

# Eutelsat's Multi-screen Delivery Solution via Satellite

Satellite is the perfect way to deliver high quality,  
tailored content to smartphones and tablets

**DISCOVER EUTELSAT'S MULTI-SCREEN  
DELIVERY SOLUTION**

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### The rise of multi-screen viewing

Consumers today watch TV on different screens and in any location.

Over recent years, the number of smartphones and tablets has grown dramatically and their quality (both in terms of screen resolution and of computing performance) is continually improving. Smartphones have in fact become the first "entertainment" screen, capturing the largest amount of users' viewing time.

End users demand high quality video, consistently delivered across different screens and with content optimized for different modes of consumption.

These changes in TV consumption are challenging broadcasters' operational and business models and are also putting significant stress on terrestrial telecommunication infrastructures that are commonly used to bring connectivity (and content) to the portable devices.

These infrastructures are limited in terms of coverage and throughput. With the spike in video consumption, they are facing increasing risks of congestion, especially at peak hours.

### What is Eutelsat's solution?

Eutelsat's multi-screen delivery solution is the first satellite broadcast network dedicated to smartphones and tablets.

It enables broadcasters to reach millions of viewers with consistent high quality and tailored content, independently of the bottlenecks and limits in coverage of terrestrial networks.

Thanks to this new multi-screen delivery solution, end-users can watch high quality video both at home, as an extension to their legacy TV sets, and in public places where a large number of users can simultaneously watch different channels.

This makes the solution ideal for creating "video multi-screen hotspots" in locations such as bars and restaurants, or in the lounges of hotels, airports and train stations.

Based on standard technologies and protocols (such as DVB-S2, IP, HLS), Eutelsat's solution is compatible with IP-native portable devices. Moreover, the highly flexible design of the solution enables multiple advanced video services, such as distribution of free-to-air and premium content using DRM encryption, for both linear and non-linear TV.

### What is new in the solution?

#### What are the benefits for broadcasters?

Eutelsat's multi-screen delivery solution challenges the status-quo by bringing five key benefits to broadcasters:

- Consumers can be targeted with content and formats that are specifically tailored for smartphones and tablets, in terms of resolution and duration.
- A consistent quality of service is guaranteed over a wide region, without degradation due to congestion of the terrestrial telecommunications infrastructure.
- Universal and immediate coverage is provided, regardless the availability and quality of the terrestrial infrastructure.
- Flat deployment costs, not increasing with number of users as with CDN (Content Delivery Network) solutions.
- The solution allows for detailed audience measurement, paving the way for the implementation of high value advertising services.

### How does it work?

TV content aimed at smartphones and tablets is processed and encoded to enable it to be broadcast directly in IP over satellite.

#### On the transmit side:

- The IP content is received at the satellite teleport.
- The IP streams are converted from unicast to multicast, then encapsulated over a DVB transport stream and broadcast over satellite via a standard DVB-S2 transmission platform (the first pilot platform has been operational on Eutelsat HOT BIRD at 13°E since September 2015).

#### On the receive side:

- The TV channels are received via a traditional satellite dish connected to a compatible satellite gateway.
- This device receives the DVB transport stream, extracts the original IP packets and serves the content to the smartphones and tablets, or any other IP native device, through a standard WiFi access point or home router.

#### On the smartphones and tablets:

- The end user installs a dedicated mobile application, which is able to display the selected video content through its embedded HLS player.
- This application offers a user-friendly interface and a programme/service guide to access the different channels in a simple and intuitive way.

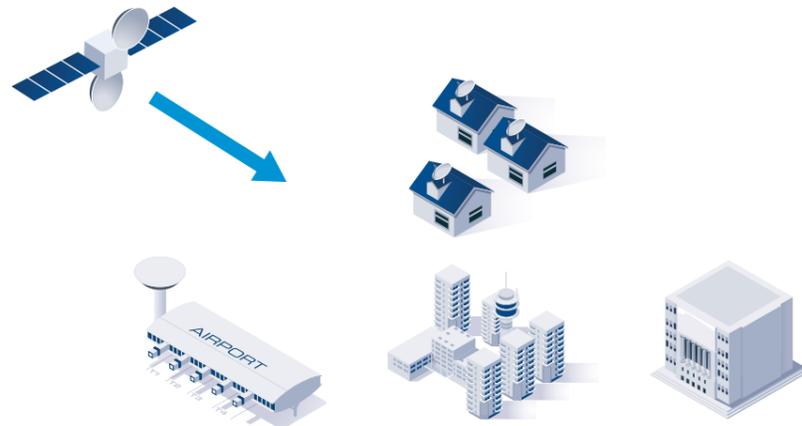
Because it is based on standard technologies and protocols, the solution is highly flexible and can be easily leveraged to implement multiple video applications. These include:

- Protected content: the multi-screen delivery solution is compatible with different encryption solutions for DRM (Digital Right Management).
  - Non-linear video services (e.g. Video-on-Demand and Catch-up TV): an internal or external hard-disk connected to the satellite gateway provides local storage for non-live content.
- Eutelsat's multi-screen delivery solution can provide detailed analytics to broadcasters and allow them to know in real-time their customers' preferences.

## Use cases

### 1 At home

- Typically 4-5 simultaneous users
- Consumer-grade WiFi access point



### 2 Public spaces

- Typically 40-50 simultaneous users watching different content
- High-end WiFi access point is required

## End-user premises installation



- 1 Satellite dish (standard)
- 2 Dedicated satellite receiver (satellite gateway)
- 3 WiFi access point (standard)
- 4 Internet connection (e.g. DSL, 3G, Satellite)
- 5 Smartphones / Tablets with dedicated app