

Middle East And India: DTH Grows And Rooftops Fill Up Fast

BY PETER J. BROWN



The number of satellite dishes found in the vast region stretching from the Mediterranean Sea to the Bay of Bengal has exploded throughout the past decade, and rooftops are filling up fast as more dishes are being installed to receive new direct-to-home (DTH) and broadband services.

India is a vibrant VSAT and DTH market

eager to embrace new variations of multi-lingual programming in particular, including interactive gaming. The same is true for the Middle East, a zone which has wrestled openly with the growing presence of satellite TV services and witnessed attempts by various governments to suppress DTH.

In 2008, the Indian Space Research Organization (ISRO) plans to deploy an S-band spot beam-equipped Insat series satellite to support nationwide voice, messaging and Internet Protocol (IP)-based data services. This digital multimedia broadcasting satellite, along with the recent launch by ISRO of Edusat — a unique satellite dedicated to supporting distance education programs — underscores India's lead position in terms of being the dominant regional satellite power. It also points to India's growing appreciation of the importance of satellite technology with significant implications for satellite-related market growth in terms of commercial, consumer and military applications.

At the same time, companies across the Middle East and South Asia are look-

ing for faster ways to grow their businesses. They are putting more emphasis on high-speed, IP-based data networking for combined data, voice and videoconferencing services and driving demand for IP VSATs as well as satellite-based virtual private network (VPN) services.

"As the applications and services have matured, the need for VPNs has grown," says Soheil Mehrabanzad, assistant vice president and general manager for the Middle East and Africa for Hughes Network Systems. "In fact, a majority of the [small and medium enterprise] and corporate customers do require a secure link and the ability to connect to their corporate headquarters from anywhere in the region or the world."

There is growing regional demand for more robust handheld Mobile Satellite Service (MSS) solutions, and this coincides with a noticeable uptick in wireless IP networking in general. "Wi-Fi hotspots have given business and personal mobility quite a boost in the region, says Mehrabanzad, who is based in Dubai, United Arab Emirates, "Several years ago, it was very difficult to be able to connect at airports or coffee shops, but it is now a given in major airports in the region."

Thuraya, for example, is stressing mobile general packet radio services.

Thuraya introduced its high-speed satellite-based data service, ThurayaDSL, based on a SIM (subscriber information module) card-operated portable satellite IP modem developed by Hughes in the second half of 2005. New mobile general packet radio services delivered via the Thuraya SG-2520 handheld device are expected by the end of this year. Thuraya's goal is to attract more corporate customers while better serving its 250,000-plus existing subscribers that range from Europe to South Asia. The Java-enabled Thuraya SG-2520 will offer GSM 900, 1800 or 1900 capabilities, running the WIN CE operating system with a microbrowser to access IP data applications at speeds up to 60 kilobits per second on a shared channel. GSM cellular and GPS functionality are also available.

South Asia also is served by Indonesia-based MSS provider Aces International Ltd. Recently, an announcement was made in which Aces is linking up with Inmarsat to further develop its low-cost handheld solution, the Aces R190, and fixed voice services, scheduled to launch in 2007. Aces will become a Inmarsat BGAN distributor as well.

Advanced Services Demand Drives Digital Broadcasting

Thanks to improved satellite services, more affordable equipment and lower deployment costs, digital broadcasting is becoming much more prevalent in South Asia and the Middle East, according to Ovadia Cohen, cofounder and



Hughes Network
Systems provides satellite solutions in the Persian Gulf. Shown here are an enterprise site and an oil company site.



PHOTOS COURTESY OF HUGHES NETWORK SYSTEMS LLC

vice president of Israel-based Scopus Network Technologies. "Scopus has seen an influx the past year or two for requests from smaller players for MPEG-2 encoding/decoding technologies. With the price of IP technology decreasing and the quality increasing, the technologies have become commoditized and are

helping operators switch to digital and offer advanced services to subscribers," he says.

Scopus' customers in India include Essel Group's DTH service provider, Dish TV, which selected Scopus to expand its channel offerings via advanced video processing. Dish TV's headend features

a Scopus IVG-7100 intelligent video gateway platform which enables joint transrating, grooming and bit rate shaping. Scopus E-1200 encoders, IRD-2900 decoders and network management system software will also be incorporated into the Dish TV headend.

Doordarshan, India's national TV service, recently upgraded its digital broadcast infrastructure via Scopus' digital broadcast platforms, while CBN-Sat, a DTH service provider based in Sri Lanka, uses Scopus' digital headend broadcast platform to distribute content to its subscribers throughout Sri Lanka and India. "Doordarshan is expanding its existing nationwide terrestrial transmission system throughout India for the redistribution of TV signals from digital to analog," says Cohen. "As requests for digital services, especially video, multiply, we are seeing a growing wave of digital broadcast. In some cases, we can say that on-demand elements from some of Asia's wireless digital markets are creating a positive pull for the digital broadcast market."

Operating a growing fleet of four satellites at the 26° E and 30.5° E, regional satellite operator Arabsat, based in Riyadh, Saudi Arabia, also is seeing a significant growth in DTH services throughout the region. "Two-thirds of our revenue is derived from the DTH market," says Emmanuel Hebrard, Arabsat's senior advisor of marketing and development strategy. "We have 60 new channels on our broadcast lineup, most notably our recent agreements with France's channels France 24 and TV 5."

As part of its fleet renewal and expansion program planned throughout the next three years, Arabsat will launch its BADR-6 satellite in 2008 aboard an Ariane 5 rocket. BADR-6 is designed primarily to provide video broadcasting services for the entire Middle East and North Africa (MENA) region and will serve an audience of 130 million viewers from Morocco to the Persian Gulf and a large part of sub-Saharan Africa. Moreover, BADR-6 also will provide Arabsat with additional in-orbit back-up capacity for its core tele-

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Space-Communication Ltd. (Spacecom), the Amos satellites operator based in Israel, also sees significant growth in the DTH market. The Amos satellites provide broadcasting and communications services to Europe, the Middle East and across the Atlantic bridge to the U.S. East Coast. The satellites offer digital TV channels distribution, Internet, voice and data

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— Mehrabanzad, Hughes Network Systems

communications services to broadcasters, ISPs, telecommunications operators, government agencies, business entities and network integrators. “We are looking at nearly 80 percent growth of our DTH offerings with our advanced platforms,” says Motty Slomvitz, vice president, North American sales and marketing, for Spacecom. Currently, Spacecom is scheduled to launch its Amos 3 satellite in late 2007. This will give the operator an additional platform to increase its broadcasting services and also enhance its data services with Ka-band capacity and steerable beams.

California-based OpenTV is one of many companies looking to expand its presence in this region, according to Mike Ivanchenko, senior vice president and managing director of Asia-Pacific for OpenTV, which is providing advanced interactive TV services, including personal video recorders and electronic program guides, to Dish TV's 1 million subscribers in India. “The DishTV project is our initial entrance into the Indian market place,” Ivanchenko says.

“By [the end of 2006], we will have launched our Core 2.0 with a new EPG, an interactive news application, inter-

active cricket and games. The box we are running on has very little memory and capabilities, and yet we are able to launch a full set of services. This model with low-cost boxes is suited to the region with very low average revenue per unit. With the costs of digital DTH receivers coming down in recent years, significant entry costs for would-be DTH operators have been removed. Contrast this with the projected costs of upgrading the cable infrastructure and set-top boxes, including conditional access, to support digital and revisiting or renegotiating content deals. [As a result], satellite has become a viable delivery channel,” he says.

In Turkey, Digiturk's DTH service, which has 1.3 million viewers, will deploy OpenTV's high-definition digital recorder technology in 2007. The system, based on OpenTV's Core 2.0 and PVR 2.0, enables push video-on-demand service using Irdeto's conditional access system to feed Pace Micro Technology set-top boxes.

Shahar Bar, director of satellite and broadcast solutions for California-based Harmonic Inc., sees a growing number of opportunities in the region for both content distribution as well as DTH services. In India, for example, Harmonic has Divicom encoders installed at SunTV in Chennai, and at New Delhi TV. “In the more developed countries, the satellite market will be affected by the growing competition from IPTV and cable service providers launching on-demand services on their two-way networks. In countries where the infrastructure has yet to develop to offer such services, satellite operators have a fantastic opportunity in building a strong brand and gaining significant penetration into the market,” says Bar. “Over time, the cost associated with launching new services from both a headend and set-top box perspective has significantly decreased, making it significantly more affordable to launch new services.”

Money Flowing In

According to Ulrich Kiebler, former president of ND Satcom Abu Dhabi, the

opening up of the Middle East in terms of licensing and deregulation of VSAT applications is well underway, with the main drivers being the governmental and defense sectors, followed closely by GSM and oil sector applications. ND Satcom already has installed 1,800 DVB-RCS terminals in the region. "Already opened are Saudi Arabia and Egypt, and other

countries will certainly follow," says Kiebler, who projected strong annual VSAT sales growth in the Middle East. ND Satcom also provided Streamlink Communications, an ISP based in Kuwait, with its Skyarcs, Skywan and DVB one-way platform along with flyaways and mobile solutions. With its hub located in Dubai at the Etisalat

Teleport, Streamlink activated one of the first DVB-RCS services in the region.

UDgateways from France-based UDCast offer virtual private network security and data acceleration for the system. According to UDCast CEO, Hubert Zimmerman, the growing demand for VSAT and DVB-RCS services in this region primarily is driven by the presence of multinational military forces and new governments in Iraq and Afghanistan that are actively engaged in stability operations and the rebuilding of communications infrastructure. "The demand for the infrastructure always existed, but today with the politics changed there is a flow of investment coming from western countries, and in particular, the United States," he says.

In Afghanistan, 38 provincial capitals are linked via a mesh VSAT system which includes a node in Hong Kong to provide Internet and Voice over IP (VoIP) services, according to David Hershberg, CEO of New York-based Globecom Systems Inc. "In Afghanistan, we discovered that they were operating a number of CDMA mobile switches serving "telecom islands" that had no connectivity beyond the local service area. Interconnecting those switches and linking them to long-distance circuits via satellite became part of our assignment. What started out as a private network for government now includes the backbone of a public telephone system for which we provide bandwidth, trunking, backhaul of traffic to Kabul and international voice, video and Internet service," says Hershberg.

In addition, Globecom is installing more than 300 smaller VSATs that will provide VoIP and Internet services for the country's legislative districts," Hershberg says. "Basically, they're running the government of Afghanistan by satellite, though we also supplied fiber connections to the main government building in Kabul and broadband microwave to other sites. This is a modern, IP-based system that five years ago could never have been completed within the time and budget constraints. It was a great accomplishment to provide a complete

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telephone infrastructure for an entire country in a very challenging environment," he says.

Maintaining the network also provides a host of ongoing challenges. Many parts of Afghanistan lack adequate power sources, so Globecom installed more than 600 generators that have to be maintained and fueled and add to that a whole host of transportation and security considerations. "After so many years of turmoil, there was also a lack of trained local technicians," Hershberg says. "Working with our local partner, Watan Telecom, we have been building the capacity of local employees to deploy, maintain and operate the systems. There are now more and more qualified people coming out of the schools and most of the locals are bright and eager to learn," he says.

While broader regional privatization of telecom is going to be good for business in general, Hershberg does not see any fundamental changes taking place other than more space segment becoming available, which could lower the prices. As far as hybrid Wimax or G3 type CDMA wireless systems are concerned, these can be easily added to almost any satellite terminal. "We are providing service out of Dubai and Hong Kong for Internet and VoIP services. Using a shared hub in the region reduces the up front cost for our customers," Hershberg says.

While there are signs that terrestrial wireless service providers and fiber-based solutions are on the fast track in India and the Middle East, the region remains a golden opportunity for satellite service providers. DTH satellite services may be constrained by household income, but income has not inhibited a rapid spurt of DTH-related growth. And at the same time, enterprise sector opportunities remain plentiful in this region. ▽



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