

MARKET Briefs

Executive Summaries of Market Trends and Opportunities in Key Market Segments and Regions Worldwide



INNOVATIONS IN THE TELEPORT BUSINESS

Innovations in the Teleport Business

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The video market is in the midst of tremendous change: Over-the-top (OTT) delivery continues its rapid growth, the number of different devices used to view content continues to grow, and the standards are evolving from standard definition (SD) to high definition (HD) to Ultra-high definition (UHD) also referred to as 4K. At the same time the satellite market is also evolving. Developments, both on the ground and on the satellite, combine to increase efficiencies and lower the cost per bit. Functions that used to require a dedicated piece of hardware, are now software based.

Teleport operators are caught in the middle and have to adapt and respond to all of these changes in order to be successful. A study by the World Teleport Association (WTA) released in April 2018 finds that the number of commercial teleports worldwide has decreased 1 percent per year from 2016 to 2018 as the teleport sector consolidated and companies scaled up to gain cost-efficiencies and improve their competitive position. Over the same period, however, total estimated revenues of the sector grew 6% to US\$10.4 billion, as consolidation created fewer, more productive assets. In 2017, an estimated 13,700 people worked in the teleport industry, which operated more than 24,000 antennas.

“Consolidation has not been the whole story,” said WTA executive director and report author

Robert Bell. “In a mature technology market, while midsize companies become larger and the largest seek further increases in scale, new players enter the market to exploit new demand created by technology and market change.”

Accessing satellites may be what distinguishes teleports from other communications service providers, but it is only part of their repertoire. Teleports are the channel by which satellite can be integrated into complex networks involving fiber, microwave, wireless and mobile technologies in order to expand their reach beyond the edge of the network, broadcast one-to-many, or feed bandwidth-hungry applications. Increasingly, they are “data centers with dishes,” which are expert at bridging apparently incompatible systems and solving

challenging problems in content delivery or end-to-end networking. They know how to simplify the complexities of space-based networks in order to make satellite links just another port on the router. They are among the world’s leading experts in adapting Internet Protocol technology for high-latency circuits, “push” applications and other uses never envisioned by the developers of IP. They are emerging as essential components of cloud-based applications and Internet of Things networks, according to the WTA report.

Where the Opportunities are

The WTA published a report called Teleport Opportunities 2018 based on a survey of teleport



photo source: Telenor Satellite Broadcasting

Providing End-to-End, Custom Solutions for Major Media Companies

At the beginning of 2018, iKO Media Group (iKOMG) provided a complete, tailor made solution for media giant Blue Ant Media. Blue Ant Media is a privately held, international content producer, distributor and channel operator. From their production houses around the world, they create content for multiple genres including nature, factual entertainment, short-form digital series and kids programming. Their distribution business, Blue Ant International, offers a catalogue of 2,300+ hours of content, including the largest 4K natural history offering on the market.

After the company went through a merger, acquiring multiple channels, iKOMG was able to provide them with a quick solution to meet their needs for connectivity (ip), distribution, storage, playout and use of hotspot satellites. Their ability to quickly and easily coordinate with all major operators and arrange for encryption and testing capabilities available to them 24/7 was a key advantage for our client. In addition, our services allowed for them to distribute 4K content in 3 countries.

The goal was to expand distribution for 3 major channels via MEASAT 3A providing satellite coverage across Asia. This expansion comes after the launch of iKO's services to distribute the same channels via Eutelsat across Europe. iKOMG is distributing the three channels, Zoomoo HD and Love Nature HD as well as Love Nature 4K, to millions of users using MEASAT 3A satellite capacity to effectively distribute their content across Asia as well.

"Working with iKO Media group will allow us to provide our content to a much larger audience spanning a huge geographical area" said Julio Sobral, CTO at Blue Ant Media. "After careful research and consideration of multiple distribution options, we felt that iKO's services via Eutelsat satellites would be the best option for us to provide high quality HD and 4K content to millions of viewers across Europe."

iKOMG has also deployed Viaccess-Orca's (VO) Conditional Access System (CAS) in its Rome-based teleport. A leading content provider and customer of iKOMG is relying on VO's CAS to deliver its new content distribution offering securely.

"As a dedicated provider of broadcast and content distribution services, we strive to offer cost-effective, reliable solutions to our customers," said Yaniv Maman, Chief



Antennas in iKO Media Group's teleport in Rome, Italy.

Technology Officer and Vice President of Engineering at iKOMG. "VO's CAS solution is trusted by operators around the world and simple to deploy, guaranteeing a quick ROI for content providers relying on our services. Based on this successful deployment, we anticipate further growth with more TV channels using the VO CAS platform in the future."

VO's CAS solution supports simultaneous use of both card and cardless technologies on the same headend and on the terminal, offering content providers optimal flexibility. Based on the highest standards of chipset and smartcard security, the VO CAS solution is preintegrated with a large variety of chipsets and STB manufacturers to ensure a smooth and fast deployment.

"iKOMG has an impressive ground station comprising more than 20 satellite dishes for reception and transmission," said Chem Assayag, Executive Vice President, Marketing and Sales, at Viaccess-Orca. "We're thrilled to help iKOMG customers meet the strict security requirements for premium content with our highly flexible and reliable CAS solution, which is well-known in the industry for facilitating fast and cost-effective new service launches." 



Media-centric companies see their top opportunities in the Internet of Things (IoT), Over the Top (OTT) video distribution, cloud services, aeronautical service for passenger airlines and enterprise data and video networks.

executives conducted at the end of 2017. The survey was conducted at a time when the business environment in which teleport operators work is being disrupted by technology and market change. Their established businesses face disruption from new models of connectivity (HTS, MEO and LEO), by the rising domination of software over hardware, and customer demands for seamless global service. They are disrupting their own operations by innovating up the value chain to meet new customer needs, which requires a new depth of technology knowledge and strong management skills.

The survey asked executives to identify the markets they are targeting for growth, where they are investing, what technology is on their wish list, and how they are staffing up for the future. Their answers differed depending on whether their primary market was video for the broadcast, cable and DTH market, or data for the corporate, telco and government market.

Media-centric companies see their top opportunities in the Internet of Things (IoT), Over the Top (OTT) video distribution, cloud services, aeronautical service for passenger airlines and enterprise data and video networks. That's a very interesting list — because only two of those five growth opportunities are in the media and entertainment business. That seems to reflect a dim view of the future of their core business. Nearly half of media-focused operators expect future decline in DTH, terrestrial and cable origination and distribution and are shaping their investment plans accordingly.

Data-centric companies have a different set of growth targets, of which the top five are mobility for commercial transport (maritime, trucking and rail), IoT, gateway provision for satellite operators, the integration of third-party cloud services into their offerings, and cellular backhaul. Their planned investments are broadly in line with those expectations — with the notable exception that some 20

percent expect to reduce their investment in conventional cellular backhaul.

Changing Requirements from Content Providers and Distributors

The teleports' traditional video customers, faced with delivering content, to more device types, in more formats than ever before are also having to deal with increased competition. The OTT providers, turned from being pure purchasers of content, into also being content creators: content creators with deep pockets.

Flexibility and agility are key to survival and prosperity for the teleport operator. As José Sánchez Ruiz, Director of Service Operations, Eutelsat said: "The days of simply being an antenna farm are long over." Today's teleport needs to proactively work with the content creators, to become their partner, to help them distribute content effectively and efficiently. To bring solutions to them. As Chris Walters, CEO of Encompass, stated: "The challenge is to meet complexity, whilst delivering efficiencies." The traditional content creators are finding that they need to invest more in content in order to compete with the new OTT or Online Video Producers (OVPs). So the opportunity is there for the teleport to provide managed services for all of their distribution needs.

Traditionally, the teleport has housed all the equipment necessary to deliver video content, be it a linear channel, VoD, streaming content or, in the last few years, OTT content. But as the video market is changing, so too are the demands of the key players who are the teleport's customers'. The teleport is evolving from being primarily hardware focused, to being software focused, and from doing

David Treadway, Chairman of the Board, iKO Media Group

To give us an idea of the changing media content distribution business, Satellite Markets and Research spoke with David Treadway, Chairman of the Board of iKO Media Group (iKOMG) a boutique end-to-end media service partner for broadcasters and content owners. Treadway is an experienced Director in international businesses in the broadcast & media, communications and technology sectors with strategic skills and extensive experience in managing growth. Treadway has over 30 years experience in the media industry spent in senior management, investments, business development and sales in major broadcast and distribution companies such as Telewest (now Virgin Media), WRN Broadcast, RR Media and MX1. Excerpts of the interview follows:

With the competitive environment in the content management and distribution business, what differentiates you from your competitors?

Our keen advantage is that we are a boutique company, with a small team of experts in media and content distribution. Our team focuses on creating innovative and tailor made solutions to meet our clients' needs, as opposed to "generic" services. We are set up for agility, flexibility and dedicated customer service 24/7 for all of our clients around the world.

One of the key issues facing all broadcasters is the move towards IP and away from costly legacy solutions that are both cumbersome and inflexible in today's multi-platform environment. iKO's solutions address that opportunity in both the OTT and linear markets and offers some real advantages over traditional models.

What are your targets in the next few years? How would you like to see you company in the next few years?

everything onsite, to placing many of the operations in the cloud. To a certain extent, the transition to 4K is helping drive this.

Rather than viewing the cloud as competition, forward thinking teleport operators are viewing it as a tool that they can use. Placing

operations in the cloud has multiple advantages. It allows them to offer total flexibility to their clients. A new channel can be put up in hours instead of days. It can also be taken down with the same speed. This allows a client to try out new ideas, with no long-

term commitment, and to easily do occasional use, without the restriction of pre-booking a fixed amount of time. As well as using the cloud for storage and playout, encoding can also be done in the cloud. In addition to letting the teleport operator offer flexible and



Our main targets are the following: Expansion to more territories; Develop more solutions (technical/business) – that have a demand in the market; Expand to new verticals – government and mobility; and Explore strategic partnerships.

What do you think of the content management and distribution business, what changes are affecting the business and how are you coping as company with these changes?

The market is moving towards more cost-effective solutions and iKO is ideally poised to provide tailored solutions customized to our clients' specific needs, using state of the art technology – in a cost effective manner. In addition, the world is moving away from SD demand towards HD demands and our team is experienced and qualified to create the right customized solutions to meet this growing demand.

What do you see as the key opportunities for your company and how do you plan to make the most of these opportunities?

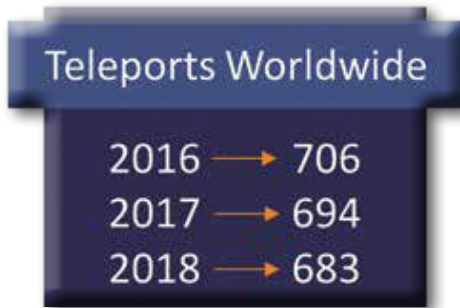
We see opportunities in 4K capabilities becoming a main demand and we are poised to meet this demand. Also the Middle East North Africa (MENA) move towards HD (from SD) provides a unique opportunity. The world is moving towards IP and we have a unique platform, iKOFLiX, ready to meet this demand including Over the Top (OTT) and (VOD) services. 

scalable solutions to its clients, the cloud, also lets the teleport operator expand its business, without the necessity of buying new hardware. Hardware, which takes up space, which may not be available and generates heat that needs to be dissipated. Not to mention the up-front capital cost.

The multiplicity of devices and locations that a piece of content may be delivered to, creates additional complexities. No longer, is it simply a case of transporting a piece of content from A to B for onward distribution. The content has to be delivered in the right format for each device, from a 65 inch television to a three inch smart phone.

“Technology is continuously having to adapt to meet the changing content contribution and distribution needs of broadcasters, who are looking to find new ways to make the most of their existing space segment by deploying more performant, reliable and cost-effective ground segment solutions while also broadening their offering to tap into other lucrative markets,” said Hans Massart, Market Director for Broadcast at Newtec.

Contribution channels — consisting of newsgathering or coverage of events — have a very occasional nature which benefits from effective use of its space segment. The way that live news events are covered has evolved dramatically in recent years and this has brought new demands on newsgathering equipment. Broadcasters are no longer simply tasked with providing live video — they are required to provide crews with an environment at a remote site that replicates a studio, which requires an all-IP bi-directional pipe that can provide sizeable and reliable bandwidth. Modern teleports can lead this migration to all-IP, where business models move from MHz



based to Mbps pay-as-you-go packages. Platforms such as Newtec Dialog can accommodate for these occasional use operations by providing tools to improve efficiency and effectiveness of operations, while remaining compatible with an existing teleport ecosystem,” added Newtec’s Massart.

Solutions

Solutions to overcome this issue are available from multiple technology providers. For example, to ensure that content delivered over the internet, arrives in the right format, with minimum buffering, adaptive bit rate streaming (ABR) is used. With ABR, a piece of content is encoded in multiple layers (different frame sizes, frame rates and/or bit rates for example), which are then combined into a single package for transmission. ABR players then choose the most suitable layer for playback on a specific device, dynamically switching between layers if available bandwidth varies. Newtec and Zixi are just two of the companies that provide this solution.

One up and coming company that is transforming the content management and distribution business is iKO Media Group (iKONG). iKONG is a boutique end-to-end media service partner for broadcasters and content owners. They provide tailor-made solutions focused on customer needs through dedicated service to a wide range of global and local networks. iKONG differs from other service providers thanks to

a holistic approach and a keen ability to offer the best SLA for mid-size networks. This approach allows iKONG to deliver effective solutions customized to specific budgets and requirements without compromising on quality of service. As a trusted partner to dozens of global and local networks, iKONG is identified with expert knowledge, dedicated service, and professionalism. iKONG is committed to operating its business with the goal of creating value for all stakeholders. The company’s sustainability strategy focuses on social, environmental, and economic responsibility.

iKONG operates a teleport in Rome Italy, containing 20+ satellite dishes for receiving/transmitting, ranging in size range from 0.9m-6m in diameter that uplink/downlink from major satellites in orbital positions span from 80°E-45°W. iKONG transmits to over a dozen of satellites and have the ability to receive transmissions from over 20 satellites. Broadcasters use their uplink services to transmit programming to a satellite. Programming is distributed either to a cable television headend, to a satellite television facility, to a mobile operator, to an Internet Protocol television (IPTV) operator headend, to direct-to-home consumers or directly over the Internet.

Faced with a very competitive market for teleport services, iKONG is differentiating itself by providing customized, innovative, end-to-end solutions for its customers. “Our keen advantage is that we are a boutique company, with a small team of experts in media and content distribution. Our team focuses on creating innovative and tailor made solutions to meet our clients’ needs, as opposed to ‘generic’ services. We are set up for agility, flexibility and dedicat-

ed customer service 24/7 for all of our clients around the world,” said David Treadway, Chairman of the Board of iKONG.

Orr Ariel, Vice-President for Global Occasional Use of iKONG said that the flexibility that iKONG offers is very much appreciated by their clients in the occasional use segment which often requires complex requirements for special events at very short notice. Time and again, iKONG was able to provide these complex requirements, sometimes with just a few days or even a few hours notice, due to their flexibility and focus on meeting the challenges with innovative solutions. The same flexibility and innovative approach to services is employed by iKONG to all its clients whether for occasional or full-time services. They see themselves as a partner to their clients in helping them build and grow their businesses.

One key example of the innovative approach iKONG uses in serving their clients was a tailor made solution for media giant Blue Ant Media. Blue Ant Media is a privately held, international content producer, distributor and channel operator. After the company went through a merger, acquiring multiple channels, iKONG was able to provide them with a quick solution to meet their needs for connectivity, distribution, storage, playout and use of hotspot satellites. iKONG’s ability to quickly and easily coordinate with all major operators and arrange for encryption and testing capabilities available to them 24/7 was a key advantage. In addition, iKONG’s services allowed for them to distribute 4K content in 3 countries.

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The Future of Teleports

Teleports will have to continually adopt to changing customer demands and technological changes in order to remain a viable business for the future. Michael Smith, Senior Vice-President of Enterprise Technology at Kratos in a report entitled “The Teleport of the Future” said that the key trends impacting the teleport of tomorrow include the following:

- Big data analytics will help operators correlate metrics across the network to help identify weak points and predictive analysis will find potential problems before they occur and resolve them prior to any customer or financial impact;

- New technology advancements, such as Digital IF, will enable teleport operators to virtualize the ground segment including the signal processing and antenna assets, thus lowering costs and increasing operational flexibility;

- With the growth of the mobility market for High Throughput Satellite (HTS) systems, managing the signal layer of a satellite network has become even more challenging. Advanced visualization and management tools will provide operators a way to effectively monitor all of the data from the different beams as well as manage the sensors themselves to help quickly identify, characterize and rectify problems when they occur.

Flexibility and innovation are key characteristics to look for in a teleport. When choosing a service provider, it’s important to work with a company that is committed to meeting your requirements and finding the best possible solution at the most cost-effective way. 



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