

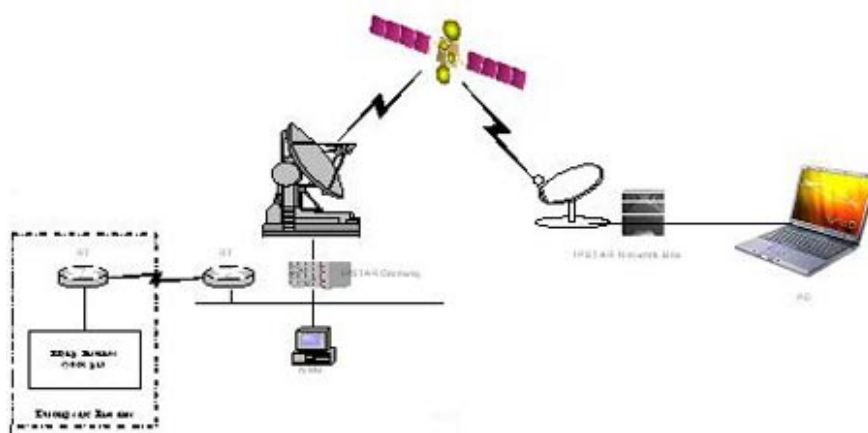
VSAT IP satellite: strength in small wave buds!

After VietNamNet published the news about VTI (under VNPT) has just inaugurated the first port of VSAT IP STAR broadband satellite network. Many readers have sent letters asking for a better understanding of the operational mechanism, characteristics and disadvantages of this information satellite system.

After VietNamNet published the news about VTI (under VNPT) has just inaugurated the first port of VSAT IP STAR broadband satellite network. Many readers have sent letters asking for a better understanding of the operational mechanism, characteristics and disadvantages of this information satellite system.

How does VSAT work?

Mr. Nguyen Quang Thao, Sales Department, International Telecommunication Company VTI said: *'Based on the limitations of the narrowband VSAT networks of VNPT / VTI today (only providing speed voice and data transmission services) low, VTI has been allowed by VNPT to deploy a new generation broadband VSAT network, providing multiple services on a high-speed IP-based terminal. The features of services provided on broadband VSAT networks are the same as existing IP-based services on terrestrial networks such as: Voice (VoIP); high-speed Internet access (MegaVNN); Virtual private network (MegaWAN), . and other IP-based value-added services, only the transmission method here uses satellites (radio transmissions) '.*



VSAT - IP STAR operating mechanism

Building VSAT IP information satellite system is a cooperation project with Shin Satellite (SSA) - a large telecommunications group of Thailand, one of the pioneers in the world and ambitious in the field develop

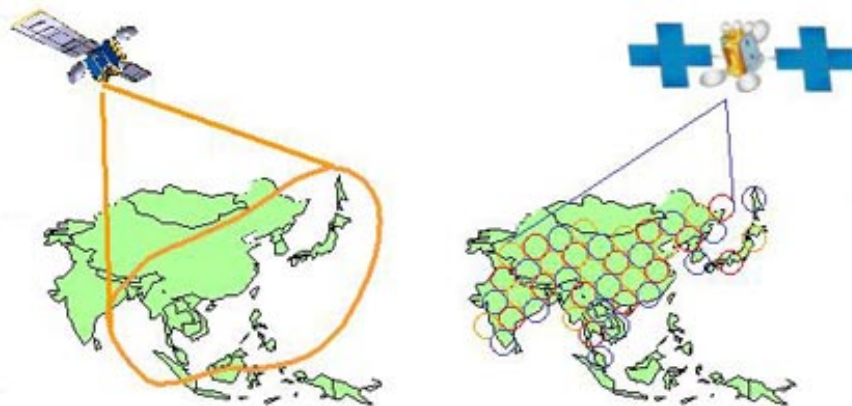
broadband satellite. SSA's satellites are broadband satellites, if technologically, IP STAR satellites are different from traditional satellites, based on satellite communication technology, in particular, IP STAR 1 with tape Very large pine, the total capacity is about 45 Gb / s.

VSAT is a new generation broadband network using iPSTAR satellite system, providing multiple services from a high-speed IP-based terminal. It consists of three basic components: *port (Gateway)*, *iPSTAR satellite and subscriber satellite stations (User Terminal-UT)*.

The port (Gateway) has access to the public network (VSAT is an independent network, it must be through a gateway to access the public network - the domestic network accesses resources). Then, Internet and telecommunication resources from the gateway station will be sent as data packets to the subscriber satellite station (UT). IP STAR satellites use frequency multiplexing technology by using multiple covered spot beams to transmit, creating much larger bandwidth than conventional satellites. Workstations at the ground receive satellite waves, transmitting to operate as normal workstations of the ground network. Mode of transmission on the VSAT network uses satellites (radio transmission). The VSAT station is essentially like a switchboard, only different from the transmission method without fiber optic cable, connecting wire as the ground network, but using satellite waves but still ensuring the bandwidth and quality of data transmission by Advanced technologies.

The model provides ideal service for remote areas!

IPSTAR system allows to deploy many different applications based on IP protocol, with the aim of providing broadband connection for customers who are individuals, offices, enterprises, ISPs . The system uses a variety of satellite access techniques to provide the transmission line to customers in the form of commitment speed or bandwidth sharing method, with this feature, customers can pay the fee. Service fees are based on a fixed monthly fee or paid on the actual data sent and received by customers.



IP - STAR uses small beams with broadband bandwidth guarantee technology.

Information services of satellite systems include: internet access services, VoIP services, virtual private network (VPN) services, GSM trunking services, conferencing services, broadcast television services , on-demand television services, remote training services, . Broadband VSAT is connected directly to the satellite service provider, avoiding the possibility of transmission line congestion at the Indirect routes such as local, provincial, inter-provincial . reduce the speed of connection with services. Like ADSL, iPSTAR system provides broadband

connection for customers with download speeds of up to 8 Mbps, Upload speeds up to 4 Mbps.

The Gateway port of the VSAT is connected to the Internet backbone, the national telecommunications source via a dedicated SDH transmission line, or via optical fiber as usual. (The port station then exploits resources from the national Internet and telecommunications network to provide internal VSAT network). From there, the resources are transmitted in the form of radio waves up to the IP STAR satellites, then through the small IP STAR beams taken down to bring the waveform data to the UT (User Terminal - satellite subscriber station).). The process of bringing data from workstation subscribers to Internet and international telecommunications also follows the same path.

Thus, it is easy to see the advantages of VSAT in covering national Internet and telecommunications to remote areas, rugged terrain where the connection or fiber cable cannot reach, (or if possible with a fee . in heaven). A more noticeable example: an enterprise based in the East Anh wide field, for example, can also use the VSAT completely easy to install and more economical than the traditional connection.

According to information from VTI's sales department, VSAT's subscription fee is only marginally higher than traditional 30% of services, not too high when compared to many installation fees and equipment of the old service. *'So the future of VSAT is not only aimed at public-utility connections, but also providing services to customers in remote and difficult areas,'* said Ho Cong Lam, deputy director of VTI. determined.

Advantages and disadvantages .

Subscribers in any position and terrain within the territory of Vietnam can use broadband VSAT services (voice, broadband Internet access, VPN, etc.) with quality same. With this advantage, the broadband VSAT network will be the best complementary solution for terrestrial networks to provide services to subscribers across the country.

The application of setting up virtual private network (VPN) is another strength of iPSTAR system for customers who are companies, organizations with wide network such as: Bank, Aviation, Center Hydro-meteorology, for the education sector (such as the VSAT School, which Thailand has implemented).

Basically, the service delivery model will be the client's head office - connected to the leased line port, while at the branch (transaction points), it is possible to place the related iPSTAR subscription stations Stray straight to the headquarters via satellite. Thus, it is very beneficial, fast network setup, easy to upgrade and expand the network without interrupting communication, the transmission speed varies depending on customer connection requirements .

However, IP VSAT has inherent disadvantages of satellite information: Affected by weather, information can be interrupted with rainfall > 100mm / h. In addition, all VSAT equipment is used for proprietary and proprietary technologies, so the ground equipment will depend on the VSAT service provider.

After VTI inaugurated the first VSAT gate station on November 9, 2005, talking to us, Mr. Ho Cong Lam - VTI Deputy Director optimistically commented: *'The deployed broadband VSAT network will harmonize. between public and business activities. The network will consolidate and complement the national telecommunications infrastructure, customers in all parts of the country can use a variety of good and quality telecommunications services. The immediate broadband VSAT network will serve the telephone, Internet program . to 100% of communes and schools across the country, and further it will serve electronic transaction activities such as: the Government of electricity e-commerce, e-commerce . '*

1. **The Phong**

You finished reading the article "**VSAT IP satellite: strength in small wave buds!**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.
