Photo courtesy of Thuraya.

Broadband means business

The emergence of broadband has revolutionised the way in which business is done all over the world. Recognised as a crucial tool for a successful enterprise, Satellite Evolution looks at the reasons for this and the impact broadband solutions are having on the Asian SME sector.

Broadband has become an essential part of any business. In this day and age, a company worth its salt will always have a well-constructed website and will often sell its products online with 24 hour access, 352 days a year. The changes that a broadband connection make to a small or medium sized business are phenomenal and having or not having a broadband connection may well be the make or break of a potential enterprise.

So, what features can broadband offer to a SME? Let's take a look at the benefits:

- Broadband saves both time and money - Virtual meetings may be held via a broadband connection eliminating the need to travel to a central location. These meetings may even be done face-to-face through videoconferencing solutions or via webcams. The ability of broadband to allow voice and data communication simultaneously also means that amendments to documents etc may be done on the spot whilst speaking to the relevant person with no need for travel or courier costs.
- Overheads - such as office costs may be reduced or eliminated altogether. Broadband allows remote working so employees may work at home or the need for branch offices may be reduced as location is no longer an issue if the worker has a broadband connection.
- Global presence – Even with only a few staff members a global presence may be achieved with a website that is constantly accessible. International working hours will be satisfied and the

website will continue to sell goods even when the company employees sleep.

- Marketing – Broadband enables all kinds of marketing techniques to be utilised whether it be through graphics, video, mailings or even digital signage.
- Functionality – Small and medium businesses may outsource to an application service provider who will run solutions for them or may rent services such as shopping carts and secure servers backed by bank authorisation.
- Security – SMEs especially cannot afford for their company's computer systems to go down with a virus or bug and broadband offers all-day everyday extensive security and diagnostic tools to prevent systems being infected.
- VoIP – A broadband connection assures access to VoIP meaning very cheap or even free international calls and thus cutting phone bills considerably.
- Remote Access – Employees can access their email and other important applications when they are not at home or in the office meaning that time away may be used effectively to keep in touch with what is going on.

SMEs and broadband access in Asia

The SME sector in the Asian region is experiencing a boom. A Frost and Sullivan report on the Asia-Pacific market published earlier in 2007 stated that VSAT services are gaining popularity within the SME and SOHO markets and also in the expansion of corporate markets and this is all down to demand for broadband, especially in underserved areas. The SME segment represents between 30 and 60 percent of GDP across the Asia-Pacific region. The falling prices of hardware and services will also encourage higher take up of VSAT by SMEs in the region. Retail SMEs in particular are forecast to be big spenders on VSAT services in order to expand their reach.

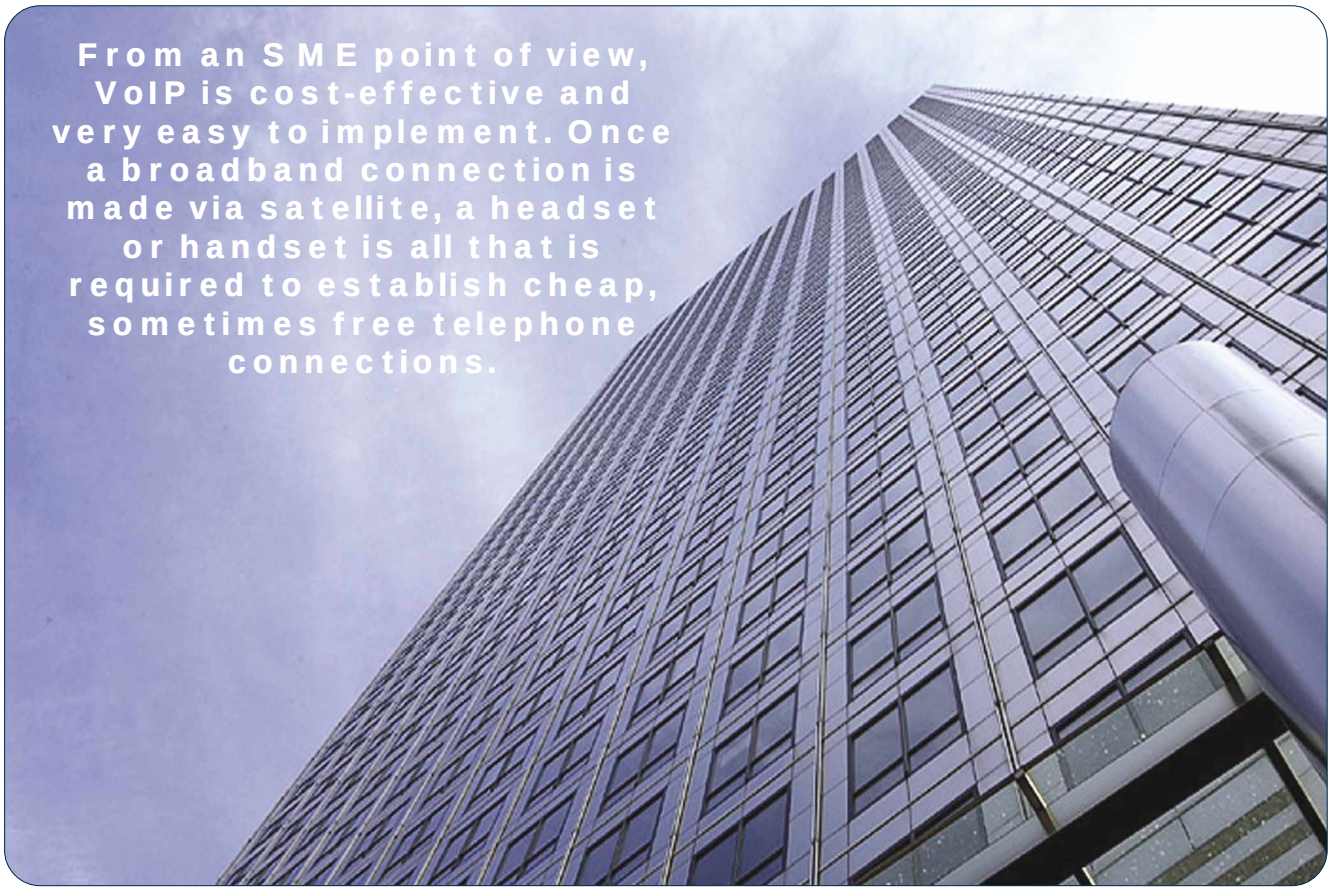
VSATs are easy to deploy and provide a reliable service – education on VSAT technology has seen a heightened awareness of its virtues. India and Indonesia are expected to be prime locations for the take-up of VSAT by SMEs and the liberalisation of the market will encourage businesses to seek out new ways of communicating where terrestrial communications are rare or non-existent.

Across the Asian region, the growth in the economies is behind a huge take-up in broadband services. However, it is important to stress that the majority of subscribers are based in urban areas where the infrastructure is in place to deliver broadband services. South Korea, Malaysia, Japan and Australia are major centres of growth. Broadband services are often used by larger corporations in retail, petroleum, banking and the like, plus SMEs in the region. However, it is the rural areas that are in need of a satellite-based broadband connection due to their remoteness and the total lack of infrastructure in these areas.

Pacific Skies Project

Some time ago, the European Space Agency ran a project entitled Pacific Skies aimed at SMEs in Asia and the Middle East. SES NEW SKIES, Newtec and Alcatel Bell Space combined their expertise and resources in the development of a two-way service offering. Using NSS-6 and Newtec's 2Way Broadband access technology the companies defined, developed and implemented a premium service for Internet access and corporate services for SMEs with an emphasis on areas where the telecommunications infrastructure was limited. Entitled the IPSys Broadband Service, the project was expected to deliver the following benefits:

- Allow regional ISPs to provide cost-effective, high bandwidth,



high speed and increasingly reliable service to a significantly expanded market simulating the satellite market.

- Enable smaller ISPs and resellers to enter the market or expand their operation in an affordable manner. These potential customers currently do not have the existing aggregation POPs infrastructure and distribution systems.
- Demonstrate the strategic and essential role of satellites in the world of two-way broadband service delivery in developing markets and regions where terrestrial infrastructure is still limited.
- Limit the migration of customers away from satellite based solutions and towards fibre by providing distance and location independent 'last-mile' network beyond the reach of terrestrial means.
- Implement and demonstrate applications increasingly necessary in the developing world such as tele-medicine, e-governance, integrated and collaborative user portals and distance learning.

IPsys is now offered by SES NEW SKIES that directly connects the Points of Presence (PoPs) or customer premises of remote ISPs to the global Internet backbone via satellite. IPsys connections bypass all shared ground networks and associated congestion points – as well as any terrestrial connectivity gaps – to seamlessly deliver rich Internet content to even the most remote locations at high speeds. SES NEW SKIES' IPsys suite of Internet access solutions is flexible to meet the needs of ISPs at all business levels.

Startups and small companies wishing to provide basic connectivity services to a small subscriber base can jump-start their ventures with minimum investment through IPsys' low Committed Information Rate (CIR) services. Established ISPs looking to upgrade their networks, enhance Quality of Service or ensure room to grow will benefit from IPsys' reliable and scalable offerings. And large ISPs and global carriers that want to turbocharge their networks or expand to remote regions can do so with confidence via IPsys' robust high-CIR solutions:

- IPsys DVB
  SES NEW SKIES' flagship Internet service, IPsys® DVB brings the heart of the Internet straight to your PoP leveraging open standards to speed up and simplify service deployment.
- IPsys SCPC
  A robust solution providing efficient high-performance connections for ISPs and VoIP providers concerned about keeping up with subscriber growth.
- IPsys VNO
  SES NEW SKIES' IPsys VNO service enables service providers and enterprises to offer iDirect hub services without having to build their own infrastructure.

IPsys can bring carrier-level, high-throughput, Internet backbone connectivity to virtually any spot on the inhabited globe. Where Internet connections are currently slow and unreliable due to inadequate land-based infrastructure, IPsys can establish broadband-level throughputs. Where no connections exist at all, IPsys can provide the request path to, as well as the return path from, the heart of the Internet - all via satellite.

IPsys improves QoS by creating a direct channel from the Internet backbone to the ISP's PoP, or its customers' premises. Rather than shuffling from point-to-point-to-point and fighting for scarce bandwidth with other traffic before reaching its destination, IPsys-enabled content gets a smooth, one-hop ride straight to the ISP's PoP- - or customer premises - where it can be readily accessed by end-users. The result: faster throughputs, increased usage and happier customers. In contrast to fixed terrestrial connections, IPsys solutions are flexible and can grow incrementally, on demand, to meet

evolving business needs. From startup ISPs wishing to serve a few hundred subscribers to rapidly growing providers serving hundreds of thousands of customers, to the largest of the world's carriers - all can benefit from IPsys®' easy to implement and robust connectivity and bandwidth enhancement solutions.

Every part of the IPsys service uses fully redundant, best-in-class components. Direct Internet backbone connections are secured via transit arrangements with tier-one ISPs at the origination end, and are extended to SES NEW SKIES' mediaports via self-healing fibre optic rings. At the mediaport site, routers, LAN switches, bandwidth management systems and DVB encapsulators from leading vendors such as Cisco, Packeteer, Harmonic Data Systems and Skystream Networks guarantee optimum traffic management and signal processing before transmission to SES NEW SKIES' satellites. With a combined fleet transponder availability rating of 99.998 percent, SES NEW SKIES' satellites have set the industry standard for satellite reliability in recent years.

Adoption of broadband

A report carried out by Castle Asia for the Asia Foundation on SMEs and E-Commerce found that the benefits of using broadband within SMEs are plentiful but in many Asian regions these advantages are simply not understood. Broadband solutions are considered to be too expansive and obstacles such as lack of investment, poor infrastructure and a skills shortage prevent these SMEs from discovering the benefits that broadband Internet can bring to their business. The report found that the businesses that had taken the leap of faith and had adopted broadband technology had advanced in production management, production capacity, capital accumulation, accounting, marketing and communication in English.

It was found that there were three levels of business with three different attitudes to broadband Internet technology – those who embrace the technology, those who are prospective users and those traditional companies that are highly unlikely to adopt the technology due to a lack of understanding and lack of infrastructure. However, the Internet has created opportunities for new businesses in the region – everything from online hotel booking services to online wedding planning.

There are distinct patterns of usage with regard to the Internet by SMEs in Asia. A business tends to begin its foray into the use of broadband Internet with email due to its low cost of communication, the ability to gradually build relationships with customers over email and the ability to attach details of products and services. The realisation of the benefits of email leads to the creation of websites that are vital as they reach those foreign buyers who require their services. This in turn leads to expansion of businesses.

VoIP

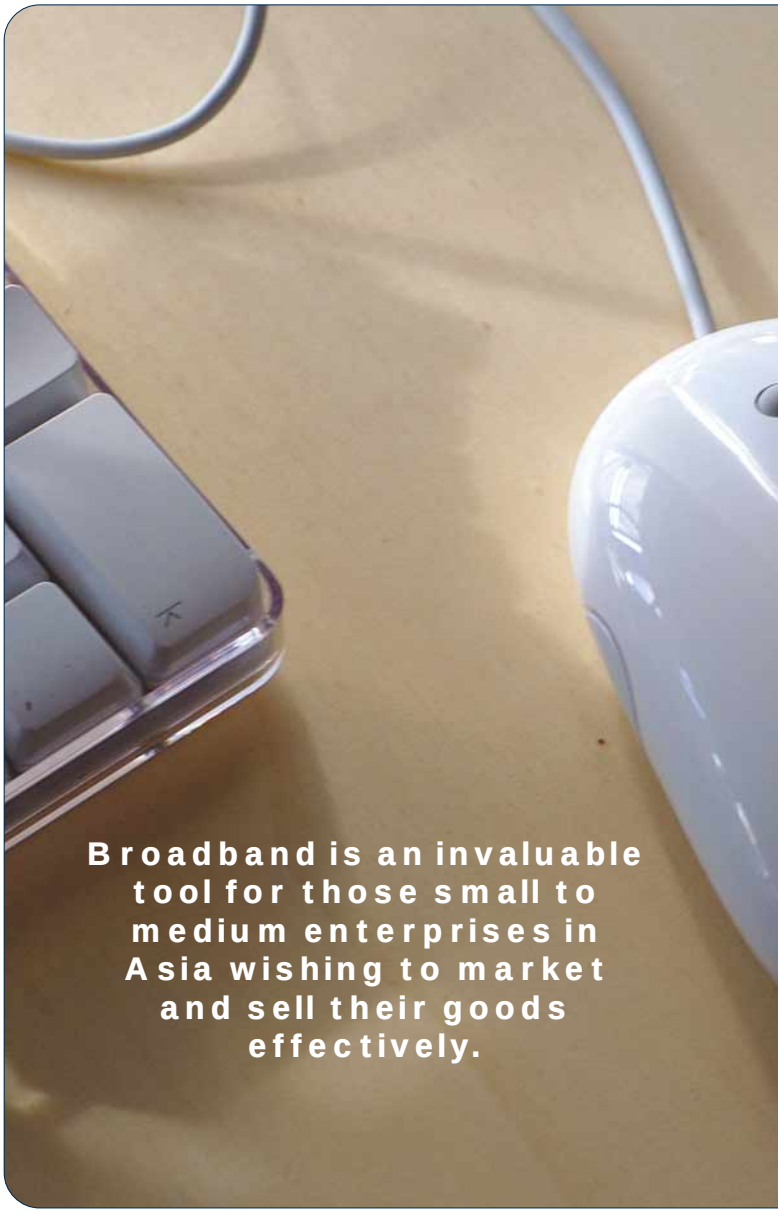
The VoIP market in Asia is very strong and continues to grow. By 2009, total revenue is expected to leap from US$4.2 billion in 2005 to 12.9 billion (Source: www.Infonetics.com). Businesses are migrating to IP for the flexibility and cost-reduction that it brings. Japan, South Korea, Hong Kong and Singapore are IP hot spots. The Asian market is growing at a rapid pace and due to the fact that there is no legacy infrastructure in place, the take-up of IP has been very quick in comparison to other continents. Perhaps unsurprisingly, it is expected to adopt IP quicker than any other region.

From an SME point of view, VoIP is cost-effective and very easy to implement. Once a broadband connection is made via satellite, a headset or handset is all that is required to establish cheap, sometimes free telephone connections. VoIP is location independent and the phones may be integrated with other services that are available over the Internet such as file exchange or teleconferencing. The ability to transmit more than one call down the same broadband connection is attractive and it is also very easy to add another line to an office or at home.

This can help to change a SME's fortunes. It gives then the ability to carry out ace-to-face-meetings and to talk in conference without having to travel. These capabilities are invaluable for an isolated SME that needs to raise awareness of their product in a cost-effective way. It can enable them to do deals and forge relationships without travel expenses.

An invaluable tool

Broadband is an invaluable tool for those small to medium enterprises in Asia wishing to market and sell their goods effectively. Without it, they are highly unlikely to enter the global market. Broadband via satellite is of extreme value to those companies situated in isolated rural communities where there is no cable of fibre to deliver broadband services. Once broadband is delivered via satellite, it can open hundreds of doors for those who wish to expand their business and trade their wares or services all over the world. It make take a process of education to de-mystify broadband to those in the rural areas but once those pre-conceptions and conceived barriers have been broken down there will be a big demand for broadband in the rural as well as urban areas. ■



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