



## // VIDEO PLAYOUT PLAYBOOK

# Turk Telecom Improves IPTV and OTT Experiences With HD Mosaic Viewing

High-quality channel thumbnails increase viewer engagement

## WHAT SUBSCRIBERS WANT



LIVE  
VIDEO



VIDEO ON  
EVERY SCREEN



EXCEPTIONAL  
VIDEO QUALITY



ENHANCED VIEWING  
EXPERIENCES



PERSONALIZED  
CONTENT

## THE GAME PLAN

Turk Telekom is a leading telco operator based in Altındağ, Turkey. The operator delivers broadband, mobile phone and video services, including IPTV and OTT, to approximately 35 million subscribers.

Delivering a mosaic video view drives engagement with viewers and is an important option in the service offering. Turk Telekom is the only IPTV and OTT operator in the country that offers a mosaic option for live television. The video mosaic enables the operator to show all of the available channels to subscribers via thumbnail-sized images. This allows viewers to easily navigate the content and quickly find what they want to watch.

For a mosaic view to be effective, the quality of the video thumbnails must be exceptional. Turk Telekom's viewers are accustomed to watching HD video on every screen and the operator had to meet those expectations.

## THE PLAY-BY-PLAY

Turk Telekom is using Harmonic's Spectrum™ XE playout system and the ProSwitch for playout and redundancy. The system supports up to five SD and five HD video mosaics as well as a radio mosaic, which includes one video and 22 audio streams. Spectrum XE's graphical user interface includes video thumbnail mosaic generation and an intuitive playlist editing and control features with a set of advanced monitoring views that report the status of multiple simultaneous channels, including video thumbnail mosaics.

The IP and switch infrastructure at Turk Telekom has a unique architecture. During the integration and testing phase, Harmonic needed to ensure that the operator could stream switches from the point of ingest without a conflict between IP and multicast. Harmonic's world-class engineering team alleviated the issue by using a specific switch configuration that features 24 port switches. The entire configuration is protected with one-to-one redundancy for complete reliability in any situation.

Turk Telekom wanted to deploy fast. Menasist served as the system integrator and was an important facilitator from design to deployment, providing continuous support to Turk Telekom. In just around three months Turk Telekom was able to offer an improved quality of service to subscribers.

## THE WIN

Turk Telekom chose Harmonic and trust the company's strong track record for system reliability, long operational life of Harmonic solutions, and the ease of use.

Harmonic's Spectrum XE and ProSwitch dramatically simplify the creation of high-quality HD channel mosaics, which can be used for multi-view sports, monitoring and to provide viewers with a portal for their IPTV and OTT bouquets.

Using the mosaic generator is simple. Turk Telekom can simply choose the background and thumbnail size for each mosaic, enter the name of the channel and insert the logo and banner. Spectrum XE has an intuitive, web-based interface where the operator configures video parameters and the mosaic properties to deliver the video thumbnails across Turk Telekom's IPTV and OTT platforms.

The ProSwitch system monitors Turk Telekom's MPEG-2 TS and seamlessly switches to a backup stream to maximize uptime. This ensures a flawless viewing experience for viewers, without any delays.

Prior to using the Spectrum XE and ProSwitch, Turk Telekom was only able to deliver SD video thumbnails. Now the operator can offer a mosaic of live channels in full HD, boosting viewer engagement and satisfaction.

## THE POWER OF SPECTRUM XE

# 12 Weeks

to design, test and deploy  
the entire system



Thumbnails in  
full HD



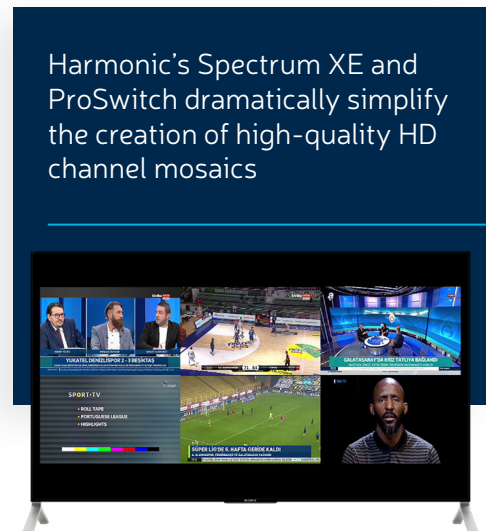
Advanced playout  
features



Streamlined video  
workflows



Easy to  
customize



Harmonic's Spectrum XE and ProSwitch dramatically simplify the creation of high-quality HD channel mosaics