

## Boeing awarded launch services contract for third Italian Earth observation satellite

### ITALY

The Boeing Company through its commercial launch business, has been awarded a contract to launch the third COSMO-SkyMed commercial satellite for Thales Alenia Space Italia, the prime contractor of the Italian Space Agency.

"Boeing Launch Services is pleased to support the third mission of the COSMO-SkyMed program for Thales Alenia Space Italia, the European leader in satellite-based solutions," said Boeing Launch Services Director Ken Heinly. "The COSMO-SkyMed system is a significant project for Italian science, commerce and security, and the proven reliability of the Delta II will ensure its success."

A Delta II expendable launch vehicle, in the 7420-10 configura-

tion, will carry the COSMO-SkyMed spacecraft into orbit from Vandenberg Air Force Base, Calif., in 2008. Boeing Launch Services will procure the launch vehicle and related support from United Launch Alliance, a Boeing-Lockheed Martin joint venture.

Boeing successfully launched the first COSMO-SkyMed satellite June 7 from Vandenberg and is planning to place the constellation's second of four satellites into orbit later this year.

"The launch of the first satellite of the COSMO-SkyMed constellation was a big success for our company by meeting our timelines and the mission assurance of the Delta II vehicle," said C.A. Penazzi, CEO of Thales

Alenia Space Italia. "We look forward to our continued partnership with Boeing to launch the second and third satellites for this important program."

Thales Alenia Space Italia developed the COSMO-SkyMed program for the Italian Space Agency and the Italian Ministry of Defence. It is an end-to-end Earth observation dual-use (civil and military) system comprised of four medium-sized satellites and supporting ground stations for orbit control systems and data reception and processing. The system will take imagery of the Earth using an X-Band Synthetic Aperture Radar instrument capable of operating in all visibility conditions at the request of institutional and commercial users, including members of the

civil, scientific and defence communities.

Boeing has a long-standing relationship with Thales Alenia Space.

For example, the company has provided Delta II tanks to Boeing since 2001 and built the Cupola and Harmony Node 2 elements (for the European Space Agency) of the International Space Station, for which Boeing is the prime contractor.

Boeing Launch Services is a customer-focused organization that combines strategic planning, business development and sales for Delta commercial launch service customers. It is part of the Space Exploration division of Boeing Integrated Defence Systems and is based in Huntington Beach, Calif. ●

## Vizada enables Telemedicine at French Ministry of Defense

### FRANCE

The French Ministry of Defense has chosen Vizada (the former France Telecom Mobile Satellite Communications) to provide its mobile satellite communications over the next three years (2008-2010). Vizada provides Inmarsat, Iridium and Thuraya services for use on many different sites worldwide, including dedicated interconnection solutions to meet the MoD's needs in terms of communications quality and security.

In particular, Vizada has put in place an Inmarsat BGAN-based solution for the French military health department (Service de Santé des Armées). BGAN terminals are deployed in remote bases worldwide, enabling military surgeons performing operations there to transmit images via videoconference to medical staff based on a different site or country. In this way, the surgeons benefit from advice and guidance in real time from

specialists for particularly critical or complicated surgical operations.

Two simultaneous IP BGAN links are put in place to make this possible. A 256 kbps streaming connection to perform videoconferencing and relay images from the operating table to the medical staff in France. A background IP connection (up to 492 kbps) to send medical files, analysis reports, X-rays, photos and scans. This link is established with a computer to which are connected a BGAN terminal, medical equipment (scanner, X-ray machine) and a camera.

The BGAN IP traffic is relayed to Vizada's land earth station, and on from there via leased line to the hospital where the medical staff takes part in the surgical operation via videoconference.

Vizada leverages its IP expertise to provide end-to-end interconnection solutions, ensur-

ing high levels of quality and security for confidential and mission-critical information by avoiding the public internet.

In addition, Vizada has developed its own in-house IP-

based solutions to help the French MoD optimize a large fleet of satcoms terminals, including traffic management tools, IP filtering and protocol monitoring solutions. ●

### Soyuz to orbit four military electronic intelligence satellites

Astrium has selected Arianespace to launch four satellites in the ELISA electronic intelligence demonstrator system's space segment for the French Ministry of Defense.

All four ELISA spacecraft will be placed in heliosynchronous orbit by a Soyuz launcher operated from the Guiana Space Center in Kourou, French Guiana. Weighing about 135 kg. each, they will be auxiliary passengers on the launch of the first Pléiades Earth observation satellite in late 2009.

The ELISA (ELectronic Intelligence by SATellite) spacecraft will use radar transmitters to map the entire globe with precise feature definition. They are a first step towards the future electromagnetic reconnaissance program called ROEM.

Astrium is lead manager for the ELISA effort, working with co-contractor Thales for the French DGA military procurement agency.

## SES NEW SKIES is teaming up with SeaMobile MTN product group

### LUXEMBOURG

SES NEW SKIES is teaming up with SeaMobile's Maritime Telecommunications Network (MTN) product group for extensive field tests of new miniaturized VSAT antennas, which will enable an array of satellite-based communications services for small vessels.

SeaMobile and SES NEW SKIES will test two new 60cm VSAT antennas, that set new standards with respect to size and weight of VSAT installations: the heavy-duty "Ruggedized" for fishing, work boats and

oceangoing support vessels, and the lighter "Sure Lock", which at less than 90lbs addresses more specifically the sailing, yachting and power boat markets.

Both antennas use iDirect Spread Spectrum technology, allowing for small-sized, light-weight antennas which are effectively shielded against adjacent satellite interference. SES NEW SKIES is providing Ku-band capacity for the Spread Spectrum Technology demonstrations on its NSS-7 satellite at the orbital

location of 338° East.

States Richard A. Hadsall, CTO for SeaMobile's Maritime Telecommunications Network product group: "These miniaturized VSAT antennas will now provide small vessel users with "always on, always available" access for phone, fax, data and internet services. As an optional service the antennas can also provide live television via the same small 60cm antenna, real time GSM cellular telephone services, or a complete portfolio of passenger and crew welfare

service offerings."

States Scott Sprague, Senior Vice President Global Sales of SES NEW SKIES: "Small-sized and light-weight VSAT antennas open up completely new markets for small vessel broadband connectivity, be it for professional use, navigation support, safety services or pure leisure/entertainment. The SES NEW SKIES global satellite fleet is particularly well positioned to support communications on the move, be it maritime, land- or air-based."

## GigaSat FA-1 20 Flyaway Systems, now with added "Turtle Power"

### UK

At the recent DSEI exhibition in London, the multi award winning UK manufacturer GigaSat launched a new range of fully integrated solid state BUC's to complement its highly acclaimed FA-120 and FA-100 flyaway systems. The "Turtle Power Modules" so named because of their unique mechanical construction with moulded carbon fibre shell are available in X-band, Ku-band, Ka-band and even dual band (i.e. Ku/X or Ku/Ka in one housing). Linear output power options up to 40W and direct "no cable" interfacing to the antenna feed provides ultra high efficiency making the integrated system package ideal for rapid deployment of broadband data connectivity.

The turtles include GigaSat's innovative cross site multiplexing system allowing a complete outdoor terminal including the motorised and auto pointing antenna to be powered and controlled over a dual coax cable up to 100m in length.

The terminal is complemented by GigaSat's established "Bantam" indoor unit, which incorporates a 1 to 20Mbps mo-

dem and a full function antenna controller in a compact half 19 inch rack width package.

GigaSat is pleased to confirm that significant orders have already been received from Government customers.



# ILS establishes Failure Review Oversight Board for JCSAT-11 mission

## US

International Launch Services (ILS) has established its independent Failure Review Oversight Board (FROB) that will review the results of the Russian State Commission's investigation into the September 6 Proton launch vehicle failure.

A Proton M/Breeze M launcher, built by ILS partner Khruichev State Research and Production Space Center of Moscow, failed during second-stage operation, a little more than two minutes into flight. It had lifted off from the Baikonur Cosmodrome in Kazakhstan and was carrying the JCSAT-11 satellite. Debris from both launcher and satellite have been recovered from an uninhabited area about 50 kilometers from the town of Dzhezkazgan,

Kazakhstan.

The FROB will be led by Jim Bonner, ILS Vice President of Programs and Operations and Chief Technical Officer. Kevin Sloan, ILS launch Operations Director, will serve as Executive Secretary. The composition of the FROB includes three industry specialists (voting members), plus representatives from the affected mission and the return-to-flight mission - as well as an insurance industry representative - all of whom serve in an ex-officio, non-voting capacity.

The oversight board will be briefed by representatives of the Russian State Failure Commission in Moscow upon completion of the commission's investigation. The FROB is chartered to independently review the meth-

ods, conclusions and corrective action recommendations of the Russian commission's investigation, and to report on the findings. The FROB does not conduct its own investigation.

All FROB activities are subject to US government regulations. ILS is submitting a technical assistance agreement to the US Department of State, which will provide authority to engage in discussions with Khruichev regarding the mission.

In September the Russian government announced the members of the official state commission that will investigate the failure. Anatoly Perminov, Director of the Russian Space Agency (Roscosmos), will lead the commission. The group is made up of 18 top Russian

space, military and other industry and government professionals. ILS President Frank McKenna noted that "the appointment of such a senior figure in the Russian space sector as Mr. Perminov, along with the size and breadth of the committee itself, shows how committed the Russian government is to conducting a comprehensive investigation. It is clearly a priority of all the involved parties to reach an informed conclusion and return Proton to flight as soon as possible."

After the FROB concludes its review, under a separate licensing authority from the U.S. Department of State, ILS will provide briefings to customers and the insurance underwriting community. ●

## NSSL awarded prestigious MoD communications contract until 2020

NSSL, the international satellite communications provider, has been awarded the extension of a major contract to become the sole provider of commercial satcoms for the UK Ministry of Defence (MoD). The contract, which comes under the umbrella of the Skynet 5 PFI, is until 2020 and reflects the good relationship enjoyed between the Ministry of Defence and NSSL over the past 20 years.

The value of the contract is in excess of £200m and will involve NSSL supplying handsets, DVB services, BGAN (Broadband Global Area Network) and integration assistance to MoD units around the world. The equipment will be used by MoD personnel for support and administrative purposes, as well as strategic communications. This extension of contract will save the MoD money as it provides for efficient economies of scale, which means funds can be assigned elsewhere.

MoD spokesperson Lt John Gordon (CINCFLEET Staff) said: "It is vital that MoD personnel can rely on competent and secure communications wherever they might be in the world. NSSL has worked with the MoD for a number of years and we have always been delighted by the high quality of customer service and technical support. We are looking forward to working with NSSL for the foreseeable future."

Commenting on the contract win, Bob Chewter, Managing Director of NSSL said: "NSSL has always had an extremely good relationship with the MoD. Indeed, we have been providing them with equipment for over 20 years now. That doesn't take away the significance of this contract win for us, especially at a time when remote communications are ever more vital to the British military, and we look forward to providing an excellent level of customer support."

# Gigasat delivers world class systems to BBC World Service

## UK

GigaSat, the leading supplier of specialist satellite systems to the media and broadcast industries, announced it has been awarded a tender for the manufacture, integration and supply of four FA-180 flyaway satellite earth stations by BBC World Service.

The systems will be operated from four separate key locations in the Middle East and are designed specifically to withstand the harsh climatic conditions of the region and to be quickly deployed for transmission on any choice of satellite.

The FA-180 systems will be used for daily/hourly contribution feeds for the BBC's new Islamic channel, (which is due to be launched in October 2007), from four key locations throughout the Middle East.

Mr. Chris Lay, Managing Di-

rector of Gigasat says: "We are delighted to be selected by the BBC World Service as a supplier for this exciting new addition to their international programmes. We have probably produced more flyaway earth stations for the Middle East than any other manufacturer so the BBC are benefiting from a wealth of experience gained over a number of years. I am confident they will be highly successful with these new systems" ●

## News Coverage

To be included in the news section of the magazine please contact the Editor. Alternatively visit our website and upload the news to our daily service.

## National Broadband Services to offer satellite-based high-speed Internet

### IRELAND

SES ASTRA has signed another service provider to its satellite based broadband service ASTRA2 Connect. The contract partner National Broadband Services will specialize in offering ASTRA2Connect in Ireland.

ASTRA2Connect is a fully satellite-based two-way service solution for broadband access that can deliver dual- or triple-play services without the need for terrestrial support. This satellite solution offers a unique opportunity for two-way access in remote locations and rural areas.

According to recent official data of the National census of

Ireland, 320,000 out of the 1.5 million households in Ireland do not have a fixed telephone line. Nearly 400,000 of the 780,000 Internet-connected households are still using dial-up connections.

"The Irish market represents a significant potential for ASTRA2Connect, an innovative service that allows households in rural areas to get access to high-speed Internet over satellite", said Alexander Oudendijk, Chief Commercial Officer of SES ASTRA. "With this contract, ASTRA2Connect is continuing its successful roll-out throughout several European countries.

ASTRA2Connect is a cornerstone in SES ASTRA's strategy to expand interactive and digital services and further benefit from the technical advantages of the ASTRA Satellite System."

"We are absolutely delighted to have concluded this agreement with a world renowned partner such as SES ASTRA", said John W O'Brien, Chairman of National Broadband Services Ltd. "The Irish rural market has been neglected for so long by broadband providers with several hundred exchanges still to be enabled for broadband. Because of the widespread nature

of individual house building in rural Ireland, it has not been an economic proposition for individual providers to try to serve the market. Now with the arrival of ASTRA2Connect we have the ideal product which can finally provide broadband to the long suffering rural areas at a price that the people can afford."

In Germany, SES ASTRA has already signed two contracts for the distribution of ASTRA2Connect, with the Internet and telecommunication providers Filiago and STAR DSL. Filiago has also started to market ASTRA2Connect in Austria and Switzerland. ●

## Swisscom deploys TANDBERG iPlex for IPTV Evolution

### SWITZERLAND

TANDBERG Television, part of the Ericsson Group, has been selected by Swisscom for the next step of its Bluewin IPTV service. Swisscom and TANDBERG Television commenced their collaboration with the trial of the Bluewin IPTV system in autumn 2004, followed by commercial deployment in November 2006. Now the companies are working together to ensure that Swisscom can continue to provide a world-class IPTV service to its customers, through leveraging TANDBERG Television's broadcast expertise and its award-winning iPlex UltraCompression high definition (HD) and standard definition (SD) system. The solution offers a range of advanced video processing features with bandwidth improvements of up to 50 percent, industry leading density and improved video quality.

"TANDBERG Television has been our partner throughout our IPTV journey and we are pleased to continue to work with them as we enter the next stage of our development. TANDBERG

Television has pioneered advanced compression, lowering the bandwidth required for delivering television over DSL and enabling IPTV business models to become a reality. We are deploying TANDBERG Television's best-in-class technology to enable the expansion of our IPTV service and continuously improving its quality, while still maintaining flexibility and efficiency," says Dr Felix Graf, Head of TV & Portal at Swisscom.

Swisscom's Bluewin TV service offers over 120 TV channels, more than 80 radio channels, over 500 top films (on demand), live sports coverage and up to 30 Teleclub channels. At the touch of a button users can search for and record programmes, select for later viewing or pause programmes during transmission. Customers are free to decide what to watch and when. All they need is a phone line with broadband Internet access. Swisscom's launch of Bluewin TV is in line with the company's "Triple Screen" vision (television viewing on a TV set,

computer and mobile phone).

"Swisscom was one of the early movers in IPTV and we are proud to have been associated with the Bluewin TV service from trial to commercial deployment," says Eric Baron, President of TANDBERG Television EMEA. "Our next-generation iPlex IPTV head-end will enable Swisscom to benefit from advanced solutions such as increased density, improved bandwidth management and enhanced picture quality, while at the same time future-proofing their infrastructure with features such as transcoding and a simple upgrade path to HD."

The iPlex UltraCompression HD and SD IPTV head-end product is based on TANDBERG

Television's world first, next-generation AVC platform and provides a step change in digital video distribution by combining the broadest choice of density and enhanced features with the industry's leading picture quality performance.

The TANDBERG iPlex is a flexible video processing platform, rather than just being an encoder chassis, and offers the industry's most complete IPTV head-end video processing solution that includes MPEG-2 SD encoding, MPEG-4 AVC HD and SD encoding, MPEG-2 to MPEG-4 transcoding, MPEG-2 transrating, and picture-in-picture (PIP) service generation in a high density, NEBS-certified, telco-designed chassis. ●

"TANDBERG Television has been our partner throughout our IPTV journey and we are pleased to continue to work with them as we enter the next stage.."



## Entavio announces agreement with Sportdigital.tv

### LUXEMBOURG

The satellite platform operator entavio announced an agreement with sportdigital.tv, a new pay-TV sports channel to be launched on entavio in Germany. sportdigital.tv will offer the live matches of the German handball, basketball and volleyball leagues on entavio. sportdigital.tv started marketing and broadcasting on 1 October. In order to access the sportdigital.tv offer, viewers will need a satellite dish pointed to ASTRA and an entavio-enabled satellite receiver with an activated entavio smart card.

entavio is a fully owned affiliate of SES ASTRA. sportdigital.tv is owned by

Sportfive, a leading European sports rights agency. entavio was officially launched on 1st September. entavio-enabled receivers are available from different manufacturers.

entavio is a technical and service platform which does not itself acquire programmes and is therefore open to all broadcasters.

Manufacturers of satellite receivers are able to market compatible devices with the entavio label besides the manufacturer's brand. As a neutral platform, entavio intends to offer satellite households a large range of current and future digital free and pay-TV programmes

through a single receiver. Furthermore, TV viewers will benefit from additional features and functions such as the interactive mobile phone service Blucom.

"The agreement with sportdigital.tv is an important step in the development of our new digital satellite platform entavio", said Wilfried Urner, CEO of entavio. "It shows that entavio is open to all broadcasters and attractive to bring to market new programmes and business models. As an open platform, entavio will continue to increase the attractiveness of digital satellite television for households and viewers and further drive the technical reach of

digital TV, for the benefit of all broadcasters using entavio."

"entavio is the right platform for sportdigital.tv to enlarge our internet offering, launched at the beginning of the year, by starting a TV channel", said Lars P. Reckwitz, responsible for sportdigital.tv at SPORTFIVE. "With this agreement, we are able to increase the media presence for our sports content and to benefit from our sports rights packages, of which we dispose through the partnerships with the three leagues and with our own rights portfolio. Furthermore, we can offer Internet customers attractive possibilities to switch to television or to combine both."

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## Powerful satellite-based communications for the Middle East and Africa

### MIDDLE EAST

Telecoms solutions providers, X SAT, and Singapore-based Addvalue Communications Pte Ltd, a wholly-owned subsidiary of Addvalue Technologies Ltd, have signed a master distribution agreement paving the way for X SAT to become a Master Distributor and roll out Addvalue's SABRE 1 Satellite terminal across the Middle East and Africa.

The SABRE 1 Satellite terminal is a highly portable terminal, equipped with a robust design that delivers all-rounded performance.

The solution offers cost-effective voice and high-speed data (up to 492 kbps) for remote corporate network access via Inmarsat's network.

As part of the agreement, X SAT FZE will offer the Inmarsat-based solution through its distribution channels, market the product and provide after-sales and technical support through X SAT's current regional repair centre located in the UAE.

"This is an ideal union, bringing together Addvalue's innovative solutions with our technical background and our strong understanding of the markets which we are going into," said X SAT's General Manager Gleb Larionov.

The new alliance with Addvalue reinforces X SAT's growing commitment to the BGAN business. With Addvalue's SABRE 1, which runs on Inmarsat's BGAN platform, X SAT will enhance its services which targets mobile users in need of reliable telecommunications in areas with poor or non-existent infrastructures.

The BGAN's overall benefits include global coverage, simultaneous voice and broadband data, a high level of portability and adaptability over a broad range of solutions.

In addition, X SAT will promote Addvalue's SABRE 1 hardware among existing Inmarsat distributors in the region.

Mr. Larionov asserted that the SABRE 1 enhances X SAT's growing service portfolio of mobile satellite services and telecommunications solutions. Operating out of their two principal offices, in the UAE and Cyprus, X SAT provides services across the Middle East, Africa, Europe, CIS and the Americas.

"We believe the Addvalue SABRE 1 satellite terminal is a versatile terminal supported by a wide range of Addvalue's ac-

cessories, designed to meet customers' needs for broadband satellite-based telecommunications," said Dr. Colin Chan, Chairman and CEO of Addvalue.

Dr. Chan added that the business alliance with X SAT will facilitate the expansion of Addvalue's market segments through a reliable and robust distribution network. "We are pleased with the partnership, and believe X SAT is the right partner to penetrate remote mar-

kets that are in great need for our terminals."

He further elaborated that Addvalue's other BGAN-based product, the BGAN Core Module which enables developers to rapidly and economically implement their own specialized BGAN network compatible devices, is adaptable and can be integrated into a wide range of solutions, including military, telemetry, tracking and surveillance requirements. ●

### GlobeCast chooses Intelsat to power WorldTV DTH service in Western Europe

Intelsat, Ltd., the world's leading provider of commercial satellite services, announced that GlobeCast has signed additional channels for its WorldTV Direct-to-Home (DTH) service in Europe using prime Intelsat capacity on the Intelsat 905 satellite located at 335.5°E. GlobeCast has turned to Intelsat to offer international broadcasters a cost-effective alternative for launching programming bouquets targeted at the significant number of foreign nationals and residents of Asian origin residing in Europe.

The lineup of the WorldTV Platform now includes:

- Aag - a South Asian youth-based channel;
- Aaj Tak - a 24-hour Hindi news channel;
- Channel Punjab - a Punjabi entertainment channel;
- Channel S - A Bangladeshi general entertainment channel;
- Filmy - a Bollywood entertainment channel;
- Geo TV - Pakistan's leading entertainment channel;
- MAX - an Indian premium movies and special events channel owned by Sony Pictures International;
- NDTV 24x7 - India's 24-hour news and entertainment channel;
- Sahara One - 24 hour general entertainment channel;
- Sony Entertainment Television Asia - general entertainment channel;
- Star Gold - a Bollywood entertainment channel;
- Star One - 24 hour general entertainment channel; and
- Star Plus - Indian general entertainment channel.

This DTH platform supports free-to-air and subscription channels, allowing programmers to reach home audiences via antennas as small as 60cm.

Intelsat and GlobeCast ensure seamless delivery of content from various points across the globe to the platform gateway in Europe.

"We provide an outstanding value proposition to broadcasters and programmers wishing to enter Western Europe. The Intelsat 905 satellite is ideal for a quick and economical channel launch. All broadcasters need to provide are the content and subscriber relationships," said Juliet Bayliss, Director of Broadcast Services, GlobeCast UK. "After that, GlobeCast provides a turnkey package including uplink, multiplex, conditional access and space segment."

"This platform reflects our continuing interest in growing our Western European presence," said Jean Philippe Gillet, Intelsat's Regional Vice President, Europe & Middle East Sales. "The Intelsat 905 satellite's Ku-band spot beam provides powerful coverage over all the countries in Western Europe and is ideally suited to allow South Asian ethnic broadcasters to establish new DTH communities in a competitive region."

In Europe as well as in North America, WorldTV delivers more than 200 international television and radio programming channels.

# Comtech EF Data introduces media router with unprecedented versatility

## US

Comtech EF Data Corporation has introduced a new media router platform, the Media Router 6000. In a single platform, the Media Router 6000 functions as a satellite receiver, combiner, filter and video to IP transcoder.

As a receiver, the Media Router 6000 enables the reception of Digital Video Broadcast – Satellite (DVB-S) and DVB-S2 transport streams and IP-based multimedia (video, audio and data) content to be delivered over satellite or high-speed ASI links and distributed to remote devices.

Supporting multi-protocol encapsulation (MPE) and Moving Picture Expert Group-2 (MPEG-2) TS (Transport Stream), the Media Router 6000 facilitates standard data broadcasts, as well as the transport of MPEG-2 video service over IP.

The product also functions as a combiner/multiplexer, which allows content received from satellite and local ASI to be multiplexed in to a single MPEG-2 transport stream and output over the ASI or Ethernet interface. In addition, the Media Router can filter content by static program identifiers (PIDS) from one or both streams before multiplexing.

The Media Router can also transcode video to IP received on the satellite and/or ASI input and output an IP stream capable of being decoded by a standard IP set top box or IP decoder.

The Media Router 6000 provides ease of use, flexibility and reliable operation, featuring an embedded central processing unit, an eCOS operating system and support for 1:1 redundancy. It offers a variety of configuration and management options from the front panel to web-based interfaces.

This new product offering is ideally suited for broadcast and enterprise applications. Based on a professional 1RU rack-mountable platform, the Media Router 6000 has ASI and DVB-

S/S2 inputs, and ASI and Ethernet outputs. It will support streaming of audio and video, multiplexing local content with incoming satellite content via an

ASI interface, filtering PIDS on L-Band and/or an ASI interface, IP multicasting, business television, training, e-learning and live events.

“The Media Router 6000 is unique,” said Daniel Enns, Senior Vice President Strategic Marketing and Business Development.

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# Next-generation networks set to transform communications

## SWITZERLAND

ITU has released a major publication, *Trends in Telecommunication Reform: the Road to NGN*. In its 8th edition, Trends reports on the evolution of circuit-switched telecommunication into “next-generation” networks, as operators around the world fight to remain competitive. The Report aims at enabling regulators and policy-makers in developing countries to better understand the changes transforming the ICT sector so they can evolve their policy and regulatory frameworks to leverage today’s technological and market developments.

Next-generation networks (NGN) herald the shift from a “one network, one service” approach, to the delivery of many services over a single network. Based on the Internet Protocol (IP), NGN migration builds on the expansion of broadband networks, the rise of Voice over IP (VoIP), fixed-mobile convergence and IP television (IPTV). These new networks are being developed using a number of technologies, including wireless and mobile, fibre and cable, or by upgrades to existing copper lines. While some operators are focused on upgrading their core or transport networks to NGN, others are tackling their access networks that reach the end user.

Fixed-line operators face increased competition from wireless telecommunication operators, providers of cable television networks and large Internet content providers with strong brands and deep pockets. The search for new revenue streams from the increasingly popular triple or quadruple play bundled package of IPTV, voice calls and ultra-high-speed broadband Internet access has accelerated the rolling out of fibre networks closer to homes and offices. In addition, operators increasingly seek to collect advertising revenue from the range of user-generated, social-networking and other content running on ever-higher

speed broadband networks, dubbed “ultra broadband” or “broaderband” technology. At the same time, mobile operators are upgrading their networks to find new revenue streams fed by offers of seamless connectivity to bandwidth-intensive applications like mobile TV.

### ICT sector in transition

The transitions underway are changing the way we communicate and the way in which the information and communication technology (ICT) sector conducts its business.

Developing countries seek to join the NGN bandwagon, motivated by the goal of making the Information Society a reality for their citizens and the concern about falling even deeper into the digital divide as developed countries roll out high-speed broadband networks. The bottom line for developing countries is not necessarily to adopt the same NGN experience as developed countries, but to harness the potential of new technologies to meet their ICT development goals.

The good news is that developing countries do not have to wait to meet their goals. Technological developments, such as broadband wireless access, are making ICT development a reality — provided their regulatory framework is designed to remove obstacles to innovation and investment.

Growth in the ICT sector has been nothing short of buoyant in the past year. By the end of 2006, there were a total of nearly four billion mobile and fixed line subscribers and over one billion Internet users worldwide. This included 1.27 billion fixed line subscribers and 2.68 billion mobile subscribers. These numbers are even more impressive when updated to include two of the fastest growing markets: China and India, which in the first quarter of 2007 had reported nearly 200 million more subscribers between them — 87 million in

China, and about 110 million more in India. Some 61 percent of the world’s mobile subscribers are in developing countries, fuelled by countries like Brazil, China, India and Russia. Mobile penetration rates in developing countries, excluding the least developed countries (LDCs), grew from 26 percent in 2005 to nearly 34 percent in 2006. While there is still considerable potential for Internet growth in developing countries, where the average level of Internet usage in 2006 was only 10 percent, an increasing number of developing and emerging countries have joined the ranks of the list of top broadband subscribers (ranked by total number of subscribers rather than penetration rates), including Argentina, Brazil, India, Mexico, Poland, Russia and Turkey.

But the least developed countries still lag behind. Only 22 out of 50 LDCs offered broadband service in 2006, and users in these countries often pay extortionate rates for relatively low-speed broadband.

Policy-makers recognize the need to abandon regulatory practices designed for an earlier era — such as those based on providing only one service on a dedicated network — that can stifle innovation and investment and lead to arbitrage opportunities. It makes more sense to embrace new regulatory practices that are pro-growth and pro-end user. With a growing range of wireless technologies that offer ever-increasing broadband capabilities, many countries seek to upgrade their regulatory frameworks to match today’s technological developments. So while wealthier countries test the business case for NGN services like IPTV and mobile TV, developing countries can already exploit today’s technological developments, leapfrogging their way to meet the pent-up demand for communications services — both basic and advanced.

What about the needs of end-users? NGN is regarded as an effective tool to achieve the goals of the World Summit on the Information Society (WSIS), especially to provide universal access to ICT. By enabling new businesses to flourish in rural and urban areas in both developed and developing countries, NGN helps achieve the broader development goals, promising socio-economic growth, reducing poverty and integrating citizens into the global economy, while preserving and promoting local content and culture. Associated with Internet access at higher transmission speeds than ADSL, NGN will facilitate a full range of public services such as e-government and e-health. For this reason, government policy makers and regulators increasingly question not whether they should promote this relentless evolution, but rather how they can hasten it.

This year’s Trends in Telecommunication Reform contains ten chapters each addressing different NGN-related challenges and opportunities to enable regulators to harness the potential of NGN to build an Information Society for all. It includes an ICT market and regulatory overview to set the stage for the following chapters; an NGN overview, to introduce the more detailed discussion in the later chapters; an analysis of NGN technology in an effort to demystify the plethora of NGN terms under discussion; a look at fixed-mobile convergence as one of the trends leading to NGN deployments; interconnection and access in an NGN environment; international Internet interconnection, which will take on greater importance as networks become increasingly IP-based; universal access and NGN; Quality of Service (QoS), consumer protection and cybersecurity in an NGN environment; the enabling environment for NGN; a conclusion and a look ahead. ●