Satellite Executive BRIEFING

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SATELLITE Markets & Research

Industry Trends, News Analysis, Market Intelligence and Opportunities

Update on the African Satellite Market

by Virgil Labrador, Editor-in-Chief

Africa is definitely a hot market. Many of the fastest growing countries are in Africa. The continent's economy grew by 4.5% percent last year according to the African Development Bank. More stable governments and a growing middle class are fueling Africa's phenomenal growth. With over 300 million considered to be "middle class" in a total population of one billion, Africa is looking more like India and China economically, albeit at a more modest pace of growth.

Despite major gains achieved in the last decade, Africa still remains a largely untapped market with huge potential. The lack of infrastructure poses many opportunities for satellite service providers.

The lack of infrastucture in Africa presents a unique opportunity for satellite service providers.

IDATE, in its study entitled "Satellite Ultra-Broadband in Europe & Africa" explores the latest developments in broadband and ultra-fast broadband markets in Europe and Africa. After a detailed examination of the dynamics of these areas, in both fixed and mobile markets, the report delivers strategic and figure-backed responses to the question of the current and future role of satellite in the race to deploy broadband and ultra-fast broadband. The report comes with its own database including the set of indicators analyzed for all the areas studied.

"Satellite technology has made enormous progress in recent years, boosting the average downlink speed from 3 Mbps in 2008 to 10-18 Mbps in 2012, and raising traffic caps from 2 GB to 10-20 GB (in some cases even unlimited). It thus seems set to even tackle DSL gray zones, which only a few years ago seemed inaccessible," said Maxime Baudry, IDATE project manager.

He adds: "On the ultra-fast broadband front, however, satellite is lagging behind: while large-scale rollouts of FTTx and LTE, and even LTE-Advanced between 2012 and 2020 will offer observed download speeds of 30-70 Mbps (and even 200-300 Mbps with LTE-Advanced), the most advanced satellite developments make it possible to supply "only" 50 Mbps, and even then not before 2015 at the earliest. To be able to offer such speeds, satellite technology may well switch to frequency bands even higher than the Ka band."

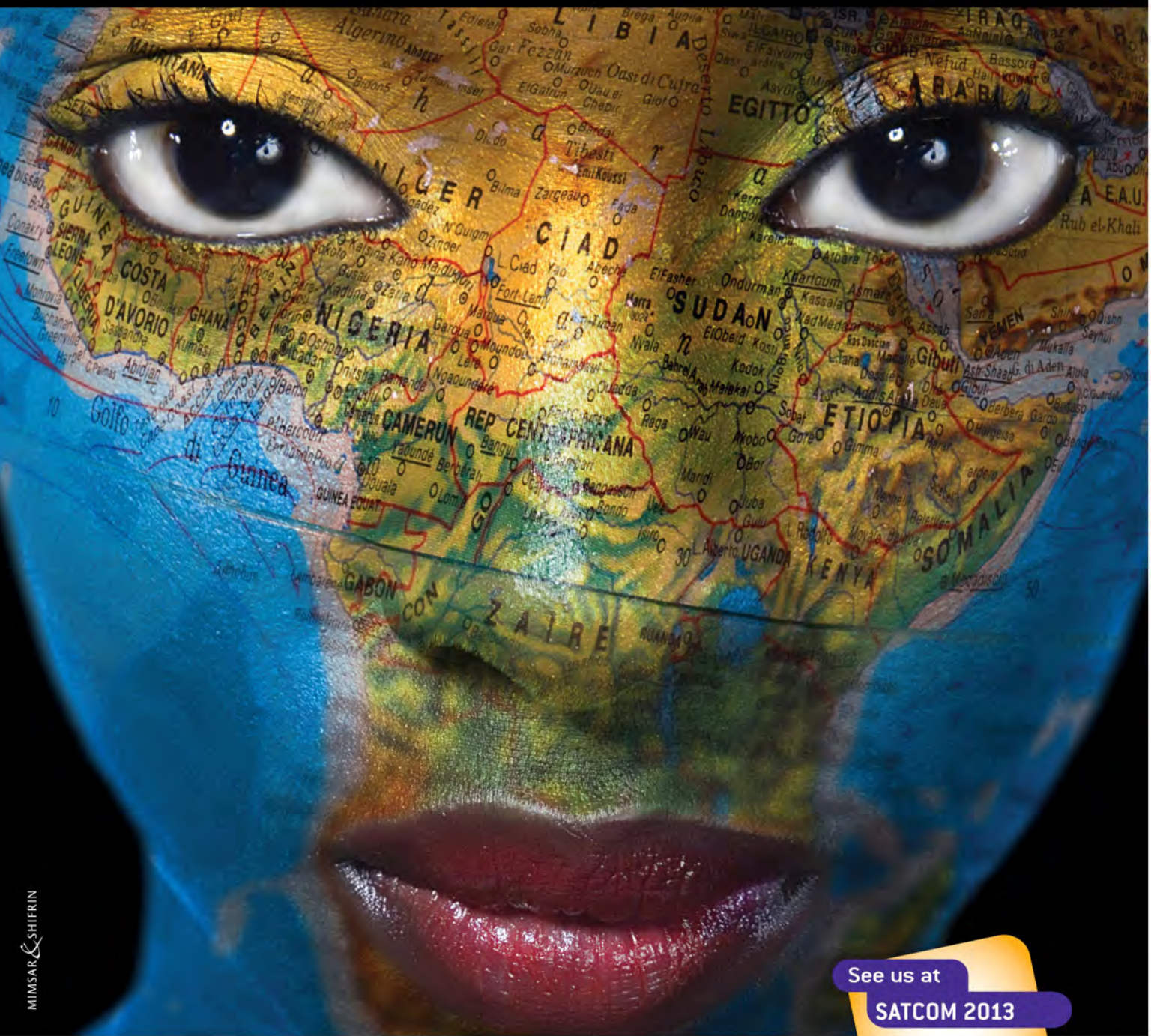
Opportunities

Africa's fixed broadband market is still extremely limited, with an average density of 3.4% of households in the region at end-2011.

Continued on page 4

What's Inside

AMOS-5 IS NOW IN AFRICA



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The AMOS-5 satellite, successfully launched to the 17°E orbital location, provides a full range of satcom services with high-power Pan-African C-band and Ku-band beams.

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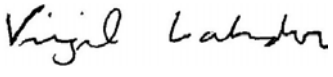
From the Editor

The End of Over-the-Air TV?

The one application that that got the most buzz at last month's NAB in Las Vegas was mobile TV technologies, specifically the new Aereo system which enables Over the Air (OTA) broadcast TV to be streamed lived into the internet and mobile devices.

Chase Carey, President and COO of News Corp. which own one of the major US broadcast networks, FOX declared in his keynote address at the NAB that "we will not sit idly by and let people steal our signal" referring to the Aereo service. Carey said that ultimately FOX and the other broadcasters will prevail over Aereo in court, but if not, he threatened to transform FOX as a subscription-only service. That means everyone has to pay to receive over the air broadcasts, just as cable and satellite service providers currently do. This will be very bad news indeed, for the 54 million US viewers who only get their broadcast signals over the air or on the internet and do not subscribe to cable or satellite service.

Ending free-to-air broadcast of television signals seems very unlikely, especially since free-to-air TV is still a very profitable business and continues to draws the largest audiences (and advertisers). Rather than blocking new technologies when they are threatened, broadcasters should take heed of the words of Gordon Smith, the President and CEO of the NAB on how the industry should view new technologies: "For television our future lies in our willingness to embrace new platforms, and to go where our viewers want to go. Emerging technologies presents a great opportunity for broadcasters to provide viewers with our highly-valued content anywhere, on any device, anytime that they want it."



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Satellite Executive BRIEFING
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African Satellite Market ...From page 1

With limited fixed infrastructures, operators are focusing all their efforts on mobile broadband, often only deployed in the most profitable urban areas.

Over the past three years, however, the region has seen major rollouts of underwater cables, boosting subscriber speeds. Africa's capacity at end-2011 is estimated at 22 Tbps versus 4 Tbps at end-2009. Extremely high equipment prices caused by high customs barriers remain a major handicap.

"...For a population exceeding 1 billion, Africa has an average of only 47% market penetration in the mobile phone sector and holds a potential for at least 500 million potential mobile subscribers..."

Huge Potential Market

IDATE estimates that between 2012 and 2016 the number of satellite broadband subscribers in Europe will increase by 29% annually. In contrast, Africa will post the sharpest growth, a region where the telecoms infrastructure is much more restricted than in Europe.

IDATE estimates that the launch of solutions costing 20-30 EUR a month in Africa, such as YahClick and IP Easy, are likely to attract a tier-one clientele with incomes well above the majority of the population, eager to acquire a fixed broadband access solution that is superior to traditional landline connection and often at a cheaper price (excluding the expensive equipment cost which, at around 600 EUR, is inflated by customs barriers). However, areas of uncertainty remain in this market, especially over the future technical and economic performance of fixed infrastructures after the deployment of numerous underwater cable and terrestrial backbone projects funded by the World Bank.

For a population exceeding 1 billion, Africa has an average of only 47% market penetration in the mobile phone sector and holds a potential for at least 500 million potential mobile subscribers, according to KPMG.

Another key opportunity for broadcasters is the anticipated growth of Pay TV, as Pay TV subscribers are expected to increase from 7.2 million today to 14.1 million by 2017, with DTH comprising 8.2 million and pay DTT (pay and FTA combined) 5.2 million. Within this figure South African and Nigeria will have a disproportionately high share of the Pay TV market, as South African Pay TV penetration will rise from 4 million in 2011 to 5.1 million in 2017 and Nigeria will climb from 1.2 million in 2011 to 3.1 million in 2017.

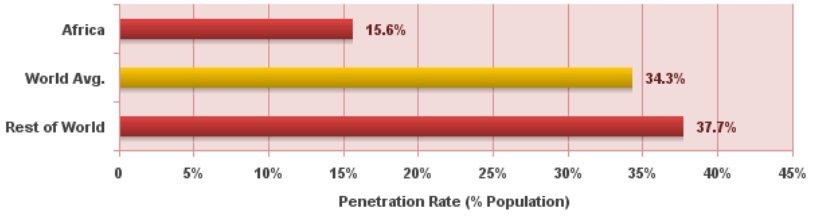
There is also a unique opportunity in the cellular backhaul market.

Mobile Broadband

"Africa's implementation of broadband has delayed the rest of the world because of lack of affordable connectivity to the internet backbone. Traditional satellites provided wide coverage but their high latency and low speed do not meet the demands for today's media rich, delay sensitive applications. With the introduction of new fiber cables and O3b's new satellite technology, Africa finally has access to the infrastructure it requires at the right prices to sustain an explosion of information and entertainment that will be the lifeblood of innovation and growth for its future," said Steven Collar, CEO of O3b Networks, which is launching their Ka-Band satellite system this year.

"Africa has benefitted greatly from mobile broadband, as it remains the most efficient last mile technology to connect end users to the Internet. However, while the demand for mobile services grows, building the towers and the backhaul infrastructure in remote rural areas is a very costly affair for mobile operators. The revenues operators receive for mobile broadband services are often not enough to justify expanding coverage beyond densely populated areas. New 3G and LTE services can provide new revenue but they require much more bandwidth and the technology's latency requirements are not achievable by today's satellites. This is one of the gaps O3b will fill, with its low latency satellite constellation," added Collar.

Internet Penetration in Africa Compared to Rest of the World



Source: Internet World Stats

O3b will launch a new constellation of satellites that will be in service from the third quarter of this year. As the satellites are 4.5 times closer to the earth than traditional GEO satellites, therefore the transit delay is reduced from 500msec to less than 150msec. The lower latency will mean that the user experience for customers connected by O3b satellites will be similar to customers connected by fiber. Lower latency means that voice calls are conducted without a detectable delay. Several studies have shown that better quality voice results in longer calls, producing more revenue for the operators. Also as the Internet becomes more driven by interactive applications and with the migration of mobile net-

works to IP based technologies, this will ensure that even users in many parts of Africa can remain at par with their contemporaries in the developed world, in terms of access to information and the ability to leverage the next generation of mobile technology.

O3b recently signed a major capacity deal with West Africa Telecom, one of Liberia's leading Internet Service Providers, and also announced a major long -term capacity deal providing highly resilient and affordable capacity to the leading ISP in the Democratic Republic of Congo.

Various Players

Spacecom the operator of the *AMOS* satellite fleet, has won a three-year contract worth $6.5 million from one of Africa's largest Internet Communications Service Providers (ISPs) for provision of VSAT (Very Small Aperture Terminals) satellite services from the ***AMOS-5*** satellite, located at the 17 degrees East prime orbital position. The AMOS-5 Southern Africa Ku-band beam will enable the African ISP to offer VSAT services to its enterprise, commercial and public sector customers in Southern Africa.

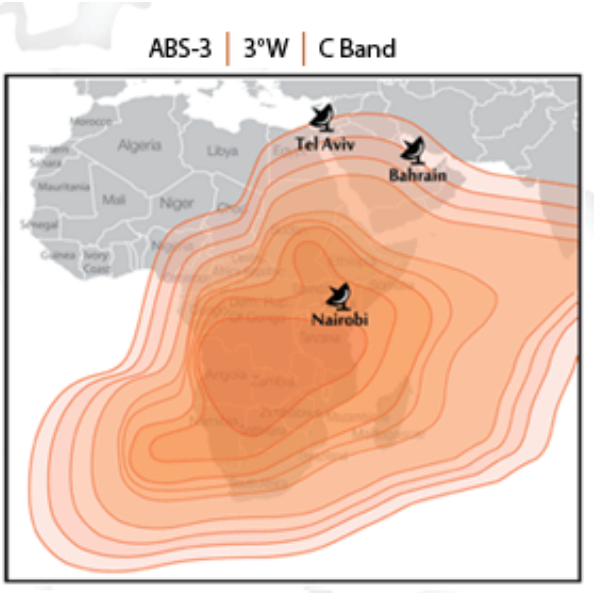
"Africa's data and telecommunications markets are rapidly expanding, and we're pleased to support that growth by adding one of Africa's largest ISPs to the AMOS-5," said Eyal Copitt, Spacecom's senior vice president of sales for Africa and Asia. "AMOS-5 is an all-around solution for data clients because its excellent coverage, strong footprint, and reliable and powerful signals meet the technological needs of data carriers throughout the continent. From 17°E, AMOS-5's three Ku-band beams and pan-African C-band beam add value to a wide array of data, telecommunication and Internet providers, as well as broadcasters," added Coppitt.

Asia Broadcast Satellite currently provides solutions to its business partners and customers in the African market. Its ABS-3 at 3° West, an inclined orbit satellite over the Middle East and Africa, offers an affordable cost solution for companies for IP Transit. This service gives ISPs a reliable internet backbone via satellite at extremely cost effective rates and with higher availability compared to traditional Ku or Ka Band services. As part of this service, ABS also provides tracking antennas as part of the bundle solution and 24/7 customer support from their teleport in Nairobi.

This year, ABS is launching ABS-2 satellite which will provide Ku- and C-band capacity in the continent to meet the growing demand.

Last April 5, the joint Malaysian and Azerbaijani satellite, Azercosmos-1/Africasat-1a entered into commercial service. The hybrid C- and Ku-band satellite generates approximately 5 kilowatts of payload power and carries 36 active transponders. It operates from an orbital location at 46 degrees East Longitude through an arrangement between Azercosmos and MEASAT, which holds the rights to the orbital slot. The satellite will replace MEASAT's Africasat-1 satellite and expand MEASAT's presence in Africa, the Middle East, Southern Europe and Southeast Asia.

Almost all the major satellite operators have a presence in the growing African market. Among the new players include Thailand-based operator Thaicom which announced the launched of its Africom-1 branded satellite for the African market on its Thaicom-6 satellite to be launched this year..



Asia Broadcast Satellite offers its On C-Band (OCB) VSAT managed internet service to Africa on ABS-3 with ground support from teleports in Tel Aviv, Bahrain and Nairobi.

There are also plans for domestic satellites from several Africa countries in the next few years including South Africa and Angola, among others.

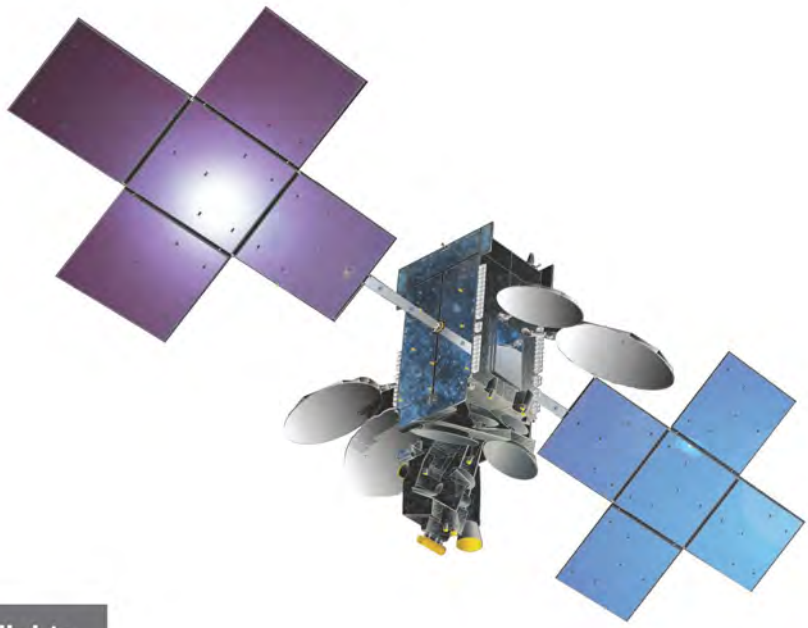
Challenges

The African market presents many opportunities for satellite service providers. Unlike other emerging markets like China or India, Africa is not one homogeneous market but 54 distinct countries with each having its own sets of challenges. There are regulatory challenges as well as problems endemic with developing countries such as corruption and rising criminality. But such challenges are present in almost every market. And, if the positive strides the African market has achieved in the last decade is any indicator, the next few years look very bright indeed.

Virgil Labrador is the Editor-in-Chief of ***Satellite Market 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*

ABS-2

LAUNCHING 2013



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Back and Forth with O3b Networks CEO Steve Collar

by Lou Zacharilla

In their new book, *The New Digital Age*, Google's Eric Schmidt and Jarren Cohen note that 5 billion people will soon be connected to the Internet – and that it will change everything. Cohen, who leads the Google Ideas venture, says that the consequences include the "balkanization" of the Internet, with an attempt by national governments to exercise control over it. Governments will be caught off-guard as large numbers of citizens, armed with virtually nothing but cell phones, take part in "mini-rebellions that challenge their authority." It is an interesting concept, which ultimately confirms a conclusion I made long ago: that the *anticipation* of being connected drives a host of aspirational notions and investments, as people realize that the economic and political playing field will become much smoother. This also means that the "local" – the village and the town – will become far more relevant again, while national governments, if not hip to the new reality, will become increasingly ineffective and mistrusted.

Alongside this trend is another that has already begun to worry highly-populated, authoritarian nations like China, Iran and North Korea: by the year 2030, nearly 70% of the world's population will live in dense, largely under-resourced cities. As a result of this planning agencies seek to find ways to incentivize people to stay where they are and to not become part of these bulging cities, while trying to control them for economic and political purposes.

When it comes to connecting people in remote areas and giving them opportunities via connections to the global economy, nothing is more relevant than a satellite. Satellites, as we all know, cover vast distances and provide connectivity to "telecom islands." You would think that satellite services would not only be welcomed, but that NGOs, national governments and other leadership institutions would rush to learn more and to install this infrastructure, as Australia has, at any cost.
Have faith.

With this as the backdrop, I had a conversation with Steve Collar, CEO of O3b. His venture is designed to empower large numbers of people where they live, whether "home" is a remote Pacific Basin community or one in the hills of Pakistan or Africa. We discussed the vision of a profoundly interconnected world.

Lou Anthony Zacharilla (LAZ): Steve, I noticed that O3b was very visible at the PTC (Pacific Telecommunications conference) this past year. You were one of the major sponsors. What is your strategy for the Pac Rim?

Collar: The Pacific is a vast region and an example of societies of where "Have's" and "Have Not's" are in striking contrast and apparent. While a number of Pacific Islands are well served by diverse fiber, others either have no fiber connectivity or a single, old and unreliable solution. Laying new fiber over the distances required in the Pacific is not commercially viable. So O3b is there to provide up to 1 Gbps for a fraction of the cost.

LAZ: What has been the response?

Collar: We have become very interesting to governments, telcos and ISPs in the region.

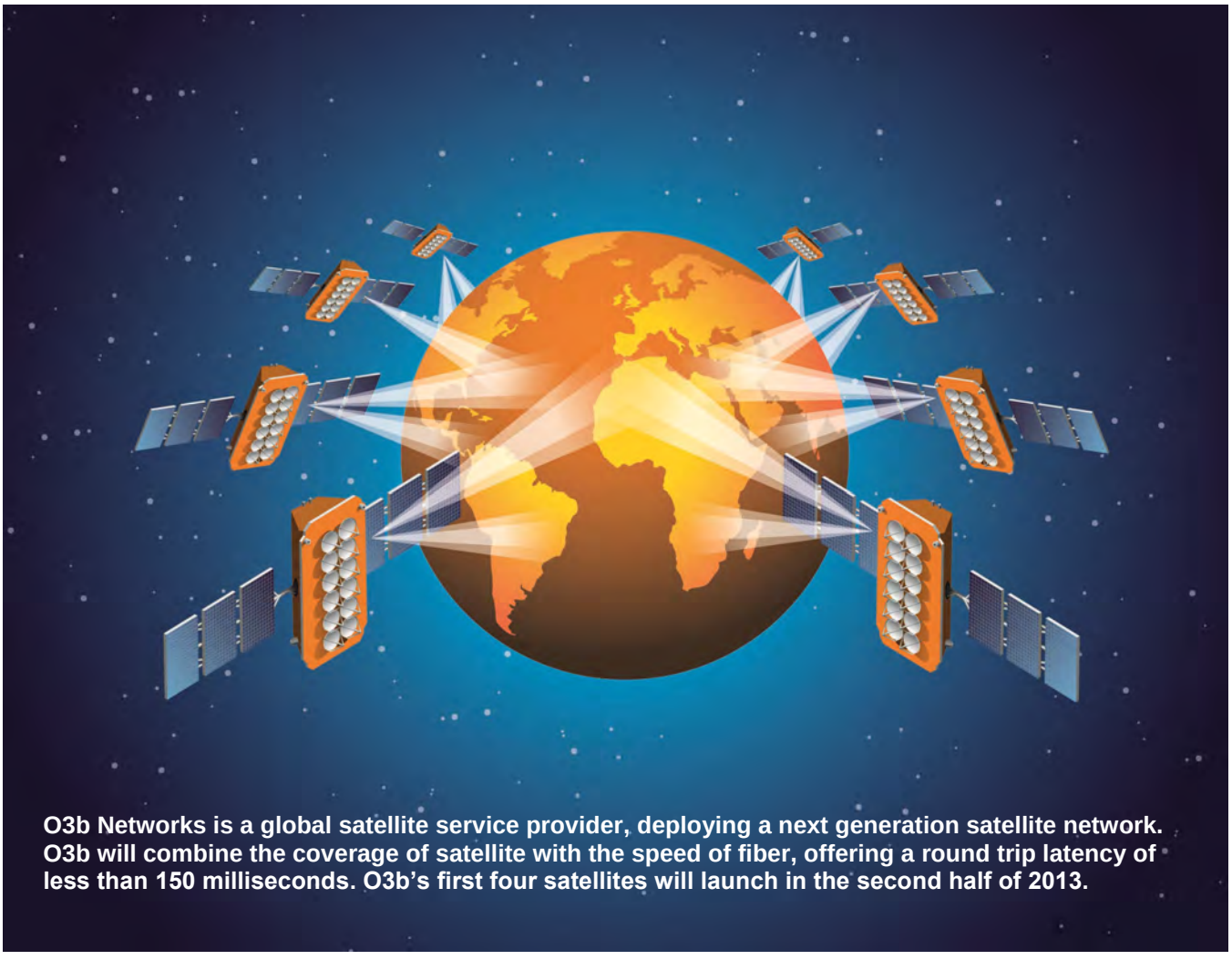
LAZ: You would think that "interesting" would be transformed very quickly into service, since as Eric Schmidt and others say, the Internet is going to level the playing field, and could make governments heroes.

Steve Collar

Collar: We say it simply. Our tag line is "We bring the Internet close to you."

LAZ: Which is simple, clear and direct. I guess the big question is, "What problem is O3b trying to solve by bringing the Internet closer to people?"

Collar: That's an easy one. "The Internet has become the world's information exchange, and we believe that everyone should have the opportunity to participate." Period. Our founder Greg Wyler said that back in 2008, and it is truer today than ever. The Internet has become the conduit for the



O3b Networks is a global satellite service provider, deploying a next generation satellite network. O3b will combine the coverage of satellite with the speed of fiber, offering a round trip latency of less than 150 milliseconds. O3b's first four satellites will launch in the second half of 2013.

world's marketplace, enables new forms of education and boosts access to health care. It moves through mobile devices and is part of everyday life. You also have been very articulate in promoting this idea.

LAZ: I like to say that it is *the new railroad*. You cannot do business without it. The new, weightless cargo is the wealth of ideas and applications being carried along on it. But it needs high-speed rail,right?

Collar: Sure. Yet more than 3 billion of the world's 7 billion people don't have access to this fantastic resource. We plan to help fix that.

LAZ: I get that. I like the whole concept of what O3b can do for the satellite industry. Do you ever get impatient with the industry? I want us to take on big challenges, like you guys are doing. It can change lives. In April my foundation, the Intelligent Community Forum, which has been supported by ViaSat, Globecomm and others launched the rural imperative project. www.ruralimperative.com The goal is to find ways to encourage people to either move out of cities, when possible, or to remain in non-urban areas because Internet access is available. Once digital literacy arrives the idea of distance is changed. I am glad the industry is part of this dialogue. Do you think that this is a goal worth pursuing at the carrier and government level?

Collar: I do. I was speaking to the CEO of Telecom Cook Islands, Jules Maher recently. He stressed your point. Without high quality and reliable Internet connectivity, the youth of the Cook Islands will be forced to move, not only to the big city, but to another island – most likely New Zealand, where they have already been going – to find opportunity.

LAZ: That's the problem. Brain drain translates into economic stagnation and also turns governments into social services agencies, tasked with trying to build social safety nets rather than robust entrepreneurial, educational cultures.

Lou Zacharilla is the Director of Development of the Society of Satellite Professionals International (SSPI). He can be reached at: LZacharilla@sspi.org

The Lack of Consensus on Spectrum Supply and Demand

by J. Armand Musey

I've recently spoken at several wireless industry conferences where I've had a chance to informally discuss various topics with a number of well-regarded U.S. industry experts. In the course of these conversations, the discussion often turned to the issue of supply and demand for wireless spectrum. While it's normal for opinions about the future to vary, I was struck by the extent of the disagreement on this fundamental topic. Here's a quick summary of the debate.

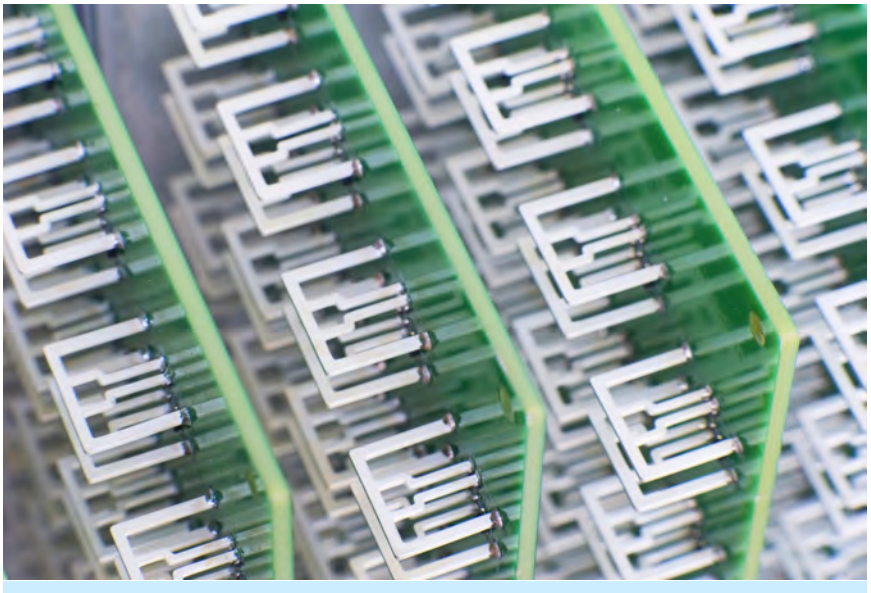
The Supply Debate

The supply side of the equation is more complex than the demand side. Much of the uncertainty is due to the difficulty in predicting the outcome and timing of various government efforts to increase spectrum availability. But the following is known:

- The 2010 National Broadband Plan seeks to add 300 MHz of spectrum for mobile broadband by 2015 and 500 MHz by 2020. The largest part of that is the 120 MHz the FCC seeks to pull back from television broadcasters via the reverse broadcaster incentive auction process.

- The PCAST report, suggests the government share 1,000 MHz of federal spectrum below 3.7 GHz with commercial users.

- There is also a movement afoot to force spectrum license users to allow others to use their spectrum when they are not using it (see: http://newamerica.net/publications/policy/end_spectrum_scarcity).



The start-up Aereo service, which uses thousands of small antennas to distribute free-to-air TV to laptops and mobile devices is changing the dynamics of the broadcast spectrum.
(image courtesy of Aereo)

Cumulatively, these plans, if realized, could massively increase spectrum supply for wireless services.

But these processes are somewhat behind schedule – some say hopelessly. Some say few government agencies will ultimately agree to share spectrum. They also suggest wireless companies will be reluctant to be "second class citizens" on government spectrum. They will resist use smart radios needed to determine when and where they can use it.

The television broadcasting incentive auction is currently getting a great deal of attention. Some say it won't actually happen due to political issues while others say it's on the road to happen in the next 18 months and will release 120 MHz of spectrum nationwide into the market. They note that all of the other spectrum reallocation efforts are all years behind schedule. Others say it will fail because the spectrum is too valuable for the broadcasters to sell and any price the FCC will likely offer. At the same time, another leading expert told me that the broadcast incentive auctions may not happen because so much of the government spectrum is being opened for sharing per the PCAST recommendations.

Nearly 500MHz of shared spectrum allocation is currently in the NPRM process – 3.5GHz [100-150MHz], 4.9GHz [50MHz], 5Ghz [195MHz] and there is also some effort going on in the 1750-1850MHz [100MHz] band. This camp argues that the incentive auction may be called off because the broad-

casters' spectrum simply won't be needed.

The Aereo, Inc situation creates ad additional wrinkle. Some broadcasters (including Fox) are now saying that if the Second Circuit decision affirming Aereo's right to sell their over the air broadcasts through the internet, they may stop broadcasting over the air and only sell to satellite and cable systems. If this happens, television broadcasters might not have much incentive to keep their spectrum and would eagerly participate in the auction process. Ironically, in this case it would not be the weakest broadcasters who would participate, but rather the strongest.

The strongest broadcasters, especially those with network affiliates, have leverage with the cable companies. The smaller ones are more likely to be dependent on "must carry" rules that are tied to broadcasting over the air. Of course the Aereo's legal situation is not completely clear. A lower level (district court) in the Ninth Circuit (covering nine western states plus Guam and the Northern Mariana Islands) ordered a similar service to shut down.

The judge indicated the broadcasters were likely to win their claim of copyright infringement. Should the case be appealed and the Ninth Circuit rules opposite the Second Circuit, it would set the stage for the Supreme Court to decide. The broadcasters may also seek regulatory relief. Broadcasters have a great deal of influence in Washington. However, the government is encouraging television broadcasters to leave their spectrum. Passing a law strengthening their hold on spectrum would seem inconsistent.

The Demand Debate

Like the argument with respect to supply, there is little consensus about the rate of future demand growth. The issue is somewhat more fundamental – predicting consumer usage patterns and improvements in spectrum efficiency.

"...there is little consensus about the rate of future demand growth. The issue is somewhat more fundamental – predicting consumer usage patterns and improvements in spectrum efficiency..."

Some experts point to high historical demand growth and the increased rollout of smart phones, which tend to use multiple of the amount of spectrum of other phones and the rollout of 4G which only encourages increased internet usage including media downloading.

Cisco, for example, projects a 10-fold growth in mobile demand from 2012 and 2017. Currently approximately, the FCC has allocated approximately 608 MHz to wireless broadband. The "spectrum crunch" side argues that such demand growth will outpace any likely increase in supply.

Others say the demand growth is exaggerated (See http://gigaom.com/2013/02/09/is-cisco-stacking-the-deck-with-its-mobile-data-numbers/). They point to data caps that most operators have put on their new plans. Some evidence shows that the growth in data traffic has slowed. Newer 3G and 4G protocols are far more spectrally efficient that earlier versions. Additional rapid Wi-Fi offloading – estimated at close to 33% of wireless traffic in 2011 and growing – perhaps to as much as 60% today — is absorbing much of the demand growth.

Skeptics of the "spectrum crunch" point to the a study cited in the PCAST report indicating that less than 20% of the capacity in prime spectrum bands under 3.7 GHz is utilized even in the most congested areas (See PCAST Report, p.99) . The PCAST Report argues that more efficient spectrum use could increase effective capacity by a factor of 1,000 (p. vi).

Opportunities

It's rare for an industry as mature as the U.S. wireless industry to have such little consensus about medium-term supply and demand growth. But a lack of consensus attracts investors because it creates an opportunity to make money for those who can get it right. Currently investors are bidding-up smaller broadcasters in major markets with the hope of selling back to the FCC at an even higher price. Broadcasters expecting the auction to be less attractive are eagerly selling to them. Wireless companies are making major spectrum transactions with little industry certainty about future supply that could significant impact the values of the spectrum they are trading.

J. Armand Musey is the president and founder of Summit Ridge Group LLC (www.summitridgegroup.com). Armand specializes in the satellite, media and telecommunications industries. He has a unique blend of 16 years of equity research, investment banking and consulting experience. He can be reached at: amusey@summitridgegroup.com

Rio via Aberdeen to Washington DC: High Throughput – the Common Thread

by Martin Jarrold

GVF's recent Rio de Janeiro conference, **Oil & Gas Communications Brazil 2013: Big Oil, the Deep-Water Ocean Expanse, and Big Data** was lauded as a great success by attendees, speakers, and sponsors alike; a very satisfactory precursor to both the next event in the **GVF-EMP Oil & Gas Communications Conference Series**, and, indeed, to the **GVF High Throughput Satellite (HTS) Roundtable**.

Whilst, of course, the **Oil & Gas Communications Series** is, and continues to be, vertical market-specific, and the **HTS Roundtable** references satellite technologies, services, and solutions targeting communications end-user markets more generically, all these events feature a strong common thread – that of the importance of recent, current, and near-future generations of high throughput/high capacity satellites.

GVF-EMP has now produced a total of 17 **Oil & Gas Communications Series** events around the world since 2006. Over that time the conference programs have progressively included an increased focus on the energy industry exploration & production (and also general offshore/maritime) applications imperatives environment that are linked with, and dependent on, satellite broadband technologies, services, and solutions. More recently, in fact since December 2012, this focus on the fact that satellite broadband has arrived – that high capacity satellite communications are being delivered today to millions of corporate, enterprise, and consumer users at subscription rates that transform the broadband value proposition... as well as the business plan – has been reflected in a new element of the GVF-EMP Conference Partnership portfolio – events exclusively covering HTS.

The program of the recent Brazil conference, sub-titled **'Big Oil, the Deep-Water Ocean Expanse, and Big Data'**, covered a wide range of topics as a series of ***Operator***, ***Networks***, ***Oil & Gas Business Strategy***, ***Remote Operations***, and ***Business Balance Sheet*** panel discussions and presentations covering such wide-ranging themes as: **The Global & Regional Satellite Operator View from Earth Orbit: Satellite Capacity Supply, Service Models, Solutions Delivery, and Oil & Gas Patch Capacity Demand**; **Satellite to the Cloud: Evolving New Commercial Oil & Gas Applications to the Satellite & Satellite-Hybrid Communications Environment**; **Data Monitoring, Data Management, Remote Operations, Collaboration & Value Added Services**; **High Capacity, High Throughput: New Satellite Systems Meet Big Oil's Big Data**; **Wasting Bandwidth, Wasting Money: Bandwidth Monitoring and Optimization in Oil & Gas Satellite Networks**; **Bandwidth in Ka/Ku/C/L: Is There a Clear-Cut "Versus" for User Profit Margins?**; **Telepresence over Satellite: Scaling Technical Expertise & Maintaining Secure Lines of Communication to the Field**;

Several of these topics, either directly or indirectly, pertained to HTS, because of the expansion of oil & gas "Big Data", because of the rising importance of bandwidth-hungry video-based content in the exploration & production (E&P) environment, and because of the increased industry focus on leveraging use of application software and data resource storage in "the Cloud".

The presentations from the Brazil conference may be downloaded from the following webpage: www.uk-emp.co.uk/emp-home/future-events/o-gcomms-brazil-program/.

Just as with the Rio event, the next conference in the **GVF Oil & Gas Communications Series** – the 18th globally, and the 6th for the European hydrocarbons industry communications environment – which is **Oil & Gas Communications Europe 2013: North & Northwest - The North Sea, The Arctic Ocean & The Atlantic Margin** (taking place at the Marriott Hotel, Dyce, Aberdeen on 14th & 15th May 2013) – offers ***free-of-charge*** attendance for representatives of oil & gas industry communications solution end-users, i.e., specialists in IT/IS/ICT/Telecoms, Connectivity & Networks/Procurement/SLAs from Oil/Gasfield Operators, Drillers, Shipping & Transportation, Support Vessels, Rig Own-

ers/Operators.

North Sea oil & gas is again booming, as new reserves are discovered and already-known reserves become more cost-effective to exploit through newer drilling and extraction technologies. Additionally, interest in the exploitation of the Arctic Ocean's reserves continues to grow, and in the waters of the Atlantic Margin exploratory activity is increasing apace. At the time of writing this column, some 42 organizations had registered to attend or speak in Aberdeen – a figure and level of interest one would not formerly have associated with what was, until recently, considered (at least as far as the North Sea was concerned) to be a declining, residual, or marginal part of the global oil & gas patch. A full list of these attending and speaking organizations can be seen on the event website at www.uk-emp.co.uk/emp-home/future-events/oil-gas-communications-europe-2013/.

The Aberdeen program will feature themes that are of key significance for the European oil & gas communications markets – including, as in Rio, video and "the Cloud" –

Latest updates on the Aberdeen program, and other details of the conference can be found at the event website at www.uk-emp.co.uk/emp-home/future-events/oil-gas-communications-europe-2013/.

Washington Bound…The HTS Themes Continue

The HTS-related threads reflected in the above will expand to a full two days of comprehensive discussion at the **High Throughput Satellite Roundtable – High-Capacity Ka, Ku and C band Satellite Communications: On Planes, Trains, Ships,… in Cities, Villages and Living Rooms** taking place at the Renaissance Downtown Hotel, Washington DC, on 21st & 22nd May 2013.

The **HTS Roundtable** content will be built around a number of discussion-orientated panels, rather than presentations. The panels – or "Roundtables" – begin with the perspective that the scale and the scope of current changes in the satellite industry cannot be over-stated. A mere 10 years ago, a good year for the satellite communications industry was a terminal deployment total of 80,000 units worldwide. Today, in one country, one service provider is installing 30,000 terminals per month. Not surprisingly, questions abound. What are the new pricing metrics? Have service level agreements changed fundamentally and, if so, how? What about reliability? How high is "high capacity"? New value-added resellers are entering the market; who are they (and do they know what they're doing?)?

Additionally, high throughput technology poses its own questions: What are the relative merits of C band, Ku band and Ka band? Is one application delivered as effectively as another? What about mobility? What are the implications for different user groups? And what is the truth about Ka band rain attenuation?

Answers are forthcoming. These answers draw upon the recent track record of a growing list of industry leaders, including Eutelsat and Avanti in Europe, Yahsat and Arabsat in Africa and the Middle East, IPStar in Asia, and Hughes and Viasat in the Americas. Added to their experience are the innovation and short-term plans of competitors such as Inmarsat's Global Xpress service, Intelsat's EPIC offering, O3B's medium-earth orbit (MEO) solution, and more than a dozen other launches. Indeed, more than half of the world's dozens of satellite operators have either ordered or plan to order high capacity satellites and 14 million households and 50% of enterprise terminals are predicted to be using high capacity platforms by 2020.

The **GVF High Throughput Roundtable** will serve as a forum where these trends, these companies – and their customers – will provide insights into how this exciting new chapter in satellite communications is rewriting the way that applications are delivered in the world today.

Participating organizations will include, from the user sectors, Broadcasters; First Responders/Humanitarian Agencies; War Fighters; Wireless Operators' Civil Aviation & Rail interests; Maritime operators; Oil, Gas & Mining Companies; Governments; and, Consumers. From the provider sector, the contributing organizations will include, satellite operators, network and service providers, equipment manufacturers and vendors, value-added resellers, etc – the entire satellite industry value and supply chain.

Remember, the **GVF HTS Roundtable** is the only event to bring the whole industry together, and go at least some way to answering the difficult questions cited above. See more program information at: www.uk-emp.co.uk/emp-home/future-events/high-capacity-satellite-roundtable-hcs-dc/.

The **Oil & Gas Communications** and **HTS Series** organizer's contact details are, with **GVF**, David Hartshorn at david.hartshorn@gvf.org, Martin Jarrold at martin.jarrold@gvf.org, and Liz Grimm at liz.grimm@gvf.org; and with **EMP**, Paul Stahl at paul.stahl@uk-emp.co.uk.

Martin Jarrold is Chief of International Program Development of the GVF. He can be reached at martin.jarrold@gvf.org

Dish Bids US$ 25 Bil. For Sprint

by Peter Galace

Dish Network Corp. chairman Charlie Ergen is gambling big time again. He has just upped the ante on the bidding game for Sprint Nextel, the third-largest U.S. wireless carrier, to US$25.5 billion in an effort to elbow out Japan's SoftBank US$20.1 billion offer. The move is a big Blackjack gamble that Ergen is used to but the deal is rife with danger. Even if Ergen wins this bet, it could end into a pyrrhic victory and bring Dish to the edge.

Early this week, Dish submitted a merger proposal to the board of Sprint Nextel for a total cash and stock consideration of $25.5 billion. Dish asserted that its proposal represents superior value to Sprint shareholders, including greater ownership in a combined company that is better positioned for the future with more spectrum, products, subscribers, financial scale and new opportunities.

On Thursday, Japanese telco SoftBank asked the Federal Communications Commission to proceed with the review of their proposed purchase of 70 percent of Sprint despite a request of Dish for a suspension.

Sprint said its board will evaluate the Dish offer but told the FCC on Friday it was opposed to Dish's request to delay the review of the SoftBank agreement announced in October 2012.

"The Commission must not be distracted by Dish's latest maneuverings," Sprint said in a document addressed to the FCC. Reports say the FCC has already completed 140 days into its review of the process which normally takes typically 180 days.

On Monday, Ergen said a Dish/Sprint merger will create the only company that can offer customers a convenient, fully-integrated, nationwide bundle of in- and out-of-home video, broadband and voice services. He added "the combined national footprints and scale will allow Dish/Sprint to bring improved broadband services to millions of homes with inferior or no access to competitive broadband services. This unique, combined company will have a leadership position in video, data and voice and the necessary broadband spectrum to provide customers with rich content everywhere, all the time."

Ergen's big bet is based on the idea that by combining Dish pay-TV customers and Sprint's cellular users, he could shake up the wireless business and he could land on top where Dish is currently the third, after DirecTV and Comcast, on the pay TV race, while Sprint is placing only third to Verizon Wireless and AT&T in the mobile business.

Dish Chairman Charlie Ergen

To some, the bet makes a strong case for foresight and fortitude. Many say satellite dishes are losing their relevance in the age of cellphones that play everything from YouTube videos to live TV. But by combining Dish's 14 million pay-TV users with Sprint's 47 million mobile-phone customers, Ergen could create a new pool of subscribers who can get all their video, voice, and Internet services from one place. The idea of providing TV viewers with a consistent experience, whether they're inside their homes using a satellite dish or outside using wireless networks, seems to make perfect sense.

During the past three years, Dish has been able to lure TV subscribers with better deals, but its subscribers remained flat. Unfortunately for Dish and also its rival DirecTV, their satellite dishes have not been proven to provide super fast Internet access. In the meantime, their cable competitors have been able to lure more customers by offering TV, faster Internet and phone bundles.

To stay competitive, Ergen had been trying to partner with cellular companies to allow it to have greater access on the airwaves, or the so-called spectrum rights, used by cellphone companies and wireless broadband operators.

Earlier this month, Dish offered up to $2.3 billion in senior notes to create a nationwide 4G LTE network capable of rivaling AT&T and Verizon. The move

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would enable Dish to shore up its spectrum acquisition by partnering, for example, with Clearwire Corp., a provider of 4G wireless broadband services. Sprint Nextel Corp. already owns at least 50 percent stake in Clearwire, which could have limited Clearwire's ability to sign a deal with Dish. But no problem, if Dish couldn't take a chunk of Clearwire, it might as well get Sprint.

Dish had long been trying to partner with Clearwire because it holds one of the deepest portfolio of wireless spectrum available for data services in the U.S. serving retail customers through its own Clear brand. It also sells wholesale with some of the leading companies in the retail, technology and telecommunications industries, including Sprint and NetZero.

Some experts however are showing skepticism of the success of Dish Network's bid offer. They say duopoly players Verizon and AT&T are experienced operators and won't take the challenge sitting down. In a war of attrition, Verizon and AT&T could engage the combined Dish/Sprint in an unhealthy price that could potentially clobber the merged company.

In a world that is changing every minute of the day with new technologies, new players, and better ideas, nobody for sure knows what or who will come out next to rule the telecom and broadcasting industries. So now, this could just be another betting game with no clear winner yet…until the new wave of change comes along.

The Much Awaited Intelsat IPO

by Virgil Labrador

Washington, D.C. , April 18, 2013-Intelsat's much awaited Initial Public Offering (IPO) finally went underway April 18 with mixed results. The IPO almost did not happen amid media reports of its possible cancellation.

Intelsat expects to raise about US$ 347.8 million from the IPO, considerably less than the $1.75 billion it had initially hoped for when it first filed 11 months ago. Intelsat, the world's largest commercial satellite operator, sold 19.3 million shares, down from the expected 21.7 million, at a price of $18 a share, below the expected $21 to $25 range. Intelsat plans to use the proceeds from the IPO to repay its debt which stands at US$ 15.9 Billion. It started trading in the New York Stock Exchange under the symbol "I."

Intelsat's debt is about eight times its earnings before income taxes, depreciation and amortization for 2012, a relatively high leverage ratio. Intelsat's Chairman David McGlade said after the IPO that he felt "very comfortable" with Intelsat's debt ratio because of its US$ 10.7 Billion order backlog. The backlog gives a good indicator of future earnings. Intelsat generated $2.61 billion in revenue in 2012, a less than 1 percent gain from the year-earlier period.

Artist rendition of the new Intelsat Headquarters in Tyson Corner, Virginia where it expects to move in mid-2014.
(image courtesy of Macerich)

A group of private-equity funds led by BC Partners Ltd. and Silver Lake Management LLC acquired Intelsat in a 2008 buyout that valued the satellite operator's equity at about US$5 billion.

Goldman Sachs, JPMorgan Chase, Morgan Stanley and Bank of America Merril Lynch were lead underwriters of the IPO.

Intelsat has suffered one partial and one total satellite failure in the last 18 months that resulted in US $488 million in insurance claims. Intelsat has said it will be spending only about US$ 50 million in 2013 on the Intelsat 27 replacement satellite, giving the company more than US$400 million in extra cash this year. This amount could ostensibly be used to pay down Intelsat's debt.

Intelsat pioneered the satellite communications industry when it was established as an intergovernmental organization in 1964. It underwent a privatization process in the late 90s and is now a fully publicly traded company like its main competitors SES and Eutelsat.

The IPO might provide a exit path to the private equity investors that control Intelsat, who are at the end of the typical five-year holding period, according to analyst Armand Musey. When their lock-up period expires, Serafina and other holders of the approximately 79% of the shares not sold in the IPO, will be able to sell their shares into the open market, said Musey.

The IPO may also help in decreasing Intelsat's debt load by offering bondholders incentives to covert debt to equity, rights offerings to raise more money and other tools to reduce the debt load, said Musey.

SpeedCast Completes Buyout of Pactel

Sydney, Australia, April 22, 2013--SpeedCast Ltd announced the buyout of Pactel International, a satellite communications service provider based in Australia. Pactel provides satellite communications solutions throughout Australia and the Pacific. The company focuses on servicing its customers' requirements for Internet, private networking and voice services. Founded in 1999, Pactel is headquartered in Sydney, Australia, and has additional offices in Perth, Australia and Jakarta, Indonesia.

With this acquisition, SpeedCast will offer unique engineering capabilities with over 50 skilled engineers across the Asia-Pacific region, allowing it to continue to support its growing base of customers and partners there. SpeedCast's network of 25 teleports worldwide provides global services with unmatched flexibility and redundancy. With this solid foundation, SpeedCast has the ability to deliver custom-engineered and highly reliable communications solutions for its customers across all major industry segments. In particular, in the Australian market, SpeedCast will further extended its stronghold with new points of presence and infrastructure covering the entire continent from Sydney to Perth, from Darwin to Adelaide. SpeedCast will be well-positioned to serve its growing number of natural resource customers and support their mission-critical communications in Australia and around the world, accoridng to the company.

Joining the SpeedCast Group, Pactel will be able to offer its customers a wider portfolio of products and services and better serve its customers' needs worldwide. With SpeedCast's financial and logistical strength, Pactel will be able to finance even larger-scale projects with short lead times. SpeedCast will leverage Pactel's outstanding team to continue to provide excellent services to existing Pactel customers, while augmenting SpeedCast's own team and expertise. In particular, Pactel's management team will continue with SpeedCast to further develop SpeedCast's business in Australia and the Pacific. Pactel's Sydney network operations center ("NOC") and teleports will complement SpeedCast's current Australian infrastructure, adding additional points of presence in this important market. The combination will also provide additional levels of redundancy for the Australian customers of both companies and also offer multiple landing points in the country.

This acquisition follows SpeedCast's acquisitions earlier this year of Australian Satellite Communications ("ASC") and Elektrikom Satellite Service ("Elektrikom"), two leading service providers in their respective markets. The closing of the transaction is subject to regulatory approval.

ViaSat Acquires LonoCloud Inc.

Carlsbad, Calif., April 12, 2013– ViaSat Inc. has acquired privately-held LonoCloud Inc., an early-stage company based in La Jolla, Calif. with expertise in cloud networking software.

The purchase price was not disclosed.

ViaSat said it intends to integrate core components of the LonoCloud Platform as a Service (PaaS) product with the ViaSat broadband network. ViaSat said LonoCloud employees will join ViaSat's broadband networking team.

"Adding this core technical capability to our broadband network will both enhance our existing offering as well as shorten development cycles for new service offerings," said Mark Dankberg, ViaSat chairman and CEO. "Further, we're excited to add this talented team to our rapidly-growing broadband group."

"Joining ViaSat allows us to continue innovating in advanced cloud services with a company known for continued technical innovation," said Neil Senturia, LonoCloud CEO.

LonoCloud has developed an innovative, cloud-based service platform to support the "Internet of Things." The software system contains sophisticated, distributed mesh algorithms that create a network foundation for enterprise services and applications to interact and communicate with one another, according to a ViaSat statement.

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With the historic launch of its first four satellites nearing (June 2013), O3b recently signed a major capacity deal with West Africa Telecom, one of Liberia's leading Internet Service Providers, and also announced a major long-term capacity deal providing highly resilient and affordable capacity to the leading ISP in the Democratic Republic of Congo.

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ABS Apoints Felix Damiba as MD, Africa

Hong Kong, April 1, 2013 — **Asia Broadcast Satellite** (ABS) has appointed **Felix Damiba** as the Managing Director for Africa. Felix will be responsible for business development, managing sales and operations for the African market.

Felix Damiba

Damiba was the Sales Director at Comtech EF Data with a strong track record for both commercial and government clients for the African region. He also held various positions in Sales and Engineering with Intelsat and was the CTO of National Telecommunications of Burkina Faso.

Damiba holds an MBA from Loyola College in Maryland, and a Master of Science in Electronics and Telecommunications Engineering from the Polytechnic Institute of Bucharest.

Tom Choi, Chief Executive Officer of ABS, said Felix will be responsible for business development, sales, and project and service management.

Harris Broadcast Appoints JiShun Mei and Joe Khodeir to APAC Sales Team

Denver, Colo., April 22, 2013 — **Harris Broadcast** has named **JiShun Mei** as vice president of sales for North Asia-Pacific region. **Joe Khodeir** has also been appointed vice president of sales for all product lines in the South Asia Pacific.

Mei and Khodeir will report directly to Richard Scott, senior vice president, global sales and services. Harris' North APAC region covers China, Hong Kong, Taiwan, Korea and Japan. Mei will continue to be based in the company's Shanghai office. The South APAC team will cover all ASEAN countries, Australia and New Zealand.

Khodier will continue to be based in Sydney. In addition to their roles of leading the regional sales managers, Mei and Khodeir will also serve as leaders for the technical pre-sales teams, which are shared across the newly created sub-regions.

Arianespace names Stéphane Israël Chairman and CEO

Evry, France, April 18, 2013 — The Board of Directors of **Arianespace** has named **Stéphane Israël** Chairman and CEO of the company, replacing Jean-Yves Le Gall, who has been named the new president of French space agency CNES. Israël starts his new role third week of April.

Stéphane Israël

Israël was born in 1971, was appointed as a judge in the French Court of Auditors in 2001 after graduating from the Ecole Nationale d'Administration (ENA). While in this position, he participated in missions concerning French space policy and the Ariane launch system. He moved to the aerospace industry in 2007, first as advisor to Louis Gallois, Chief Executive Officer of EADS, then holding various operational management positions at Astrium Space Transportation and Astrium Services.

In May 2012, Israël was appointed chief of staff to the French Minister for Industrial Renewal.

Jean-Yves Le Gall, who had headed Arianespace since 2001, was named on April 3 as President of French space agency CNES (Centre National d'Etudes Spatiales), Arianespace's core shareholder, by the French Council of Ministers.

Orbcomm Hires Montgomery as SVP-Marketing

Rochelle Park, N.J., April 15, 2013 — **Orbcomm Inc.** has announced the hiring of **Craig Montgomery** as Senior Vice President of Marketing.

Montgomery has over 18 years of experience in marketing, product management and sales operations. He joins Orbcomm from CMG Partners, where he was a Principal and head of the Washington, DC office and responsible for helping to develop growth strategies for privately held and publicly traded clients.

Prior to CMG Partners, Craig was a Senior Vice President at SkyBitz and led direct marketing for Nextel Communications. In addition, Craig served as the Chief Operating Officer and Senior Vice President of Marketing for Seneca One Finance as well as other senior marketing roles with CoStar Group and Dell.

Euroconsult Names Representative in Japan

Paris, April 10, 2013 — Consulting firm **Euroconsult** has named **Shigeki Kuzuoka** as its Senior Affiliate for Space and Satcom and Permanent Representative in Japan.

Kuzuoka brings 34 years of experience in engineering and business development in space and satellite communications. He has held multiple senior executive positions since 1979, working for Mitsubishi Electric Corp., ImageONE and NEC Corp.

Pacôme Revillon, CEO of Euroconsult, said Shigeki's extensive experience and knowledge of the Japanese space markets and sector will aid in both assisting

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existing regional customers and in helping to acquire new customers.

Measat promotes Lopez to VP-Broadcast Sales

Kuala Lumpur, April 2, 2013 — Measat Satellite Systems Sdn. Bhd. has appointed **Jarod Lopez** as Vice President – Broadcast Sales.

Jarod will lead all the broadcast distribution sales activities across the Measat and Africasat fleet of satellites. He will also support the expansion of the Measat business into the African region.

Jarod Lopez

Jarod was formerly Senior Director of Sales and Marketing. He had been with Measat since 2006. He holds a Bachelor of Engineering degree from University of Northumbria at Newcastle, UK.

ViaSat names Dirks as CFO

Carlsbad, CA, April 4, 2013 —ViaSat Inc. has appointed **Bruce Dirks** as Chief Financial Officer. **Shawn Duffy**, who has served as interim CFO since August 2012, will continue in her position as Vice President, Chief Accounting Officer and Corporate Controller of the company.

Dirks has served as a portfolio manager at Fidelity Management & Research Co. since 2000. Prior to joining Fidelity, Dirks was vice president – Investments at TRW Investment Management Co. from 1993 to 2000. Dirks began his career at Raytheon Co. as a financial analyst and also worked on the corporate finance team at General Dynamics Corp. He earned a B.A. in Economics from Amherst College and an M.B.A. from the University of Chicago.

GlobeCast Adds 3 Key Staff

Las Vegas, April 7, 2013—GlobeCast Americas has announced three appointments to sales positions.

GlobeCast said **Bert Quesada** has joined GlobeCast Americas as Director of Contribution Services, and will provide complex solutions for broadcasters covering news, sports, and special events in North and Latin America. Quesada most recently worked at Intelsat, where he was the Managing Sales Director of Broadcast Services for Latin America and the Caribbean.

Prior to this, he held various positions at Overon, including Head of Special Events and Head of Satellite Space Segment Sales. Quesada will be based at GlobeCast's facility in Sunrise, Florida, and will report directly to GlobeCast Americas CEO Lisa Coelho.

Ted Carr has joined as an Account Manager for North America, working on both permanent and ad-hoc accounts. Carr has 15 years' experience providing specialized media content solutions and system integration services, most recently for Evertz Microsystems. He is based in the Culver City, California, office and reports to Eddie Ferraro, Head of Sales for North America.

Armando Parra will join GlobeCast as its newest Account Manager for Latin America, based in Sunrise, Florida. Parra, formerly of Claxson Networks, nuvoTV, and Playboy Enterprises, will be tasked with developing solutions for broadcasters throughout Latin America and will report to Ricardo Flores, Head of Sales for Latin America.

IDC Names Lowther as CEO

Framingham, Mass., April 4, 2013 — International Datacasting Corp. has named **Doug Lowther** as the company's new CEO.

Lowther is presently Executive Vice-President at Irdeto, a leading global supplier of Digital TV technology and services. Currently based in Beijing, Lowther will relocate to Ottawa when he begins his work with IDC in the last week of May 2013.

Lowther has extensive experience developing and executing successful business growth strategies in the fields of digital television, wireless networking, IP-based services and software security. He started with Irdeto as Vice President of Marketing in 2004 and during the next several years led the creation of a product portfolio that achieved substantial revenue growth. More recently, he was responsible for Irdeto's business with Pay TV operators worldwide. He currently heads Irdeto's Sales, Marketing, and Corporate Development teams.

Doug Lowther

Before joining Irdeto, Lowther was an independent consultant and strategy advisor. He held several executive roles with Nortel Networks, where he was Vice President and General Manager of Wireless Applications and the Vice President of Strategic Marketing. He began his career building network planning and operations systems for telecom operators.

RRsat America appoints Ohad Har-Lev as President

Airport City Business Park, Israel, April 4, 2013 — RRsat Global Communications Network Ltd. has announced the appointment of **Ohad Har-Lev** as president of the company's U.S. subsidiary, RRsat America Global Communications Network Inc.

Har-Lev most recently served as RRsat's MSS Managing Director as well as Corporate General Counsel and Company Secretary. He previously held senior positions as VP, Business Development and General Counsel of Kamor Ltd; VP, General Counsel & Business Development fiber optics division of Gilat Satcom; and corporate counsel at Amdocs.

RRsat also announced the appointment of **Tzurit Golan** as VP, Human Resources & Organizational Development.

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Consumers Taking Control of Their Media Experience

Las Vegas, Nevada, April 8, 2013-- Consumers are increasingly taking control of their entertainment experience, multitasking while watching television, integrating second screen devices into their viewing experience, and viewing more Internet-based content, according to a new survey released today at the NAB show in Las Vegas by Accenture.

The third annual multi-nation "Video Over Internet Consumer Survey," found that viewers are multitasking with their laptops, phones, tablets and even books and newspapers, in growing numbers while watching TV. Overall, 90 percent of respondents indicated they watch some video content over the Internet.

"Consumers can't just watch TV anymore," said Francesco Venturini, broadcast lead for Accenture's Media & Entertainment industry group. "The rise in multitasking while watching TV suggests that scheduled programming, also known as Linear TV, may be losing its appeal for sophisticated users, presenting both challenges and opportunities for broadcasters and content providers."

Television Viewers Multitasking in Greater Numbers

The survey revealed that multitasking has grown substantially in the past year across all devices. In fact, more than three-quarters (77 percent) of all respondents reported regularly using their computer/laptop while watching TV, up 16 percentage points from last year. While numbers rose across the board on all devices, the use of tablets rose the most significantly – to 44 percent from 11 percent -- despite their lower ownership rates compared to PCs, TVs and phones. The frequency with which consumers watch video content on tablets also has increased significantly.

"The rise in multitasking while watching TV suggests that scheduled programming, also known as Linear TV, may be losing its appeal for sophisticated users, presenting both challenges and opportunities for broadcasters and content providers."

Although multitasking activities are mostly unrelated to the content on TV, the survey indicates that the use of tablets correlates more closely with what consumers are watching than the use of laptops and smartphones.

The survey also indicates that the tablet is showing early signs of becoming a complementary companion device for multi-tasking consumers with 14 percent using tablets for searching content and social media activities related to the TV program they are watching. Only 17 percent of those surveyed use a tablet for activities unrelated to the content being viewed on TV.

"As the tablet becomes a key companion to today's viewers, monetizing this second screen experience must be explored," said Venturini. "This is an example of over-the-top applications and convergence presenting the industry with new challenges.

Sophisticated Consumer Habits

The growing sophistication of consumers is also reflected in the high percentage of respondents who watch video content over the Internet (more than 90 percent); the greater frequency with which they view movies, TV programs and Video on Demand over the Internet on a device; and the correlation between the type of content they are watching and the device they use to watch it.

The number of respondents who watch video content over the Internet at least once a week on a PC/laptop rose to 65 percent in 2013 from 59 percent last year, according to the survey. During that same period, the number of respondents watching video content on a mobile phone or smartphone rose to 31 percent from 24 percent and the number watching video content on a tablet increased to 22 percent from 14 percent.

Consumers have evolved in their use of different devices to match the content they are viewing. The data shows that more people are watching full-length movies and TV series on their PCs/laptops this year than last (47 percent compared to 41 percent); tablet viewing also grew to 33 percent from 27 percent. And, more consumers are viewing short video clips on their smartphones (49 percent compared to 44 percent in 2012), according to the survey.

Overall, the survey found greater consumer sophistication in the way in which they use their devices to match video content to their PCs, phones, tablets and TVs. In response, and in alignment with key digital trends identified in the Accenture Technology Vision, broadcasters and content providers should look to create "digital relationships" with consumers to improve interactions, develop better insights into

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From page 28…

individual consumer preferences, and deliver a more customized consumer experience.

Evidence of Confusion

TVs connected directly to the Internet remain the ideal method for accessing online video on a TV. However, consumers' preference for using connected TV for online videos has slipped from 36 percent in 2012 to 31 percent this year. And, the percentage of consumers who are not sure or don't have a preferred method for accessing online video on TV has risen from 23 to 28 percent.

The data suggests that consumers remain confused about the available options for accessing online video. While only 16 percent indicated a preference for an online connection through a set-top box, nearly a third (30 percent) reported watching daily online content this way.

"We would have expected consumers to have a better understanding of their options by now considering the sizeable marketing push by the television electronics industry to promote connected TVs," said Venturini. "A big gap still remains between the availability of video services, content discovery programs and consumers' ability to access these capabilities."

Broadcasters Striking Back

The survey indicates that local and national providers are making progress in their battle with global content providers, such as Netflix and YouTube, to deliver video services over the Internet. The number of consumers using local online video service providers and broadcasters rose from 37 percent in 2012 to 40 percent in 2013, while global providers dropped by a similar amount.

Moreover, the survey reveals growing trust for broadcasters among consumers. Asked who they would most trust to offer a video over the Internet service on their TV screen, more than half (53 percent) of consumers surveyed said they would trust their traditional TV broadcaster – up from 32 percent in 2012.

"Broadcasters have been investing heavily over the past 12 months to earn consumer trust in the online world and provide new services across multiple devices. They have accelerated the delivery of their own content online and fundamentally altered their strategies to fit the rapidly changing marketplace, and in some cases introduced sophisticated hybrid TV offerings. Consumer trust for broadcasters is an indication that these investments are starting to pay off," noted Venturini.

Methodology

Accenture conducted an online survey in February and March, 2013, with 3501 consumers in six countries: Brazil, France, Italy, Spain, the U.K. and the U.S. The sample is representative of the national population in each country.

Over 60% Growth in OTT Revenues

Scottsdale, Ariz., April 12, 2013--Companies like Netflix, Hulu, Apple, and Amazon helped drive the over-the-top (OTT) video market past $8 billion in 2012. The three largest markets—North America, Europe, and Asia-Pacific—experienced YoY growth in excess of 50% in 2012. The continued spread of connected CE and increasingly mobile devices, like tablets, are expected to push the market past $20 billion by 2015, according to ABI Research.

"The shift to digital and OTT distribution is accelerating, particularly as content providers increasingly warm up to these channels," comments senior analyst, Michael Inouye. "While Pay-TV services are still afforded many advantages we are approaching the proverbial fork in the road when content owners will decide if they continue down the same path or forge ahead, shaking up the primary means of media distribution as we've known it."

The dynamics around revenue generation continue to change and currently vary by region (e.g. subscriptions more significant in North America than Europe or Asia-Pacific). In time, however, we expect a greater diffusion of revenue across the various business models. For instance, in 2012 58% of OTT video revenue came from subscription service, but we anticipate this share to fall to less than 32% by 2018. In large part this is driven by a continual shift in consumer demand towards newer forms of digital content distribution.

"While we still see great value and strength in the Pay-TV sector we are also starting to see the pieces that will accelerate change fall into place," added practice director, Sam Rosen. "Whether it's Netflix expanding to International markets or ABC and CBS enhancing catch-up services the building blocks that will restructure the how, when, and where consumers view content are starting to give shape to a new media future. This future, however, isn't devoid of traditional media nor is it a matter of new channels necessarily winning, but rather a redistribution of wealth within the value chain."

Rapid Expansion in the ICT Sector

Geneva, Switzerland, April 18, 2013-- The 2013 edition of ITU's flagship regulatory report '*Trends in Telecommunication Reform*', highlights the increasingly global nature of information and communication technology (ICT) regulation and the crucial link between effective regulation of the ICT sector and the range, quality and affordability of ICT services available to consumers and business users alike.

Focusing on '*Transnational Aspects of Regulation in a Networked Society*', this year's report reveals an increasingly complex and interlinked legal and regulatory environment in which decisions taken in one market can have a major impact on neighbouring countries and even markets far away.

The report confirms continued rapid expansion of tech markets worldwide. Rapid growth of broadband has seen global IP traffic skyrocket from around one petabyte 20 years ago to an estimated 44,000 petabytes (44 exabytes) at end 2012. As an indicator of the sheer volume this represents, that amount of data would take 1,100 years to download over a 10Mbps broadband link – or more than 200,000 years over a dial-up connection. In 2013 alone, IP traffic is expected to grow by around 14 exabytes per month – the monthly equivalent of twice total cumulative global traffic for the whole decade from 1994 - 2003.

Traffic volumes are being driven by the ever-growing number of connected people and connectable devices, the trend toward multiple device ownership, an abundance of highly diversified and mostly free online content, and increasingly widespread consumer access to fixed and mobile broadband networks capable of supporting high-bandwidth services like streaming video. The total number of people connected to the Internet is expected to surpass 2.7 billion in 2013, while the total number of applications downloaded over all types of devices will exceed 50 billion.

Data continues to generate of 90% of all consumer traffic, with the largest volumes associated with file sharing, video streaming, video calls and online gaming. New mobile devices providing a higher quality user experience are driving faster uptake of gaming and video calling, both of which are expected to continue to notch up over 40% year-on-year growth between 2010-2015.

"These are interesting times for regulators, with the full impact of the long-term trend towards globalization of services now beginning to be felt," said Dr Hamadoun I. Touré, Secretary-General of ITU. "The challenge every regulator faces is to create the right environment for service development and competition that ensures the best quality services and best-value offerings succeed, and that consumers ultimately reap the benefits."

The report notes that the net neutrality debate continues to be muddied by the fact that there is no agreed definition of the term among regulators themselves. The report goes on to make recommendations about what types of traffic management are acceptable, and what types could be considered uncompetitive.

In the area of spectrum policy, the constant pressure on spectrum availability caused by the mobile boom shows no sign of abating, with analysts predicting an 18-fold growth in mobile traffic between 2011-2015, driven by machine-to-machine communications, 'over-the-top' (OTT) services like VoIP, and new types of cloud service.

Current spectrum management best practice favors re-farming, re-use, and liberalization of current management frameworks. To ensure that frequencies are put to their most efficient and highest-value use, spectrum licensing is increasing moving towards market-based policies such as auctions, in-band migration, spectrum sharing and spectrum trading, to supplement or even supplant older, slower bureaucratic processes.

Finally, the fast-growing field of cloud computing is giving rise to a number of new regulatory challenges, such as ensuring privacy and affirming clear ownership of personal and corporate data, dealing with unauthorized third party use of stored data, determining legal jurisdictions (if data is stored on servers in different locations), and avoiding anti-competitive lock-in of users of different types of cloud services. Cloud-based traffic continues to grow strongly, and is expected to represent at least two thirds of all network traffic flows by 2016.

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CASBAA Satellite Industry Forum 2013
Shangrila Hotel, Singapore
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CASBAA's annual **Satellite Industry Forum** will take place on June 17, 2013 at the Shangri-La, Singapore. The Association's comprehensive forum on the thriving satellite market in the Asia-Pacific will examine *An Industry in Transition* this year, highlighting key issues top-of-mind with stakeholders in the region.

This year's edition of CASBAA's Satellite Industry Forum will focus on "An Industry in Transition," highlighting the growing Asia-Pacific satellite market.

"CASBAA has again assembled an incredibly diverse group of guests and speakers for our annual **Satellite Industry Forum 2013**," said Christopher Slaughter, CEO, CASBAA. "Representing the total value chain of the satellite industry, our panel of leading international executives will share their collective experience and knowledge across a wide range of topics and issues."

Tackling the big issues for satellite operators and users in the Asia Pacific region, this year's Forum will delve into the worries about spectrum access, market access and regulatory regimes and identifying growth markets and future trends in the region. Additional panels will explore emerging satellite technologies and how they will change the face of the industry, the booming launch services sector and an entire session devoted to the dynamic and complicated Indian market.

Opening the proceedings this year will be Keynote Speaker Gwynne Shotwell, President, SpaceX. Joining her on the day will be David Ball (CTO, NewSat), Thomas Choi (CEO, Asia Broadcast Satellite), Steve Collar (CEO, O3b Networks), Yvon Henri, Chief, Space Services Department, ITU Huang BaoZhong (EVP, APT Satellite), Osamu Inoue (Senior EVP, SKY Perfect JSAT), Sameer Kanse (Global Head, Tata Communications Media Services), Tarun Katial (CEO, Reliance Broadcast Network), Ted McFarland (Regional VP, Business Development, GEO Satellite Communications, Orbital Sciences), Deepak Mathur (SVP, Commercial, Asia-Pacific and the Middle East, SES), Bill Wade (President & CEO, AsiaSat), Bill Weller (VP, Marketing & Sales and Government Relations, SSL Representative, Global Xpress) among many others.

Partners for the **CASBAA Satellite Industry Forum 2013** include Supporting Sponsor JSAT and Sponsors Arianespace, AsiaSat, Eutelsat, Marsh, MEASAT, MHI Launch Services, SES, SSL and SpaceX.

For more information about the **CASBAA Satellite Industry Forum 2013** please visit http://www.casbaa.com/events/events-calendar/details/363-satellite-industry-forum.

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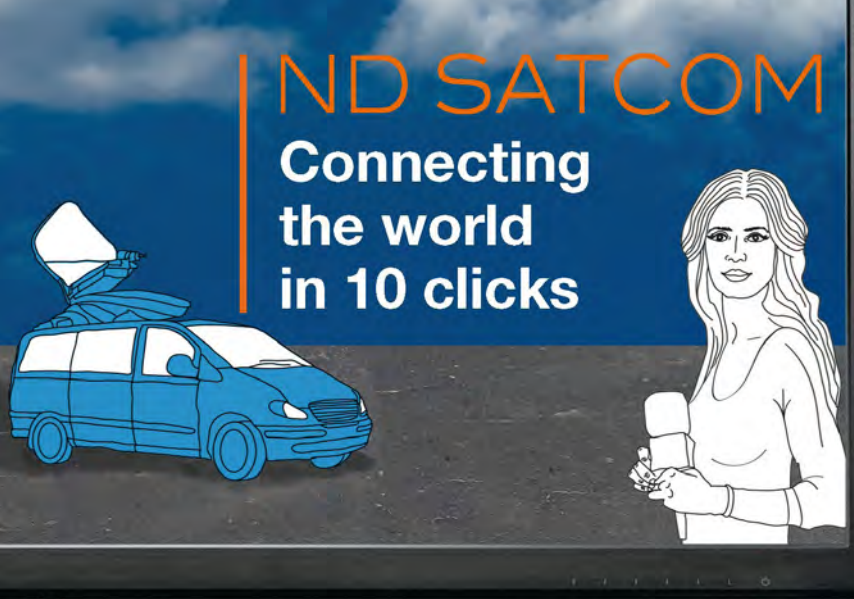

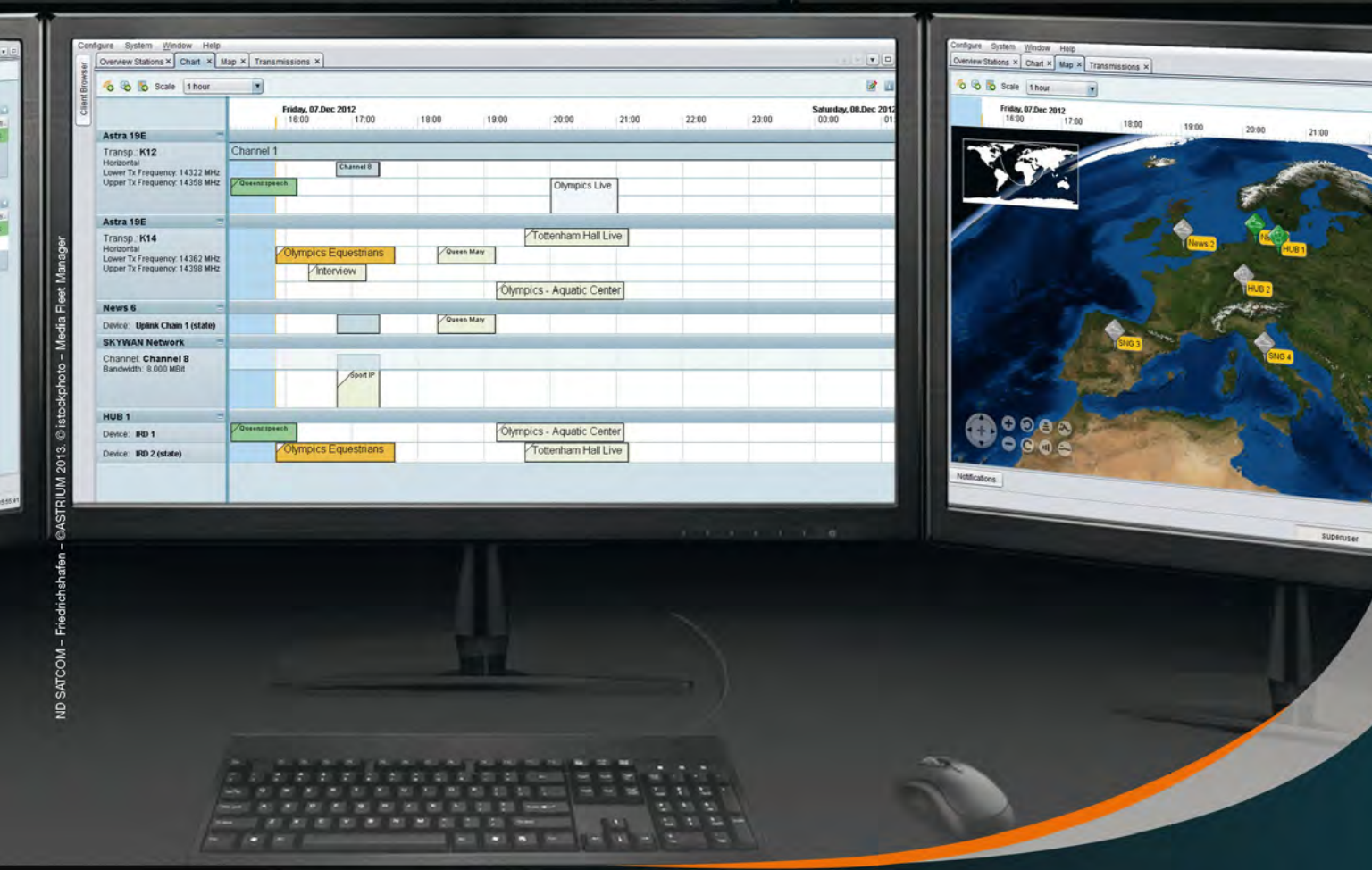

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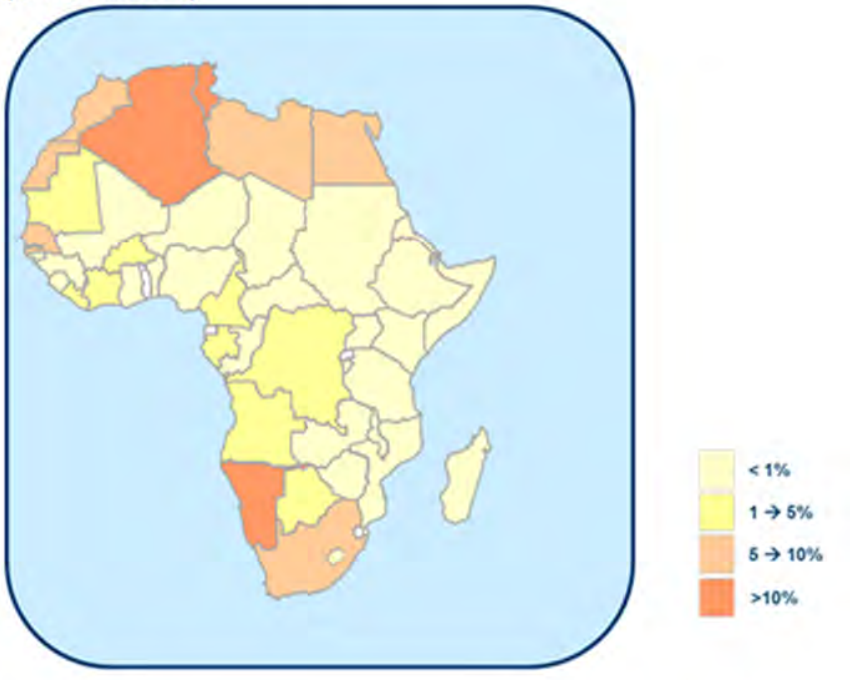
African Satellite Market

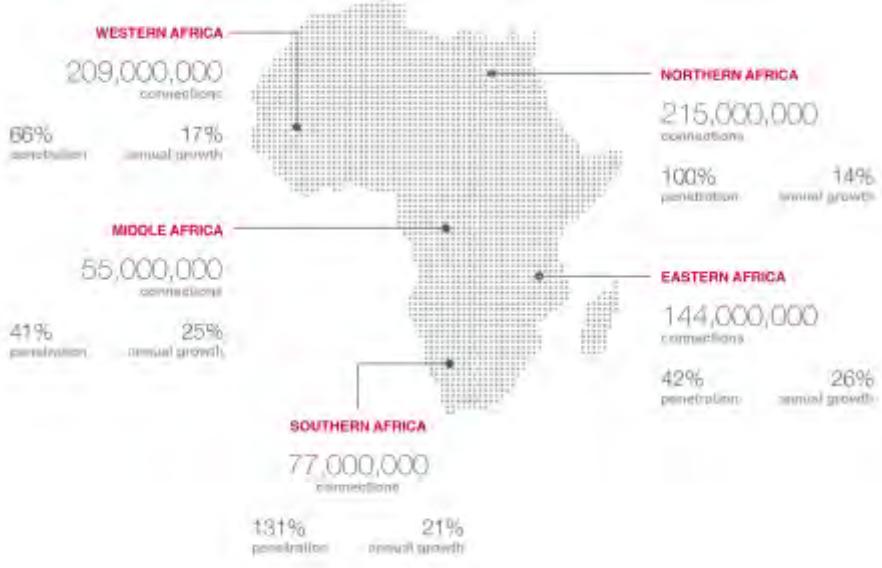
Fixed broadband access penetration in Africa, end-2011

(% of households)



Source: IDATE

According to the latest data provided by the Wireless Intelligence, Africa has overtaken Asia Pacific as the world ' s fastest growing region in terms of cellular connections. There are currently 700 million total cellular connections across Africa with annual growth of 19%, 96% of these connections are prepaid.



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Space Pioneers to Meet at Long Beach

SPACE TECH EXPO 2013
Long Beach, California May 21-23, 2013

SPACE TECH EXPO 2013, (www.spacetechexpo.com) the West Coast's major space industry gathering and one of the largest events of its type in the world, brings together global decision makers involved in the design, build, and testing of spacecraft, satellite, launch vehicle, and space-related technologies.

The annual trade show and conference will be held May 21-23 2013 at the Long Beach Convention Center. With over 140 exhibiting companies, SPACE TECH EXPO is a feature-packed event established to introduce the supply chain to the wider buying chain. Space Tech Expo attracts scientists, engineers, C-level professionals, government representatives, policy makers, space agencies, military, venture capitalists and investors, industry entrepreneurs, and buyers from the satellite communications marketplace.

SPACE TECH EXPO to be held May 21-23, 2013 in Long Beach, California is the West Coast's premier space industry gathering and one of the largest events of its type in the world.

While some events emphasize networking opportunities, SPACE TECH EXPO guarantees a professional B2B platform to discuss and conduct business. In addition to the exhibition, Space Tech Expo features a C-level three-day conference entitled *The Business Case for Space* at a highly competitive rate of $695.

The SPACE TECH CONFERENCE will address core challenges and opportunities in space commercialization, commercial crew and cargo, space tourism, space launch systems, space funding, technology transfer, International Space Station utilization, military requirements, and supply chain and acquisition considerations.

Prime contractors including ATK, SpaceX, The Boeing Company, Northrop Grumman, Pratt & Whitney Rocketdyne and Raytheon will join representatives from NASA, the military, and The Aerospace Corporation to discuss strategies that continue to deliver excellence and innovation, while also driving down cost.

"The Space Tech Conference brings together serious players in a number of key sectors, from satellites to launch services to NASA programs. It's fast becoming one of the 'go-to' events for the space business and well worth the participation," said Jeffrey Manber, Managing Director, NanoRacks.

SPACE TECH EXPO also offers free learning opportunities for all exhibition attendees through free engineering workshops and the free-to-attend **Satellite & Space Summit.** This unique combination of conference and exhibition ensures that your time away from the office pays dividends and is both money and time well spent.

This year's new venue, the Long Beach Convention Center is just a quick drive from many of Southern California's leading space companies, and in close proximity to US Air Force and NASA facilities. It all adds up to making SPACE TECH EXPO a must-attend industry event of 2013, especially given tight travel budgets.

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The Satellite Markets 25 Index™

Company Name	Symbol	Price (May. 02)	% Change from Last Month	52-wk Range			% change from 52-wk High
Satellite Operators							
Asia Satellite Telecommunications	1135.HK	30.50	7.21%	18.32	31.00	↓	1.61%
Eutelsat Communications S.A.	ETL.PA	27.30	-0.73%	20.16	28.15	↓	3.02%
APT Satellite Holdings Ltd.	1045.HK	5.24	-2.96%	1.74	5.48	↓	4.38%
Inmarsat Plc	ISAT.L	691.00	-1.64%	388.80	749.00	↓	7.74%
SES GLOBAL FDR	SES.F	23.675	-3.39%	17.52	25.00	↓	5.30%
Satellite and Component Manufacturers							
The Boeing Company	BA	92.21	7.92%	66.82	93.38	↓	1.25%
COM DEV International Ltd.	CDV.TO	3.75	-5.06%	2.30	4.05	↓	7.41%
Lockheed Martin Corporation	LMT	100.67	5.52%	80.14	101.12	↓	0.45%
Loral Space & Communications, Inc.	LORL	61.48	2.02%	51.91	85.84	↓	28.38%
Orbital Sciences Corp.	ORB	17.70	8.52%	10.59	18.08	↓	2.10%
Ground Equipment Manufacturers							
C-Com Satellite Systems Inc.	CMLV	0.97	16.87%	0.50	1.05	↓	7.62%
Comtech Telecommunications Corp.	CMTL	24.25	0.66%	22.33	31.05	↓	21.90%
Harris Corporation	HRS	45.90	-0.41%	38.33	52.23	↓	12.12%
Honeywell International Inc.	HON	73.97	-0.36%	52.21	75.75	↓	2.35%
ViaSat Inc.	VSAT	48.27	4.44%	33.09	51.18	↓	5.69%
Satellite Service Providers							
Gilat Satellite Networks Ltd.	GILT	5.52	-3.16%	2.31	6.20	↓	10.97%
Globecomm Systems Inc.	GCOM	12.30	3.02%	9.44	13.57	↓	9.36%
International Datacasting Corporation	IDC.TO	0.195	-2.50%	0.16	0.29	↓	32.76%
ORBCOMM, Inc.	ORBC	4.35	-13.52%	2.72	5.40	↓	19.44%
RRSat Global Communications Network Lt	RRST	8.14	0.49%	4.05	8.50	↓	4.24%
Consumer Satellite Services							
British Sky Broadcasting Group plc	BSYBY	53.02	-2.52%	40.45	54.88	↓	3.39%
DIRECTV	DTV	57.77	2.19%	42.87	57.83	↓	0.10%
Dish Network Corp.	DISH	39.28	3.67%	26.12	40.81	↓	3.75%
Globalstar Inc.	GSAT	0.35	24.56%	0.22	0.60	↓	41.67%
SIRIUS XM Radio Inc.	SIRI	3.30	7.67%	1.78	3.39	↓	2.65%

INDEX	Index Value (May. 02)	% Change from Last Month	% Change Jan. 03, 2013
Satellite Markets 25 Index™	1,431.11	0.48%	12.21%
S & P 500	1,597.59	2.31%	9.47%

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 Markets Index™ is January 2, 2008--the first day of operation for Satellite Market and Research. The Index equals 1,000. The Satellite Markets Index™ provides a benchmark to gauge the overall health of the satellite industry.

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