

SATMAGAZINE.COM

June 2004

Worldwide Satellite Magazine

Vol. 2 No. 3

Business Enterprise Market

Your Satellite Connection to the World



			Park to Contents 2		
TABLE OF	NTS	Vol. 2 No. 3 June 2004	Click on the title to go directly to the story		
COVER STORY		FEATURES			
	(photo: Paramount)				
11/ Who Will Own the Entereprise?	13/The Latest Trek on Enterprise	15/ BBC Promises HDTV	17/ Next Generation Video Services		
By Alan Gottlieb	By Bruce Elbert	By Chris Forrester	By David Gillies		
Many operators see the Enterprise Market as an enormous and potentially untapped source of revenue, yet few comprehend the complexity of the challenge they face as they attempt to penetrate it.	Bruce Elbert show how to tap into the potentially lucrative Enterprise Market.	The BBC is favoring satellite delivery of HDTV.	Industry consultant David Gillies discuss the implications of next generation video services using MPEG4 to satellite operators and broadcasters.		
REGIONAL UPDATE	EXECUTIVE SPOTLIGHT				
		REGULA	R DEPARTMENTS		
21/NileSat Wants New	23/ Interview with SES	4 / Calend	ar of Events		
Slot	Americom Senior VP Bryan McGuirk	5/ Industry News			
By Chris Forrester	By Virgil Labrador	8/ New Pro	ducts and Services		
Egypt-based operator, NileSat is seeking a new orbital slot as well as new equity partners.	SES Americom's recently appointed SVP for Domestic Services, Bryan McGuirk spoke to SatMagazine on opportunities and challenges in the North American market.	10/ Execut 26/ Market (present 28/ Stock I 28/ Adverti	Ive Moves Intelligience: Satellite Interoperability ed by the Global VSAT Forum) Monitor isers' Index		

SATMAGAZINE.COM

Back to Contents 3

NOTES FROM THE EDITOR

The Plot Thickens



Just two weeks after the acquisition by buyout specialist KKR of the third-largest satellite operator, PanAmSat, the second largest operator, Intelsat has acknowledged that it has received interest from an unspecified party to invest in or buy the company. In order to pursue this possibility, Intelsat has cancelled its plans for an IPO.

This was followed by an announcement by New Skies Satellites that they are in "advanced negotiations" with a private equity firm for the purchase or investment in their company.

The plot thickens.

I have always asserted that the renewed interest by the investment community in the satellite business is an affirmation of the longterm viability of the industry. It remains to be seen what will become of the satellite companies bought by investment firms. It does make for an interesting summer.

Meanwhile, the business of satellites goes on.

This month, the biggest show in Asia, CommunicAsia, which was cancelled last year due to the SARS threat, is making a big comeback.

The ISCe show in Long Beach, Calif. is also on this month and is continuously growing in attendance and importance. Satnews will be chairing a session on "Earthquakes, Fires and Floods: Satellites to the Rescue" at ISCe.

In this issue we focus on the growing enterprise market. In addition to incisive articles by our regular contributors, we also feature a candid interview with SES Americom's Senior VP for Domestic Services, Bryan McGuirk.

In keeping with the renewed financial emphasis in the industry, we have introduced in this issue a new section--*Stock Monitor* (page 28).

Enjoy the issue.

Vingil Lahadon

SATMAGAZINE.COM

Published monthly by Satnews Publishers 800 Siesta Way, Sonoma, CA 95476 USA Phone (707) 939-9306 Fax (707) 939-9235 E-mail: design@satnews.com Website: www.satmagazine.com

EDITORIAL

Silvano Payne **Publisher**

Virgil Labrador Managing Editor and Editor, North America

Chris Forrester Editor, Europe, Middle East and Africa

Bernardo Schneiderman Editor, Latin America

John Puetz, Bruce Elbert Dan Freyer, Howard Greenfield Dan Makinster **Contributing Writers, The Americas**

Peter Marshall, David Hartshorn Martin Jarrold **Contributing Writers, Europe**

Baden Woodford Contributing Writer, Africa

Jill Durfee (jill@satmagazine.com) Advertising Sales

Joyce Schneider (joyce@satnews.com) Advertising Sales

Satnews Publishers is the leading provider of information on the worldwide satellite industry. Fore more information, go to <u>www.satnews.com</u>.

Copyright © 2004 Satnews Publishers All rights reserved.

Back to Contents 4

CALENDAR OF EVENTS

June 2004

June 1-3 Long Beach, California, USA ISCe Conference and Expo 2004 Ms Gina Lerma Tel: +1-310-410-9191 e-mail: glerma@hfusa.com www.isce.com

June 14 Singapore, CASBAA Satellite Industry Forum 2004 Tel: +852-2854 9913 e-mail: events@casbaa.com www.mediacast.net

June 15-18 Singapore, CommunicAsia and Broadcast Asia 2004

Victor Wong, Senior Project Manager Tel. +65-6233 8662 **Fax:** +65-6835 3029 **e-mail:** <u>vw@sesallworld.com</u> <u>www.communicasia.com</u>

June 16--17 Beirut, Lebanon, ARABCOM 2004 Jean-Louis Farwagi, Arabcom project manager

e-mail: jlfarwagi@arabcom.com www.arabcom.com

June 20--24 Atlanta, Georgia, SUPERCOMM 2004

Tel. 800-278-7372 +1-312-559-3327 (outside the U.S.) e-mail: <u>info@supercomm2004.com</u> www.supercomm2004.com

June 28--July 3 Monte Carlo, Monaco Monte Carlo TV Festival Tel. +377-9999-3590 www.tvfestival.com

ISCe 2004 Conference & Expo

June 1-3, 2004 • Long Beach, California

"Strong Signals on the Horizon"

Mark Your Calendar!

Join the global satellite community at ISCe 2004, the premier U.S. West Coast annual conference and expo for the commercial, government and military sectors!

ISCe 2004 Highlights:

- Dynamic three-day conference program:
 - Satellite Users Forum
 - Satellite Communications Forum
 - Global Satellite Navigation Forum
 - Defense and Security Forum
 - Satellite Entertainment/ DBS Forum
- GPS Training Seminars
- Special "Galileo Opportunities for U.S. Providers" presentation
- One-on-One Interviews with industry leaders
- U.S. Asia Satellite Business Roundtable
- Matchmaking Program
- ISCe 2004 Awards Dinner
- + Echibition Center with product demonstrations
- Satellite Career Day

For complete program details, registration, exhibit sales and sponsorship opportunities, please visit www.isce.com or call +1 (310) 410-9191

Automian Organizations

SATMAGAZINE.COM



Back to Contents

INDUSTRY NEWS

Buyer Intersted in INTELSAT

Intelsat acknowledged that they received interested from an undisclosed party in buying or investing in INTELSAT. Intelsat has engaged Morgan Stanley and Merrill Lynch to explore the potential of the investment in or acquisition of the company by this party. In relation to this development, INTELSAT withdrew its its planned initial public offering (IPO).

In a company statement, Intelsat CEO Conny Kullman said, "The current mix of market and regulatory developments makes it clear that withdrawal of the IPO is in the best interest of our company. In light of the extension of the ORBIT Act deadline, and the interest we received regarding a possible investment in or acquisition of our company in connection with our previous process, we now intend to resume the exploration of this possibility. In the meantime, we will continue to engage with the Federal Communications Commission with regard to the regulatory treatment of certain direct-to-home services in North America."

The decision to withdraw its planned IPO followed the signing into law on May 18, 2004 of an amendment to the ORBIT Act that changes the date by which Intelsat's IPO must be conducted from June 30, 2004 to as late as December 31, 2005. Earlier today, Intelsat filed a Form RW with the Securities and Exchange Commission to withdraw its registration statement.

INTELSAT was the first intergovernmental satellite system established in 1964 and was privatized in July 2001. It is currently the second largest global satellite operator after Luxembourgbased SES Global. Recently, it completed the purchase of all of Loral's North American satellite assets.

News Skies Satellites in "Advanced Negotiations" with Private Equity Firm to Sell its Assets

New Skies Satellites N.V. announced that it is engaged in advanced negotiations with a leading private equity firm regarding a proposal from this firm to acquire the company. New Skies has also confirmed it has received proposals from other third parties and is in concurrent discussions with these parties.

All current discussions contemplate a sale of substantially all of New Skies' assets and liabilities for cash at values representing a premium to the company's current share price, according to a company statement. Any such sale would be followed by a liquidation of the Company and the distribution of the cash to its shareholders. New Skies' business and operations would be continued by the purchaser, with the effect of the transaction



...the big action to the small screen

Your Satellite Connection to the World

The SES GLOBAL companies bring entertainment and excitement to millions of homes across the world. The SES GLOBAL family consists of the world's premier satellite operators, each a leader in its respective market: SES AMERICOM in the U.S. and SES ASTRA in Europe, as well as the partner companies AsiaSat in Asia, Star One and Nahuelsat in Latin America, and SIRIUS in Europe. This network provides satellite communications across the globe, with the unequalled depth of service and audience that only regional market leaders can provide.

Worldwide and worldclass.



INDUSTRY NEWS

being a change in ownership of the New Skies business enterprise. The statement further stated that any agreement to sell New Skies' assets would be subject to the approval of New Skies' Management and Supervisory Boards. Consummation of a transaction, once agreed, would be subject to a number of other conditions including approval by New Skies' shareholders at an Extraordinary General Meeting and receipt of necessary regulatory approvals. New Skies anticipates that a transaction would be completed, and liquidating distributions paid to shareholders, no sooner than the end of 2004. The announcement comes in the heels of INTELSAT's announcement last Friday that it too has received interest from an unnamed party to purchase or invest in the company. New Skies spun off from Intelsat in 1999 and is one of only five satellite operators with global coverage.

Comtech EF Data. Receives \$6.5 Million in Orders for Satellite Communications Equipment

Comtech EF Data Corp. received three orders for satellite communication equipment for the month of May worth \$ 6.6

million. One order was for \$4.0 million from a leading global satellite service provider and the other was a \$1.3 million order from a major telecommunications service provider in South America and another \$1.2 million order from a major cellular operator in South East Asia

The \$4.0 million order is a Basic Ordering Agreement (BOA), providing for purchases of \$2.0 million per year for two years. The BOA covers purchases of Comtech EF Data's satellite communications equipment ranging from digital and IP-centric satellite modems to frequency up and down converters and transceivers. The satellite service provider will deploy the equipment to support its global satellite communications infrastructure and connectivity solutions.

The \$ 1.3 million order from South America includes various products from Comtech EF Data's extensive product line, including satellite modems, frequency converters and transceivers. The equipment will be used in the customer's network infrastructure expansion and also to support Global System for Mobile Communications (GSM) applications. error correction.

PTC MID-YEAR SEMINAR AND EXHIBITION 2004 China—Opportunities and Challenges for the World's IT and ICT Industries

14–15 September 2004 (Seminar) 14–17 September 2004 (Exhibition) Tianjin, People's Republic of China

Telecommunication Trend in China • Development of Software for China Telecom Field • Network Security • e-Government • Regulatory Issues • Mobile/Wireless Communications • Broadcasting Issues • Distance Learning • Satellite • Submarine

CO-HOSTS

Ministry of Information Industry Pacific Telecommunications Council Tianjin Municipal People's Government

JOINT ORGANIZERS Tianjin Municipal Informatization Office Pacific Telecommunications Council Tianjin Hi-Tech Industry Park Dragon Telecom

For more information, visit www.MY2004.org

ISCE 2004 Conference and Exhibition to Kick Off June 1

The Third annual ISCe 2004 conference and exhibition will kick off on Tuesday, June 1st at the Long Beach Convention Center. Leading a distinguished line-up of speakers is SES Global CEO Romain Bausch who will be giving the keynote address.

The conference will be highlighting key sessions organized around different fora on Defense and Security, Navigation, Next-Generation Capabilities, among others.

"With homeland security as a top priority on the agenda, the Coast Guard is at a heightened state of alert protecting more than 361 ports and 95,000 miles of coastline," said Art Paredes, ISCe Chairman. "We are honored to have Captain Peter Neffenger, USCG Commanding Officer and Captain for the Port of Los Angeles/Long Beach discuss what processes are being implemented to detect and prevent our Ports from potential acts of terrorism." Panelists in the Defense and Security Forum include senior officials such as Brig. Gen. Charles Fletcher, Jr., Assistant Deputy Chief of Staff G-4 - U.S. Army; RADM Rand Fischer, Director, Transformational Communications Office, NRO Communications Directorate - U.S. Navy; Major General C. Robert "Bob" Kehler, Director, National Security Space - Office of the Undersecretary of the Air Force; and Lt. Gen. Brian Arnold, Commander - USAF Space & Missile Systems Center (SMC).

Satnews Managing Editor, Virgil Labrador will be chairing a session on "*Earthquakes, Fires and Floods: Satellites to the Rescue*" from 3.30-4:50 pm on Thursday, June 1. The panel will feature the following speakers: **Tom Bleir**, CTO, QuakeFinder; **Rob Knabe**, Director Emergency Services, Brookstone Equipment; **David Gray**, Lyman Bros. and **Steve Vaughn**, Communications Chief, Riveside County, California Department of Forestry and Fire Protection.

"ISCe presents a wide array of opportunities for new business development to both satellite providers and end users," said Joachim Schafer, president of Hannover Fairs USA.

"While the exhibit hall is the obvious place to make new business contacts, several of the conference sessions, for example "Galileo Opportunities for U.S. Providers" and "Military Space R&D: Opportunities and Priorities," are designed to provide attendees valuable knowledge for competing on future projects," he added.

For more information and to register, visit <u>www.isce.com</u> **SM**



Vol.2 No. 3 June 2004

SATMAGAZINE.COM

NEW PRODUCTS

AAE Systems Introduces the Eclipse DMM-6

Part of AAE's Eclipse MF-TDMA product line, the DMM-6 is a fully integrated, multiple modem chassis designed for use in bandwidth efficient DAMA-based VSAT networks. The DMM-6 is primarily used in TDMA network hub terminals. In larger capacity hub stations, the unit may be clustered with other DMM-6 units and set in redundant configurations. Through a



single Ethernet port, the DMM-6 is able to support aggregated reception from up to six TDMA carriers. By assigning a large outbound carrier and multiple smaller shared

inbound carriers, the DMM-6 facilitates the economical sizing of remote VSAT terminals in a network. The DMM-6 works hand-inhand with the DSM-1 remote modems in dynamically managed multi-carrier networks.

The DMM-6 may be used in mesh, star, and DVB hybrid topologies and is easily adapted to meet any present and future system requirements. The DMM-6 has a number of special features designed to increase systems availability, including dynamic rain fade compensation and automatic power control. Additionally, the DMM-6 utilizes dynamic frequency hopping among assigned carriers, thereby assuring maximized utilization of the total allocated satellite bandwidth. Employing an IP-based carrier, QoS, and an L-band IF interface, the DMM-6 supports an aggregated return capacity of up to 18 Mbps. The unique modulation method of the DMM-6 uses less overhead, less bandwidth, and lower power amplifiers than conventional modulation schemes. For more information go to: www.aaesys.com

ERI to Showcase SatCom Interference Suppression Product at ISCe 2004

Electro-Radiation Incorporated (ERI) will showcase its Communications Protection Technology (CPT) Model 2100 Interference Suppression Unit (ISU), as well as GPS Anti-Jam Products and Technologies, at the ISCe Conference and Expo in Long Beach, Calif. ERI's exhibit will be focused on this year's ISCe theme of dual-use satellite-based services, applications and innovative technologies for the commercial, civil, and industrial sectors.

Mario M. Casabona, President and CEO of ERI, stated: "We're excited to display our ground-breaking alternative solution to SatCom interference. This issue has plagued the SatCom industry since its inception, and we are proud to lead the industry in providing a strong, effective solution based on our technology strengths. The CPT 2100 solves 'real-world' problems and will lead our Company to other exciting SatCom enhancements."

John Thoma, ERI's Director of Business Development, will show visitors to ERI's booth how they can learn how ERI's SatCom Interference Suppression Technologies provide a cost-effective, easy-to-use solution to recurring SatCom interference issues. Bob Wilson, VP of Business Development for DOD programs, will be present to convey how ERI's multiple anti-jam techniques provide a diverse array of GPS AJ solutions for handheld, ground vehicle, airborne, naval and precision guided missile markets.

Shiron to Introduce New VSAT at CommunicAsia 2004

Shiron Satellite Communications will unveil the second in a new line of advanced Remote Gateways at the upcoming CommunicAsia 2004 show in Singapore.



e **iRG 40**, part of Shiron's **iRG** family, is a powerful VSAT solution with robust open architecture and unparalleled performance. The system is remarkable for its combination of advanced features. The **iRG 40** supports both multiple standards and technologies and enables smooth system capability upgrades over satellite.

"One of the main strengths of the **iRG 40** is its adaptability," said Sam Goldenberg, Director of Sales for Asia Pacific. "The **iRG 40** adapts to customers' needs in both capabilities and price, allowing them to make a minimal initial investment and later upgrade to a more powerful solution without having to purchase additional hardware."

NEW PRODUCTS

The **iRG 40** supports adjustable data rates from 16 Kbps to 2 Mbps and is DVB-RCS upgradeable. As with the previously released **iRG 30**, the **iRG 40** supports DVB-S, DVB-RCS, DAMA/BOD and PAMA/SCPC and can operate as an integral part of the **InterSKY**[™]system or in SCPC mode. The terminal supports dual continuous and burst mode operation and has an advanced set of networking capabilities.

"The **iRG 40** raises the bar for VSAT technology," said Toby Olshanetsky, Shiron's VP of Sales and Marketing. "We're very pleased to have achieved our goal of providing the broadband community with a powerful and flexible VSAT solution that offers such a variety of service levels. "

Patriot Granted Hispasat Type-Approvals

Hispasat, the Spain-based satellite communications operator, has type-approved three of Patriot's Ku-band antennas for use with its satellites. These approvals are the first for Patriot to receive from Hispasat. The approved antennas range from 1.0m to 1.8m in size.

Effective immediately, these antennas are approved for use with the Hispasat satellites throughout its coverage areas in Europe, Latin America, Northern Africa, and the United States. For more information go to: www.sepatriot.com

GLOBAL LINK PRODUCTIONS, Inc.



- Two fully redundant digital or analog KU-Band uplink trucks available
- Tandberg 4:2:0/4:2:2 redundant encoders w/ Alteia digital receivers
- Dual path, NO RESTRICTIONS transmission
- High speed, wireless, 2-way Internet broadband systems on board
- 20 Channel Audio mixer. RTS, IFB systems
- Beta SP on-board editing system
- KU-Band Fly Away systems available
- Professional camera crews for ANY job.



GLOBAL LINK PRODUCTIONS, Inc.

1175 Saratoga Ave., Suite #1 San Jose, CA 95129 Tel: (408) 465-2787 / (800) 676-4080 Fax (408) 465-2345 www.satnews.com/globallink E-mail: dmakinst@earthlink.net

EXECUTIVE MOVES

Satellite Insurance Pioneer Passed Away



The man who pioneered the insurance of commercial satellites, retired insurance executive James Barrett died of arrhythmia May 1 aboard his yacht in the

James Barrett Bahamas. Barrett was the first to offer insurance to commercial satellites, when in 1963 he pitched to the then nascent Communications Satellite Corp. (COMSAT) the idea of insuring their satellites. He held contracts to insure COMSAT satellites till 1973.

He formed his own insurance brokerage company, the James W. Barrett Co. in 1963. He sold the company to Kaiser Industries and became president of Kaiser's California insurance subsidiary, Underwriters Services Inc. in 1970. In 1977, Barrett become president and chief operating officer of Corroon and Black Inc., a subsidiary of one of the nation's largest insurance brokerage firms, and started International Space Risk Management Systems (Inspace) in Bethesda as a subsidiary. In 1983, he left Inspace and founded International Technology Underwriters Inc. (Intec), the first insurance firm specializing in underwriting space ventures. In 1992, he sold the firm to AXA Group, a French insurance company.

John J. Sie Retires as Starz CEO

Starz Encore Group Chairman, CEO, and Founder John J. Sie announced that he will retire as chief executive officer of the company effective June 30 and will retain the chairman title. Company

Vol.2 No. 3 June 2004

president and chief Operating officer Mark Bauman will serve as CEO on an interim basis until a permanent CEO is named, at which point he said he will retire from the company. Starz president of sales and marketing Robert B. Clasen was named president and chief operating officer.

Sie, who recently turned 68, first announced a year ago his intention to retire from the company. At that time he said he was delaying retirement only long enough to see subscription video-on-demand (SVOD), a concept he pioneered, become a reality. Recognized as one of a small group of visionaries who built the cable television industry, Sie has held key positions at leading technology, operations and programming companies. He played a central role in many of the key cable and satellite milestones of the past third of a century. These include the development of two-way cable television, the creation of the Showtime premium television channel, the development of urban cable systems, the funding of numerous programming networks such as the Discovery Channel and BET and the creation of the digital television standard in the US.



COVER STORY Who Owns the Enterprise?

By Alan Gottlieb

A s Satellite Operators face the future, they have come to the realization that to prosper they need to expand their markets beyond the traditional areas of Broadcast and ISP focus. Oversupply of bandwidth and the incursion of fiber into the ISP sector have resulted in intensified competition and downward price pressures, and the need to open new markets is more critical than ever.

Many operators see the Enterprise as an enormous and potentially untapped source of revenue, yet few comprehend the complexity of the challenge they face as they attempt to penetrate it. What they refer to as the "Enterprise" is really a collection of industry verticals such as Oil and Gas, Mining, International Construction, Banking, Distance



Learning, Disaster Recovery, Telemedicine, Hospitality and other businesses each with its own distinct communication needs and service requirements.

Due to the complexity of these markets, Satellite Operators have relied upon third party, value added integrators to penetrate these verticals. Why go to the trouble and expense of building a direct to customer integration business when satellite bandwidth is in short supply and good money can be made as a commodity provider?

The answer, of course, is that when bandwidth is in over supply, revenues and margins fall. Selling a commodity becomes less and less attractive and value added business becomes a compelling alternative. This is the current market condition, and in response to it Operators are initiating programs to go direct to the end user. The danger of this is that they must now compete with their own distributors.

While the idea of eliminating the middle man is attractive in a strategic sense, it is a difficult and costly challenge in the real world. Building a successful value added business means understanding the intricacies of each vertical, identifying customer needs and developing products, services and the support structure to fill the need. This costs money and takes time.

Yet, in an environment where capital is short and positions are being eliminated, appropriating new funds to build the infrastructure to reach the end user is unlikely. The result of all of this is executives are charged with the responsibility of penetrating value added markets with existing, commodity oriented, market research and sales staffs untrained in solution selling and a total lack of after-the-sale service and support infrastructure.

In my view, it is possible to overcome these obstacles and create an economic hybrid structure to reach the end user. The model I propose relies upon a combination of reorganization in the marketing and sales area combined with limited investment and partnership with existing third party integrators.

Begin with Market Research

Generating business in Enterprise markets depends upon the identification of unmet customer need, and such needs can only be detected through meeting and developing relationships with the end users themselves. Hence, market research analysts and executives must be capable of cold calling IT Managers in untapped business sectors, setting up appointments with them and building the kind of relationships that identify satellite solvable communications problems.

This sort of research requires aggressive and self confident personnel with genuine sales and market research skills and is usually found only in senior analysts and executives, not recent business graduates. If operators are really serious about

penetrating Enterprise markets, they need the skills and experience of seasoned market research professionals.

New Sales Approaches

In selling to Enterprises, sales personnel face a multitude of new challenges.



Firstly, IT Managers in many industries have traditionally purchased all of their communications services through terrestrial providers. Many of have never seen a salesman from the satellite industry nor do they understand the services that satellites can provide – other than simple point to point links. So, educating the customer needs to be a part of initial approach.

Secondly, sales personnel need an overview of the corporate network in order to spot potential applications for satellite technology. "Why don't you tell me about your network and its applications, and I will see how we can help?" This approach usually produces the kind of information a salesman needs to spot potential satellite applications and develop business.

In an industry that has sold commodity bandwidth, consultative selling skills are a rarity. Sales personnel need to be retrained to sell solutions or replaced with sales with experience in solutions based selling.

Once the operator has a solutions oriented market research and sales team, unmet needs can be detected and product and service packages developed. The final essential element, building of local integration and support infrastructure, can now be accomplished in ways that enhance margins and preserve customer ownership.

Owning the Customer

Armed with a research group that identifies unmet needs and a salesforce capable of selling solutions, the operator can begin to

add value through the defining of needs and acquisition of customers.

Once the sale has been made, integration and service work can be subcontracted to local firms. In this scenario, the operator owns the customer, can generate higher margins and avoids having to develop their own service infrastructure. This strategy is infinitely preferable to leaving customer ownership at the third party level.

Finally, where capital is available, it makes sense to own a percentage of key, third party distributors. This assures a lock on a significant portion of the bandwidth business. Used strategically, this approach can solidify a competitive position with select Enterprise verticals.

In Conclusion

Penetrating the Enterprise is an achievable goal for the satellite operator. However, to be successful, it is necessary to improve market research techniques, restructure sales strategies to a solutions approach and provide local integration and service through subcontracted or partially owned locally entities. Without such shifts in approach, entry into the Enterprise is likely to remain entirely in the hands of value added, local integrators. **SM**



Alan Gottlieb is CEO and Principal Consultant at Gottlieb and Company, Inc. His most recent assignment for Verestar Inc., opening of enterprise markets in Oil and Gas, International Construction, Pulp and Paper, Hospitality and Call Center Industries, employed an

innovative combination of on-site market research interviews and specialized sales technique to produce market entry strategies as well as generate initial sales.

For the second year in a row, Mr. Gottlieb will moderate the Oil Industry Panel at ISCe 2004 (June 1-3). Join him for some valuable insights into the new technologies and how they are enhancing oil industry communications. He can be reached at agottlieb@gottliebandcompany.com

The Latest Trek on the Enterprise

By Bruce Elbert President, Application Strategy Inc.

ny organization that has a specific Amission in providing a product or service to customers can be classified as an enterprise. For this reason, enterprises are found in both the public and private sectors. Public sector enterprises are nonprofits that serve the physical and spiritual needs of clients, while their counterparts in the private sector produce assets and perishables for a profit. Either way, they must develop an enterprise strategy that allows them to compete with likely rivals who could do the same job in a more efficient or, as their clients see it, better way. Increasingly, information and communications technology (ICT) is a key aspect of competitive strategy, as demonstrated by the value of PCs and wireless devices along with Internetbased services and computer databases.

In our last article, we identified four classes of potential buyers of satellite communications ground equipment: a) Service providers, (b) Consumers, (c) Government agencies, and (d) Businesses. The last two contain the enterprises that satellite operators, service providers and equipment sellers could attract. The article in this issue by Alan Gottlieb presents a very practical view and approach for marketing professionals wishing to enter the enterprise market from the satellite perspective. I couldn't agree more with Alan about the challenge of building the right kind of staff capabilities to find prospects and convert them into longtime buyers. I will take the point from there and address the "how" of the process.

First of all, the prospective seller of bandwidth, equipment or services must fully understand what they have to offer in the enterprise market. I have found that this is big challenge for companies and their senior management. It is a matter of listing the "assets" and "liabilities" as accurately as possible, and quantifying them in relation to (a) what potential enterprise clients need and want, and (b) what competitors have or could muster. The assets need to be broadly defined:

- Satellite resources, in terms of orbit locations, coverage, frequencies, and reliability (the health and operation of that bird). One cannot build an enterprise business on a weak technical foundation.
- Staff, e.g., people of the highest skill and integrity, who can "beam

"... the prospective seller of bandwidth, equipment or services must fully understand what they have to offer in the enterprise market..."

> down" into whatever situation and deal with many unexpected twists and turns. Like any good consultant, they must learn how the enterprise customer thinks and acts, and how to find solutions that are both attractive and profitable.

- Relationships with a variety of supporting groups, such as subcontractors and teleport operators. Finding the right partners is as difficult as finding good customers.
- Having the right financial backing to spend money where and when

needed – not like one of those spend-thrift dot-com's but more like how Warren Buffet decides to spend his.

• Intimacy with state-of-the-art technology in both hardware and software, allowing you to identify the right contacts on the supplier side and manage their contribution from start to finish. Even James T. Kirk didn't know it all, but he had every skill imaginable (in Gene Roddenberry's terms) within his Enterprise.

There are obviously many more such guidelines, but the thrust is clear. You must have good officers and troops and

equip them with modern weaponry (today's "phasors") to find that undiscovered country and make friends. Alan Gottlieb identifies "consultative selling" as the skill needed in most situations where enterprise requirements are to be

identified. I would add that solutions are not "meals ready to eat" but must be created and prepared for the client. Importantly, the client needs to be encouraged to take an active part in its preparation. Lacking this, it is doubtful that a profitable sale can be made.

By implication, the sales cycle for solution selling in the enterprise is very long – not as long as the build cycle for a new satellite (in the range 18 months to three years). The guidelines I suggest cover what you will need to develop the solution for any enterprise, but one cannot be assured that even a good strategy will succeed in a particular engagement. This is the case because the

game is strongly influenced by the environment of the enterprise customer. Consider the following example of the process we might go through building a good customer

relationship:

1. Our company, Enterprise Satellite Solutions (ESS) has identified Borg Systems as one of a number of prospects in an industry



in an industry photo: Paramount Pictures segment that could benefit from an aski enterprise satellite solution. ther

2 By some means (Alan suggests cold calls, but another venue might be attendance at an industry event), marketing professional Joann Ohura makes contact with Frank Data, a telecom manager at Borg who expressed curiosity about what the latest in satellite technology might accomplish. They arrange a meeting where Joann and others might bring Frank and some of his colleagues up to date (Frank once worked for AT&T and had a limited involvement with Telstar a couple of decades ago).

3. Joann discusses this with Tommy Spok, the brightest light among their systems engineers, who also happens to be a really good presenter. They put together a presentation of high quality and interest, which only indirectly promotes ESS.

4. After a number of reschedules of the meeting (due to other pressing needs at Borg, such as a project that was about to crash and burn), the presentation is held and well received. No specific requirement is identified but Frank and his colleagues indicate that they will be thinking about it (what "it" is, no one knows).

5. Joann resists bugging Frank (she is searching out other such potentialities and so isn't sitting on her hands waiting

for the phone to ring) but after several months she finds some reason to follow up. This could be nothing more than running into Frank at another conference

> or sending him an interesting whitepaper. Frank, meanwhile, hasn't seen a need for a satellite solution and hence is not particularly interested in much contact.

6. Out of the blue – and possibly nine months later – Frank sends

Joann an email asking if ESS could give them a demonstration of tying land-based wireless to a satellite link. It seems they are in dire need to solve a communication problem that their regular suppliers don't have a clue about.

7. Surprised (not really), Joann nevertheless replies in a supportive manner that ESS will come for another visit to indicate some options and discuss what can be done to satisfy their requirement. From here, she reengages with Tommy Spok to create these options, which of course use ESS satellite capacity. However, Tommy realizes that all of the necessary resources are not yet at their disposal (nor does he know what, specifically, they need to be) and so research is in order.

8. From this point, the team at ESS goes through the same process it always does

to develop a solution for a known requirement and follows the path set out in my previous list of guidelines.

9. Subsequently, the meeting with Borg occurs, but this time, Frank and company express a lot more interest and willingness to cooperate and even provide some of their own resources as part of a demonstration.

and possiblyFrom this point, ESS would need to workank sendshard and smartly to develop a cost/photo:Paramount Pictureseffective solution



that can be provided at a profit. By linking tightly to their customer (becoming

one with Borg), ESS gives every reason for Borg to remain loyal and thereby preclude a competitor from entering the fray. You cannot assume that the deal will be done, but you are on your way to developing this business. It is possible that this solution will be appropriate to other enterprises, although one cannot be sure of timing and volume. Instead, the Borg project gives our ESS team the confidence and experience they need to continue to strike out where no solution provider has gone before.



Bruce Elbert has over 30 years of experience in satellite

communications and is the President of Application Technology Strategy, Inc., which assists satellite operators, network providers and users in the public and private sectors. He is an author and educator in these fields, having produced seven titles and conducted technical and business training around the world. During 25 years with Hughes Electronics, he directed major technical projects and led business activities in the U.S. and overseas.He is the author of The Satellite Communication Applications Handbook, second edition (Artech House, 2004). Web site: www.applicationstrategy.com Email: bruce@applicationstrategy.com

BBC Promises HDTV

"Satellite will be first"

By Chris Forrester SatMagazine Editor for Europe, Middle East and Africa

ohn Varney, chief technology officer at BBC Direction, the in-house division responsible for the broadcaster's technology and strategic thinking, says the BBC will have completely adopted high-definition television by the end of this decade. Moreover, he says the BBC is prepared to favor satellite for HD. "HD is important to the BBC in terms of coproductions and where we want to protect content for the overseas market. In the longer term we are driven, not so much by the need to go HD, although personally I think it's a great development, but because we won't be able to buy anything that isn't already HD. We may need to detach ourselves a little from the terrestrial transmission paradigm and think about how the world will look in 5 years time. Where our ability to deliver HD programming, say across broadband, or to make for DVD, which will certainly happen within the 4-5 year timeframe. It's happening today at the high-end, where you can buy HDcamcorders, and there are HD displays screens out there already. We will have to be ready for our marketplace. We have said that we believe that by the end of this decade almost all, if not all, of the BBC's production will be in highdefinition."

Varney was speaking exclusively to *SatMagazine*. His words echo those of a major BBC report to the UK government on April 26 (www.bbc.co.uk/info/policies/pdf/digital_switchover_report.pdf). While concentrating mostly on the likely 'switch

off' date of analogue TV, the BBC report also touched on HDTV, saying: "As UK households adopt TV sets with ever larger screen sizes (a trend likely to accelerate as prices are dropping quite quickly), which expose the picture quality limitations of digital TV, demand for HDTV might be expected to emerge, for

which consumers would need to invest in new receivers. Growing familiarity with the picture quality offered by DVD-Video could be expected to contribute to this. However, although HDTV is likely to become a viable consumer proposition in the UK within the next 5 years, it is unlikely to drive switchover within that timeframe."



BBC's John Varney

The BBC's view, therefore, was that HDTV would – as far as the BBC was concerned have to limit itself to satellite and cable. "There is also currently limited availability of suitable content which would benefit

from HD treatment (although high-end drama and sporting events - such as the Olympics – would), and could be made in HD without substantial added costs for the broadcasters, and for which consumers might be willing to pay (HDTV is not backwards compatible to any of the

And Euro1080 Ramps Up

Belgian HDTV broadcaster Euro1080 has successfully won some very useful cable distribution for its service. Flemish cable MSO Telenet is

already conducting a technical test, while around 600,000 cable homes in the Netherlands will have access to the service starting in June. Germany's 'ish' cable system will start transmissions in September. Euro1080 set-top boxes (under the Zinwell brand, QS1080ir model) are now widely available (at around €300 each) plus the cost of the Irdeto conditional access card. Euro1080 encrypts on May 15. Pioneer and Thomson also have set-top boxes coming to market.



growing number of owners of large screen devices."

Varney says satellite offers the best chance for UK-targeted HDTV. "For the UK, my guess is that satellite will be the first to market HD. Cable could do it, but it doesn't have the market penetration and the demographic of cable households is such that you do not see it warranting a heavy investment in HD for consumers. Terrestrial could just about do it with different coding technologies, but it would mean a change of channel and service mix on the multiplexes. Satellite has the bandwidth, and could be the quickest to market if there was a sudden interest from consumers." Asked when it was likely that the BBC would begin transmissions, Varney replied: "Can I turn this around the other way, by firmly stating that if we don't deliver HD to our audience then we will have viewers who see broadcast TV as the poor relation because everything they buy will be high-definition. The schedule seems to be that by the third quarter of this decade all domestic cam-corders will be HD, plus domestic recording devices will be HD. There is most certainly a momentum." **SM**



London-based Chris Forrester, a well-known broadcasting journalist is the Editor for Europe, Middle East and Africa for SATMAGAZINE. He reports on all aspects of the industry with special emphasis on content, the business of television and emerging technologies. He has a unique knowledge of the Middle East broadcasting scene, having interviewed at length the operational heads of each of the main channels and pay-TV platforms. He can be reached at chrisforrester@compuserve.com



Comtech EF Data, an industry-leading developer of SATCOM equipment, offers Modems, Switches, Converters, Transceivers and IP-centric Products for Voice, Data and Video via Satellite.

From the most efficient Turbo Product Coding forward error correction and innovative network/bandwidth management solutions, to unparalleled quality and reliability, you can trust the products designed and manufactured by Comtech EF Data to:

Optimize Satellite Communications



Next Generation Video Services Implications for Satellite Operators and Broadcasters

By David Gillies

Over the last 18 months, new video coding technologies such as MPEG4 / AVC and Windows Media 9 have dominated the technical press and TV related conferences and exhibitions with the promise of providing broadcasters with more efficient video coding techniques leading to even more digital programmes per broadcast channel. Indeed, for technologies such as ADSL which typically support bandwidths for each end user of less than 3 Mbits/sec, these video coding technologies permit for the first time the delivery of high quality video services allowing telecom companies to compete with cable for triple play services. For a new operator, it would seem a simple and sensible choice to use these new technologies. For existing operators, stuck with old fashioned MPEG2 equipment, a swap out of set top boxes

and head end equipment would seem imminent. But it is worthwhile to dig a little deeper to compare existing and future video encoding technologies and identify when the new take over from the old.

Which Standards?

An interesting area to begin comparisons of existing and emerging technologies is with the economics of setting up a new system. Consider a 50 channel TV service, to be broadcast via satellite. Assuming a

bandwidth of 3.8 Mbits/sec for each channel comprising compressed audio and video plus some signalling, Conditional Access and other overhead, this is equivalent to 190 Mbit/sec total bandwidth. If the service operates on 36 MHz transponders, using typical FEC and sampling rates providing roughly 38 Mbits/sec per transponder, then a total of five transponders will be required to operate the service.

Now if new video encoding technologies are employed, reducing the total bandwidth requirement by around 50% - even more may be possible – the total number of transponders is reduced to two and a half. By being even more aggressive, and employing the latest DVB-S2 satellite encoding technology, the data capacity of the transponders can be increased by around 30 %. Therefore employing the newest available technology, the transponder count for a 50 channel service can be reduced from five to two, with a corresponding saving in transmission costs. Assuming a

transponder cost of \$2 million p.a., this corresponds to a saving of 6 million per annum.

So far, so good. But the consumer will also require a set top box based on these new technologies to access the services. A low cost, DVB / MPEG2 satellite STB can cost around \$ 60 in volume, however, it is unlikely that an MPEG4 / DVB-S2 STB will cost less than \$ 120 over the next twelve months. There is therefore a premium for using the new technology of around \$ 60 per consumer. If the service has a target growth rate of around 500,000 consumers p.a., and 50% of the STB cost is subsidised, then the annual costs for subsidising the new technologies is \$ 30 million per annum – dwarfing the transmission savings.

> This rather unsophisticated calculation is without doubt open to challenge and improvement, however, the simple fact is that the set top box remains one of, if not the most expensive element, of setting up a new digital TV service. So there is currently no sound economic reason to begin using new technologies – and there is no obvious advantage for the consumer. Allowing time for the cost of using these new technologies to reach levels equivalent with MPEG2 equipment, then for most standard definition services it will be at least two more years

before the use of AVC / WM 9 begins to become economically compelling. MPEG2 services will continue to dominate digital TV broadcasting for the foreseeable future.

Although that is good news for manufacturers of MPEG2 equipment, and for satellite operators selling bandwidth, it would be wrong to be complacent. The history of TV broadcasting shows many examples of great technology which did not succeed in the market place. However, most breakthroughs were successful as a *combination* of multiple technologies allowing the provision of attractive services which where hitherto not available for consumers. One of the best examples of this is the range of source and channel coding standards plus support technologies defined by the DVB Project in the early 1990's providing consumers with a huge number of audio and video services with excellent quality, thereby driving the adoption of

digital TV services in both satellite and cable networks. The key, therefore, is to look where such a combination is possible.

New Services

Given that consumers are willing to pay for high quality audio / video content, when the costs are considered to be reasonable – look at the explosive growth of DVD players – affordable flat panel displays and High Definition TV programming is one such *combination*. As high quality HDTV displays drop below the \$ 5000 mark, and AVC / WM9 video coding providing HDTV quality signals with bitrates below 10 Mbit/sec, it is likely that a new range of services will become available over the next 12 to 24 months. Bitrates below half that required by MPEG2 video encoding will allow either multiple HD streams per transponder or simulcasting of SD and HD streams.

Although these are premium services and still represent a relatively high investment on the part of the consumer, digital cinema theatres, public viewing in pubs and clubs and early adopters will be prepared to pay for these services. Such new services will drive the adoption of AVC / WM9 equipment, especially at the consumer level, with backwards compatibility with MPEG2 services allowing existing services also to be received. As the volume of HD receiving equipment grows, the cost of the decoding silicon will reduce, not only for HD but also for SD receivers based on equivalent technology.

Both cable and in particular satellite operators have the necessary bandwidth to support these services, and also have a vested interest in using as far as possible all their available bandwidth and offering services not available on other broadcast media where bandwidth is at a premium. Cost of content production will be a key factor in the development of HD services, however, the success of HDTV in the US indicates that markets in other parts of the world will quickly develop. Premiere in Germany has already held a pilot HDTV transmission together with SES Astra for the 2004 NFL Super Bowl. Consider the interest in seeing the next soccer World Cup finals to be held in Germany in 2006 worldwide in HDTV quality.



Vol.2 No. 3 June 2004

Although the delivery of HDTV signals via cable, satellite and also terrestrial broadcasting has been possible and indeed available for some time, AVC / WM 9 will make these transmissions more bandwidth efficient. However the *combination* of new video encoding techniques *plus* the IP protocol *plus* ADSL 2 / 2+ standards will enable reliable audio video services to be offered over existing copper telephone lines which has previously been impossible. The potential here may rival and even surpass the success of DVB / MPEG2 based systems.

Since available bandwidths will remain in the 2-3 Mbit/sec range, it will be difficult to offer HD services without using local HDD storage. However, if the ADSL services are supported by a suitable network server architecture, it will be possible to offer not just NVOD or VOD but effectively EOD – Everything On

Demand. A number of trials are currently under way in the US offering exactly this type of audio / video service. If such server based EOD services are successful, and there is no technical reason why this should not be the case, this would represent a significant shift away from the traditional linear programming and viewing model – each viewer can watch what he wants when he wants. The market potential and Telco interest in developing these new services will probably be the primary driver for AVC / WM 9 encoding and decoding equipment over the next two years.

Conclusion

In conclusion, the replacement of MPEG2 as the dominant video coding standard will not take place for a number of years yet. How existing broadcasters will migrate their legacy receivers



NEXT GENERATION SATELLITE NETWORKS

Flexibility and versatility are key assets of today's core network systems, and *SkyWAN®* is no exception. With its top performance and proven customer base in more than 130 countries, *SkyWAN®* provides a powerful communication solution via satellite. More than 25 years experience in satellite communication network design, implementation and support, have positioned ND SatCom as a leading global supplier of innovative and future-proof solutions!

// For more information please visit www.ndsatcom.com //

Key System Features:

- / Star, hybrid or meshed network topology
- / Unified network for voice, video and data
- / Optimized and dynamic bandwidth usage
- / High processing power and performance of up to 8 Mbit/s per station
- / IP routing and FR switching
- / Available for C-band and Ku-band



// ND SatCom AG // P.O. Box / 88039 Friedrichshafen / Germany // Phone +4975459390 // info@ndsatcom.com / www.ndsatcom.com // ND SatCom, inc. // 1850 North Greenville Avenue / Suite 184 / Richardson / Texas 75081 / USA // Phone +12142313400 // www.ndsatcom.com // Abu Dhabi / Beijing / Jakarta / Mexico City / Miami / New Delhi / Paris / Pretoria / São Paulo / Singapore / Washington D.C. //

from MPEG2 to AVC / WM9 is a problem which is still a long way off. However, the new video coding technologies are poised to support the provision of HDTV services in Europe and Asia, where they are currently not available. There is also no reason why such HDTV products cannot be offered in the Americas. But the major breakthrough for AVC / WM 9 will be the enablement in the provision of audio / video services via existing copper lines, potentially rivalling and surpassing the success of current digital TV standards. For the consumer, the choice of his signal delivery medium will become more difficult, and for broadcasters and operators the choice of which delivery media to support will become a critical business, rather than technical, decision.

Footnote:

To finish, consider briefly the DVB-S2 standard included in the example at the beginning of this article. Although one of the most technically advanced standards to be defined by the DVB Project, the lack of backwards compatibility which leads to the significant increase in channel coding efficiency may also be it's downfall. Although new services may consider using DVB-S2, the lack of the so called "neighborhood effect" - similar services

using the same technology on co-sited satellites – makes the selection of this standard for non contribution links difficult. Given the increased bandwidth efficiency now being offered with AVC / WM 9 video coding, it runs the risk of remaining a useful channel coding option without breaking through into the main stream. Technical excellence alone is no

guarantee of commercial success. SM



David Gillies is the founder of the independent technology consultancy *isis* digital, based in Munich, Germany. With over twenty years international experience in R&D, management and operations of digital TV systems, he specialises in helping

operators and manufacturers identify the commercial and technical requirements to allow them to expand existing services and define new services. He regularly presents papers on topical issues at conferences in Europe, America and Asia. He can be reached at <u>dgillies@isis-digital.com</u>



REGIONAL UPDATE NileSat Wants New Slot

Seeks New Equity Partners

By Chris Forrester SatMagazine Editor for Europe, Middle East and Africa

S alah Hamza, NileSat's chief engineer, says that with another pair of channels added in May, (taking its total to 218) the two-satellite system is achieving better than 75% utilisation. NileSat has fired up one of its remaining transponders to cope with the growth in demand for capacity from Dubai (SamaCom is uplinking from Dubai's Media City). Hamza, based at NileSat's HQ in Cairo, says he expects this additional capacity to be soaked up within a year. "Our plan is to move our many contribution services currently using our capacity to another satellite. These include contribution and point-to-point clients like Orbit, Al Jazeera and Video Cairo, which occupy a pair of transponders. We'll lease capacity on another satellite for them." NileSat operates two satellites from 7 deg West, and says once the non-DTH clients have been moved he'll have about 4 transponders free.

Hamza said that while this was obviously a good problem to be faced with, it also presented NileSat with the very real challenge of adding to its inorbit capacity. Other capacity, notably occasional use and internet point-topoint usage (MinaNet), could also be freed up, said Hamza. However, the ShowNet internet-via-satellite service is safe, given that it is a long-term transponder contract operated by a subsidiary of KIPCO in Kuwait.

Last year's revenues were more or less static, not helped by Egypt's giant Egyptian Broadcasting Union public broadcaster reducing capacity from 3 to 2 transponders, helped by improvements in digital compression.

ERTU have also somewhat modified



NileSat Chief Engineer Salah Hamza

their expansion plans to more modest levels. This, and a few other channels falling by the wayside, meant revenues were constant. Hamza says that independent research gives NileSat an extra 30% of viewing homes this recent spring, compared to 2003



NileSat HQ

(when the number was then more than 7m homes). "We now have more than 9m homes, or probably at least 50m people," says Hamza.

> Hamza admitted that very real pressure existed on NileSat to come with additional orbital capacity. "It takes two to three years to build a satellite, and to be candid we don't have that luxury. We are working on two parallel options. We have applied to the ITU more than a year ago for a total of four new slots, but everyone knows how long this process can take." He says it would be premature to disclose NileSat's favoured spot, but clearly an option with minimum co-ordination difficulties would be preferable. NileSat has also long sought extra capacity from 7 deg West, but the French authorities (looking after Eutelsat's interests) have their Telecom 2D sitting at 8 deg West, and Eutelsat's Atlantic Bird 2 also at 8 deg W, which would need co-ordination with any planned expansion by NileSat. "In our position at NileSat we have very good relations with our adjacent neighbours, and by and large we are not seen as directly competing."

NileSat first pair of satellites were sourced from Matra Marconi (now part of Astrium), with NileSat 102 being fast-tracked in about 17 months. "We will go to tender, and the usual suppliers

REGIONAL UPDATE

can be expected to respond. Buying a medium sized satellite is a little easier these days because the parameters are so well understood. We shall not be specifying complicated options or features." Also in Hamza's thoughts is the replacement schedule for NileSat 101, with an expected end-of-life around 2013 (she was launched in April 1998). Hamza says extending the number of frequencies by using Ka-band is an option for NileSat 103, and the eventual replacement of 101, and Ka-band filings cover this expansion.

Financing the third satellite might also present something of a challenge, says Hamza. "The position in Egypt with exchange rates and generation of hard currency is a problem. We are a US dollar company, and their investment would have to be in dollars. For any bank their budget for investment in companies like ours is limited. There is a chance, of course, but what we a looking for an equity partner perhaps taking 50% of the new craft, or buying new shares or some other similar financial participation." Hamza admits that vendor financing is another possibility, both for any new satellite and its associated launch costs. "One way or another we'll get this done."

NileSat's timetable is somewhat dependent on determining the orbital position, but Hamza says the company is moving positively forward. "We'd like to have a craft in position in place during 2006, and we know it is tight, but we are optimistic. We know there will be pressure from Arab entrepreneurs in the region who want to start broadcasting. Look what has happened on the Middle East music scene where we are now carrying more than 10 music channels. They have created a whole industry behind them, of people creating music clips and promotional videos, they need production, and engineers and creative skills. We have helped create a new market, new singers, news stars, and it is very satisfying."

NileSat has been prepared to help embryonic broadcasters out by taking shares in certain private channels, and this option remains, says Hamza. "In reality, most of these channels represent a long-term investment and profit might be some time down the road." **SM**

NileSat Shareholders*

Organization	%
Egyptian Radio & TV Union (ERTU)	40
Egyptian Co. for Inv. Projects (ECIP)	9
Arabian Org. for Industrialization (AOI)	10
National Bank of Egypt (NBE)	7.5
Cairo Bank (BDC)	7.5
Public Shareholders	14.2
National Investment Bank	7.6
Others	4.2
Total *Data: Company	100.00



EXECUTIVE SPOTLIGHT

Interview with SES AMERICOM SVP Bryan McGuirk

t the recent NAB show in Las Vegas, ASES Americom Senior Vice-President for Domestic Satellite Services, Bryan A. McGuirk spoke very candidly with Satnews Managing Editor, Virgil Labrador, about their vision and plans for the North American market. Appointed to his position only last October 2003, McGuirk has an extensive background in the broadcast industry. An Atlanta, Ga. native, McGuirk has an impressive broadcasting pedigree. Before joining SES Americom he was President, Programming and Advertising of California-based OpenTV, where he was at the forefront of many interactive programming developments for both advertisers and programmers. He has also worked at TViFusion, a digital cable network development and operations company; NBC Television Network, in both affiliate relations and sales; NBC Asia; Turner International, launching CNN, TNT and Cartoon Network in the Asian markets. Excerpts of the interview:

For the benefit of our readers, can you talk about your new position and what are your responsibilities and the areas that you cover?

I'm responsible for domestic satellite services in North America and that includes the Media Group which is all of our broadcast and cable programming business, along with a large radio presence.

It also includes our Enterprise Group, now recently renamed Broadband Solutions. That's been a growing area. We do custom and semi-custom solutions for corporate America and also we sell through VSAT resellers and and that's been a good business for us. The third area I am responsible for is Direct to Home (DTH) through our Americom2Home service. That obviously has been a growing business. We've been building our presence at 105.5 degrees spot as a major DTH player.

What area are you focusing more?

We have a strong presence in all areas but I can tell you that we are very excited in the broadcast segment. Since we are here at the NAB I want to talk a bit about the kinds of projects that we've been doing for our broadcast and cable programming clients. In the broadcast segment, we have our ACE project which we are doing with PBS. It is really a next generation monitoring, control and playout system for broadcast groups.

This system is a two-way VSAT network that allows PBS headquarters to monitor all of its local affiliate stations. And it uses the back channel to look at MPEG4 thumbnails of the various stations' broadcasts along with full data of the stations' play list. Basically they can monitor actively and passively any station in the area. So this is a real breakthrough in terms of what could be done in this kind of remote playout scenario. I think this is going to be something that could migrate to other broadcast groups and build on PBS' leadership. PBS has been a leader in High Definition (HD) and now is a leader in this area.

ACE is really the first MPEG4 end-to-end play out and monitoring system that I know of. So I think it's a real first in the industry and our team's been working a year on it. It's very exciting.



Bryan McGuirk

Can you talk about SES Americom's efforts in the HD arena?

HD has been a big effort for us . I've been truly moved by the amount of progress that has been made in the industry in terms of focus from the production community, the operators, and now the growing demand from consumers. So the game has changed just in the past year. HD is no longer something that is coming, it's something that is here.

We recently launched AMC 10 and 11 which are digital satellites and we created a dedicated HD neighborhood called HD PRIME.

How is your HD neighborhood different from your competitors'?

It's a friendly competition but I can tell you that we're the best, without

EXECUTIVE SPOTLIGHT

reservation. And that comes down in several ways. If you're broadcasting HD first, you want to put your most expensive programming in front of the most people possible right? Our network has the broadest reach. We have a 100 percent cable reach—which is the unique feature of our network from our competition. Beyond that we have the best network. We got all the VIACOM networks, all the Discovery networks, Scripps networks, Weather channel, among others.

I come from the programming world, and the fact that we've got 100 percent cable distribution and that we've got the best neighborhood, are two of the most critical elements for programmers.

And lastly, we've got the best and most dependable satellites. The Lockheed Martin 2100 series has a heritage of excellence in this business and we've taken it to the next level with new satellites with linearized SSPAs, twenty percent more power and they're digitally optimized. That's why I think we're the easy choice for people working on HD.

Do you compete with other HD via satellite offerings like Rainbow's Voom?

I see VOOM as a great development. I see it as one of a landmark, kind of a watershed event in this industry. They're offering 35 HD channels. It's really a game changer for consumer choice in creating that demand and content that will grow HD as a category. Right now there is really five or seven offerings in most HD packages. And Voom has 35. This will spur the competition for HD. I think the VOOM decision is right on.

What is the thinking behind SES Americom's strategy to go into the consumer market?

Strategically, Americom2Home was the vision of our CEO Dean Olmstead, which

was to create an agnostic platform at 105.5 slot, delivering DTH services to United States. And we have had this in place for almost two years now and during that time we really have become part of the fabric of the industry. We have shown that our value-added approach to the DTH market is having impact. And I think our recent announcement of our partnership with Echostar really embodies that vision.

"...HD is becoming the not just the unusual band--it will become the standard band. Once consumers see it, they really don't want to get back..."

Do you see your going into the consumer market as a departure from the traditional services that the satellite operator provides?

We don't see it as a departure. We see it as a natural evolution. It really is again part of Dean Olmstead's vision to focus on high growth markets; understand customers more deeply than we did before and provide solutions that really drive the market. We're partnering in a way that we're bringing our assets more directly to bear in order to take advantage of opportunities.

Wha do you see as the driving force in the industry today?

In the broadcast arena I think HD will continue to be a driver. HD is becoming the not just the unusual band-it will become the standard band. Once consumers see it, they really don't want to go back. We will continue to focus on HD.

What I also see in the broadcast arena is an opportunity not just in generic delivery but also in integrated technological solutions that combines MPEG4 technology with event transport. That really helps change the work flow dynamic within a broadcast station. And that's something new. I think that our ACE technology is kind of harbinger of things to come in this area.

How will your recent purchase of Verestar impact your plans for the region?

The deal has not closed yet (it is subject to regulatory approvals) so I can't jump

the gun. What I can say is that we see them as a great company with a great selling approach. We look at them as a great fit with the direction we are going, moving down the value chain, delivering solutions to vertical markets.

How do you view the recent changes in North American market, such as the closing of Intelsat's purchase of Loral's North American satellite assets?

It's clearly a market in transition. In all transitions, there is danger and opportunity. For us we see this as a major opportunity. The difference between us and the competition is that we are a focused satellite conglomerate. That is the key. We've gone through those transitions already a few years ago. And now we're executing. We have a longterm vision and capital that can really continue to put distance between us and our competitors.

Is there anything else you want to add?

You are familiar with our recent announcement of our deal with NBC (NBC signed a multi-year, multiple Ku-band transponder renewal agreement-Ed.) it shows the momentum we've been talking about. It's quite real and very exciting. HD PRIME has a big impact. Since we've launched it, our pipeline of HD services and partners has increased dramatically. I really believe HD is a big deal for our industry. It's going to be very good for satellites. **SM**

INTERNATIONAL SATELLITE DIRECTORY

ASTEMS MUDO

TELLITES

Includes a CD containing Maps of all geostationary satellites with programming information

indispensable reference guide used by over 20,000 buyers and users of satellite services and equipment.

The Most Accurate and Comprehensive One-Stop Reference Guide To The Satellite Industry

Satnews Publishers -- creators of SatNews Daily and Weekly Online News, SatMagazine, SATFinder CD-ROM, Satellite Training Series . . . has over 18 years experience of providing information for the satellite industry through The INTERNATIONAL SATELLITE DIREC-TORY. Committed to being the source you can rely on, Satnews Publishers has invested in the latest database technology to deliver the most up-to-date and comprehensive information available in the satellite industry today. The INTERNATIONAL SATELLITE DIRECTORY, now in its 18th Edition, lists over 9,000 companies, over 16,000 name and addresses of contact persons and covers every aspect of the industry from manufacturers, providers and users of satellite services, international agencies, what's on the satellites, EIRP maps, technical information and more!

To order a copy go to: www.satnews.com/products/directory.htm

MARKET INTELLIGENCE





Satellite Interoperability

By Jack Buechler Chairman, GVF Technology Working Group and Chris Baugh President, Northern Sky Research

S atellite interoperability is escalating in importance as a - and possibly *the* – key consideration in this and next year's business development plans for the international industry. There are several factors currently forcing the issue.

- **Rising Volumes:** Massive satellite system rollouts are scheduled this year, and service providers have begun placing sizeable orders for open-standard terminals to be deployed commercially in Africa, the Middle East, the Americas, Asia, North America and Europe. More than 100,000 DOCSIS-based units have now been ordered, and thousands of DVB-RCS earth stations are also slated for delivery.
- **Hybrid Verticals:** The industry's systems and services are increasingly being seized upon for applications served by hybrid solutions, including satellite-based Wi-Fi, GSM, cable, and fibre, with broader implications for interoperability. (One global satellite operator reported double-digit percentage growth in revenues from the GSM sector in 2003... just from Africa!)

industry also must examine the role of proprietary systems in the next generations of satellite networks.

Let us examine the case of DVB-S2. Now, on the tenth anniversary of the ratification of the satellite broadcast and communications industry's DVB-S standard, DVB-S2 has been designed to promote the development of interoperable services and technology, and deliver significantly higher throughput in a given amount of satellite transponder bandwidth in comparison with its precursor, the DVB-S standard.

DVB-S2 aims to address the requirements of consumer direct-tohome broadcasters and set the stage for a paradigm shift in the delivery of broadband interactive services via satellite. Northern Sky Research shows that 70% of chipset vendors, equipment suppliers and system integrators will launch DVB-S2 compliant products in the next 24 months in one of three target markets: broadcast applications, interactive services and professional systems. Additionally, DVB-S equipment revenues in 2004 will reach an estimated US\$450 million with professional systems and broadcast applications accounting for approximately 45% of the total.

Over the next five years, these market segments are likely to grow more slowly than interactive services and an increasing proportion of satellite broadcast and communications equipment

• Market Dynamics: As openstandard satellite systems such as DVB-RCS - and would-be *de facto* standards such as DOCSIS - gain in worldwide prominence, wouldbe end users and government policy makers have begun stipulating interoperable satellite systems in international tenders.

At present, the industry is assessing the immediate implications for the satellite communications business and is evaluating which technical approach most effectively supports the continued growth of the satellite communications business. The



Projected Annual DVB-S2 Equipment Revenues

MARKET INTELLIGENCE

deployed may well comply with the new DVB-S2 standard. Although receiver chipsets are not likely to be commercially available until the end of 2004 and products will probably not be on the market before the second quarter of 2005, projected annual DVB-S2 compliant equipment revenues are expected to reach US\$1.3 billion by 2009, with interactive services accounting for almost 70% of the total. CAGR of 80-100% are expected given the tremendous economic incentive for satellite operators and service providers to reduce the per-subscriber cost of space segment and terminal equipment.

Interactive mode DVB-S2 receiver chipsets (i.e. devices that include adaptive coding and modulation features) are expected to be priced at less than US\$50 in small volumes and less than US\$15 in large volumes. Although twice as expensive as the broadcast mode, such pricing is attractive to companies developing two-way broadband satellite systems even without accounting for the potential increases in system capacity. It is important to note that pricing is highly volume dependent, and the lowest price points will only be achieved if satellite service providers are able to penetrate the consumer and small business markets.

Over the past ten years, researchers have continued to develop more spectrum-efficient transmission and compression technologies. For broadcast applications such as business TV (BTV), the result is a potential three-fold increase in satellite transponder utilization. That is to say, only one-third of the bandwidth is required to achieve equivalent picture quality and interference robustness.

For interactive services such as high-speed Internet access, the results are even more profound. With the right combination of adaptive coding and modulation techniques, Ka-band space segment and web acceleration technologies, it is possible to increase broadband satellite system capacity by 150% to 450% and reduce service provisioning costs so dramatically that a viable business case now exists for addressing consumer and small business customers in addition to large enterprises.

Will DVB-S2 technology ever really be able to penetrate the consumer market for two-way broadband services via satellite?

Both consumer broadband plays leverage Ka-band space segment and dynamic rain fade compensation techniques in order to maximize the available system capacity. If either of them proceed and standardize on DVB-S2 compliant technology, it will greatly accelerate market uptake and the growth of equipment revenues. Higher manufacturing volumes will also help to drive down the cost of DVB-S2 receiver chipsets and foreshadow their ubiquitous integration into a wide range of satellite broadcast and communications equipment.

The GVF Technology Working Group, formed early in 2004, aims to explain the key issues surrounding these technological advances to interested parties throughout the burgeoning satellite service end-user communities. The Forum takes a neutral stance as to *which* technology will command the market, but will always continue in its wide range of activities to expound the benefits and capabilities of satellite technology as a whole, together with the unrivalled range of cost-effective applications it can service.

Shortly, the GVF will be further developing its website at <u>www.gvf.org</u> in order to facilitate access to technology and service related information required by end-user and other visitors.

The GVF Technology Working Group is focusing on getting across the message as to which technologies are available, not providing tips on which may be the fastest horse. The Group will be producing explanatory guides on the varying technologies, enabling potential end-users to identify the solutions best-suited to their respective needs. This GVF Technology Resources Portal will facilitate contact with the correct vendor(s) quickly, efficiently and reliably. **SM**

The Global VSAT Forum is an association of key companies involved in the business of delivering advanced digital fixed satellite systems and services to consumers, and commercial and government enterprises worldwide. The Forum is independent and non-profit and has a global remit. It is also nonpartisan - any companies or organisations with an interest in the VSAT industry are encouraged to join. For more information go to www.gvf.org or e-mail: helen.jameson@gvf.org

STOCK MONITOR

				ADVERIISER
Company	Symbol	Price (June 1)	52-week Range	(Click on the page no. to
		(June 1)		the adv click on the url a
APT SATELLITE HOLDINGS	ATS	1.72	1.59-4.60	the au, check on the urr a
ANDREW CORP.	ANDW	19.5	8.798 - 21.67	website)
ASIASAT	SAT	15.99	14.31 - 22.80	
BALLAEROSPACE	BLL	67.56	42.30 - 71.30	
BOEING	BA	45.88	31.00 - 46.62	ANACOM
BRITISH SKY BROADCASTING	BSY	44.65	40.07 - 59.24	www.anacominc.com
CALIFORNIA AMPLIFIER, INC.	CAMP	7.65	3.07 - 17.20	Comtech EF Data
COM DEV INTL	CDV.TO	3.18	0.92 - 3.60	www.comtechefdata.c
COMTECH TELECOMMUNICATIONS.	CMTL	17.81	13.62-39.52	
DIRECTV GROUP	DTV	17.5	14.70 - 18.81	
ECHOSTAR	DISH	31.71	29.27 - 41.00	GLOBAL LINK
FREQUENCY ELECTRONICS INC.	FEI	14.25	8.95-17.13	www.satnews.com/glo
GILAT SATELLITE NETWORKS	GLTF	5.73	3.60 - 9.86	
GLOBECOMM SYSTEMS INC	GCOM	5.74	2.96 - 7.29	ISCe 2004
HARRIS CORPORATION	HRS	45.85	28.70 - 51.19	www.isce.com
HONEYWELL SPACE SYSTEMS	HON	33.2	25.94 - 37.65	
INTEGRAL SYSTEMS INC	ISYS	16.61	16.05 - 22.12	L.491 C.4.11:4. D
KVH INDUSTRIES INC	KVHI	13.28	12.36 - 34.729	Int'i Satellite Director
L3 COMMUNICATIONS	LLL	63.71	41.63 - 64.32	directory htm
LOCKHEED MARTIN	LMT	49.11	43.10 - 55.00	uncetor y.nem
NEW SKIES SATELLITES	NSK	8.05	4.49 - 8.16	MITEO
NEWS CORP	NWS	36.39	29.56 - 39.74	www.miteg.com
NORSAT INTERNATIONAL INC.	NSATF.O	B 0.59	0.38 - 1.06	-
NTL	NTLI	58.95	0.38 - 1.06	ND SATCOM
ORBITAL SCIENCES CORPORATION	ORB	12.84	5.68-14.00	www.ndsatcom.com
PANAMSAT	SPOT	23.14	13.80 - 26.01	Don Am Cot
PASIFIK SATELIT NUSANTARA	PSNRY.P	°K 0.14	N/A	PanAmSat
PEGASUS COMMUNICATIONS	PGIV	15.43	11.70-51.00	www.pananisat.com
	QCOM	68.05	32.55 - 69.38	
	RADN	8.93	2.02 - 13.426	Paradise Datacom
	SFA	34.76	19.46 - 38.59	www.paradisedata.com
SIRIUS SATELLITE RADIO INC.		3.17	1.40 - 4.20	-
	SUSFA.F	0.39	5.17 - 8.85	PROMAX
I KIIVIDLE INAVIGATION		20.11	13.40-20.78	www.promax.es
	VOAT	23.3	12.20 - 28.91	I
AIVI SATELLITE KADIU	VIVIOK	25.24	9.25 - 30.90	PTC

For real-time, up-to-the minute stock quotes of satellite companies go to: www.satnews.com/free/finance.html

ADVERTISER'S INDEX

go directly to address to go to

18

www.unacommercom	
Comtech EF Data www.comtechefdata.com	16
GLOBAL LINK www.satnews.com/globallink	9
ISCe 2004 www.isce.com	4
Int'l Satellite Directory www.satnews.com/products/ directory.htm	25
MITEQ www.miteq.com	20
ND SATCOM www.ndsatcom.com	19
PanAmSat www.panamsat.com	7
Paradise Datacom www.paradisedata.com	10
PROMAX www.promax.es	22
PTC www.my2004.org	6
SES GLOBAL www.ses-global.com	5