SATELLITE
Markets & Research

MARKET Briefs

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

Innovations in Teleport Services

Innovations in Teleport Services

by Elisabeth Tweedie

The media and entertainment market in the Middle East is enjoying rapid growth particularly when compared to the rest of the world. Currently worth US$41.13 billion, according to the research firm Mordor Intelligence, and projected to grow to US$59.1 billion in the next five years, a compounded annual growth rate (CAGR) of 9.41%. In contrast, the latest Global Media and Entertainment Report from Price Waterhouse Coopers, indicates that global revenue from this sector is projected to grow at a significantly lower CAGR of 3.9%.

There are multiple factors driving this growth in the Middle East, not least of which is the predominance of young people in the population. According to the Organization for Economic Cooperation and Development (OECD), in the Middle East 50% of the population is under 30 years old. Among this demographic, internet connectivity is also high, standing at 77% compared to a worldwide average of 65%. In addition, the region is experiencing an increasing demand for local origin and non-English content. This increase in demand for non-English content is a global phenomenon; rising from 23% in 2018 to 40% in 2023. In the Middle East the growth is even higher, with demand for non-English language content standing at 50%, half of which is for Arabic content, representing a doubling in demand in the last five years. The other 25% is primarily for Asian language content. This creates an environment for new content production, both local and in partnership with overseas media producers. Naturally, this content has to distributed to the viewer, meaning more demand for playout centers.

In addition, the transition from standard definition (SD), to high definition (HD) to ultra-high definition (UHD) or 4K is still an ongoing process. While traditional linear broadcast remains important, the move to over-the-top (OTT) streamed content is also growing as internet usage ex-

Middle East Media and Entertainment Market

Market Size in USD Billion
CAGR 9.41%

USD 41.13 B — 2024

USD 59.10 B — 2029

Source : Mordor Intelligence

pands, concurrently with the use of mobile phones and tablets, which are the primary means of accessing the internet in the Middle East.

Playout

All of this points to the increased importance of working with a reliable partner for content assembly, playout and distribution. One which is located in the region and has state-of-the art playout and distribution facilities, ideally, located in a world-class teleport.

Es'hailSat, ticks all those boxes. Its Playout and Media Services facility, launched in 2023 and located inside its new teleport in Doha, Qatar, is essentially a one-stop shop for broadcasters and content creators in the region and elsewhere.
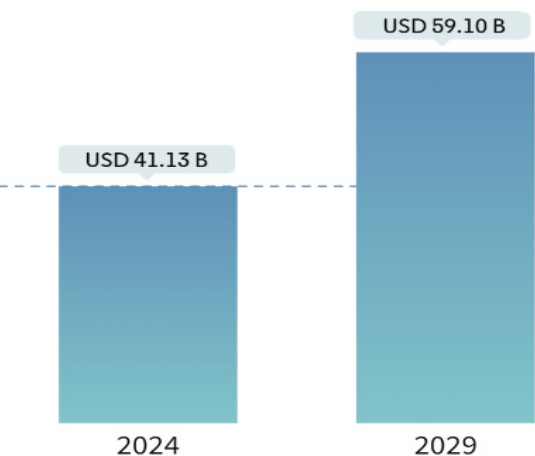
Whether you are a new or established content creator; creating a linear channel, distributing live content, such as a sporting game, or assembling video-on-demand content, having everything that you need to do this, in one place, makes life simpler and more efficient.

Put simply, playout is the process that transmits video files from the studio or broadcast center to the viewer. However, as the broadcasting industry evolved into the multi-platform video industry, not only did the options for getting content to the viewer expand, so too did the formats that that content could take. Historically this was a simple process of taking analog files and sending them in a linear stream to a TV station or cable headend.

Es'hailSat's 50,000 square-meter teleport located on the outskirts of Doha in Qatar is at the heart of the services provided to broadcasters, content providers and other companies. (image courtesy of Es'hailSat)

Now, that content may be distributed in a linear format, for delivery via a Direct-to-Home (DTH) satellite channel, cable TV channel, Digital Terrestrial TV (DTT) channel, or a Free Advertising Supported TV (FAST) streaming channel. The content could be pre-recorded or live, be in multiple formats, from standard definition to Ultra-High Definition (UHD) or 4K, close captioning may need to be included, sometimes in multiple languages, and different audio streams may be needed for different languages. In order to comply with local regulations or sensitivities, some words may need to be masked in some regions. Advertisements need to be inserted, these may vary by country, region or even viewer. All of this has to be seamlessly and perfectly synchronized with frame-by-frame precision and accuracy. Adding to the complexity even further, is the fact that most content is now viewed on multiple devices, everything from a large theater size screen, to a mobile phone, so the content has to be formatted to encompass all of these.

In addition, the majority of streaming services and many linear broadcasters also offer Video-on-Demand (VOD), so content may also be delivered in a non-linear format. In other words, playout is now a very complex process!

At Es'haiSat's Playout and Media Services Facility, everything needed is located under one roof where a best-in-class suite of comprehensive tools and facilities are available. These include Media Asset Management (MAM), encoding and transcoding, encryption, and distribution. Users can elect to do everything themselves, taking advantage of the fully automated processes offered, essentially using the facilities as an extension of their studios; or, they may utilize the fully managed service offering, as Fadaat Media does. If cloud access/storage is needed, Es'hailSat also offers a Platform as a Service (PaaS) model for distribution and storage via a public or private cloud. The facilities cater to everyone from new content producers who want to create a single channel or special event, to established players managing multiple channels and formats. Of particular appeal to new content providers is the fact that all services offered are based on an OPEX model, so no upfront investment is required.

Technical Details

Formats supported include:

• Output resolution: SD up to UHD

• Single or multiple outputs in: MPEG2, transport stream over IP (TSoIP), and Realtime Messaging Protocol (RTMP)

• Audio: Up to 8 stereos in MPEG2, Advanced Audio Coding (AAC) and Dolby Digital

• Secondary event creation: Rolls, crawls, animations, clocks, logos etc.

• Storage: From 5TB in Media Asset Management (MAM) and 2.5TB in playout

• Live input formats: User Datagram Protocol (UDP), Secure Reliable Transport (SRT), Realtime Transport Protocol (RTP) and Realtime Message Protocol (RTMP)

• Ad Marker Detection and Insertion: SCTE 35/104, Dual Tone Multiple Frequency (DTMF) and Cue Tone

• Subtitling: Closed Captioning, Open Subtitling, Digital Video Broadcast (DVB) subtitling

• System Operation: As Run logs, Remote Access, Remote Monitoring and Compliance Recording

• Media Asset Management (MAM): Advanced content management with built-in transcoding, quality checks, playlist preparation and seamless automated workflows.

Being located within its teleport, means that clients can seamlessly connect to Es'hailSat's satellite broadcast network, covering the entire Middle East and North Africa. The teleport also has excellent fiber connectivity to the internet backbone, so content can be distributed in a variety of ways: directly to cable and IPTV headends, directly to a customers' home using Es'hailSat's DTH, or any other Over-the-top (OTT) as streamed or on-demand content.

Teleport

Es'hailSat's 50,000 square-meter teleport located in Al Ghuwariyah on the outskirts of Doha in the north of Qatar is at the heart of services provided to video and broadcast clients. Its location means that the satellite up and downlinks are free from wireless interference. The state-of-the-art teleport, provides world-class facilities and hosting services with a Tier 3 infrastructure.

Es'hailSat partners and collaborates with a variety of technology innovators in order to ensure that the equipment and facilities are the best in class and enhance its end-to-end service delivery. For example, current equipment includes an ST Engineering iDirect hub, optical ground stations and flat panel antennas (FPAs) from Kymeta. The company has also recently formed a strategic partnership with Nilesat. This agreement brings together the expertise and facilities of both companies and covers satellite communications, digital technologies and broadcasting throughout the MENA region.

There are also multiple, diverse fiber connections into the teleport providing redundant connectivity to the global internet backbone. The 14,000 square-meter antenna farm also has plenty of room for expansion for companies wishing to co-locate their own antennas. The site provides a clear line of sight across an arc from 10° west to 115° east, with redundancies built in.

Zoubair Kachri,
Vice President Technical, Es'hailSat

Can you give us a brief overview of the services that you provide?

Es'hailSat provides satellite services for broadcasting and telecommunications, as the national satellite operator based out of Doha, Qatar. Es'hailSat's latest satellite Es'hail-2 was launched in 2018 and our 50,000 sqm Teleport facility was ready in 2019. In addition, we have continued this trend by launching Playout and Media services as recently as 2023. Together with our partners we are also able to provide Digital Satellite News Gathering and Outdoor Broadcast Van services, not just in Qatar but across the Middle East and North Africa.

Are there any specific applications or vertical markets that you specialize in providing?

For us the video sector remains a key vertical, however we see opportunities within the maritime sector that is certainly on an upward trend. Our satellites support some of the most premier broadcasting platforms in the region and together with our state-of-the-art teleport, we specialize in providing end-to-end services for their needs.

What differentiates you and your services from other similar service providers?

Unique features such as anti-jamming capabilities onboard our satellites, along with in-orbit backup and redundancy via co-located satellites are just a few of the features that Es'hailSat offers over and above other satellite operators in the region. In addition our strategically located teleport in Doha supports advanced broadcast and telecommunication services, and this makes Es'hailSat the first choice for companies across the MENA region wherever there is a need for connectivity over satellite.

Can you cite briefly an innovative solution that you have provided one of your clients?

One of our premium clients, Fadaat Media Group

Zoubair Kachri

is a large media conglomerate based in Qatar. We provide them multiple services including distribution for multiple HD channels, antenna & capacity for contribution services, redundant fiber connectivity, streaming services and playout services that can be used for disaster recovery.

Anything else you would like to add?

The Middle East and North Africa as a region has a mix of users who prefer streaming services as well as a healthy number those who would still want to consume their premium 4K/UHD content on a smart TV over a satellite Direct-to-Home (DTH) service. Due to this underlying demand demographic we continue to remain bullish on the future of satellite television in the region for many years to come.

Although primarily built to provide tracking, telemetry and control (TT&C) for Es'hailSat's two satellites, value added services provided to numerous customers include DTH, Occasional Use (OU), Contribution and of course Playout. Es'hailSat's satellites are located at 25.5° and 26° East, which is the hotspot for DTH services in the Middle East and North Africa (MENA) region. The Ku-band satellites support numerous applications including video over Multiple Channels per Carrier (MCPC), Pay-TV, VoD, and Interactive TV in SD and HD.

Content producers and broadcasters can take advantage of the contribution and distribution services offered. On the contribution side, services can be provided on either a full time or OU basis as and when needed. Examples of services used by current customers include: backhaul from studios for onward distribution, satellite news gathering (SNG) and transmissions from outside broadcast (OB) vans from multiple locations. As more and more content is produced in HD and UHD, Es'hailSat's high-power Ku-band satellites are easily able to offer extra bandwidth as needed. The excellent fiber connectivity available at the site means that content can also be received directly from the internet. The IP contribution hub can support hundreds of channels and video sources simultaneously.

On the distribution side, content can be uplinked to Es'hailSat's satellites or downlinked and turned around from any others in the wide arc visible from the teleport, for delivery to headends, cloud servers or directly to the viewer. The redundant fiber connectivity at the site also enables content to be delivered to the internet backbone for onward transmission. The teleport is directly con-

"...Es'hailSat partners and collaborates with a variety of technology innovators in order to ensure that the equipment and facilities are the best in class and enhance its end-to-end service delivery..."

nected to multiple internet service providers (ISP)s in Qatar.

For customers that require a dedicated end-to-end data center solution, Es'hailSat offers individual customizable data center suites. These give customers the option to manage their own metered environmental controls, power and connectivity, with complete privacy and security.

In addition to antenna co-location, Es'hailSat also offers a wide range of options for companies wishing to collocate their equipment in the teleport. A company can rent a space as small as one rack unit, or as large as a private self-contained suite.

The entire teleport is protected 24/7 by a wall and security gates, access control and close circuit TV with intrusion detection. The center is equipped with redundant power sources, backed up by an uninterrupted power supply (UPS) and generator. In addition, there is a fire protection system, water leak detection system and of course a Chiller HVAC.

One of the keys to Es'hailSat's success is the support services offered. A multi-lingual team of engineers certified and trained in installation, support and maintenance is available

24/7, to support the Capacity Management Center (CMC) and all the broadcast, VSAT, fiber and RF operations. The ethos of the company is founded on flexibility and innovation; constantly finding new ways to improve its products and services. This is evidenced by its collaboration with other leading technology innovators and its willingness to adapt its offerings to meet individual customer needs.

Locating the Playout Services Center in the teleport, enables Es'hailSat to offer world class end-to-end broadcasting services to its customers. In the last year alone, 20 new TV channels have been added to its video hotspot and many of these customers are also using the Playout services. As Mr. Hamad Al Mannai, Vice President-Commercial of Es'hailSat commented: "This is testament to the fact that customers trust us with their TV channel bouquets and both our market share and regional growth are secured as a result."

Elisabeth Tweedie is Associate Editor of the Satellite Executive Briefing. She has over 20 years experience at the cutting edge of new communications entertainment technologies. She is the founder and President of Definitive Direction (www.definitivedirection.com), a consultancy that focuses on researching and evaluating the long-term potential for new ventures, initiating their development, and identifying and developing appropriate alliances. She can be reached at: etweedie@definitivedirection.com