



# MARKET BRIEFS

**Executive summaries of market trends and opportunities  
in key market segments and regions worldwide**

## Africa Highlights



- **Subscription and PPV pay TV revenues from the Middle East and Africa will climb from \$7.95 billion to \$11.47 billion over the same period. Subscription and VOD revenues for the top nine operators accounted for 81% of the 2015 total, but this proportion falling slightly to 78% by 2021. Africa in 2012 but will account for 26.8% in 2018.**
- **With nearly two-thirds of TV homes (36.2 million) now taking digital signals in Africa, 11 countries are expected to complete digital transition by the end of 2016.**

## The African Satellite Market

by **Peter Galace**

**A**frica's a giant step forward into the digital world, it's "fourth industrial revolution", has become the region's mantra to wriggle out of its current economic difficulties. With smartphone use and Internet penetration soaring, many African governments are banking on the success of this revolution to make great strides in business, medicine, education and public administration.

With more than half of its 1.2 billion people under 25 years of age, Africa not only has an increasingly technology-aware populace, enthusiasm also burns brightly. Leapfrogging technologies and incubating start-ups are popping up in most of African countries led by Kenya, Morocco and Mauritius. Meanwhile, African economic managers keep pushing broadband penetration, mindful of a World Bank study that a 10 percent increase in broadband penetration could propel a country to gain as much as 1.4 percent increase in GDP.

But as Africa marches forward, its tech revolution is only as good as its infrastructure can support it. Thankfully over the last five years, Africa's total inventory of terrestrial transmission networks has more than doubled and has passed the milestone of one million route-kms last year, brought about by the deployment of at least 16 undersea fiber-optic cables that now connect the continent to the rest of the world. Various reports say

Africa's international bandwidth topped 4.5Tbps in December 2015.

The network expansion has brought more than 176 million more people within access to high capacity national and international backbone networks. In June 2015, Hamilton Research has declared that 45.8% of the population in Sub-Saharan Africa (436 million) now live within a 25-km range of a fiber node.

The explosion of broadband connectivity is bringing in quick results, boosting Africa's internet growth, faster than anywhere else, even as worldwide international internet capacity has slowed. According to the October 2016 Internet Usage Statistics, while Africa's Internet users is still low at only 28.7%, it grew 7,448.8% from 2000-2016, reflecting the overall effect of improved telecoms infrastructure. But more importantly for those in the telecom business, plenty of room for growth.

More than half a billion people across Africa now subscribe to mobile services, with the number expected to grow to 725 million by 2020. According to a mobile operators worldwide GSMA 2016 Report, over the next five years, an additional 168 million people will be connected by mobile services across Africa. Eight markets will account for the majority of this growth, most notably Nigeria, Ethiopia and Tanzania, which will together contribute more than a third of new subscribers. The report said that within that five-year period, the monthly use of mobile data will also increase from 0.3GB to 4.3GB. Operators have recorded data traffic growth of more than 50% in 2015.

At the end of 2015, 46% of the population in Africa subscribed to mobile services, equivalent to

---

---

more than half a billion people. The region's three dominant markets – Egypt, Nigeria and South Africa – together accounted for around a third of the region's total subscriber base. Subscriber growth rates are now beginning to slow and will increasingly converge with the global average, as affordability challenges become a key barrier, the GSMA report said.

The good news is, the overall growth in infrastructure are continuing, which augurs well for more growth. In fact, a new research has predicted that broadband penetration and speed across the continent is set to increase by 240% in 2020.

According to the Cisco Visual Networking Index (VNI) Complete Forecast for 2015 to 2020, Africa's Internet Protocol (IP) traffic will grow 6-fold and fixed broadband speed will increase 2.4 fold with an average mobile speed connection of 5Mbps. Internet traffic in Middle East and Africa in 2020 will be equivalent to 527 times the volume of the entire Internet in the region in 2005.

### **Satellites Connectivity Surges**

But even as terrestrial connectivity is growing exponentially, so has satellite capacity. Over the last three years, satellite operators have observed the highest ever demand for broadcast services in Africa, predicting that prospects for further growth are strong. This is expected as satellites remain the core infrastructure in the digital broadcasting environment, both for feeding head-ends and reaching viewers beyond terrestrial on a direct-to-home basis.

Because fiber laying in Africa has mostly been restricted to big coastal cities facing North Atlantic, South Atlantic, and Indian Oceans, where World Bank data estimates that only 37% of Africa's 1.2 billion people actually live, satellite remains to be the most effective and viable way to reach rural areas, and thus the majority of the population. As demand for satellite connec-

tivity continue to take-off, satellite equipment manufacturers and providers are racing to improve their technologies so that costs can come down.

And so the last-mile connectivity remains a challenge. Most African countries simply still lack the fiber to distribute bandwidth more locally, and satellites are being tapped to do the task more quickly. Thus the growing reliance on wireless communications infrastructure, especially for cellular backhaul over satellite. Wireless operators in Africa are increasingly turning to satellite to help them offer services outside of key urban centers.

Total satellite-backed sites using 3G and 4G networks are expected to grow to over 10,000 sites by 2020 to keep up with customer demand, and in order to avoid the prohibitive costs of traditional terrestrial backhaul in remote locations. GSMA also reports that 4G network launches are gaining traction and by mid-2016, there were 72 live LTE networks in 32 countries across Africa, half of which have launched in the last two years. The launch of new mobile broadband networks across the region coincides with the growing availability of low-cost devices and also reliance on satellite connectivity.

Some African operators are also serving 3G and 4G customers on VSAT platforms where the shared capacity concept is being used. African operators know that it is crucial to connect unserved rural areas, and cellular backhaul via satellite allows them to provide services that are cost effective with very strong performance and reliability.

VSATs are making progress in a number of new enterprise hot spot markets particularly in East and West Africa, in addition to the historically strong VSAT markets like South Africa, Nigeria, Angola, Kenya and Tanzania. This should contribute to overall market growth across Sub-Saharan Africa.

Broadband access for consumers and enterprises offers new opportunities on the back of new HTS capacities, such as those coming from SES and

Intelsat. The usage of HTS capacity for trunking is also expected to increase for landlocked countries like DR Congo and South Sudan as fiber availability remains limited and unreliable.

In most African countries, digital TV growth is still only in its early phase and the transition process to digital terrestrial television has just begun. Nearly two-thirds of TV homes (36.2 million) took digital signals by end-2015, up from 18.7% (7.9 million) in 2010, according to Digital TV Research. Complete digital transition was achieved in Gabon, Kenya, Malawi, Rwanda, Tanzania and Uganda by end-2015. This count will increase from six countries at end-2015 to 11 by end-2016. Digital TV penetration will reach 99.9% in 35 forecast countries by 2021 – or 74.7 million homes.

A variety of segments, such as oil & gas, banking, mining, and government networks will also require more connectivity as operations either diversify or expand geographically. Sub-Saharan Africa is expected to outpace Russia as a global gas supplier by 2040, so there is a lot of drilling going on in Mozambique, Nigeria, Angola, and Tanzania, which all need mostly satellite connectivity.

### **SES launches connectivity to Facebook in Africa**

Leading the surge to help Africa with wireless capacity is SES S.A., which completed a satellite broadband deal with Facebook in April this year to provide high-speed connectivity services to Sub-Saharan Africa. This agreement supports Facebook's Express Wi-Fi program that is part of their Internet.org initiative to connect the world.

Facebook, the world's largest social media network, will deliver high speed broadband connectivity using three SES satellites – Astra 2G, Astra 3B and Astra 4A. In addition, SES is providing Facebook with its customized SES Enterprise+ broadband services.

SES said it designed a highly tailored service utilizing its satellite, data center

and implementation services with integrated features such as security, protocol enhancement, and hosting. The solution includes Gilat Satellite Networks' X-Architecture platform that will enable Facebook's local African partners to deliver internet services to underconnected and unconnected communities using Facebook's Express Wi-Fi access product.

Ron Levin, Director Strategic Accounts at Gilat, said the turn-key solution provided to Facebook is based on expanding SES base with Gilat's X-Architecture for SkyEdge II-c platform to deliver a scalable and optimized satellite-enabled broadband solution in Africa.

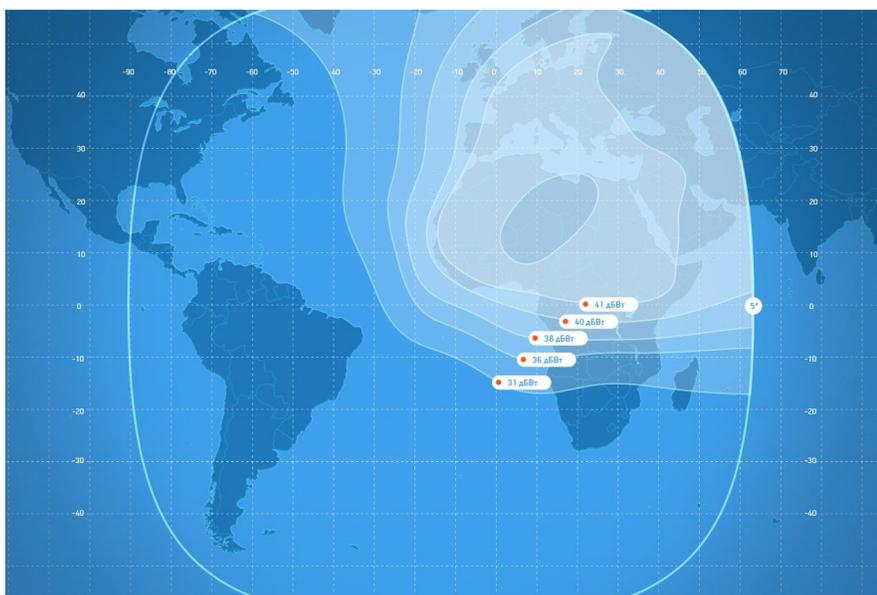
To support its expansion in Africa, SES has been conducting a series of satellite training courses in different countries. This October, SES, along with its local partner Ecole Supérieure Multinationale des Télécommunications (ESMT) located in Dakar, launched the Elevate satellite installer training course. This training course is one of the key areas of collaboration to bring advanced satellite skills in Senegal.

In September, SES conducted a similar Elevate training program together with Cable Channels Nigeria Ltd. (CCNL) in Nigeria. Under the program, 50 installers were trained with hands-on knowledge of installing a satellite dish.

Also in May of this year, SES and CCNL signed a multi-year agreement to provide a strategic video platform for Digital Terrestrial Television (DTT) and DTH broadcast platforms in Nigeria via SES's orbital position at 28.2° East.

In September, SES renewed a long-term agreement with Globecast, global media solutions provider, for capacity on SES-5 at 5° East. The multi-year agreement will provide Globecast with the use of more than one transponder on the SES satellite. SES will deliver capacity as well as uplink services from the SES teleport in Betzdorf, Luxembourg, primarily for free-to-air channels targeting sub-Saharan countries.

In May, SES signed a multi-year re-



**The Russian Satellite Communications Company (RSCC) has successfully launched Express-AM8 in September 2015 in the 14<sup>0</sup>W orbital position. The high-powered satellite will provide much needed C- and Ku-Band capacity for the African market. Pictured here is the footprint of its C-Band transponders over Africa.**

newal contract with K-NET, an ICT and Telecoms platform services company based in Ghana. This new extension agreement will continue to support the rollout of Ghana DTH and digital terrestrial television services and, in addition, bring data services for corporate and GSM networks via SES's orbital position at 28.2° East.

### Amos 6 Failure

But it's not all well for Facebook's Mark Zuckerberg foray into the African satellite market with the total loss of Amos 6 satellite worth more than US\$200 million last September 1. Zuckerberg hoped to use the geostationary Amos-6 satellite to provide internet coverage to large parts of West, East and Southern Africa, and other underserved parts of the world. Zuckerberg was traveling in Africa when Elon Musk's SpaceX rocket exploded at launch pad at Cape Canaveral Air Force Station in Florida, destroying Amos-6.

"As I'm here in Africa, I'm deeply disappointed to hear that SpaceX's launch failure destroyed our satellite

that would have provided connectivity to so many entrepreneurs and everyone else across the continent," Zuckerberg said in a statement posted to Facebook.

The launch of Amos-6 was a collaboration between Facebook and French-based satellite provider Eutelsat Communications. Six other communications companies helped co-found the initiative. Amos-6 satellite was owned by the Israeli-based satellite operator Space Communications (Spacecom) and was built in collaboration with Israeli Space Industries.

Eutelsat had contracted a multi-year agreement to lease the satellite's Ka-band payload covering Sub-Saharan Africa, with a view to launching broadband services from early 2017. Eutelsat said that the satellite capacity was "optimized for community and Direct-to-User Internet access using affordable, off-the-shelf customer equipment."

Eutelsat said it remains committed to growing broadband in Africa and will explore other options to serve the needs of key clients ahead of the

launch of its own full-High Throughput African broadband satellite, due in 2019.

## Eutelsat's New Bird for Europe & Africa

Reeling from the satellite loss, Eutelsat announced on October 17 this year it was building a new satellite for the key 5° West orbital position serving mainly video markets in Europe and North Africa. Under the terms of the agreement, Airbus Defence and Space will build the satellite's payload while the platform will be manufactured by Orbital ATK.

To be launched in 2018, Eutelsat 5 West B will replace the Eutelsat 5 West A satellite, a key digital infrastructure addressing predominantly French, Italian and Algerian broadcast markets. Eutelsat 5 West B will provide business continuity and improved quality for these services via a Ku-band payload of 35 equivalent 36 MHz transponders connected to three service areas. Switchable transponders will also increase commercial flexibility.

The company said Eutelsat 5 West A's C-band mission, serving mainly data customers in Sub-Saharan Africa, will be discontinued. Service continuity will be provided by similar C-band capacity available on other Eutelsat resources, thereby optimizing capacity utilization rate across the group's fleet.

In the meantime, Eutelsat also recently signed a nine-year contract for the expansion of the MultiChoice DSTv platform at Eutelsat's 36° East video neighborhood. The new contract for one transponder reinforces the long-standing relationship between MultiChoice Africa and Eutelsat and will further anchor 36° East as a premier location for digital video entertainment services in Africa.

"The additional capacity booked with Eutelsat we will be able to accelerate our services and live up to our brand promise of delivering a great customer experience through providing the best possible video entertainment



**Growing Demand for satellite services in Africa has resulted in fierce competition among satellite service providers.**

service in Africa marked by quality and choice," said Tim Jacobs, MultiChoice Africa CEO.

In July this year, StarTimes, one of the fastest-growing operators of digital TV networks in Africa, and Eutelsat concluded new multi-year agreements that set the stage for accelerated roll-out of digital broadcasting services across Africa.

StarTimes uses satellites to deliver its multi-channel TV platform to over seven million homes in 13 Sub-Saharan African countries and is expanding into DRC Congo and Zambia beginning last August. The platform transmits over 200 channels, including international channels, regional and country-focused channels as well as StarTimes' own branded content. Content is offered both on a Free-to-View and pay-TV basis, with exclusive programming including frontline events such as the Bundesliga and the 2016 Copa America.

StarTimes has renewed capacity contracts on two Eutelsat satellites as well as agreements for uplinking services provided by a partner teleport operated by STN, in Slovenia. In anticipation of continued expansion of Africa's TV market, StarTimes has also

secured extra capacity and plans to scale up further by the end of the year. This expanded portfolio equips StarTimes to host more services, uplink channels from Europe and Africa.

## Intelsat Lofts New Broadband Satellite

Not to be outdone is Intelsat's Africa satellite operations. In August this year, Intelsat successfully launched Intelsat 36 satellite.

Built for Intelsat by Space Systems/Loral (SSL), Intelsat 36 was designed to enhance Intelsat's media neighborhoods serving Africa and the Indian Ocean regions. The Ku-band payload was built to support MultiChoice, a DTH platform in South Africa. The C-band payload provides in-orbit resilience for Intelsat's leading video content distribution neighborhood at 68.5° East. Intelsat 36 will be collocated with Intelsat 20.

"Intelsat 36 is a testament to our dedication to working closely with our customers in Africa to support critical growing infrastructure needs in the region," said Stephen Spengler, Chief Executive Officer, Intelsat. "Having con-

---

---

sistent and affordable access to informative and entertaining content is vital to a community and its citizens. Intelsat 36 will enable MultiChoice to extend high definition channels throughout the region via one of Africa's premier video neighborhoods and will continue to deliver high quality and compelling educational and entertainment services to their customers throughout sub-Saharan Africa."

Intelsat also launched a broadband satellite program that will provide digital data services to mobile and fixed operators in Africa by November this year.

Intelsat 33e, the second in the company's Epic series, will provide backhaul as well as cloud services to operators, as well as extensions to networks beyond the reach of current microwave and fiber networks.

Intelsat 33e will join the company's existing satellites Intelsat EpicNG and Intelsat 29e to cover the Middle East and Africa, while Intelsat 36 will mostly serve pay TV provider MultiChoice, which will leverage the Ku-band payload following the launch.

Brian Jakins, Africa Regional Vice President of Sales at Intelsat, says the uncommon decision to launch two satellites at the same time makes commercial sense for the company.

"There are dynamic changes taking place across the global media landscape, and Intelsat 36 supports our customers as they address the growing demand for content throughout the African continent," said Jakins. "This satellite will enable our customer, MultiChoice, to extend high definition channels throughout the region. The C-band payload will provide additional redundancy for media customers to ensure that all viewers have access to reliable, high quality content."

#### **ABS makes progress in HD content**

But other players are making progress in the African market. SkyVision Global Networks Ltd. recently announced a partnership with ABS to launch two new video platforms on ABS-3A. This will provide quality DVB-S

## ***"...Pay TV subscriptions in the Middle East and Africa region will increase by 67% between 2015 and 2021..."***

---

and DVB-S2 content, including HD, via satellite across Sub-Saharan Africa, including French speaking Africa and South Africa.

The signing of this agreement will deliver vital communications services via ABS-3A, a satellite located at the 3° W orbital position, to effectively meet the growing demand for content and DTH services using 90cm dishes. The new platforms will support both SD and HD channels in MPEG-2 and MPEG-4 encoding. Coverage will focus on the Free-To-Air channels and Pay TV markets in Sub-Saharan Africa.

SkyVision boasts more than ten satellite platforms and a network of high-capacity fiber optic cables via its gateways in Africa, Europe, North America and the Middle East as well as multiple points of presence (POPs) in Africa. SkyVision's contribution to this important project is to provide the company's global hybrid system of high-capacity network of fiber optic cables to the Internet backbone via ABS-3A. This will enable distribution services of special events, news and DTH channels from Asia and Europe to Africa.

"Launching these services on ABS-3A creates a new era of high performance satellite services to customers in Africa," said Ori Waterman, SkyVision's CEO. "This deal establishes new key broadcast platforms over the ABS-3A and enhances our distribution capabilities with our African customers via Ku-Band Platforms to best serve broadcasters and a wider viewing audience."

ABS-3A satellite started service in August last year to serve the Americas, Africa, Europe and the Middle East regions. Launched on 1st March 2015, the ABS-3A satellite built by Boeing. The satellite became fully operational in August 2015.

ABS-3A features 48 C and Ku-band active transponders (96 x 36 MHz equivalent) and is equipped with high

performance beams to support the rapidly growing markets in the Americas and Africa as well as the European and Middle East regions. ABS-3A provides expansion capacity to reach markets servicing high-growth data, video, mobility and government applications.

### **Africa Digital TV Forecasts**

With nearly two-thirds of TV homes (36.2 million) now taking digital signals in Africa, 11 countries are expected to complete digital transition by the end of 2016. Digital TV penetration is thus expected to reach 99.9% in 35 countries by 2021 – or 74.7 million homes.

Digital TV Research says about two-thirds (50.95 million) of TV households will take DTT (pay and free-to-air combined) as their primary TV signal in 2021, up from only 1.4% (0.59 million) at end-2010. By 2021, 14.85 million – nearly a fifth of TV households – will be primary pay DTT and 36.10 million free-to-air DTT (or 48.3% of TV homes).

DTT will challenge satellite as the top pay TV platform by 2021. In fact, satellite TV will only grow from 19.3% of TV households in 2015 to 21.2% by 2021, whereas pay DTT will rocket from 10.2% to 19.9% over the same period.

Of the 16.91 million pay TV subscribers at end-2015, 10.66 million were pay satellite TV and 5.64 million pay DTT. The pay total will more than double to 33.23 million by 2021, with satellite TV contributing 15.88 million and pay DTT another 14.85 million.

South Africa supplied 5.95 million of the 2015 regional pay TV subs; growing to 8.62 million by 2021. Nigeria will close in on South Africa; increasing from 3.63 million in 2015 to 7.52 million in 2021.

Pay TV subscriptions in the Middle East & Africa region will increase by 67% between 2015 and 2021 – from 32.37 million to 54.09 million, the lat-

---

---

## Interview with Andrey Kirillovich, Director of Integration & Projects, Russian Satellite Communications Company (RSCC)

### *For the African market, what does RSCC offer in terms of coverage and services?*

In 2015 RSCC has expanded the coverage of its orbital fleet by successful launch of 3 new satellites with coverage over Sub-Saharan Africa in C and Ku bands. Express-AM6 (53E), Express-AM7 (40E) and Express-AM8 (14W) provide a combination of wide regional and narrow high power spot beams over entire African continent, as well as over specific regions like West, East and Southern Africa. RSCC is currently developing a TV distribution platform in 53E and plans to provide managed service for enterprise customers in 2016. Besides that we have got special start-up hardware bundles and bandwidth policies for new service providers entering satellite business to bring their initial costs down.

### *What applications will your customers be using your capacity in the African market and how are your satellites suited to meet these requirements?*

One of the most promising applications for Africa is broadcasting. There is a very good environment for development of media business in Africa right now, because so many countries, cultures and ethnic groups are located on one continent. Content production costs are decreasing, and there is a shift of content creation to Africa. Nolly/River/Zolly Wood are good examples as local content attracts the highest demand. Our satellites match the requirements of broadcasters perfectly as they can offer both wide geographical footprints for distribution of the content and narrow beams for DTH service in specific regions.

Africa has got a huge number of rural communities, so cellular backhaul is also one of the applications that we plan to develop on our satellites. Africa is entering the connected world by means of cellular phone and only then Internet. We have a special dedicated C-band spot beam on our Express-AM7 satellite specially designed to support cellular backhaul solutions in rural tropical regions.

Enterprise networks also remain one of the core applications for satellite in Africa. New RSCC satellites provide business customers with flexibility to leverage the benefits of various beams focused on certain regions, entire continent or delivering connection to major international traffic gateways in Europe.

### *Any other things you would like to add?*

I believe Africa has got very bright future in terms of telecom infrastructure development with more communications highways linking up the continent. There is a strong demand for connectivity and there are still many places outside big cities in Africa where terrestrial connection is either impossible or does not provide acceptable quality. Satellite remains an integral part of African telecom and broadcasting infrastructure because of the size of the continent and huge number of rural communities. But a lot of connectivity bottlenecks remain in rural areas. New RSCC satellites are ready to address this challenge and to allow customers reduce cost per bit and provide a competitive service offering.



est forecast from Digital TV Research reveal.

The top nine pay TV operators [Multichoice (DStv and GOtv), StarTimes/StarSat, Canal Plus, OSN, beIN, DigiTurk, D-Smart, Yes and HOT], accounted for 70% of these subscribers by end-2015, with this proportion falling to 66% by 2021. So nine companies will continue to control more than two-thirds of the region's pay TV subscribers, according to the Middle East & Africa Pay TV Operator Forecasts report.

Satellite TV platform DStv will continue to be the region's leading pay TV operator by subscribers; adding nearly 3 million to its total between 2015 and 2021. Sister company and DTT platform GOtv will add 3.8 million subs. Its rival StarTimes will increase its active subs base by a similar amount (3.7 million) to push it into second place among the pay TV operators.

Growth in the Middle East and North Africa will be more modest than Sub-Saharan Africa, although beIN will double its subs base between 2015 and 2021.

## Pay TV revenues

Subscription and PPV pay TV revenues from the Middle East and Africa will climb from \$7.95 billion to \$11.47 billion over the same period. Subscription and VOD revenues for the top nine operators accounted for 81% of the 2015 total, but this proportion falling slightly to 78% by 2021.

DStv will remain the wealthiest operator. DStv will also be the biggest winner; increasing its revenues by more than \$1 billion between 2015 and 2021. Canal Plus will follow with an extra \$369 million. GOtv's, beIN's and StarTimes' revenues will all at least double over the same period.

Meanwhile, SES said the results of its first Satellite Monitor study on the Nigerian market revealed that SES reaches 2.81 million TV homes across the country, of which 1.69 million are reached directly by SES satellites and 1.12 million

cable TV homes are fed indirectly by the SES fleet. In total, there are 33.9 million TV homes in Nigeria, with 8.98 million of them being served by satellites directly and the rest by terrestrial and cable networks.

SES has increased their technical reach in sub-Saharan Africa from one million TV households in 2013 to eight million TV households by the end of 2015. The technical reach of 1.69 million TV households in Nigeria contributes to this increase.

In May, SES also said its Satellite Monitor study in Ghana, shows that SES has increased its technical reach in the country to two million TV homes. This signifies an increase of over 18% TV homes in Ghana compared to 2014, which brings SES's overall household reach in Ghana to more than 35% of all TV homes in the country.

The Satellite Monitor, an annual market research study commissioned by SES and carried out by various independent institutes, has been conducted for over 20 years in Europe and has now been successfully replicated in Ghana. Three thousand interviews were conducted for this study, the first of its kind to be carried out by a satellite operator in markets where digitalization is a key focus and a national priority.

## Conclusion

Even as opportunities in the telecom market abound in Africa, so are problems facing new players and op-

erators. There remains poor infrastructure, fragmented markets and stiff competition. Chinese companies, which already sell telecoms equipment in Africa, are moving up the value chain by buying operators or licenses. Indian operators have also been snapping telecom units in at least 16 African countries. So competition is really tough.

Making money in Africa, one of the last remaining emerging telecoms markets, has proven very difficult for even some of the existing players. Consumers in Africa tend to spend between \$1 to \$10 per month on telecommunications, according to studies, far less than in Europe or the U.S., but still more than in India. The cost of running networks is also high due to underdeveloped infrastructure, many executives who've operated in Africa say. Mergers and acquisitions, infrastructure sharing, and market liberalization also continue to "reshape" telecommunications across Africa, adding confusion to new players.

Africa thus poses risks as well as potential rewards for telecom operators hunting for growth in countries. But the key to making money seem obvious to every business, which any player should know by now: "Take time to identify your marketplace, its customer types, and what benefits these customers are looking for."



**Read and download this MarketBrief report and others like it on other markets segments at [www.satellitemarkets.com](http://www.satellitemarkets.com)**



**Peter I. Galace** is contributing editor for Satellite Markets and Research. He writes extensively on telecommunications and satellite developments in Asia and other regions for numerous publications and research firms. He can be reached at [peter@satellitemarkets.com](mailto:peter@satellitemarkets.com).



Russian Satellite  
Communications Company

Best Regional Operator of the Year

[www.rsccl.ru](http://www.rsccl.ru)

