTP)
- Flexible Service Level Guarantee (SLG) and Service Level Agreement (SLA)
- Supporting IP applications and enabling WAN, LAN connections
- Supporting various physical interfaces and protocols: FE and GE, 802.1Q VLAN and 802.1QinQ, MTU from 1,500 bytes to 9,000 bytes

3. International Virtual private network (I – VPN)

3.1. Service Introduction

International Virtual Private Network (I-VPN) service is an international data connection service that is designed to meet customer demands for setting private network connections between local operations in Vietnam and other facilities worldwide.

I-VPN service is an IP networking solution which employs MPLS (Multi-Protocol Label Switching) technology and enables multi-point connections with high quality bandwidth due to CoS and SLA features, high reliability and security at competitive price.

3.2. Benefits

- Establishing global virtual private network with high quality
- One-Stop-Shop (OSS) service provisioning and billing
- Competitive price, fixed monthly cost

3.3. Features

- Supporting IP-based applications such as voice, data, video, Internet, etc.
 - Highly reliable, secured and scalable connectivity
 - Flexibility with wide range of speeds
 - Class of Service (CoS) and Service Level Agreement (SLA)
-
- **our comment**

A. INTERNATIONAL CARRIER AND WHOLESALE SERVICES

Defining to be a bridge between Vietnam and the world in general telecommunications industry and in particular voice services, VNPT-I always strive to build and maintain its image of a professional and international level enterprise. In order to keep up with the storming development of telecommunications technology, we not only get interconnected with several typical partners in each continents but also connect with Tier-1 carriers all over the world; not only limit interconnection to TDM but also support IP interconnection (including public IP and dedicated IP); respectively, not only traditional services are focused (terminating international traffic into Vietnam, transiting IDD traffic of domestic fixed and mobile network operators overseas), but also wholesale business is invested to be well-developed.

1. Bilateral Voice Termination

a. Introduction

Bilateral voice termination is traditional business of VNPT-I.

VNPT-I has direct bilateral connections with most major Tier-1 carriers of the world. Currently, we have approximately 100 bilateral direct links with various carriers worldwide. Thank to bilateral connections, CLI is 100% guaranteed, meanwhile, ASR and NER are gained at highest level. To further expand our network connection and improve voice quality, VNPT-I is always actively seeking new bilateral partners.

B. RETAIL SERVICES

As a pioneer in voice business in Vietnam, VNPT-I is proud to be a professional carrier trading effectively. VNPT-I always put national interests as a first priority, as a result, our customers' rights are well-guaranteed. To fulfil our mission, we constantly research and launch high-quality voice services with competitive prices meeting every customer need.

1. International Direct Dialing (IDD) Telephone service

a. Introduction

Call IDD is an international direct dialing telephone service of VNPT-I. This service offers the highest quality and the fastest responding time. This service is especially suitable for businesses and individuals who demand high quality, fast contact and reliable connection to business partners, families and friends all over the world.

b. Service Guideline

All VNPT's telephone subscribers that have been registered with our IDD service can contact with any subscribers in the world by dialing as follows:

00 + Country code + Area code + Telephone number

For example: To call 9055648 in Sydney, Australia, you dial as follows:

00 --> 61 (Australia's country code) --> 2 (Sydney's area code) --> 9055648 (Telephone number)

Telephone subscribers belong to other service providers as Viettel, Saigon Postel...dial as follows:

16100 + Country code + Area code + Telephone number

3. Fone 1718 Service

a. Introduction

Fone 1718 service is prepaid phone service using IP protocols. Using Fone1718 service, customers simply dial 1718 without having to re-enter the account code (PIN). Customers can also register multiple phone numbers to use the same account.

For further information, please visit website <http://fone1718.vn> or call **1800 1001**

b. Registration

Please refer to <http://fone1718.vn>

c. Service Guideline

From landline (or mobile) phone, dial overseas phone numbers :

1718 + 00 + CC + AC + SN

1718: the service access number.

00 : international code

CC : Country Code of the called number

AC : Area code of the called number

SN : called number

Example: 1718 00 1 303 337 2500 is a call to USA

For further information, please refer to

http://fone1718.vn/index.php?m=home&u=huongdan&a=howto_call

4. International operator – “Call 110” assisted services

a. Introduction

With international operator – “Call 110” assisted services, our telephone operators assist you to make international calls to the subscribers all over the world that you wish to reach. Just dial **110** and you will be enthusiastically and effectively assisted by our fully experienced operators.

With international operator – “Call 110” assisted services, you can use:

- a) Person to person call service – connecting you to the person you wish to talk.
- b) Station to station call service – connecting you to the telephone number you wish to call

b. Service Guideline

Step 1: Dial **110** (The services are only available to fixed-line subscribers that have registered IDD service).

Step 2: Tell the operator the country, the region, the telephone number and the person you wish to call.

5. International Call 1713 Telephone service – with operator’s assistance

a. Introduction

International “Call 1713” Telephone service uses the same system as International “Call 171” service but the connection is accomplished with international operator’s assistance.

Call 1713 service is especially useful for customers have troubles to communicate because of language barrier, calling to automatic answering machines, not remembering exactly country codes, area codes of the called party, etc.

b. Service Guideline

Step 1: Dial 1713 to be connected to an operator.

Step 2: Tell the operator about the country, the territory and the telephone number that you wish to communicate. The operator will assist you to connect.

6. Toll-free customer care 18001001

a. Introduction

Toll-Free Customer Care service is available 24 hours a day, 7 days a week and can be reached from any phones, including mobile phones. Our knowledgeable operators and automated platform are available to assist you.

b. Service Guideline

Step 1: Dial 18001001 to be connected to customer care system.

Step 2: You can follow the voice guidance or get connected to operator for assistance.

7. Home Country Direct Telephone service (HCD)

a. Introduction

This is an international telephone service enables foreign visitors in Vietnam to call their home country's exchange directly for connecting to the right destination. The call's fees are not paid in Vietnam, as the call charges are debited directly to the callers' account, credit card or calling card at the rate set by the service provider in their home country.

b. Service Guideline

In order to use HCD service, customers should register the service use with the destination country's carrier to be provided PIN code.

Then, in Vietnam, please dial as follows:

120 + Service accessing code

List of countries, service providers who are cooperating with VNPT-I to provide HCD service and their access codes:

Country	Carrier	Access code	Time zone difference with Vietnam
Canada	Teleglobe	11010	-10, -12
Taiwan	CHT-I	886168	+1
South Korea	DACOM	82002	+2
South Korea	Korea Telecom	823355	+2
South Korea	SK Telink	82007	+2
South Korea	SK Telink	82700	+2
South Korea	SK Telink	82800	+2
USA	AT&T	10288	-10, -12
USA	MCI	11022	-10, -12
USA	US.Sprint	11111	-10, -12
Hong Kong	Reach (HKT)	852118	+1
New Zealand	TNZL	06411	+5
Japan	IDC	810080	+2
Japan	KDDI	810010	+2
Japan	NTT	81823	+2
France	France Telecom	33333	-6
Singapore	SingTel	650065	+1
Singapore	StarHub	65008	+1
Australia	Telstra	06111	+1, +3

8. International Toll-free Service (ITFS)

a. Introduction

International Toll-Free Service (ITFS) enables callers in Vietnam to call IFS (International Freephone Service) subscribers free of charge. IFS subscribers normally are providers of goods, services in many countries.

To make a call, just press the given specific IFS number (IFS access code) to obtain information from providers on goods, services, sale and after sales supports etc.

b. Service Guideline

The customers need to obtain the IFS numbers from providers of goods, services (IFS subscribers) before using.

In Vietnam, please dial as follows:

120 + Service accessing code

9. International Video Conferencing

a. Introduction

International Video Conferencing service allows clients to internationally transmit TV signal (Point-to-Point or Point-to-Multipoint) to their designated locations in different countries. International video conferencing service enables participants in different countries taking part in an international and direct discussion by audio and video via TV screen and speakers.

International video conferencing system provides a variety of utilities for users, such as connecting to computers for presentation, to external audio systems, to storage devices for recording important meetings.

b. Features

- Saving customer's valuable time and expenses
- Connecting internationally to multi-dedicated locations
- Recording all information, pictures of conference
- Exchanging variety of document formats as pictures, voices, charts, text, etc.
- Suitable for organizational model such as banks, foreign companies, etc.
- An useful and effective tool for distance training, education or medical support

INTERNATIONAL ROAMING

1. Overview

VNPT's International Roaming services allow mobile subscribers to stay in touch through their SIM card and phone numbers when travelling overseas.

Operator Name : VNPT International (VNPT-I)
Mobile Network Name : VNPT-I
Handset Display : Vinaphone / VN 02 / 452 02

International roaming coverage area

With the reputation and experience in the field of telecommunication, currently VNPT-I has got international roaming agreements with more than 438 networks all over 177 countries and territories (As of May 11/2015)

- **VNPT is the leading Post and Telecommunication Group in Vietnam**

It owns advanced telecommunication technology, extensive service network in 63 provinces and cities nationwide. With the motto of constantly improving the quality of service and experience of customers, VNPT has made a strong investment in network. By the end of 2015, it has 20,000 3G base stations and becomes the biggest 3G network coverage with a density of 90% of Vietnam area.

- **Telecommunication enterprise with much prestige in the region and all over the world**



Since 2009, VNPT is the first and only network in Vietnam joining in Conexus, one of Asia's biggest mobile alliances. (Refer to website of Conexus Alliance [here](#))

May 9, 2014, it officially became the only strategic partner in Vietnam of Vodafone, the leading world Telecommunication Group.

(Refer to website of Vodafone group [here](#))

- **Providing diversified services with good quality**



5. Support & Contact

1. Overview :

VNPT International (VNPT-I), an exclusive state – owned subsidiary of Vietnam Posts and Telecommunications Group (VNPT), is the first and the only satellite operator in Vietnam.

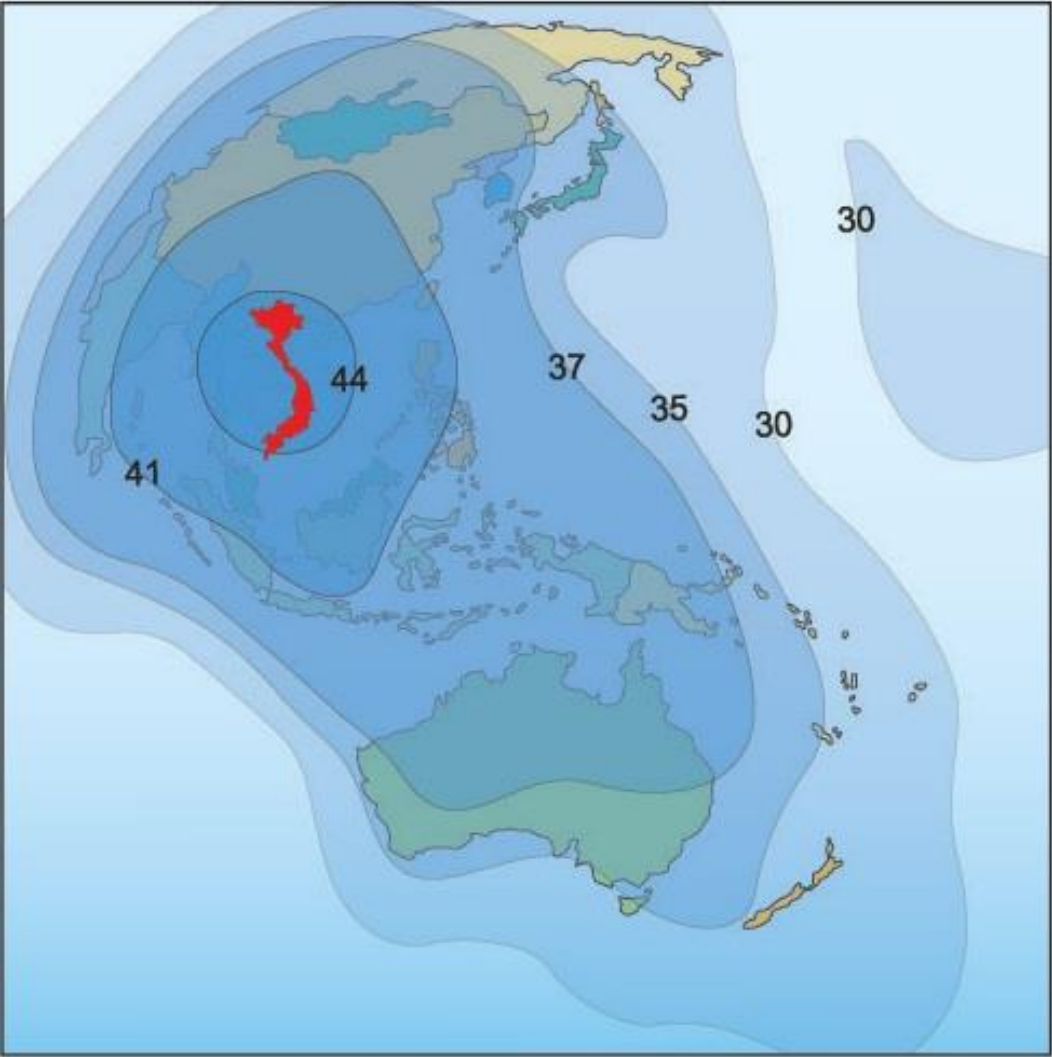
VINASAT-1 officially provided services in June 2008 in geostationary orbit at 132⁰E and VINASAT-2 provided in July 2012 at 131.8⁰E respectively. Two satellites are tracked and telecommanded 24/7 by two Telemetry, Tracking and Command (TT&C) stations and satellite network operation center (NOC).

	VINASAT 1 satellite	VINASAT 2 satellite
Orbital Location	132 ° E	131,8° E
Launch date	2008	2012
Coverage	<p>-extended C band: Vietnam, Lao, Cambodia, Thailand, Myanmar, North Korea, India, Japan, Australia and Hawaii island.</p> <p>- Ku band: Vietnam, Lao, Thailand, Cambodia and Myanmar</p>	<p>-Ku band: Vietnam, Lao, Cambodia, Thailand and Myanmar</p>
Transponders	<p>- extended C band: 8</p> <p>- Ku band: 12</p>	<p>- Ku band: 24</p>
Services	<p>- Satellite bandwidth lease service:</p> <p>+ full transponder: 36 MHZ</p> <p>+ segment leasing (Mhz or Mbps)</p> <p>- Other services: video, data transmission, private leased circuit via satellite for companies and organizations in Vietnam and in foreign countries.</p> <p>-Advantage: fast, trust, signal being transmitted to craggy and far away areas in the whole country and in the world.</p>	
Clients and Partners	<p>- Television Station</p> <p>- Government and Military: Ministry of Military, Ministry of Public Security.</p> <p>- companies in the field of telecoms, petroleum, maritime, aviation, bank...</p> <p>-Partners and clients in foreign countries as Lao, Thailand, Singapore, Korea and Myanmar...</p>	

2. Specifications

Basic specifications of VINASAT-1:

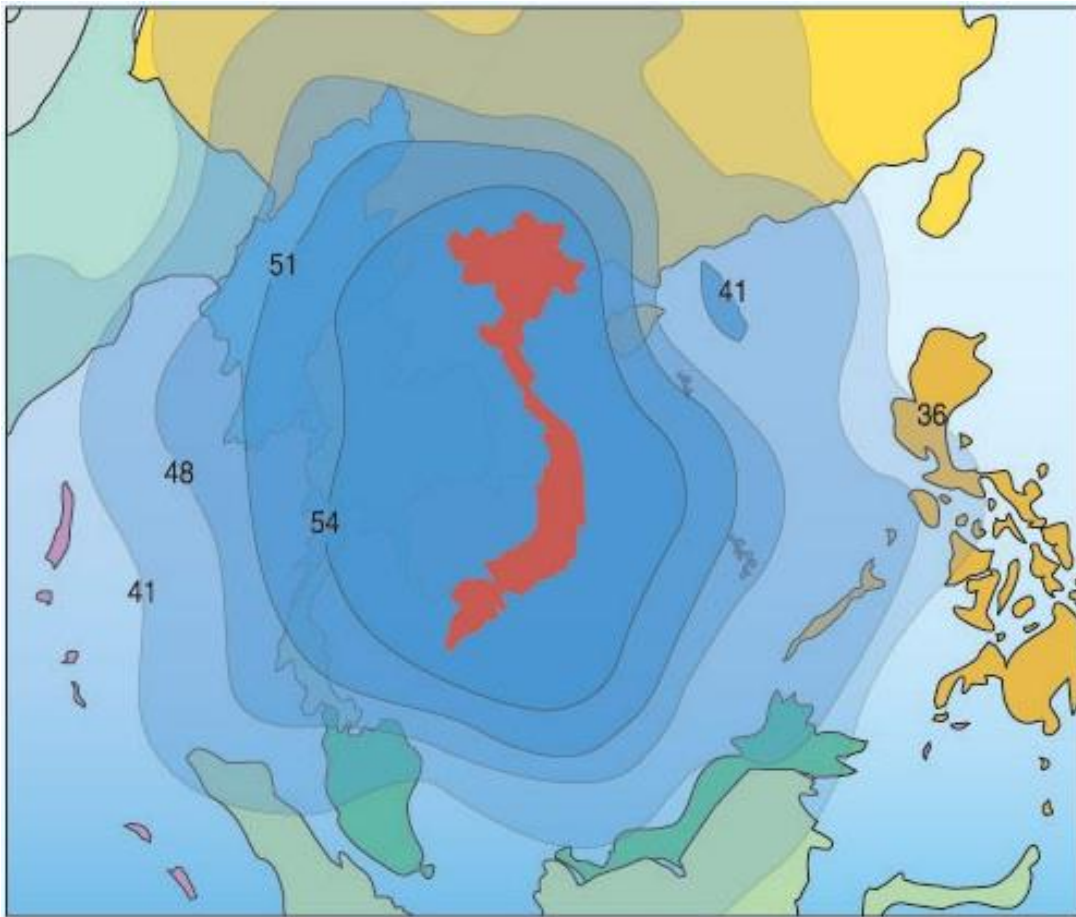
Orbital location	132 ⁰ E
Life span:	15 years
:	+/- 0,05 degree
C-Extended:	
- bandwidth/transponder:	36 MHz & 72 MHz
- Uplink:	
+ Uplink frequency (Tx):	6,425 - 6,725 MHz
+ Polarization	Orthogonal linear
- Downlink:	
+ Downlink frequency (Rx):	3,400 - 3,700 MHz
+ Polarization:	Orthogonal linear
- Coverage:	Viet Nam, Lao, Cambodia, Thailand, Myanmar, North Korea, India, Japan, Australia and Hawaii island.



QUỐC GIA	THÀNH PHỐ	EIRP (dBW) V-Pol	EIRP (dBW) H-Pol	G/T (dB/K) H-Pol	G/T (dB/K) V-Pol	QUỐC GIA	THÀNH PHỐ	EIRP (dBW) V-Pol	EIRP (dBW) H-Pol	G/T (dB/K) H-Pol	G/T (dB/K) V-Pol
Việt Nam	Hà Nội	44.5	45.2	0.7	0.4	China	Dalian	40.2	39.5	-2.4	-1.1
	Hồ Chí Minh	44.0	45.3	1.8	0.1		Qing dao	40.4	40.1	-0.4	-0.6
	Hải Phòng	44.5	45.2	0.6	0.4		Shanghai	40.1	40.0	-0.6	-0.5
	Đà Nẵng	44.6	45.7	1.1	0.2		Fuzhou	41.5	41.1	-1.2	-0.4
	Nha Trang	44.2	45.5	1.7	0.1		Taipei	40.8	40.7	-1.6	-0.3
	Qui Nhơn	44.4	45.6	1.4	0.0		Hong Kong	43.5	43.9	-1.5	-0.6
	Huế	44.6	45.7	1.1	0.2		Guangzhou	43.6	44.0	-1.4	-0.6
	Cần Thơ	43.9	45.1	1.7	0.1		Kunming	44.0	44.2	0.7	-0.1
	Nam Định	44.5	45.3	0.7	0.4		Chengdu	43.3	43.1	0.4	-0.7
	Vinh	44.5	45.5	0.9	0.3		Lanzhou	42.6	42.3	-0.2	-1.0
	Mỹ Tho	43.9	45.2	1.8	0.1		Huhhot	41.8	41.4	-0.3	-0.7
	Cam Ranh	44.2	45.5	1.7	0.1		Kashi	39.1	38.7	-3.5	-3.3
Vũng Tàu	44.0	45.2	1.8	0.2	Aletai	40.0	39.5	-3.5	-3.3		
Cambodia	Phnompenh	44.0	45.2	1.6	0.0	Mohe	39.3	36.6	-3.8	-2.7	
Thailand	Bangkok	43.8	44.8	0.8	-0.3	India	Kaohsiung	41.7	41.7	-1.8	-0.3
	Chiang Mai	43.8	44.7	0.4	-0.2		Calcutta	41.8	42.9	-0.9	-0.6
	Nakhon Si Thammarat	42.9	43.9	0.9	0.0	Bombay	39.3	38.4	-2.7	-1.7	
Singapore	Singapore	41.9	42.8	0.3	0.7	New Delhi	39.8	39.2	-1.9	-1.9	
Malaysia	Alor Star	42.6	43.5	0.9	0.3	Madras	40.6	40.1	-1.4	-1.2	
	Kuching	42.3	43.7	1.0	-0.3	Pakistan	Karachi	38.5	37.3	-3.0	-2.3
Indonesia	Kota Kinabalu	42.6	43.9	-1.1	-1.5	Japan	Sapporo	37.2	35.8	-6.1	-4.9
	Jakarta	40.2	40.7	-0.6	-0.8		Tokyo	36.5	36.4	-6.1	-6.7
	Surabaya	40.3	41.4	-0.8	-1.1		Osaka	36.8	36.9	-4.0	-4.5
	Medan	41.8	42.5	0.6	0.5		Fukuoka	37.5	37.4	-3.2	-2.7
	Palembang	40.8	41.5	0.0	0.0		Naha	37.9	37.7	-3.0	-2.4
	Ujung Pandang	40.1	41.5	-0.6	-1.5	S-Korea	Seoul	38.8	38.3	-2.5	-1.8
	Padang	40.9	41.2	0.3	0.0	New Guinea	Port Moresby	37.0	38.0	-9.8	-8.6
	Kupang	41.3	42.2	-1.5	-1.6	Srilanka	Colombo	40.1	39.0	2.6	-2.4
	Manado	39.7	41.1	-1.6	-2.3	Guam	Guam	34.9	33.8	-7.7	-8.4
	Jayapura	38.0	38.3	-10.4	-8.0	Mongolia	Ulan-Bator	40.9	40.3	-2.9	-2.7
Myanmar	YANGON	43.3	44.1	-0.1	-0.6	Russia	Khabarovsk	37.9	36.0	-4.9	-4.0
	Mandalay	43.2	43.9	0.2	-0.2		Vladivostock	38.3	37.2	-3.2	-2.6
Philippines	MANILA	42.3	43.0	-1.4	-1.4	Australia	Brisbane	36.4	36.0	-5.0	-5.7
	Davao	40.5	41.3	-1.5	-1.2		Sydney	36.4	36.1	-5.2	-6.2
	Cebu	41.2	42.1	-1.5	-1.5		Melbourne	36.2	36.4	-4.2	-5.0
	Zamboanga	41.2	42.5	-1.9	-1.9		Perth	36.3	35.4	-6.9	-6.2
Brunei	Banda Seiri Begawan	42.6	43.9	-0.8	-1.3		Hobart	35.4	35.5	-5.3	-6.0
Bangladesh	Dacca	42.2	42.6	-0.3	-0.6		New Zealand	Wellington	35.7	35.2	-6.6
	Chittagong	42.5	43.0	-0.3	-0.5	Nvercargill		35.4	35.8	-6.8	-7.4
China	Beijing	41.2	40.7	-0.3	-0.5	USA	Honolulu	35.2	33.3	-8.2	-7.7
	Shenyang	40.3	39.2	-2.6	-1.3						

EIRP of extended C band, VINASAT 1

<u>Ku band:</u>	
- Bandwidth/transponder:	36 MHz
- Uplink :	
+ Uplink frequency (Tx):	13,750 - 14,500 MHz
+ Porlarity:	Orthogonal linear
- Downlink:	
+ Downlink frequency (Rx):	10,950 - 12,750 MHz
+ Polarization:	Orthogonal linear
- Coverage: Viet Nam, Lao, Cambodia, Thailand and Myanmar	

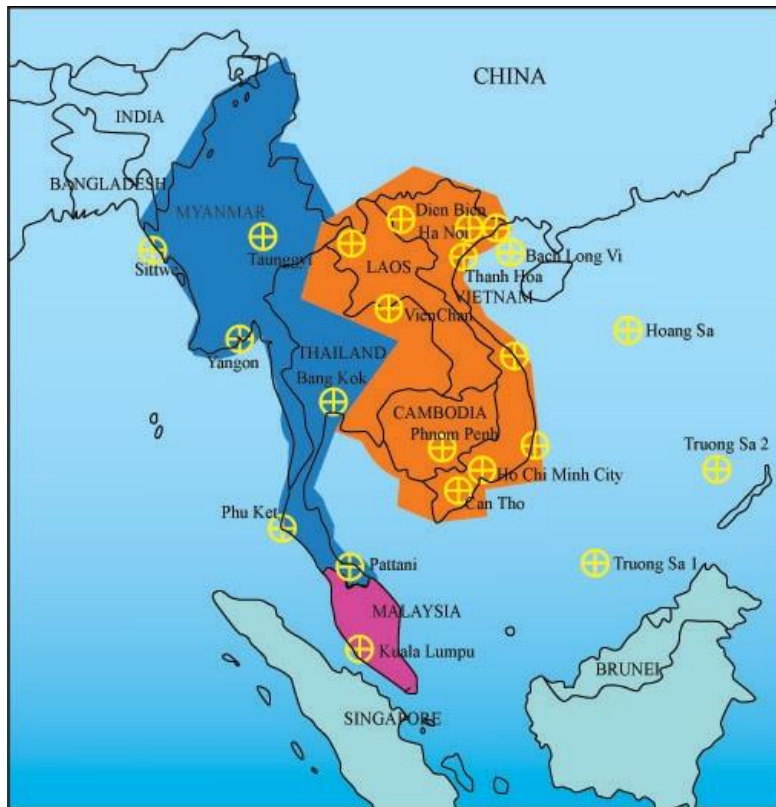


EIRP – Ku band, VINASAT 1

Specifications of VINASAT-2

Orbital location:	131,8 ⁰ E
Life span:	15 year
Station keeping	+/- 0,05 degree
Ku band:	
- bandwidth/transponder:	36 MHz
- (Uplink):	
+ Uplink frequency (Tx):	12,750 - 14,500 MHz

+ Polarization:	Vertical (H) and Horizontal (V)
- Downlink frequency:	
+ Downlink (Rx):	10,700 - 11,700 MHz
+ Polarization:	Vertical (H) and Horizontal (V)
- Coverage: Vietnam, Lao, Cambodia, Thailand and Myanmar	



EIPP – Ku band, VINASAT 2

COUNTRY / CITY	EIRP (dBW)	G/T (dB/K)
Hanoi	55.3	10
Danang	55.2	8.1
Hochiminh City	56	10.5
Phnom Penh	56.75	9.9
Vientiane	55.9	9.8
Bangkok	54.4	8.3
Hoang Sa	48.7	1.14
Truong Sa 1	47.6	0.2
Sittwe	50.2	3.6
Yangon	51.5	5.4
Pattani	50.8	5.9
Kuala_Lumpor	50.3	4.2
Singapore	51.6	4.5

3.Satellite service

With the advantage of high quality, high reliability, global connection, large coverage, easy-to-use, VINASAT's clients are provided with full package of bandwidth and uplink services as private leased circuit for companies, satellite news gathering (SNG), E-traning, DTH, Video conference, mobile trunking, data transmission for banks, internet connection, remote telephony.

- **Clients:**

- DTH providers
- Television, telecommunication and remote telephony
- companies
- Government and Military
- Petroleum and oil-shore
- Other (small and medium enterprises, school ...)

- **Features:**

- Satellite bandwidth lease service:

Clients are provided with full package of bandwidth or a segment leasing. Clients are broadcasters who own earth transmitting and receiving facilities. Television stations and telecommunications service providers, who own VSAT network, will not need a package service. With its characteristics need, television and radio will use the occasional service. This service will use the free capacity.

- **Package service:** Clients are full provided with full package of bandwidth and uplink services. Besides the clients who lease satellite capacity, there also are clients that directly use the package service. Below are the type of package services:

1. Telephony in remote areas.
2. VSAT services that can supply telephony service and data transmission for companies and government.
3. Internet connection service in remote areas (two ways)
4. one-way data transmission
5. one-way internet for webcasting or Streaming
6. Video conference
7. Satellite News Gathering (SNG)
8. Private leased circuit for companies

In order to support the diversified business demand of clients, we supply the satellite bandwidth in the type of full time basis or occasional basis.

- **Full time basis service:** ensuring to offer full transponder or a segment leasing to connect the satellite continuously 24/7. VNPT-I will consult the suitable technical measure to use the satellite bandwidth effectively. Clients can utilize the satellite bandwidth in a fixed time of a day or a week/month.

- **Occasional use basis:** ensuring to offer the bandwidth for the clients that have sudden demand as event live transmission (news, sport news, emergency for other ways of communication interrupted, emergency for natural disasters)

4. Vsat IP

VSAT-IP is a service utilizing VSAT (Very Small Aperture Terminal) with antenna diameter usually ranging from 1.2 to 3.0 meters and the latest satellite-based broadband technology to offer IP-Based telecommunication service via Vinasat satellites.

- Benefits

VSAT-IP provides premium high-speed transmission via satellite for enterprises, offices, homes, individuals, etc...in every locations across Vietnam and other areas under Vinasat satellites coverage.

- Compact equipment, quick and hassle-free installation
- Support multi-services
- High speed connection
- Short provisioning lead-time
- High privacy security
- Cost saving, reasonable price
- Large service coverage

- Features:

VSAT-IP using modern technology which allows to provide various types of services and rapid deployment as follow:

- Voice, fax services
- Broadband Internet Access
- Private leased line, Virtual private network (VPN)
- Video conference, E-learning, E- medical
- Broadcasting, Video on demand (VoD)
- Mobile trunking

5. Vsat Pama

VSAT-PAMA is an international or domestic leased circuit service using VSAT (Very Small Aperture Terminal) with antenna diameter usually ranging from 1.2 meters.

VSAT PAMA station can be installed at the Client's locations and connected 24/7 to other locations in Client's private network with a fixed monthly price

In areas without wired network (industrial part, new economic zones, drilling rigs, borders, islands or mountains, etc.), VSAT PAMA is particularly suitable to Clients who need to set up domestic and overseas private networks for their offices and branches.

- Benefits:

+ Wire service coverage: Reaching to remote areas (domestic or Asia region) where terrestrial telecommunications network unavailable.

+ Secured connection: Providing private communication channels with speed from 64Kbps to 8Mbps, ensuring security for the most important application data.

+ High reliability and quality: reliable, stable and 24/7 connection with high quality.

- Features:

6. Domestic and international private leased circuits (Asia region)
7. Dedicated communication networks.
8. Data transmission, private leased circuit, mobile trunking,...

6. TV Transmission

International Television Transmission service employs satellite communication systems for receiving and transmitting television programs on foreign relations, economy, politics, social and cultural, sport events, etc. in Vietnam to any domestic locations and international community.

- Benefits:

+ Wire service coverage: Reaching to remote areas without telecommunications networks (domestic or Asia region).

+ News Update: Meet the instantaneous transmission of information, connections from all over the world for hot news.

+ High reliability and quality: reliable, stable and 24/7 connection.

- Features:

+ International Television Transmission Service via Fixed Station:

Provided in the forms of playback or tapes recording or live transmission at VNPT-I transmission studios in Hanoi and Ho Chi Minh City with its reliability and up to date information.

VNPT-I guarantees international quality standard of television transmission through modern earth station systems working with Vinasat satellites, Intelsat satellites and other regional satellites.

-Features:

- Quick service provisioning
- International standards
- High redundancy

+ International Television Transmission Service via Mobile Station Flyaway:

International Television Transmission Service via Mobile Station Flyaway offers domestic and international television transmission using Flyaway mobile satellite earth stations (VSAT Flyaway).

Clients can transmit a live television program on political, economic, social, sport and art events, etc. from any particular locations from Vietnam to worldwide.

-Features:

- Door to door service: VSAT Flyaway stations can be installed at locations as requested by Client.
- High Reliability and Quality: Equipment on VSAT Flyaway stations uses modern digital technology which fully backup for reliable and international standard quality services.
- Flexible solution: As a mobile broadcast station, VSAT Flyaway can transmit data with various geostationary satellites in the region and the world. Clients can request or choose particular satellite for their services. VSAT Flyaway equipment can broadcast in both C-band and Ku-band.

7. Satellite Uplink Service

Satellite Uplink service uses VNPT-I's satellite communication infrastructure to transmit clients' signal or content up to satellite Vinasat-1, Vinasat-2. Clients without ground station system can use this service.

- Benefit:

- + Large coverage: Vietnam and other countries
- + Cost saving: Clients save money for investing in satellite earth station infrastructure and operation costs
- + High reliability and quality: VNPT-I's satellite communication infrastructure is high capacity, full redundancy and 24/7 operation

- Features

- Direct-to-Home (DTH)

- Content distribution
- Customer's specific application

8. Inmarsat

INMARSAT service is a direct communication service via INMARSAT geostationary satellites which provides fast, convenient and reliable telecommunication services (voice, fax, data communication, etc.) over space and distance. It enables communication between onshore stations and ships at sea, or with mountainous and devastated areas where there is no communication facility.

INMARSAT service is ideal for businessmen, diplomats, journalists, rescuers, fishing and merchant fleet, oil and mineral exploration teams, aid workers etc. in remote and isolated areas.

BENEFITS:

* Wide service coverage:

- INMARSAT service can reach to remote areas such as borders, island areas, on sea or land. The service can be used over the whole globe, with the exceptions of the North and South Poles
- Using INMARSAT, customers can access to the global public telephone network at anytime from anywhere
- Ease to use: Just a few easy steps to make connections, calls or data transmission to any places worldwide

* Compact design:

- On the land: With compact and portable design, INMARSAT equipment can be used in all conditions to transmit and receive voice, fax and data
- On the sea: Designed to be fitted to ships and stable communications are achieved through the antenna of the ships

FEATURES:

Inmarsat Mini M Service:

Phone: global connection at anytime and anywhere.

Inmarsat BGAN service:

Customers can easily set up a broadband remote office in minutes, with utilities:

- Broadband Connection up to 492kbps.
- Perform simultaneous voice and data communications on demand (32 kbps, 64 kbps, 128 kbps, 256 kbps).
- Lightweight and flexible Terminal.
- Easy to use with global connectivity.
- Ensure the requirement of information security.