



Photo courtesy of Hughes.

## India – the hot market

The growing demand for broadband in India is moving out from the cities to rural areas and companies are taking the opportunity to provide this service to underserved regions. Hughes Network Systems is highly involved with the provision of broadband to rural communities. Helen Jameson speaks to Pranav Roach, President of Hughes India and K. Krishna, CTO of Hughes India.

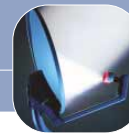
**The broadband phenomenon** is well and truly spreading across India and it is literally changing the lives of the country's people. With a growing economy, and so many foreign companies setting up shop in the country due to lower costs, the ambitions of those who live far away from the cities are being realised – through the use of broadband via satellite. Satellite can deliver broadband services to remote areas of India. The potential that broadband holds for a country like India is enormous and can be used in so many different ways in villages, towns and cities. Computers themselves are coming down in price, making them much more af-

fordable and therefore connecting more people. Satellite broadband can forge a connection anywhere, no matter how remote. It's all about inclusion.

### How will satellite broadband change lives?

Access to broadband will help rural areas to develop and to increase their wealth by giving the user access to the global marketplace or establishing a website from which to sell goods or produce. The fact that accessing broadband via satellite is available anywhere in the world means that there is no need for anyone or any community to miss out on the

benefits of broadband. Where there is no terrestrial infrastructure or it is too expensive to install, such as in remote rural areas, satellite can deliver broadband regardless of terrain and location so the huge benefits of having a broadband connection to the outside world can help communities compete in the same environment as those in the cities. Businesses can be built up and marketed, children can have access to learning tools that they otherwise would not have, communities can have access to e-health services for example. The whole community benefits from broadband and it means that they are no longer excluded and can enjoy the tools



and services that those with a terrestrial infrastructure can.

Hughes Network Systems has been delivering broadband solutions via satellite for many years. The company is the world's leading provider of broadband satellite services, products, and network solutions. Hughes provides broadband satellite networks and services for enterprises, governments, small businesses, and consumers in over 100 countries encompassing all broadband solutions and managed services, bridging the best of satellite and terrestrial technologies.

The size and topography of India and lack of communication infrastructure in rural areas and problems - both from a technical and cost perspective - associated with building communication infrastructure in rural areas means the ubiquitous nature of satellite is very effective for India, especially in rural areas. At CommunicAsia 2008 in Singapore, I spoke to Pranav Roach, President of HNS India about the work that the company is doing to help Indians living in rural areas to gain access to broadband and how it is turning lives around.

**Question: How is HNS providing broadband to rural areas of India?**

**Pranav Roach:** To enable smaller, remote communities in India to access broadband we came up with a new and different proposition. This was a community infrastructure served by satellite broadband using six PCs and the relevant wiring so that people could actually begin to use the service on a pay-per-use model. This means that people do not have to put up the capital expenditure to buy the technical equipment and bandwidth that would be required. In a country like India, a link is very expensive. In a place like Delhi a link will cost you about 20,000 rupees that is the equivalent to US\$400 or

US\$500. To expect a user to pay that is quite impossible, so we decided that we were going to play the role of facilitator and as such we would configure and integrate a number of services on our hub. The one service that we found particularly interesting was education because there is a need for a huge number of trained agents for call centres in the region. The retail industry is just opening up, so there is a great need for salespeople and people to help to manage new stores. Likewise, there are other industries that are spreading and opening up across the region. The demand for the education of people is very high. So we decided to focus on regional training. This enables a high school graduate or under graduate to do a 60-hour training programme that will enable them to find employment in the retail sector or in a call centre. As you might imagine, most of the development is happening around the cities and as you move out towards the villages, development is poor. Satellite enables us to bridge that divide. 400 miles from Delhi there are people who could be employed in these call centres but they do not have the means to learn and gain access to the tools to help them learn.

**Question: How many centres are in operation?**

**Pranav Roach:** We initially had 500 broadband centres all over the country and we were primarily using them for training and education, for vocational education, for Internet and for various other services such as for booking train tickets, low cost carrier tickets or for the payment of bills - for everyday services. So we started to provide a variety of services that were anchored around education and we saw that as a model that could help bridge the digital divide and also help us expand our market in certain areas.

On the one hand we were meeting the service obligation but we also had a business proposition. Then we came up with a plan to bring the benefits of broadband to the non-urban markets. Communications and cellular growth was fuelled by the cities yet in the rural markets growth was stunted. The government asked for bids for the right to set up networks in these areas. The government intended to set up 100,000 kiosks across the country. In India, there are 36 states and around 600 districts, these districts are part of a county. Then, below the county there are municipalities - around 200,000 - and the idea was that one in every two municipalities must have access to broadband. They must have a point where broadband services are available. This added momentum to what we were doing. Technology can do amazing things but what was really needed was a sound business model that really worked. We provided the equipment and the bandwidth and we integrated services around this to help the villages create revenue. It takes US\$3,000 to set up a kiosk and it would cost a kiosk operator roughly US\$150 per month per site to run without the bandwidth costs. Any money made above that would be profit.

**Question: How is the broadband connection used?**

**Pranav Roach:** We started to broadcast and stream programmes over satellite to help with education. For example, learning English is very important in India and being able to speak English leads to good jobs. A lot of people understand the language but do not have the confidence to speak it so what HNS did was to broadcast a tutorial from the BBC to help people to speak English with confidence and to give them the opportunity to go and find a job. Then we started to provide small sales and marketing programmes and started to process applications. So learning and training has become a big revenue generator. Once the education programmes started making money, we got our costs back and the local operator recovered some of its costs. What has happened in the last six months has been phenomenal and we have received orders for 10,000 terminals. So we are now working overtime to build and ship these out to those communities.

**Question: Who makes the initial contact?**

**Pranav Roach:** There are two ways in which we establish contact. We visit various different regions and we deliver seminars and awareness-raising events. People become interested and want to do business. The government also started to award grants to companies or individuals. We do a deal where we run the services and share the revenue. It helps the kiosk operators to keep their recurring costs as low as possible. The deployment of these kiosks takes up the majority



Photo courtesy of Pictures of India.



of our time. The kiosks enable those in rural areas to participate and benefit from the booming Indian economy. There are so many foreign companies looking at India to base their businesses due to the lower wages and costs.

**And Enterprise...**

As we have already heard, the economic growth spurt that India is undergoing is quite breathtaking. India is an attractive proposition to any company. Many banks, for example, have moved their call centre facilities over to India to reduce labour and location costs. The enterprise sector is one where satellite is capitalising.

**Question: Where is satellite used within the enterprise sector in India?**

**K. Krishna:** There are two sides to Indian enterprise at present. One is the real networking side. The other side is applications. In terms of networking, this is very competitive. It is a crowded marketplace with many players. Our business is strongly driven by our value proposition. We have a select set of customers and it is a niche area for us. We typically have 90 percent plus of market share mostly driven by the cost-effectiveness of our service. The other side of our business is over the hybrid network where we provide managed networks that are a combination of DSL and satellite. What the US has experienced a couple of years in advance of us is what we are seeing in India today. It's a similar environment. We can't really compete with terrestrial in some areas. The lessons we have learned in the US have affected what we are putting into practice in India.

**Question: What are the killer applications?**

**K. Krishna:** In terms of applications, there are some clear front-runners. Digital cinema is one of them. We spend a lot of time developing these applications as people are attracted by our value proposition and we hold 100 percent of the market share in digital cinema. The HNS digital cinema application is so popular that there is no education needed. There is also a lot of cellular rollout happening in the country and it is one of the most happening cellular markets. So as operators move outward to more rural and semi-rural areas they need satellite services to use as backhaul. That is where a lot of growth is coming from. Satellite is an important means of gaining access to cellular networks in rural areas.

Another area of growth for us is digital media networks such as signage – this is where satellite has inherent strengths such as the ability to multicast. In a market that is heavily telco driven, there are a lot of investments made into creating an infrastructure. Telcos are laying fibre all across the country.

**Hughes and Comat sign contract to provide broadband services at 10,000 kiosks across rural India**

Hughes India has announced the signing of a contract with Comat Technologies to supply ten thousand broadband satellite terminals, together with its nationwide HughesNet satellite services and applications to be delivered at rural business centres across multiple states in India. Comat is the premier e-governance organisation in India, having more than a decade of experience working with government, public, private and multi-lateral organisations, and Hughes has been the world leader in broadband satellite networks and services for over 20 years.

Speaking about the agreement with Hughes, Comat President Sriram Raghavan stated, "Having strong experience in delivering e-governance solutions and services in partnership with various states, Comat has established a unique blend of content and delivery that has allowed the concept of a community services centre (CSC) to become a reality. Together with Hughes, the company is now gearing up to deploy these CSC's throughout India's rural regions."

Pradman Kaul, President and CEO of Hughes, added that: "This agreement demonstrates our collective ability to close the so-called digital divide in rural India, combining our advanced equipment technology, HughesNet satellite broadband services, and Comat's e-governance applications. Customers everywhere will soon enjoy high-speed internet access, and a growing range of e-governance and other value-added applications such as distance learning on an affordable, pay as you go basis."

The Hughes and Comat consortium won the right to roll out the kiosks in Sikkim, Tripura and various parts of Uttar Pradesh, Haryana and Uttaranchal through a competitive bidding process for the Government of India's Community Services Centers. Pranav Roach, President and CEO of Hughes India said, "Hughes and Comat have been working together through numerous initiatives to bring the benefits of broadband to people in rural and semi urban areas. Two thousand of the ten thousand terminals have already been delivered, and we are working closely with Comat to ensure smooth deployment of the HughesNet Fusion Services at these rural centres in the five states."

So in this market, to be able to survive, you need to have a different value proposition that could be combining solutions that the telcos do not focus on. Satellite technology is very good for some things. We sell the strengths of satellite. The customer will only look at the end service. He doesn't care about or realise what the satellite service actually entails. HNS has simply provided the customers with these strengths and been very successful at this. Retail is growing in a big way and is one of our strongest verticals. IPTV, education and signage have been fueling growth in other areas. So that's how the Indian enterprise market is looking right now.

**Enormous potential for satellite**

To say that India is a market to watch is an understatement. With so many advancements being made in the region and the sheer amount of inhabitants, the potential is huge. The geography and size of the country lends itself very well to satellite. In many cases, satellite is the only means of communication as fibre infrastructure simply does not reach that far and is far too expensive to install in such remote areas where terrain is often inhospitable. Hughes is helping those who do not have easy access to broadband gain that access and thus benefit from the vast array of services that broadband can give the user access to. As a country, it is

vital that India encourages its many rural communities to be included in the workplace, the global market – to have access to the same services that those in the cities do. Education will help them to find employment and employment will bring prosperity and in turn will help enterprise to thrive. It is a domino effect and the catalyst is broadband access. It is highly important that this is fully recognised so that India can evolve and grow and further develop. Companies like HNS are helping them realise this potential. ■

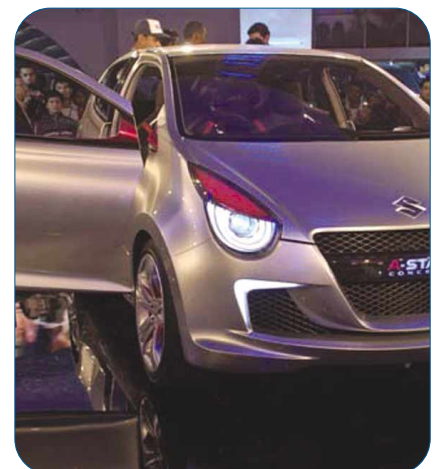


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