



**MAJJANE  
FREE MULTISCREEN  
ON-DEMAND TV CHANNEL  
& VIDEO CONTENT  
FOR TVS, SMARTPHONES,  
TABLETS & PCS IN MENA**

## VIDEO WHAT IS MAJJANE?

Majjane is a new satellite broadcasting service for the MENA region (Middle East and North Africa) at the 7/8° West orbital position. It will enable free reception, over time, of more than 200 television channels and a wide range of video-on-demand content via smartphones, tablets, PCs and televisions.

No Internet or 3G/4G subscription is required to receive Majjane, nor the purchase of 3G/4G top-ups or an ADSL or Fibre Internet subscription.

The Majjane package will include all the major general-interest and entertainment channels from MENA countries, as well as major national and

international news channels and sport channels.

Majjane also offers free on-demand downloading of video and audio content, including tele-education content such as files and applications.

While TV channels broadcast via 7/8° West target the 70 million TV households equipped with television sets, the Majjane offer is aimed at almost 447 million smartphones in MENA, as well as tablets and PCs across the region.

TV DISTRIBUTION MODE PROPOSED BY EUTELSAT	TARGET RECEIVING EQUIPMENT	ADDRESSABLE MARKET	% OF THE MARKET SEGMENT COVERED BY EUTELSAT	SERVICES OFFERED BY THE COMPETITION
DTH RECEPTION: E7WA, E8WB	TV sets	70 million TV households in MENA	95% of TV households	IPTV and OTT services via connected TVs and TV operator set-top boxes
MAJJANE OFFER ON E7WA	Smartphones, tablets and PCs, TV sets	686 million GSM lines (76% are smartphones) + millions of tablets and PCs	Offer currently being launched	Numerous individual IPTV applications via smartphones and tablets

TAB.1 SATELLITE BROADCAST SOLUTIONS AND TARGET SCREENS

There are more than 950 TV channels available to TV households at 7/8° West.

More than 95% of TV households in the MENA zone receive this orbital position, i.e. more than 66 million TV households.

Majjane expands the existing television offer by addressing additional screens such as smartphones, tablets and PCs, via the MENA coverage at 7/8° West:

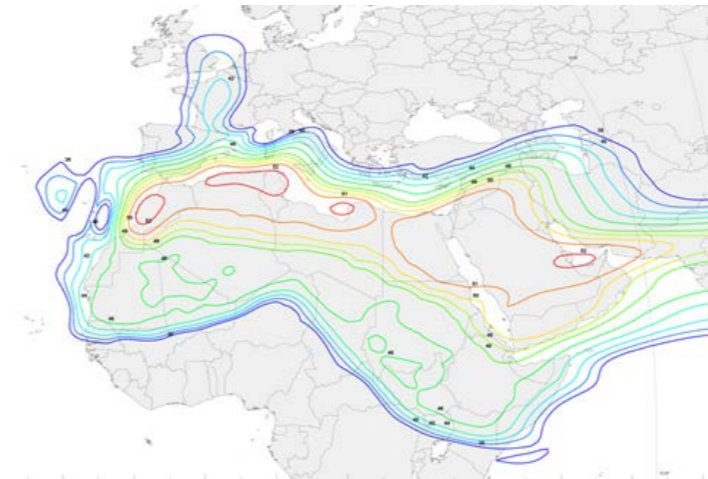


FIG.1 MENA COVERAGE OF THE E7WA SATELLITE

There are currently four satellites co-located at this orbital position, two of which belong to Eutelsat (E7WA and E8WB) and two to Nilesat (N201 and N301).

### WHAT TECHNOLOGY IS USED?

The Majjane free-to-air service uses the new DVB-NIP broadcasting standard.

This multiscreen satellite broadcasting technology allows different users in the same home or same public venue to receive different TV channels and video content (linear TV channels and video-on-demand content) at the same time, on different devices such as smartphones, tablets, PCs and TV screens, without needing an Internet connection of any kind (ADSL, WiFi or 3G/4G).

In the MENA region, around 70% of households have one TV screen and an average of 4.5 people per household.

As a result, in over 70% of cases, when the main TV screen is occupied by one member of the household, the other occupants must use another medium to watch video content. In the absence of Wi-Fi, access to linear or on-demand content on smartphones, tablets and PCs receiving 3G/4G is then subject to a charge. The free offer from Majjane allows all members of the household to benefit from freedom of choice, to watch other TV channels independently of the main TV screen.

Eutelsat's Multiscreen solution, in addition to enabling reception on several screens, offers a number of advantages, including:

- High-quality reception, avoiding the buffering associated with shared-infrastructure telecoms networks such as 3G/4G, which can be subject to significant congestion when the number of users in a given geographical area becomes too large.
- Enabling broadcasters to broaden their customer and application base by targeting customers other than private individuals for the reception of linear or VOD content (e.g. schools).

To receive these TV channels and on-demand content, a smartphone, tablet or PC is connected to a Wi-Fi-equipped satellite receiver, as illustrated below:

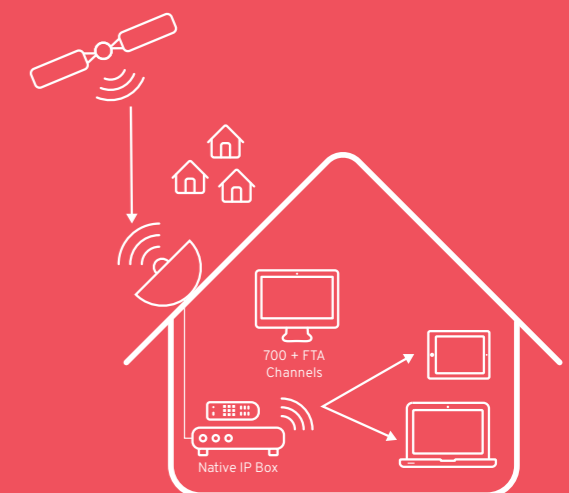


FIG.2: MULTISCREEN HOME RECEPTION SYSTEM

# THE MARKET

## HOW MUCH WILL A HOUSEHOLD SAVE IN 3G/4G DATA BY RECEIVING THE MAJJANE OFFER?

It is estimated that the average household in the MENA region spends €80 per month on 3G/4G data, which equates to around €1,000 per household per year.

If a significant proportion of time is spent watching video content (linear channels and VOD) on a smartphone connected via Wi-Fi to a Majjane satellite receiver, savings per household will be around €500/year.

A person watching video content in linear mode on a smartphone for 1 hour via a mobile network will consume the equivalent of 24 hours of WhatsApp

### WHAT IS THE SIZE OF THE MARKET ADDRESSED BY THE MAJJANE OFFER?

The number of GSM lines in MENA is estimated at 686 million in 2024, of which almost 76% will be via smartphones. In addition to these 447 million smartphones, there are tens of millions of tablets and PCs.

In addition to the 66 million individual homes equipped to receive TV channels from 7/8°

communications in 3G/4G data!

By way of example, 3G/4G expenditure for 150 000 users spending 1.5 hours a day for a month consuming linear video content at 1 Mbps is estimated at €1.69m, giving telecom operators revenues of €20.4m a year.

In other words, for linear content consumption via 3G/4G, television channels have the cost of the CDN on CDN/Telecom operators, and individuals must pay for 3G/4G top-ups. Telecom operators are the only financial beneficiaries of this type of consumption.

West, there are also all the public venues (cafes, restaurants, hotels, petrol stations, etc.) which are also equipped to receive the same orbital position and which could potentially be equipped to receive the Majjane offer.

In the future, similar multiscreen offers could also be deployed in other geographical zones, given the potential of this solution in terms of GSM lines (and tablets + PCs) to be targeted:

GEOGRAPHICAL AREA	NUMBER OF HOUSEHOLDS IN MILLIONS (M)	EUTELSAT DTH SATELLITES	NUMBER OF GSM LINES IN MILLIONS	MULTISCREEN OFFER TO COVER THE AREA
EUROPE	258	HOTBIRD	750	--
ASIE	1 241	E70B/E172B	4 555	--
MENA	156	E7WA/E8WB	686	Majjane
SUB SAHARA AFRICA	267	E7C/E7B/E16A/E36B/D	1 134	--
LATIN AMERICA	206	E8WB	701	--
NORTH AMERICA	151	117WA/B	422	--
OCEAN PACIFIC	13	E172B	37	--
RUSSIE & RCA	76	E36B/D	311	--
TOTAL	2 368 m		8 596 m	

TAB.2 TOTAL MULTISCREEN ADDRESSABLE MARKET (TAM)

# RECEPTION EQUIPMENT

## WHAT EQUIPMENT IS NEEDED TO RECEIVE MAJJANE AT HOME?

The Majjane package is received by simply connecting the device (smartphone, tablet, PC) via Wi-Fi to the Majjane satellite receiver, which in turn is connected by coaxial cable to a satellite dish pointed at 7/8° West.

For homes already equipped with a satellite dish pointed to 7/8° West, the addition of the Majjane satellite receiver with integrated Wi-Fi provides access to the bouquet.

Individual Majjane receivers can also be connected to the TV set, as they have an HDMI port as well as a Wi-Fi connection.



FIG.3: ADDING A MAJJANE RECEIVER TO AN EXISTING DTH INSTALLATION

Other configurations are possible with two coaxial cables, one for the DTH satellite receiver and the other for the Majjane receiver. In this case, a dual-output LNB is used.



FIG.4 EKT MAJJANE CONSUMER RECEIVER

EKT and Noovo consumer receivers can serve up to ten people at the same time.. The retail price of such equipment is between €30 and €60 including VAT.

To benefit from the VOD service, the user may need to connect an external hard disc (HDD) to their Majjane consumer receiver. A 2 TB HDD will store up to 2000 movies.

The associated IOS and Android mobile applications used to access the content on individual devices are also compatible with the collective receivers used in public venues.

In equipped public venues, the viewer simply connects their device to the Wi-Fi network of the Majjane collective receiver to receive all the Majjane services available, using the same application they use at home.

In some cases, the manager of the public venue could restrict access to only certain channels (e.g. schools, where access is restricted to educational channels only).

### IS IT POSSIBLE TO ACCESS THE INTERNET VIA THE CONSUMER MAJJANE SATELLITE RECEIVER?

Yes, it is possible to access the Internet through the Majjane receiver. By connecting it to the Internet via the Ethernet port, the Majjane receiver becomes a Wi-Fi router capable of supplying Internet to all the devices connected to it via Wi-Fi, as well as giving access to the entire Majjane offering.

In equipped public places, venue managers can choose whether to provide Internet access, depending on the location and the commercial approach they wish to offer their visitors.

For example, many oil companies already provide free Internet access at motorway service stations. It would be easy for them to connect a professional Majjane receiver to their Wi-Fi router to give the public access to the video offer.

### IS IT POSSIBLE TO RECEIVE THE MAJJANE OFFER OUTSIDE THE HOME?

Public venues, such as cafes, restaurants, train stations, hotels, and motorway service areas, are all places where individuals can enjoy spending time watching their favourite programmes. Dedicated Majjane equipment for public venues can serve several tens of users simultaneously, with equipment on the market capable of serving 50, 100, 200, 300, 400 or 500 users simultaneously.

The equipment is easy to install, just like any other television reception equipment in collective installations.



FIG.5 NOOVO MAJJANE COLLECTIVE RECEIVER



Noovo professional collective receivers can provide service for 50 to 500 users simultaneously, depending on the model used. This equipment is designed for public places where there are large numbers of users, such as train stations, hotels, airports, etc.

In addition to EKT and Noovo, other manufacturers will be bringing compatible equipment to the market in the coming months.

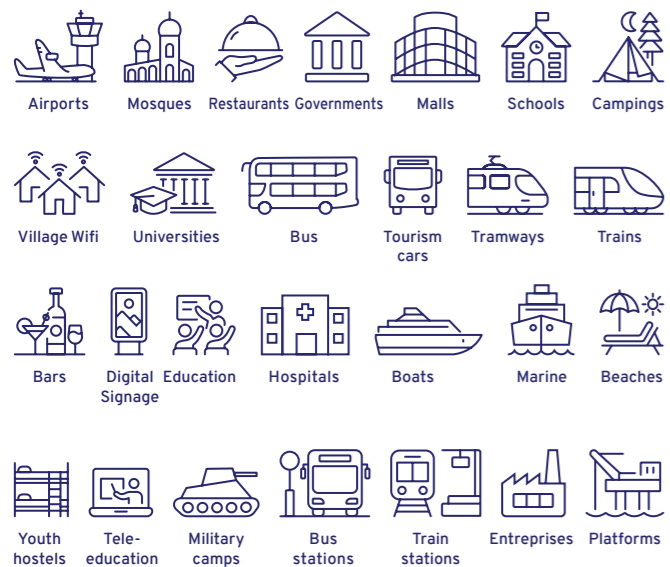


FIG.6 EXAMPLE OF PUBLIC PLACES WHERE MAJJANE CAN BE DEPLOYED

## THE ADVANTAGES

WHAT ARE THE ADVANTAGES OF BEING PART OF THE MAJJANE OFFER FOR TV CHANNELS?

There are many advantages for TV channels joining the Majjane offer:

- **Savings on CDN-related costs**  
By opting for multi-screen broadcasting, television channels will not have to pay CDN costs for users equipped with Majjane receivers.
- **Improving the channel's audience and visibility**  
No more constraints on individuals watching their preferred content on the screen of their choice, at home or away from home.

Let's discuss them in more detail:

### SAVINGS ON CDN-RELATED COSTS

For TV channel operators that are deciding whether to launch an OTT offering for their channels, what technological options are available to operators and what are the consequences that these choices may have on the channel's audience and their finances.

In all, there are 5 broadcasting modes for television channels to target viewers at home and abroad.

BROADCAST MODE	AUDIENCE	BENEFITS	DISADVANTAGES
DTH SATELLITE	DTH households (target: televisions)	Over 95% of homes equipped in the MENA region Fixed cost for channels	Does not address formats other than televisions Audience in households limited as at least 70% of households have only one television Unavailability in public places
DTT	DTH households equipped with DTT televisions	Low cost access for viewers (TV with DTT tuner) Fixed cost for channels	Limited number of channels and presence on DTH satellites Same difficulties as DTH
IPTV	Viewers connected to an IPTV network (target: TV sets)	Carriage often free for channels	Networks virtually non-existent in the MENA region
OTT	Households connected to the Internet and with connected televisions or smartphones and tablets	No satellite costs for channels	CDN cost for TV channels and 3G/4G cost for smartphone users not connected to Wi-Fi
MAJJANE MULTISCREEN	Televisions, smartphones, tablets and PCs	Solution serving several screens at the same time, no CDN costs and no 3G/4G costs for users	Requires the purchase of a multi-screen receiver by the viewer or venue, at a one-time cost

TAB.3 CURRENT DISTRIBUTION METHODS FOR TARGETING SCREENS IN MENA

# COST SAVINGS

Given that cable networks distributing television channels in IPTV format are virtually non-existent and that only 37% of homes have ADSL or Fibre Internet, the least expensive distribution method both for viewers, and for channels wanting to target the largest number of users, is the Majjane solution.

There is a fixed cost for the television channels, while simultaneously addressing all the screens in the home: the TV set, smartphones, tablets and PC.

The following table compares the costs incurred depending on the technology used by a channel watched for 1.5 hours a day by 150,000 users in Tunisia:

% OF HOUSEHOLDS EQUIPPED WITH THE MAJJANE SOLUTION	CDN COSTS IN €/MONTH PAID BY THE TV CHANNEL	3G/4G COSTS IN €/MONTH PAID BY INDIVIDUALS	INDICATIVE COST OF BROADCASTING A TV CHANNEL IN THE MAJJANE PACKAGE €/MONTH FOR 1 MBPS
0%	34 300	1 697 000	6,000
10%	31 300	1 396 000	6,000
20%	28 000	1 090 000	6,000
30%	25 500	793 000	6,000
40%	22 500	491 000	6,000
50%	19 650	190 000	6,000
60%	16 900	0	6,000
<b>BROADCAST BENEFICIARIES</b>	Telecom operators	Telecom operators	Eutelsat

TAB.4 APPROXIMATIVE COSTS FOR CHANNELS AND USERS ACCORDING TO THE TECHNOLOGY

This table highlights that:

- 3G/4G data costs borne by the user drop dramatically as users adopt multiscreen technology and tend towards zero as the rate of native IP devices approaches 60% of TV households.
- CDN costs are reduced by almost half when the percentage of multi-screen equipment rises from zero to 60% of TV households.

The high cost of 3G/4G is a barrier to accessing linear channels and on-demand content, as access to 3G/4G data is via prepaid subscriptions, which account for 97% of subscriptions in many MENA countries.

What's more, given the volume of data needed to watch a TV channel on a 3G/4G network at 512 kbps or more, users will prefer to use this volume of data to access social networks, including WhatsApp (one hour of watching a linear TV channel at 1 Mbps on a 3G/4G network is equivalent to 17 hours of WhatsApp audio communication at 30 kbps!).

By opting for multiscreen technology, individuals will no longer have any financial constraints when it comes to receiving Majjane content, unlike viewers who watch linear TV or VOD content using their 3G/4G data.

The following 2 figures illustrate the difference between traditional (3G/4G, ADSL/Fibre) and multiscreen solutions, and show the money flows for the various players:

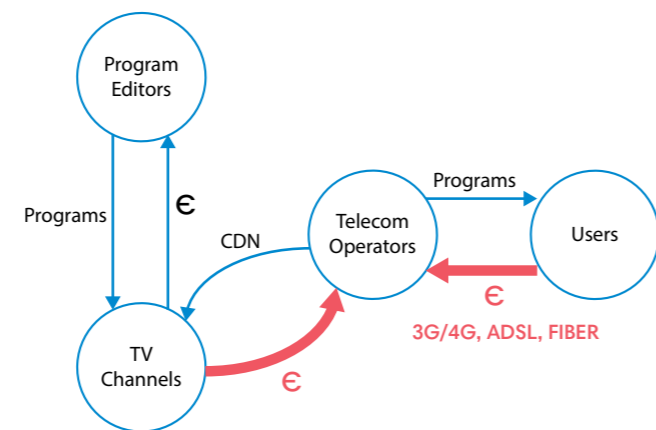


FIG.7 MONEY FLOW FOR A TRADITIONAL SOLUTION (3G/4G ADSL OR FIBRE)

# AUDIENCE & VISIBILITY

In this configuration, telecom operators charge both individuals and TV channels.

With the Majjane Mutiscreen solution, end-users are not charged, while the amount charged to TV channels by the satellite operator for the linear

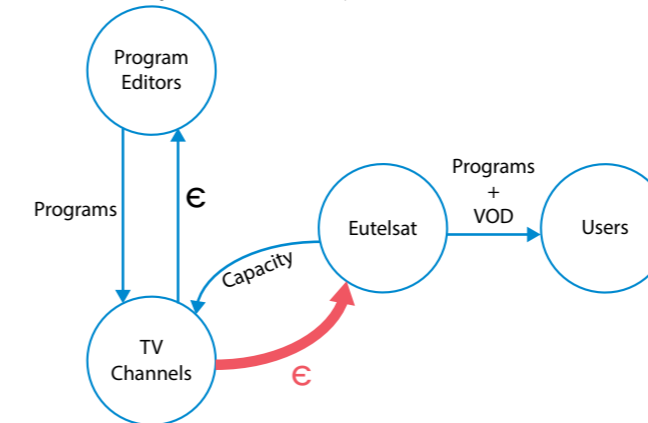


FIG.8 MAJJANE SOLUTION FREE FOR END USERS

service remains well below the costs applied by telecom operators:

Increasing the channel's audience and visibility

The other element that should be taken into account in the MENA region is the fact that statistically, the time spent viewing video content is broken down as follows:

VIEWING LOCATION	% OF TIME SPENT
HOME	73% of total time
CAFÉS AND RESTAURANTS	13% of total time
OTHER PUBLIC PLACES AND TRANSPORTATION	14% of total time

TAB.5 BREAKDOWN OF VIEWING TIME FOR VIDEO CONTENT

Once the majority of homes and public venues are equipped to receive the Majjane offer, users will be more encouraged to watch the channels in the Majjane package on their screens.

In the rare cases where the individual is unable to access Majjane via satellite, the application will offer the option of receiving the desired channel using

the 3G/4G network, thus reducing access costs to a minimum.

As part of the Majjane offer, TV channels will be easily accessible from the single application associated with this offer, giving access to all channels and associated content (VOD, etc.) without the user having to install each channel's individual application on his or her smartphone.

Improving the channel's visibility and boosting its audience, the Majjane application:

- Highlights the channels in the package, making them easily accessible through one unique app, rather than the hundreds of IOS/Android apps for the 950 TV channels at 7/8° West.
- Allows unlimited access at a fixed cost to the channel: no cost linked to the number of users, as in the case of OTT broadcasting, where CDN costs can be exorbitant in the event of sustained use.
- Improves channel viewership as channels that are part of the package are more visible than channels with their own individual applications, which are drowned out by the 950 FTA channels.
- Allows the user to receive the channels at home or in public places equipped with the Majjane service.
- Increases the revenues for the TV channels in the package due to higher viewer numbers.



MANY INDIVIDUAL APPLICATIONS FOR THE 950 TV CHANNELS AT 7/8° WEST

# PUBLIC VENUES

## WHAT ARE THE ADVANTAGES FOR PUBLIC VENUES THAT OFFER MAJJANE?

Managers of public venues can build customer loyalty by offering new services. Majjane is a very good example of a value-added service that will build customer loyalty and keep them coming back for more.

In Morocco, for example, the number of public places to be equipped is estimated at 70,000. In Tunisia, this number stands at 22,000. As a comparison, equipping these 22,000 locations would cost around 11 m€, while the cost (CDN and 3G/4G) associated with the 10 Tunisian channels would amount to 200 m€ over a 1-year period using the assumptions in table 4.

IOS and Android applications are designed to help users quickly find Majjane receivers in public places. With this feature, Majjane users can go to public places where Majjane receivers are located and download video content to watch on the go. This function is particularly useful in public places such as airports, train stations and bus terminals.

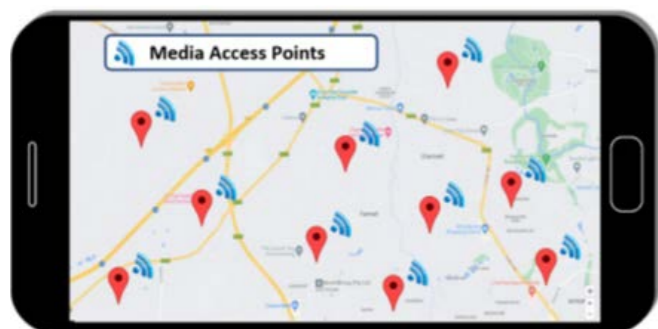


FIG.10 LOCALISATION MAPS FOR PROFESSIONAL MAJJANE RECEIVERS

Majjane public area receivers have a storage capacity of approximately 2TB, which is equivalent to a capacity of 2,000 movies on demand at 1Mbps. Access to this capacity by TV channel operators is contractual and depends on a number of factors, including refresh speed, volume of data transmitted, etc.

Public venue managers will purchase professional equipment from importers/installers able to install Majjane equipment. These installers are trained in the sizing and installation of Majjane equipment in various configurations (channel selection for reception, Wi-Fi settings, coupling with an external Wi-Fi router, Wi-Fi voucher settings, coupling with an Internet satellite antenna).

Eutelsat has a number of geostationary and LEO satellites providing Internet access (Konnect VHTS, Konnect Africa and OneWeb).



FIG.11 KONNECT VHTS SATELLITE INTERNET COVERAGE MAP

In order to provide Internet access as well as access to the TV and video content, public venue managers have the option of installing antennas pointed at the Konnect VHTS satellite with a dual feeds for reception from the 7/8° West position.

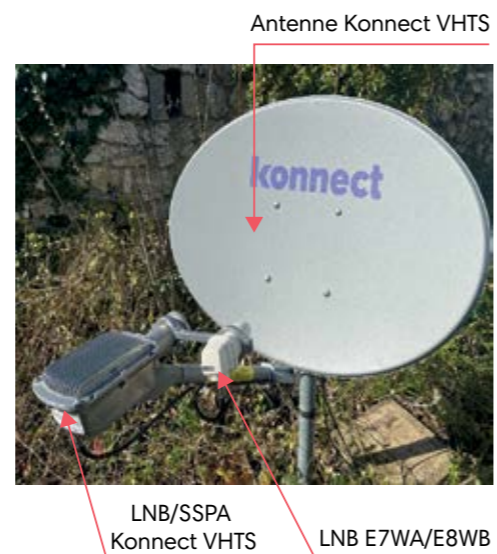


FIG.12 KONNECT VHTS HYBRID ANTENNA (INTERNET) RECEIVING MAJJANE PROGRAMMES AT 7° WEST

In geographic areas not covered by Konnect VHTS, it will still be possible to connect the Majjane receiver to an ADSL router or install a SIM card in the Majjane receiver to provide Internet access in public venues if needed.

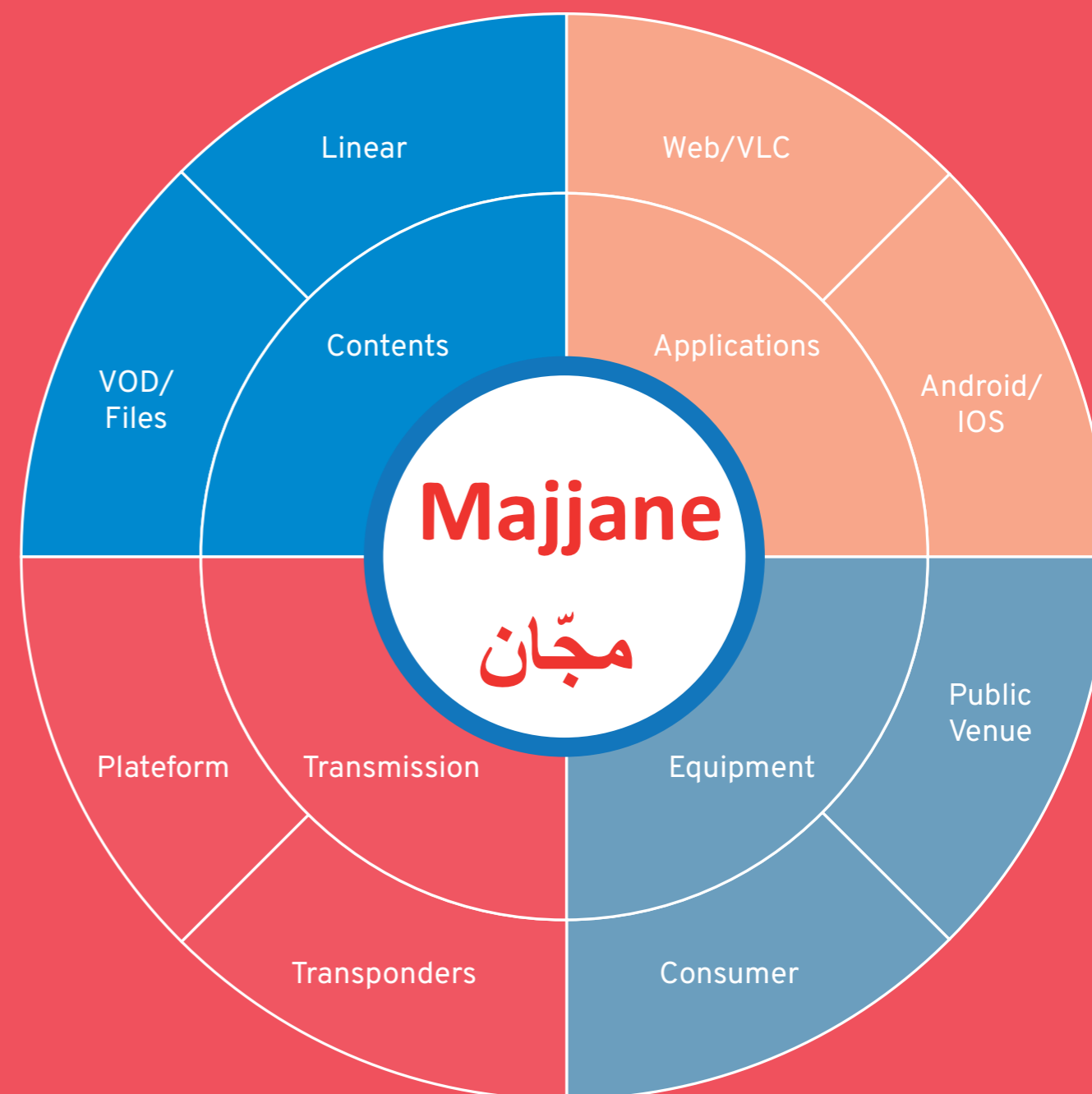
# THE MAJJANE OFFER

## WHAT DOES THE MAJJANE OFFER INCLUDE FOR TELEVISION CHANNELS AND CONTENT PROVIDERS?

Eutelsat is proposing the following offer:

- Receiving TV contributions for inclusion in the Majjane offer
- Linear broadcasting with 2 possible formats 640 Kbps (Low Resolution) or 1024 kbps (Standard Resolution)
- Different formulas for downloading and storing data for VOD content
- Tools for downloading VOD content
- Collection of channel audience data via Majjane receivers when connected to the Internet, or via users' IOS and Android applications

## WHAT DOES THE MAJJANE ECOSYSTEM COVER?



VIDEO\_MAJJANE\_12P\_EN\_0426

32 BOULEVARD GALLIENI,  
92130 ISSY-LES-MOULINEAUX,  
FRANCE  
WWW.EUTELSAT.COM  
+33 1 53 98 47 47

What can we do for you? Please visit  
[www.eutelsat.com/enquiries](http://www.eutelsat.com/enquiries)