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SATELLITE Markets & Research

Industry Trends, News Analysis, Market Intelligence and Opportunities

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New Challenges for Teleports

by Virgil Labrador
Editor-in-Chief

The teleport business is a US$ 15 billion-a-year segment of the global satellite industry or roughly 15 percent of the industry revenues, according to the World Teleport Association (WTA). But no other segment of the industry has undergone as many changes as the teleport business in recent years. While, the basic function of teleports remains to provide connectivity between the ground and the space segment, teleports have been providing many ancillary services that are constantly changing with market demands and customer requirements.

In the 'good old days,' as veterans in the industry would say, teleports catered to two main clients--broadcasters and and/or telecommunications service providers or telcos. In the past, up to 90 percent of a teleport's business either came from broadcasters or telcos. It was also a relatively easy business to get into needing only a vacant lot and some dishes to set up a "teleport." Some of those early start-up mom and pop operations became successful and were taken over by larger operators, then by the satellite operators

themselves, who became teleport operators as well. "The commercial teleport business got its start uplinking video for TV channels. That still contributes 35% of the sector's revenues, but terrestrial carriers, enterprises and government combined now contribute over 47%. The entrepreneurial spirit that got this industry on its feet will, no doubt, serve it well as the industry negotiates the current financial uncertainties and the certain changes still to come," said Robert Bell, Executive Director of the WTA.

New Markets, New Services, New Competition

A recent study by the WTA entitled "*New Markets, New Services, New Competition*" reveals that

(Continued on page 3)

From the Editor

It's Officially a Recession

Well, it's official-the US is in a recession. The US Gross Domestic Product (GDP) declined 3.8% in the fourth quarter of 2008, its worst decline in 25 years. This comes after a .05% decline in the GDP in the third quarter. Economists define a recession as two consecutive quarters of negative growth. Not that that's any news to anybody, but for some senior executives of satellite companies who have been downplaying the impact of the economic downturn on the industry, it might come as a sobering thought.

At the Pacific Telecommunciations Council (PTC) conference held in Hawaii from January 17-21, 2009, executives, not just of satellite companies but telcos as well, were still singing the same tune as to how the satellite industry, with its large backlog and long-term contracts, etc. are insulated from the economic downturn. However, there was one caveat this time at PTC: if the recession was to last longer than a year or so, then the industry might start to feel it in a big way (see our PTC show report on page 14). All indicators seem to point that way. Companies are scaling down and lowering their expectations for 2009. Stock prices of satellite companies are all down an average of 19% from last year (see the Satellite Markets 25 Index™ on page 12). But there are some bright spots. Some satellite stocks actually rose in value in January 2009, which was the worst January in the over 100-year history of the NASDAQ. The Satellite Markets 25 Index™ actually rallied in January 2009, posting a very encouraging 3 percent increase (in contrast to a 8.6% decrease for the S&P 500 Index).

Another bright spot is the government and military sectors. Major government contractors issued the fourth quarter 2008 financial reports in January and all were bullish about the prospects in the government and military markets. Unlike other industries, major defense contractors like Raytheon, L-3 Communications General Dynamics and Lockheed Martin have not announced any layoffs and said they don't plan to do so in the near future. Boeing did announce that it will layoff 10,000 of its employees but most will be from their commercial airplane division and not from the defense segment. The US Defense budget is projected to grow 2-3 percent in 2009 demand for commerical satellite services and equipment is expected to continue to grow, albeit at a more modest rate.

It was also evident from the PTC, whose theme was "Collaborating for Change" how much the telecoms and satellite industries are integrated and interelated. As Dr. Mark Hukill a senior adviser to the PTC said satelltie people need to work with the telecoms, fiber and submarine cable people in order to go after the same clients and provide them with the best possible solution."

These are changing times indeed, and it will be interesting to watch how the industry rides out this challenging time.

Virgil Labrador
Editor-in-Chief

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Cover Story

Teleports.....from page 1

teleports currently serve diverse markets and clientele. The report is based on a global survey of senior executives in the teleport business.It highlights the diversity of income sources that teleport operators currently tap with the largest portion coming from media and entertainment at 35 percent, on average. But, surprisingly, as many respondents ranked mobile telephone backhaul as a high-priority market as they did for the traditional business of television/radio contribution and distribution.

Another key change in recent years, according to the report is the growth of non-transmission services in the mix. More than half of operators provide their customers with systems design, engineering and integration services, conditional access services, as well as video or audio production and post-production. Yet transmission services remain at the core of operations, with 100% of respondents providing satellite and 76% roviding fiber transmission. Twenty-three percent reported that they were already deploying WiFi, WiMax and other wireless solutions for last-mile connectivity.

As teleport operators add services to their portfolio and both satellite carriers and integrators develop and operate their own teleports, the lines between sectors is beginning to blur. The survey report explores both the levels of current competition between teleport operators, carriers and integrators, and the perceived degree of threat in the future. The survey reveals that overlapping business growth opportunities are putting teleport operators and satellite carriers into competition for the first time, and suggests that the means they find to manage this commercial tension will help determine their future success.

Consolidation have seen the influx of satellite operators in the teleport business and the diminishing number of small,

The Global Top Twenty-One Teleport Rankings (2008)

by the World Teleport Association

1. Level 3 (USA)
2. Intelsat (Bermuda)
3. SES Global (Luxembourg)
4. Eutelsat (France)
5. Stratos Global (USA)
6. GlobeCast (France)
7. EchoStar Satellite Services (USA)
8. Telesat (Canada)
9. Arqiva Satellite Media Solutions (UK)
10. CapRock Communications (USA)
11. Globecomm Systems (USA)
12. Thaicom (Thailand)
13. Schlumberger (UK)
14. Hispasat (Spain)
15. Telecommunications Systems (USA)
16. AsiaSat (Hong Kong)
17. Spacenet (USA)
18. Gascom (Russia)
19. RRsat Global Communications (Israel)
20. Satlynx (Luxembourg)
21. Measat (Malaysia)

Cover Story

independent teleports, who are unable to compete with the larger more, integrated teleports. In WTA's annual ranking of the Top 21 teleports in 2008, 14 are part of or associated companies of satelltie operators (see chart on previous page), even as 57% of al teleports worldwide are still independently-owned.The infux of satellite operators into the teleport business has led some to speculate that these teleports owned by satellite operators bundle ground services with their space segment with a preference for their own satellites. But lately, the economic downturn and competitive pressures have forced satellite operators to sell or divest some non-performing or redundant teleports. Some of these teleports have been bought by independent operators who serve niche markets. So now we see a situation whee big operators coexist or even partner with small niche players.

Niche Operators Are Key

For smaller, independent operators having a niche in terms of a market segment or a specific application like broadband access using low-cost VSATs or mobile communciations to a specific community is key to success in this business. One company that has successfully turned around a facility that it purchased from one of the satellite operators is ABS-CBN International (ABS-CBNi). ABS-CBNi purchased a teleport in Richmond, California from Loral Skynet in 2005 and made it into one of the leading distribution centers for ethnic programming in North America (see sidebar). ABS-CBNi, one of the largest media companies in Asia based in the Philippines, leveraged its long history and experience in distributing its own programs throught Asia, the Middle East, Europe, and North and South America by providing the same service to its diverse clients.

Another company serving a specific niche is Salt Lake City-based LbiSat, which focuses on the government sector. LbiSat serves the various satellite communciations needs of various agencies including the US State Department and the DoD as well as emergency management departments in the Western region of the US. LbiSat uses it location from its teleport in Jordan, Utah to its advantage by emphasizing that it can respond quickly to customer needs--a key feature especially in emergencies and natural disasters where they specialize in.

The teleport sector is one area where large operators with multiple locations can coexist with smalller operators serving niche markets. Much has changed in how teleports operate, but that can only be good for everyone, most especially to the customers and end-users that teleports serve.

Triple Play Services from a Niche Teleport

ABS-CBN International (ABS-CBNi), the U.S.-based subsidiary of ABS-CBN Broadcasting, one of Asia's largest entertainment and broadcasting company, purchased a struggling teleport facility in Northern California from satellite operator Loral Skynet in November 2005. ABS-CBNi received Federal Communications Commission licensing approval in April 2006 and retained the name of the teleport-San Francisco International Gateway or SFIG. In just over two years of operation, it has achieved profitability by serving a niche market of ethnic programmers from its facilities in Richmond, California and Manila, Philippines.

Some of the niche programming being uplinked from the SFIG facility in Richmond, California. (SFIG photo)

SFIG is a "carrier class" satellite communications facility and is one of the few independent and multi-platform capable operators in the world. SFIG provides access to communication satellites serving North America, Asia, Latin America and select European satellites, and in cooperation with other facilities, also provides services to the Middle East and Africa.

Recently, SFIG announced completion of technology upgrades and the launch of "triple play" services for voice, video and data services at their satellite uplink center located in Richmond, Calif.

Virgil Labrador is the Editor-in-Chief of *Satellite Markets and Research* based in Los Angeles, California. He is the author of two books on the satellite industry and has been covering the industry for various publications since 1998. Before that he worked in various capacities in the industry, including a stint as marketing director for the Asia Broadcast Center, a full-service teleport based in Singapore. He can be reached at *virgil@satellitemarkets.com*

Market Briefs

220 Million HDTV Households in Europe by 2018 -Euroconsult

The high definition television (HDTV) market in Europe is set to take off, according to a recent report by reseach companies Euroconsult and NPA.

59 million European households are equipped with HD-enabled TV sets today, according tothe report. That figure is set to grow to 116 million in 2010, a 51% penetration rate and grow to 220 million in 2018, according to 'HDTV in Europe, Key Economics & Prospects to 2018. ' Driving this adoption is the steady decline in prices for flat screens since 2004, and the imminent inclusion of HDTV capability as a standard feature in flat screens sold throughout Europe.

"To date, HDTV in Europe has been a series of trials and early services," said Jean Emmanuel Casalta, Managing Directo NPA. "But higher penetration of HD-enabled flat screens in Europe will help drive growth in the next ten years."

A growing number of European households can receive high definition content, another critical factor for market growth. The number of pay-TV networks in Europe offering HD almost tripled in the last two years.

And while satellite free-to-air may remain the only option in several countries in the short term, a major European 'first' occurred with the 2008 launch of a multi-channel HDTV offer over digital terrestrial television (DTT) in France. Meanwhile in 2008 the number of HD channels distributed in Europe more than doubled to 130 channels. Over 600 HD channels should be distributed in Europe in 2013.

"Pay-TV reception will drive growth of HDTV adoption in Europe in the short term, despite the current economic downturn. In 2013, over 38 million households should receive HD pay-TV services, twice the number of households watching HD free-to-air only. From 56 million in 2013, the number of households receiving HD will boom to over 175 million households in 2018, making from HD the standard TV experience in most Western and Central European markets," indicated Pacome Revillon, Managing Director at Euroconsult.

In the short term, Euroconsult and NPA expect providers to use HD as a strategic differentiator to gain and retain audiences and subscribers. This will be particularly acute in a market increasingly characterized by competition between established and emerging market players, and accentuated during this time of economic downturn.

Set-top Box Shipments to Grow in 2009-IMS Research

Despite the economic downturn, set-top box shipments will see almost 10% growth over the previous year according to IMS Research. Stephen Froehlich, an analyst in the company's consumer electronics research group, commented "Television remains one of the most economic forms of entertainment available and is traditionally one of the last expenses to be cut in tough times, making set-top boxes one of the few growth areas to be found in consumer electronics at the moment."

IMS Research expects the growth of digital TV households to continue as digital services become available to new markets. Digital TV services, including HD, are also providing consumers the option of staying home to watch movies and sporting events, rather than paying for tickets and concessions at the theater or sports field. IMS Research is forecasting that worldwide digital TV households will still see 20% growth over 2008.

Froehlich continues, "Not only are North American and Western European households keeping their subscriptions, developing countries have seen unprecedented adoption of digital pay-TV services in the last half of 2008.

"However, there is a downside. Annual set-top revenues are already near their peak, which we are forecasting to be $19 billion in 2011 while prices of most types of set-top box are expected to decline by more than 10% each year. While there are some very real opportunities out there for suppliers to this market, they are getting harder and harder to find," added Froehlich.

To help suppliers identify new opportunities, IMS Research is publishing "Set-top Box Deployments and Ecosystem" which examines the relationships between all of the world's major pay-TV operators and their set-top box and related technology suppliers.

News Briefs

A summary of the major news developments, key contract signing and executive moves in the global satellite industry from January 16-31, 2009, categorized by region.

Americas

Top Stories

FCC Approves Transfer of Stratos License to Inmarsat

The U.S. Federal Communications Commission (FCC) approved the transfer of **Stratos Global's** FCC licenses to **Inmarsat** Jan. 19. Inmarsat's subsidiary, Inmarsat Finance 3, exercised a call option in December over 100% of Stratos shares, which are held in an irrevocable trust. The exercise of the call option remains subject to regulatory approvals. **Inmarsat** has until April 15 to close the option.

PlanetSpace Protests NASA CRS Contract Award

A contractor team led by start-up company **PlanetSpace Inc.** which includes **Boeing**, **Lockheed Martin** and **Alliant Technologies** filed a protest to the Government Accountability Office (GAO) over the NASA Commercial Resupply Services (CRS) contract awarded to SpaceX and Orbital Sciences last December. The contract was worth over $3 Billion.

Canadian Satellite Radio Holdings Report Losses

Canadian Satellite Radio Holdings, the XM **Radio** operting company in Canada, reported a 2009 fiscal first quarter net loss of $25.2 million, compared to a loss of $12.9 million in the first three months of 2008.

Irwin Communications and Euroconsult form Partnership

Consulting firms **Irwin Communications** and **Euroconsult North America**, announced a strategic partnership Jan. 21 at the PTC show in Hawaii, to provide consulting services to leading American and Canadian companies and government agencies in the satellite communications (SatCom) and broadcast markets. The partnership will enable the two firms to tap into their complementary areas of expertise to deliver a wide range of consulting and research services including strategic decision-making support, market analysis and forecasting, due diligence and financial valuations, and policy and regulatory review.

Key Contract Signings

•**Boeing** received a $75 million contract extension from the U.S. Air Force to continue risk reduction and system definition for the Transformational Satellite Communications System (TSAT).

•**Vizada** and **Absolute Maritime Tracking Systems** have been selected by the Panama Maritime Authority to provide long-range identification and tracking (LRIT) for more than 8,000 vessels.

•**Hughes Network Systems** has been selected by **SPTI-Boldt Group Argentina** to supply routers for broadband IP services for lottery, government and corporate programs.

•**Quark Communications, Inc.** has signed a multi-year, multi-million dollar contract with **O3b Networks** for its Quick Start service. O3b will provide Quark connectivity between Guyana and the global fiber infrastructure.

•**International Datacasting Corp.** (IDC) d **Grupo Etercom** will provide a next-generation corporate training and digital signage network to **Grupo Financiero Banorte**, one of Mexico's largest financial institutions with more than 950 branches throughout the country. IDC was also selected by the US **Public Broadcasting Service** (PBS) to provide infrastructure for a next-generation satellite network to deliver non-real-time HD and SD video programming to PBS member-stations across the US.

Executive Moves

•**Arrowhead Global Solutions**, the government services division of **CapRock Communications**, apointed Jason D. Juranek Vice President of Finance.

•**The Satellite Industry Asscociation** (SIA) elected its new Board of Directors for 2009. **Donna Bethea-Murphy** of **Iridium Satellite** was elected Chairman of the Board with **David Cavossa** of **Arrowhead** as Vice-Chairman and **Leslie Blaker** of **Datapath** as treasurer .

•UAV Pro, Inc. has appointed **Jay Willmott** to the position of President.

•The Space Foundation has appointed **Janet P. Stevens**, APR, as the new director of communications and public outreach.

•**Northrop Grumman Corporation** has appointed **John Jadik** as vice president of Communications, Intelligence and Networking Solutions for its Electronics Systems sector's Land Forces Division. Also appoined was **Scott A. Lee** vice president of space systems for the company's Electronic Systems sector.

John Jadik

•**SkyPort Global Communications** announced the return of **Bruce Dunlop** to the firm as Director of Program Management.

EMEA/Asia Pacific

Top Stories

Eutelsat, SES Astra Lose Satellites

In just the last two weeks, two geostationary satellites serving Europe were lost to "technical anomalies." **Eutelsat's** W2M satellite which was just launched by an Ariane 5 rocket on Dec. 20 was unable to launch service and **SES'** Astra 5A satellite was unable to continue service.

Swedish Space to Acquire Universal Space Network

Swedish Space Corp. (SSC) reached an agreement to acquire US **service provider Universal Space Network** (USN. The two companies have been cooperating on projects such as PrioraNet worldwide satellite tracking service missions since 1999.

News Briefs

Menos Service Launched

Newtec, Arabsat and the Arab States Broadcasting Union (ASBU) launched the Multimedia Exchange Network over Satellite (MENOS) in the Middle East, Jan.22. MENOS allows ASBU's 28 members to fully automate an exchange of television, radio and data with a full IP satellite-based service that can support all potential transmission applications required by broadcasters.

Gascom is Now Gazprom Space Systems

Russian satellite operator Gascom was renamed to Gazprom Space Systems. Gazprom operates the Yamal satellite network. Gascom, was established in 1992 by oil company Gazprom Energia and Gazprombank.

Key Contract Signings

•Intelsat has selected KT Corporation, a communications service provider for Korea and the Asia-Pacific region, to be a distribution partner for its Network Broadband Global Maritime service.

•RRSat been chosen to distribute two additional Russian-speaking channels, Smile of Child and Bridge TV, via Gascom's Yamal 201 satellite.

•Eutelsat signed a contract with Telespazio for capacity at the 13 degrees East Hot Bird video neighborhood.

•Gilat Satellite Networks Ltd. has been selected by Kazakhstan's largest telecommunications operator, JSC Kazakhtelecom (KT), to expand its existing SkyEdge network to serve several hundred additional sites in remote locations nationwide.

•The BBC World Service selected GlobeCast as its distribution partner for the launch of its new Farsi-language channel BBC Persian TV on the Telstar 12 and Hot Bird 6 satellites.

Executive Moves

• Darby Sanchez has reprised her role as CEO of GlobeCast Asia. She replaces David Justin, who has been called back to corporate headquarters in Paris.


Darby Sanchez

•GMV appointed Jesús Serrano CEO, replacing former CEO Luis Mayo.

•Dan McIntyre, former general manager of Vislink Services U.S., has been appointed managing director of the Vislink Group's new worldwide services business unit, Vislink Services and which will be located in North Billerica, Mass.

•Mark Gilroy has been appointed Senior Vice-President, Business Development of Protostar and will be working out of the San Francisco headquarters.

•Doug Triblehorn has been appointed Regional Vice-President, Asia-Pacific of media encoding company Inlet Technologies.

Calendar of Events

March 24-27, 2009 SATELLITE 2009 Walter E. Washington Convention Center, Washington, D.C. USA Tel: +1 (301) 354-2000 E-mail: inquiry@satellite2009.com web: www.satellite2009.com/

April 6-9, 2009 SatCom Africa 2009 Sandton Convention Center, Johannesberg, South Africa Tel: +27-11-516-4015 E-mail: jaylene.naidoo@terrapinn.co.za web: http://www.satcomafrica.com/

April 18-23, 2009 NAB 2009 Las Vegas Convention Center, Las Vegas, Nevada, USA Tel: +1 (202) 429-5300 E-mail: register@nab.org web: www.nabshow.com

June 2-4, 2009 ISCe 2009 San Diego Marriot Hotel and Marina, San Diego, California, USA Tel: +1 (562) 901-9191 Fax: +1 (562) 901-9192 E-mail: info@isce.com web: /www.isce.com

June 16-19, 2009 CommunicAsia 2009 Encompassing BroadcastAsia2009, EnterpriseIT2009, InteractiveDME, Held in conjunction with CG Overdrive 2009, Singapore Expo Convention Center, Singapore, Tel: +65- 6233-6638 web: www.communicasia.com

July 6-7, 2009 MultiPlatform Matrix Content Distribution Expo 2009 Universal City Hilton, Los Angeles, California USA Tel: +1 (562) 901-9191 Fax: +1 (562) 901-9192E-mail: lguiang@hfusa.com web: www.multiplatformmatrix.com

September 7-10, 2009 World Satellite Business Week 2009 Paris, France Tel: +33-(1) 49 23 75 2 4
E-mail: mandeng@euroconsult-ec.com web: http://www.satellite-business.com

September 10-15, 2009 IBC Conference and Expo 2009 RAI Exhibtion Center, Amsterdam, The Netherlands Tel: +44-(0) 20-783-24100 E-mail: show@ibc.org web: http://www.ibc.org/

September 29-October 1, 2009 APSCC 2009 Satellite Conference and Exhibition, Kuala Lumpur, Malaysia. Tel: +82 31 783 6246 web: www.apscc.or.kr e-mail: info@apsc.or.kr.

October 7-11, 2009 CeBIT Eurasia Bilisim International Trade Fair for Information Technology, Telecommunications, Software + Services, held in conjunction with CeBIT Broadcast, Cable+Satellite Eurasia International Trade Fair and Conference for Turkey, South East Europe and the Middle East, Istanbul, Turkey Tel: +90 (212) 334 69 69 Fax: +90 (212) 334 69 70 E-mail:mailto:info@cebitbilisim.com web: http://www.cebitbilisim.com/index.html and http://www.cebit-bcs.com/en/index.html

October 13-14, 2009 Satcon 2009, Javits Convention Center, New York City, USA, Tel. +1-203-371-6322 E-mail: info@jdevents.com web: http://www.satconexpo..com

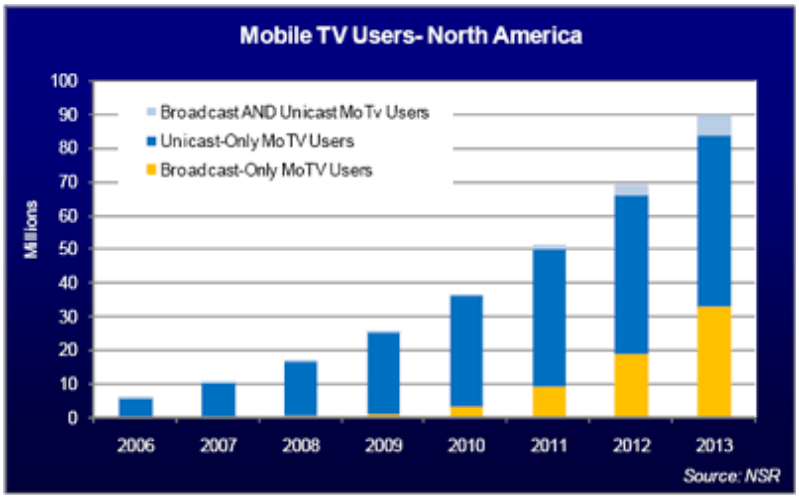
Market Trends

Free Mobile TV: A Journey, Not a Destination

by NSR

Approaching the Feb.17 deadline for U.S.•dcasters to go digital, the Consumer Electronic Show (CES) in Las Vegas was naturally hot on mobility and television. The Open Mobile Video Coalition (OMVC), an alliance of U.S. commercial and public broadcasters committed to the development of mobile digital television, announced commitments to launch mobile DTV services from 63 TV stations in 22 U.S. markets, covering 35 percent of television households nationwide. LG also presented two prototype mobile phones and a portable DVD player with ATSC M/H broadcast reception capability.

Though there will likely be issues affecting OMVC's plans, including a possible delay in the analog switch-off date, as proposed by the new Obama administration, NSR expects free mobile TV to play a huge role in injecting much-needed life into the lagging U.S. mobile TV sector, with 2009-2010 likely becoming the tipping point for broadcast MoTV adoption in North America. Free, ad-supported services are welcomed by consumers (especially during tough economic times), but long-term economic footing for mobile TV will depend on the alignment of a number of conditions including more accountability in mobile video advertisement, fixed-mobile service bundling, further industry-wide cooperation, system "de-fragmentation", and an evolutionary path (not straight line) toward more effectively tapping into the dual mobile Internet/TV consumer.



Projections on Track, but Caution

NSR projects North America to experience the highest growth rate in broadcast mobile TV between 2008 and 2013, reaching over 32 million TV-enabled mobile phones by 2013. Growth will be largely due to the embryonic stage of broadcast mobile television in the U.S. and prospects for the new ATSC M/H standard to help follow the audience-building successes of free broadcast services in Japan and Korea. Judging from the OMVC announcement, NSR's projections appear to be well on track with long-term trends largely shaped by how much and how fast mobile operators embrace a service that threatens to steal time from data-heavy U.S. mobile users.

Mobile television competing for eyeballs is of particular relevance in the U.S. where operators obtain over 20% of their revenue from data access. According to a Nielsen mobile survey just released, in Q3 2008 10.3 million U.S. phone subscribers accessed video content on their phone each month (mostly unicast web mobile video), up 14 percent over Q2 2008. With increasing evidence that bandwidth-intensive media consumption across 3G networks, fostered by user empowering devices such as the iPhone3G, can lead to divergence between 3G traffic and associated ARPU, mobile operators are encouraged to rethink their revenue source structure and consider revenue-enhancing plans through mobile advertisement. At CES carriers were (predictably) silent on official commitments to support free mobile DTV, but comments from Ralph de la Vega, President and CEO of AT&T Mobility and Consumer Markets, hints at the direction. Like NSR's projections, AT&T's statements reflect a "cautiously optimistic" view about the degree and speed at which U.S. mobile operators will embrace free broadcast mobile TV. This situation holds particular relevance during the current economic context, with consumers decreasing (or halting) discretionary spending, a situation that encourages free service adoption with the downside being that those players that have not yet tried the mobile ad channel will likely look at other proven media in the short term.

Free Services to Spur Demand

Free-to-air is the clear answer to jumpstart demand to later be capitalized on via contextual/ targeted advertisement revenue and upgrades to subscription-based services for premium programming. Because the long-term viability of the stand-alone FTA model is still unproven, NSR expects that players driving this initial phase will tend to be those with lowest spectrum costs and distributed network build out risks in need of new distribution channels. In the U.S. this places the local broadcaster, once again, in the spotlight of democratizing television via free services. Local broadcasters need to reverse TV viewing shifting to cable and the Internet, and after making their content available online, going mobile on devices such as mobile phones, portable media players, laptops and navigation systems is the natural next step.

Though free, ad-supported digital mobile TV will make its U.S. debut in 2009 a healthy long-term service economic footing is not yet well pictured because, despite the clear contextual and targeted advantages of the mobile advertising channel, advertisement is above all a business of scale. Advertisers need to see a substantial user base to shift campaign ad dollars into the new channel, and the number of fragmentation layers in the mobile TV supply chain, including smartphone display size, operating

systems, network environments and broadcast standards, inhibit such scale. This is the reason why despite developments in smartphone capabilities and 3G penetration, SMS remains the best means to target a broad set of consumers in mobile advertising.

Ad-supported broadcast mobile television is not a destination in itself but rather a (necessary) step in the journey toward fixed-mobile TV service convergence. Taking the success of Google's "click-through" Internet ad business as a model, it is expected that in free mobile TV, user engagement and developments in ad metrics will at some point start outweighing the scale and fragmentation inhibitors and start injecting positive feedback in this sector.

Redefining Television for Long-Term Viability

The interdependency of consumers and advertisers appears to present broadcast and unicast mobile television with network opportunities. Television is usually characterized as two-sided market economics, where adoption on one side of the network (users) drives adoption on the other side (advertisement). While mobile TV and mobile video initially evolve independently, they are poised to gradually converge into a multi-sided marketplace to maximize its inherent sector reward potential.

The U.S. has a number of both mobile and television enabling conditions. With American video consumption at all-time highs, a yearly handset renewal rate close to 60%, 3G handset penetration at 28% (ahead of Western Europe) and national complementary and a readily available upgrade path to subscription offerings such as Qualcomm's MediaFLO and ICO's mim, some positive feedback into the system may be all it takes to ignite the cycle. In fact, should the OMVC coverage plans remain on track and should data traffic-revenue divergence put traffic mixes off-balance, operators would be pushed to embrace free broadcast services and hybrid subscription/ad ARPU models sooner than expected, and the adoption of free broadcast TV in mobile phones could well happen faster than anticipated.

With a never-ending appetite for bandwidth, improvements in data transport economics will likely prove to be evolutionary, not revolutionary from a video distribution standpoint, and thus the market will cooperatively need to embrace a mix of broadcast and unicast distribution-enhancing approaches to address bottlenecks at various points in the distribution chain, and for different content popularity points. This will involve the use of broadcast, 3G/4G and potentially dis-intermediating access technologies such as free Wi-Fi to efficiently distribute content from head to tail, in popularity and value.

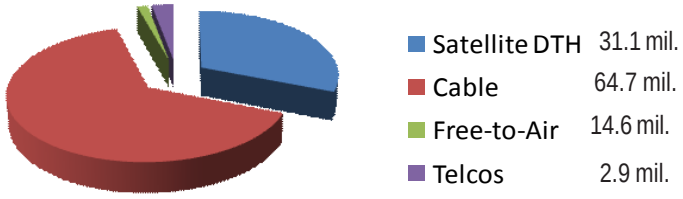
With web-empowered consumers and more ways to access media, developments in mobile TV appear to be a journey, not a destination, and the debut of ATSC M/H free mobile broadcasts will positively affect the sector. Basic free services are a good start, but web-empowered consumers will clearly be more than back-seat TV watchers during this journey.

Information for this article was extracted from the NSR report: Mobile TV and Mobile Video, 2nd Edition

Vital Statistics

The total number of U.S. TV households is 113.3 million according to National Cable and Telecommunications Association (NCTA) (as of June 2008). With 64.7 subscribers, cable still leads all media with 57 percent share. But satellite Direct-to-Home (DTH) service providers DirecTV and Echostar has been slowly eroding into cable subscriber base with 31.1 million subscribers combined since it laiunched in the early 90s. Lately, Telcos' share has been growing at a phenomenal pace with AT&T's U-Verse and Verizon'sFios TV offerings reaching 2.9 million subscribers at the end of 2008 after less than three years of operation.

Share of U.S. TV Households



Total: 113.3 million (source: company sources, NCTA)

For more Vital Statistics go to www.satellitemarkets.com/node/9

The Fast Twenty-One Teleport Rankings by the World Teleport Association

The Fast Twenty ranks all teleport-operating companies based on year-over-year revenue growth in their most recent fiscal years. CapRock Communications led the fast pack with an impressive 95.83% growth rate. Hot on their heels was Arqiva with 87.66%. An honorable mention goes to Europe Media Port, a 2008 start-up with a tremendous first-year showing but no prior year of results on which its growth rate could be calculated. From the fastest of the fast, the Fast Twenty-One of 2008 are:

Rank	Company	Country
1	CapRock Communications	USA
2	Arquiva Satellite Media Solutions	UK
3	Skyport International	USA
4	Satlink Communications	Israel
5	Emerging Markets Communications	USA
6	Gazprom Space Systems	Russia
7	Measat	Malaysia
8	Stratos Global	USA
9	ATCi	USA
10	Central European Telecom Services	Germany
11	CET Teleport	Germany
12	Globecomm Systems	USA
13	RRsat Global Communications	Israel
14	Echostar Satellite Services	USA
15	Level 3	USA
16	TIBA	Argentina
18	Telecommunications Systems	USA
19	Schlumberger	UK
20	Emirates Intergrated Telecom	UAE
21	Telkom Austria	Austria

Stock Quotes/ Satellite Markets 25 Index

The Satellite Markets 25 Index™

Company Name	Symbol	Price (Jan. 30)	52-wk Range	% Change from Year High
Satellite Operators				
AsiaSat	1135.HK	7.25	4.61 -16.90	-57.50%
Eutelsat Communications	ETL.PA	16.73	14.40 - 20.50	-18.41%
Hughes Communications Inc.	HUGH	12.07	10.00 - 55.99	-78.44%
Inmarsat	ISAT.L	410.75	300.00 - 585.00	-29.79%
SES	SES.F	14.21	11.36 - 17.06	-16.12%
Satellite and Component Manufacturers				
Boeing	BA	42.31	36.17 - 88.29	-52.08%
COM DEV International Ltd.	CDV.TO	3.13	2.21 - 3.95	-20.76%
Lockheed Martin Corp.	LMT	82.04	67.38 -120.30	-31.80%
Loral Space and Communications	LORL	13.21	6.02 - 30.52	-52.36%
Orbital Sciences Corp.	ORB	16.77	14.24 - 27.89	-39.87%
Ground Equipment Manufacturers				
C-COM Satellite Systems Inc.	CMI.V	0.20	0.15 - 0.51	-60.78%
Comtech Telecommunications Corp.	CMTL	38.80	37.59 - 45.65	-24.23%
CPI International, Inc.	CPII	7.67	5.07-16.02	-52.12%
EMS Technologies, Inc.	ELMG	24.00	16.20 - 31.78	-24.48%
Viasat	VSAT	22.16	15.15 - 28.07	-21.05%
Satellite Service Providers				
Gilat Satellite Networks Ltd.	GILT	**3.14**	2.17 -11.20	-71.96%
Globecomm Systems Inc.	GCOM	5.13	3.96 -11.14	-53.95%
Internatinal Datacasting Corp.	IDC.TO	29.50	0.15 - 0.70	-57.86%
ORBCOMM Inc.	ORBC	1.64	1.29 - 6.87	-76.13%
Skyterra Communications	SKYT.OB	3.65	3.55 - 8.85	-58.76%
Consumer Satellite Services				
British Sky Broadcasting Group	BSY	28.57	19.90 - 47.55	-39.93%
The DIRECTV Group	DTV	21.90	13.70 - 29.10	-24.74%
ECHOSTAR Communications	DISH	12.84	8.34 - 36.11	-64.44%
Globalstar, Inc.	GSAT	0.34	0.15 - 9.25	-97.38%
Sirius XM Radio Inc.	SIRI	0.12	0.08 - 3.89	-96.92%

The Satellite Markets 25 Index™ is a composite of 25 publicly-traded satellite companies worldwide with five companies representing each major market segment of the industry: satellite operators; satellite and component manufacturers; ground equipment manufacturers; satellite service providers and consumer satellite services. The base data for the Satellite Market Index is January 2, 2008--the first day of operation for Satellite Market and Research. The Index equals 1,000. The Satellite Market Index™ provides an investment benchmark to gauge the overall health of the satellite industry.

Comparison of Indexes	Index value (Jan 30'09)	Percentage Change 2-Weeks Ago	Percentage Change January 2, 2008
Satellite Markets 25 Index™	809.00	+2.0%	-19.00%
S & P 500	825.88	-2.22%	-41.28%

Executive View

Interview with Dr. Eui Koh President, ProtoStar Asia

At the Pacific Telecommunications Council (PTC) 2009 Conference in Honolulu, Hawaii, Satellite Markets and Research Editor-in-Chief Virgil Labrador spoke with Dr. Eui Koh, President of the start-up Asian satellite operator, ProtoStar Asia. Dr. Koh is a veteran of the Asian satellite market having held senior positions at Intelsat, News Skies Satellites and other companies and served as President of the Asia-Pacific Satellite Communications Council (APSCC) for several years. Excerpts of the interview:

For the benefit of our readers, can you give a brief overview of ProtoStar?

We are a new satellite operator, Bermuda-based with offices in San Francisco and Singapore, mainly targeting the Direct-to-Home (DTH) market in Asia. We also provide internet, GSM backhaul and other satellite services. We just launched our first satellite in July 7, 2008 and it's now operational at the 98.5^{0}E orbital slot. Being new, we're just delighted to be serving the Asian market where there is a big demand. We are just in the right time in the right place.

You recently merged with the Philippine Satellite operator Mabuhay, how is that working out?

As you know, Mabuhay is already operating their own satellite and soon we will be launching our second satellite in April, so we will be a three-satellite operating company--a rising star in Asia. With the economic conditions now, consolidation is necessary. The timing is perfect for us and there is synergy between the two companies, so we are very excited about it. We respect Mabuhay's accomplishments in the market and we'd like to keep things as they are for now. Basically, right now it's more like a partnership.

You also have a partnership with Intersputnik, can you talk about that as well?

We signed an agreement with Belarus through Intersputnik for the use of their orbital slot for our satellite ProtoStar-1. The ITU has confirmed the orbital slot and we are very happy about it. Initially, Singapore was going to sponsor us for the orbital slot but it didn't work out and we are glad to find another sovereign country to sponsor us.

ProtoStar has been catching a lot of flak from neighboring satellite operators who say that your orbital position will lead to interference, what's your position on that?

In any game, particularly in the satellite business, whenever there is a new player, the incumbents are not going to welcome it. As we all know there is some congestion in Asia and this leads to some arguments or raising of issues from neighboring satellites--that's very common practice. What we are doing is we are following all the ITU rules and basically the ITU has been satisfied with our compliance. Satellite coordination is always a two-way street and both the incumbent and the newcomer have to work together. It will take time, but we are pleased with the progress so far.

How is this economic downturn going to affect the Asian satellite market?

We are caught in the middle as our customers are trying to decrease their cost by asking us to lower our rates, but our suppliers, the satellite manufacturers and launch service providers have been raising their prices more than before. So we have to be frugal, as well as efficient to serve our customer. Our being small and flexible makes us more reactive to this challenging situation and be able to react in a fast manner.

MarketCast **To view a video of the complete interview with Dr. Koh and other interviews conducted at the PTC 2009 in Hawaii, go to www.satellitemarkets.com/media/videolist.php**

Show Report

PTC 2009:

Weathering the Coming Storm

Honolulu, Hawaii
January 17-21, 2009

by Virgil Labrador
Editor-in-Chief

Over 1,000 attendees officially registered for the Pacific Telecommunications Council (PTC) conference held in Hawaii from January 17-21, with 4,000 more participating in the event as "networkers." This number was lower than in previous years, but the quality of the attendees in terms of having top executives of leading companies more than made up for the quantity of delegates. Besides, the PTC is slightly different from other shows in that it has five times as many other participants who can register as a "networker" and still participate in the many activities surruonding the event. Set in the paradise-like setting of the Hilton Hawaiian Village in Waikiki in the middle of winter, it might be hard to believe that any work can actually get done here. But make no mistake about it-a lot of busines is being done at the PTC and the quality and depth of the sessions are as good as any.

The PTC conference featured a Satellite CEO Roundtable which included from left co-moderator Susan Irwin, President, Irwin Communications; Dean Olmstead, President, Echostar Satellite Services; Jean-Yves Le Gall, President, Arianespace; Yutaki Nagai, Senior Executive VP, SKY Perfect JSAT; John Celli, President, Space Systems/Loral; Peter Jackson, CEO, Asiasat and co-moderator,Patricia Cooper, President, Satellite Industry Association.

This year, the satellie component of the conference was more than in previous years. When asked about this, Dr. Mark Hukill, senior advisor to the PTC and one of the organizers of the conference said that "the industry has changed, the satellite people need to work with the telecoms, fiber and submarine cable people in order to go after the same clients and provide them with the best possible solution." The conference theme was "Collaborating for Change" but the change that permeated the conference sessions is the global economic downturn. The mood, however was relatively positive. The main speakers all expressed optimism that the telecom industry will be able to weather the crisis and emerge from it stronger. During the Satellite CEO Roundtable, Space Systems/Loral's President John Celli said that the industry is "very healthy" and is well positioned to weather the downturn. This view was shared by all the other panelists. The only caveat is, according to Yutaki Nagai, Executive VP of the newly-merged Japanese DTH operator SKY Perfect JSAT, is that if the downtuurn lasts more than a year or 18 months, then the satellite companies might start to feel its impact.

Intelsat's CEO David McGlade was featured in a one-one session where he also expressed his optimism on the prospects of the satelltie industry. He said 2008 was one of the best years in a decade for Intelsat and he saw opportunities in the downturn. He said that Intelsat is always looking to expand its network and will not discount the possible acquisition of smaller satellite operators who will find it harder to survive during the downturn.

The buzz at the conference was the start-up venture O3b Networks whose CEO Greg Wyler gave a keynote. O3b Networks is planning a 16-satellite all Ka-Band global network serving primarily developing countries. With the economy pretty much on everyone's mind, observers were skeptical of such a plan that mainly reaches out to Third World countries. But Wyler points out that these countries aare not as affected by the economic downturn and beiing a carrier's carrier their customers are established PTTs and operators. To view a video of my interview with Wyler at PTC go to www.satellitemarkets.com/media/video.php?id=26

One of the other keynote speakers was Mark Dankberg, Co-founder and CEO of ViaSat, Inc., who discussed how the US government can use broadband satellite communications to extend the Internet to those areas that are expensive to serve with conventional copper and fiber-based telecom networks. ViaSat is pursuing its own project which, along with Hughes Spaceway, promises to deliver broadband service that complements and extends terrestrial networks to greatly increase access to the full range of Internet-based applications.

Judging from the networking events and receptions at the PTC, it doesn't look like we are in an economic downturn. There were several receptions being held at the same time and Tata Communications hosted a lavish party. It's business as usual for the industry and a lot of it was being done at the PTC.

Company Profile

San Francisco International Gateway

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SAN FRANCISCO INTERNATIONAL GATEWAY (SFIG) is one of two commercial teleports located in Northern California with direct access to Pacific Ocean satellites. The facility is directly across the San Francisco Bay from the Golden Gate Bridge and is about 20 minutes from downtown San Francisco.

SFIG's 24x7 technical facility consists of 19 satellite earth station antennas, of various sizes from 13.0 meters to 2.4 meters to serve uplink and downlink requirements for C and KU band satellites. SFIG can access any USA domestic satellite as well as Canadian and Mexican satellites plus most Pacific Ocean satellites up to 169 degrees E longitude.

The Master Control room is equipped with Miranda iControl for monitoring and quality control of incoming and outgoing feeds.

SFIG provides teleport services such as:

- Third party antenna and equipment co-location;
- Adhoc or occasional use services for uplink and downlink of video/ audio programs;
- Full-time DTH platform lease on Galaxy 19, the premier broad-cast satellite for North America as well as on PAS 8 Ku-Band for Australian DTH platform ;
- Full-time transmission of video, telephony, IP and data circuits to satellites operated by Intelsat, New Skies, SES Americom, SatMex, Telesat and other satellite operators.
- Bundled telecommunications services leveraging ABS-CBN's telecom capability using its NACT switch located in
- One Wilshire, Los Angeles;
- Standard teleport services including uplink and downlink as well as turn around services to fiber or other satellites;
- Asian teleport located in Manila, Philippines for additional turnaround and broadcast services;
- IPTV distribution; and
- Asset sales.

Other services include: SFIG is linked to a full-service studio in Redwood City, California which can be used for shooting your live or canned programs. Feeds from the Studio by fiber link to SFIG can be uplinked at the time of your broadcast.

For more info on SFIG go to **http://www.sfig-teleport.com**