

Telco/ISP IPTV/OTT SmartHome IoT/SmartCity Hospitality Digital Signage Smart Mobility

# **Product Catalogue** 2024

IPTV / Digital TV Headend / Streaming Platform / Middleware Set-top Boxes / Monitoring / Smart Apps



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## About

## About ANTIK Technology











ANTIK Technology develops SmartCity, SmartMobility, End-to-End IPTV / OTT Solutions and Internet of Things platforms for operators, content providers, retailers, municipalities and governments. It is one of the few global companies with own hardware and software products for complete IPTV ecosystem from acquisition, transcoding, streaming, management, monitoring, protection to middleware and end-user devices. Our current position on global market benefits from more than 20 years of experience in the area of video processing.

ANTIK's IPTV products are supported by the team of more than 300 employees. Software development team and technical support are based in Slovak Republic (European Union) and Singapore, hardware development team in Czech Republic (EU), logistics and HW manufacturing in Shenzhen, China and customer support covering Asia, Middle East, Europe, Africa, North and South America from local offices.

Nowadays our reference clients are spread over the world, using our 4K set-top boxes with stateof-art middleware and smartTV apps both in closed multicast networks and on public internet, streaming thousands of live, VOD or archived TV channels to endusers located elsewhere with low-cost Antik HLS/MPEG# Media Streaming Solution protected by KeyRider DRM. We deliver fully customized End-2-End hospitality IPTV to residential projects and hotels in most visited global touristic spots. One of the recent addition to our segments is SmartMobility where we deliver full platform to deploy, control and service wide fleets of sharing vehicles and devices.





## Doing Business with Antik Technology

### Let's work together and deliver Hi-Tech globally

Here in Antik we believe only strong cooperation and common understanding together with top-level knowledge can create valuable results for everybody – vendors, distributors, end-customer as well as consumers. Therefore we develop and support partnerships with knowledge based, reputable companies with strong visibility on their target markets, regardless borders or segments. Here you can read how we can help to build and operate sales and support of Antik products.

#### **Getting on board**

#### Get to know each other

We need to hear from you about your current position, your business goals, your target markets and what do you want to achieve using Antik products. We share with you our current operation infos as well as close future plans.

#### **Demokit**

Our top-class presentation product will serve you to explore all product features as well as to help your sales people to show what they offer directly on customer sites at later stage. We strongly encourage to use Antik Demokit everywhere you will find interested customer.

#### Visit Antik HQ

We strongly encourage your business and technical teams to tour our HQ in central Europe to see and better understand how we are different and how to best utilize Antik strengths in your market situation.

#### Distribution contract and business terms

After your evaluation we will be happy to see your ideas about the size of our future cooperation and we will share with you business conditions which will help you to create extremely competitive offers on your markets.

#### How we support you to sell Antik products

#### Marketing

Antik marketing team is ready to help you to organize Antik presence during trade-shows including costsharing on major events as well as provide customization of product brochures and catalogues.

#### **Trainings**

We regularly organize training for our partners to learn about the features of our products in details (business training) as well as technical training to provide first and second level support of Antik products in your own name. Trainings are provided both in-person in our HQs/branch-office and on-line.

#### Product Customisation

As we control all product development and manufacturing we can deliver products and software customized to your needs – starting from specific branding up to software change requests to provide features specific to your market needs.

#### **Documentation**

With our products you will receive detailed documentation to provide you with extra knowledge needed to achieve top-class presence in front of your customers.

#### Support

There is dedicated support team available on-line to help you during pre-sales and post-sales process – serving your sales guys during quote preparation as well as to help delivery phase with remote installation and configuration. We can even provide remote assistance in networking specific to multimedia delivery.

#### To start our cooperation contact us directly under info@antiktech.com

# About IPTV Management Server MaxIM

The power of Antik Technology for Telco, Hospitality and Signage!

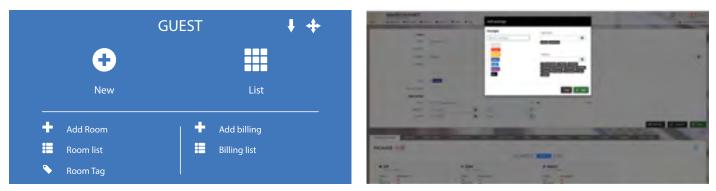


Antik Technology presents a professional cost-effective SW solution for a seamless management of your Antik set-top boxes and Mobile Applications network. MaxIM is the corner stone of Antik Middleware Server Family. You can easily define your channel packages, configure all or only selected customers' STBs, collaborate with other part of the Antik Server Family such as Antik Archive Servers, Antik Mosaic Servers and VoD servers. The MaxIM management server SW can be easily connected to your billing or to the customer care application, so that your users' set-top boxes will be automatically activated and monitored using the same software your employees are familiar with.

#### **Key Features**

- Simple channel and channel packages management
- Full remote control of set-top boxes and remote restart features (even in public internet)
- Remote set-top box firmware update
- Electronic Programme Guide database management and seamless EPG content import
- Integrated with other components of Antik Server Family
- STB management and user database
- Viewer statistics (users, channels, time,...)
- SNMP Communication Support
- Instant messaging to STBs
- Digital Signage Promotions and Event Navigation Solution
- Integration and control of Mobile Applications and SmartTVs
- Hospitality features, welcome message, background image, language options etc. in the same platform
- Mobile Applications and SmartTVs

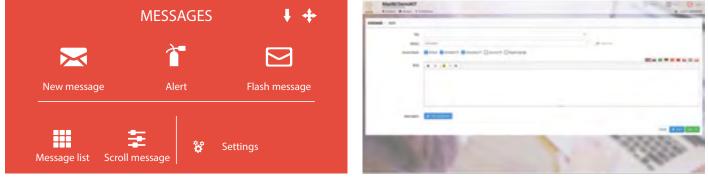
#### User / Guest module



Assigned packages and channels to guest/users.

USER/GUEST Module brings an opportunity to manage data about guests/users and products, As well as services provided and activated to the guests/users. There is also a possibility to create groups of guests/ users according to different constants (e.g. in case of hotel, there can be an apartment, VIP room, non-smoking room, etc.).

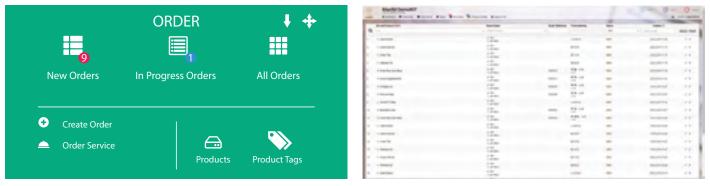
#### **Messages module**



New message configuration

The MaxIM allows the user to send a message to a specific STBox, or to a group of STBoxes. You can send three types of messages - normal (send to the message box in the GUI menu), flash (instant messages for a selected group of set-top boxes), scroll messages.

### **Order module**



#### List of orders

ORDER Module is providing opportunity to guest/users to order products and services and it also includes the tools for managing, creating and adding new products or services. The user of the MaxIM administration panel can add both food menu content and services content to make it available for the guests to order through ORDER module. Doing so, the MaxIM user should edit the GUI menu, i.e. add already created content.

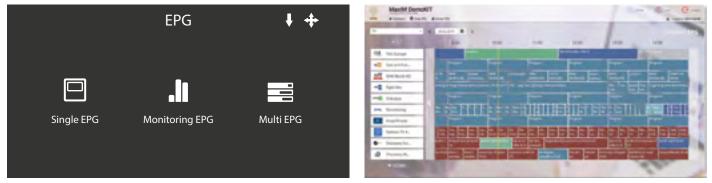
## **TV** interface module



GUI menu item's tools.

TV INTERFACE Module provides full-scale content management system to adapt user interfaces based on your visual identity and insert all necessary TV features and information.

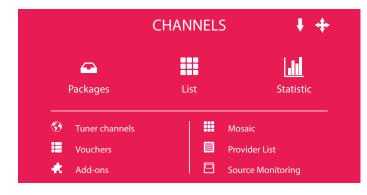
## **EPG** module



Multi EPG preview.

An electronic program guide (EPG) is an application to list current and scheduled programs that are or will be available on each channel and a short summary or commentary for each program. EPG Module of the MaxIM brings single EPG (EPG filtered by a specific channel), Multi EPG and monitoring of EPG.

## **Channels module**

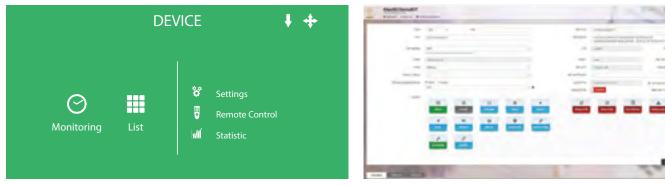


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Advanced options of channel settings.

CHANNELS Module involves the administration of TV channels, Radio channels, Cameras and TV packages. The user has the opportunity to sort them to the packages and assign specific packages to specific user/ guest.

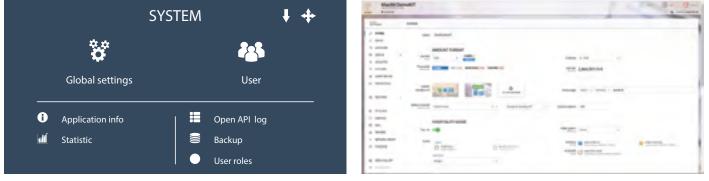
#### **Device module**



Device editor screen.

It gives an overview of the registered devices and provides the tools for administration of devices, their monitoring, remote control or the possibility to assign a new device to room or a guest and define a mode, in which a new device should operate.

#### System module

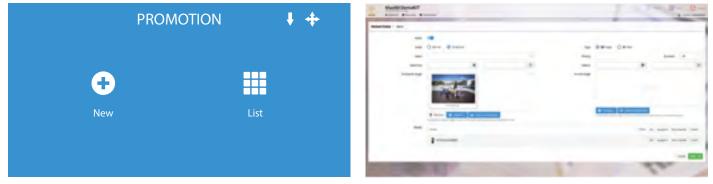


Hospitality mode switch in System Settings.

SYSTEM Module is designed for the management of the system settings within the MaxIM administration panel, including global settings, user, application info, statistic, open API log, backup, and user roles.

#### **Hospitality features**

#### **Promotion module**



Promotion editor screen.

Promotion Module is designed for creating, editing and managing promotions such as event promotions, advertisements, campaigns, special offers, and others. Once created, promotions are then showcased on the digital signage panels, located in public areas in the hotels, companies, etc. It allows to add pictures and videos in most popular formats.

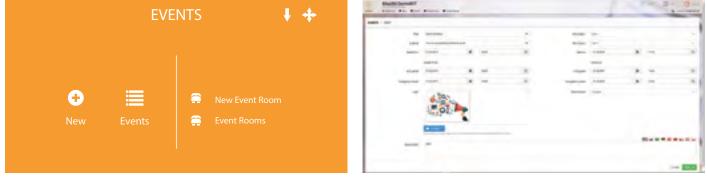
## Facility management module

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Display of assigned tasks to the room.

It provides with the housekeeping solution and you can manage and track cleaning progress in hotel rooms, assign various tasks and manage teams responsible for cleaning process. There are three main features, namely room plan, tasks, and teams which allow you to control the operation of facility management.

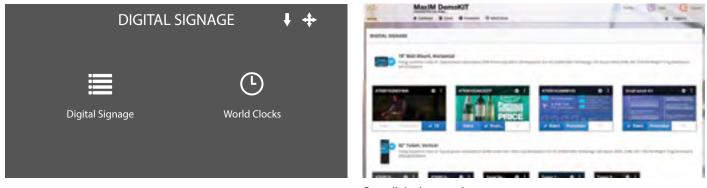
### **Events module**



Event editor screen.

It offers event management solution that helps you to streamline event planning and with this module, you can keep your event management up-to-date, create new events and event rooms, as well as access and edit planned events and event rooms.

## Digital signage module



One click change of screen

DIGITAL SIGNAGE Module is where you find the tools to manage digital signage devices and its metadata. Built-in tools provide an opportunity to set up mode, screen, screen rotation, background, event calendar, navigation to the event rooms, assign promotions, and view or edit the default world clocks.

## Antik Middleware 2.0 GUI



Basic menu

Very fast, clear and easy to navigate.



Archive by genres (Catch-Up TV)

World unique way to access catch-up TV content. All programs are automatically sorted in "VOD style" UI for easy access.



#### **Channel Filtering**

Find the channel of your requirement easier. Now you can filter the channel according to the language, genres, favourites or you can search by a keyword.



#### Cameras

Linear streams from camera sources can be placed in separate category. Support of ONVIF Camera Control Protocol inside GUI.



Archive by channels

Archive is sorted by channels according to the time it was broadcasting.



#### VoD

Complete VOD GUI supported by Antik VOD Server Solution. Choose a movie from the database or search some new in your favorite category. Watch trailers, movie description or rank the movie.



#### Mosaic

Mosaic UI gives end-user chance to watch dozens of channels at once and decide for the favorite one. Delivered by Antik Mosaic generator - low-cost mosaic encoder engine.



#### PVR

Choose program from EPG and record it on HDD or USB in set-top box. Make your own video library and watch your favourite movie whenever you want.



Advertising

Easy configurable advertising layer.



#### Weather

Access to predefined cities weather forecast up to 7 days.





As soon as you will install chosen plugin, it is automatically added to the list of your own channels. You can find them in the main menu, Channels-My channels.



Media Player

Connect STB with PC or USB key and create multimedia center based on DLNA technology. Watch photos, listen to music and watch videos.

## Antik Middleware 2.0



#### SmartHome

Managing your household has never been easier. SmartHome menu offers you to change the temperature in the room, turn on the light, or let you know in case of unwanted visit.



In-menu promotion

Learn about the news we offer by going through menu. If something interests you, order it by one click.

## **Pre-roll advertising**

With Antik ads you can reach potential customers and have them take action before they watch or search for archived channel. It is managed with Digital Video Ad Serving Template (VAST), that is script that gives video players information about which ad to play, how the ad should show up, how long it should last and whether users are able to skip it.







Package order

Now you don't have to go to branch or to call centre if you decide to add a new channel package, you can do it easily from your set-top box.



Product Shop

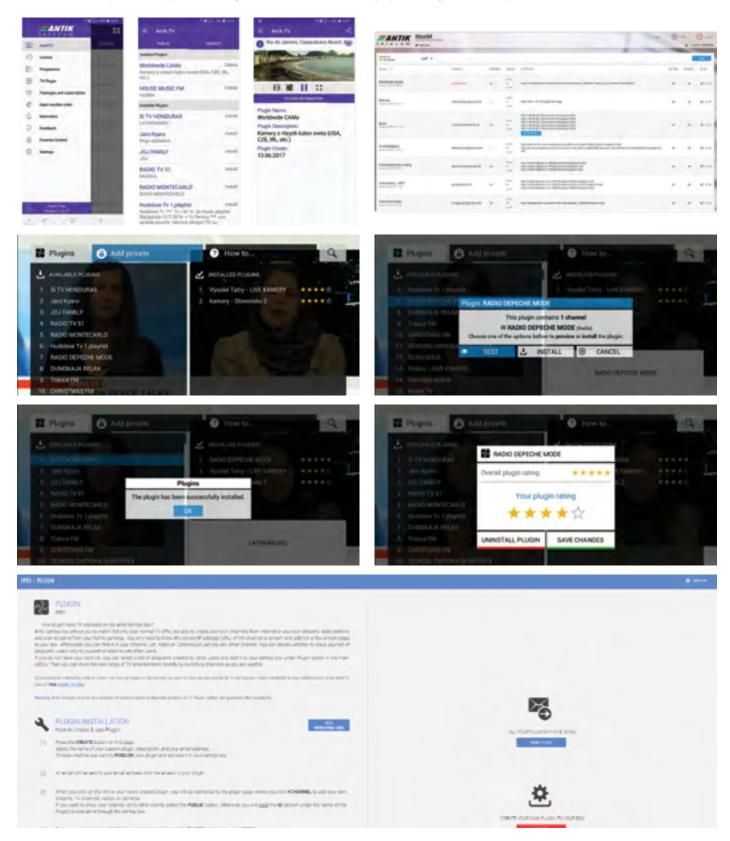
With the menu in set-top box you can comfortably get information, review or buy anything you need, e. g. Smart Home, IT devices, accessories or vouchers etc.

# **TV** Plugin

## **BYOC CONCEPT INSIDE STB**

Antik set-top box allows you to watch not only your normal TV offer, but also to create your own channels from internet or your own streams, radio stations and even streams from your home cameras. You only need to know the correct IP address (URL) of the channel or stream and add it in a few simple steps to your box. Afterwards you can find it in your Channel List, Radio or Camera List just like any other channel. You can decide whether to leave your list of programs visible only to yourself or share it with other users.

If you do not have your own list, you can select a list of programs created by other users and add it to your set-top box under Plugin option in the main MENU. Then you can enjoy the new range of TV entertainment directly by switching channels as you are used to.



# End-2-End OTT TV Delivery platform

## **OTT Streaming - Management - Encryption - VOD - Archive and more!**





Antik brings to your TV operations full mobile Tv solution for your clients smart phones, tablets, TVs and more. Fully integrated to MaxIM Management system it enables unlimited entertainment including linear TV with EPG, catch-up TV, VOD, all secured with 128 bit encryption. Unique Antik TV Plugins add-on gives end-users chance to enhance its channel line-up with its own or internet located linear content. State-of-art live snapshots apps design in channel list is available for iOS phones and tablets, Android phones, tablets, boxes and TVs as well as web-TV app and Apple TV boxes, not to forget Antik Linux set-tops. We provide full service with registration and updates to major application stores. Typical setup includes MaxIM Management System, Antik HEVC transcoders, Antik HLS/MPEG# Live Streamers, Antik Archive and VOD systems.

## Antik TV app

- Antik linear TV
- Catch-up TV
- VOD
- Electronic Programme Guide
- In-app purchase
- TV Plugin: Self-Service end-user channels add-on

#### **Requirments:**

Antik TV for smartphones Android 5 or iOS 9 (smartphone or tablet)

#### Antik TV for set-top boxes and TV

Android Box:

Android 5 and higher 2GB RAM H.264 ++AAC support LAN, WLAN Android TV: Android 5 and higher

Apple TV Box: iOS 10 and higher ATV4

App Store

Android















## Smart TV – Samsung, LG, Hisense:





Android TV:





## Apple TV:



## Web TV:





## Antik Media Streamer

## End-to-End TV Everywhere delivery system.

Antik Media Streamer provides you with end-to-end way to create, deliver secure and manage your local or global content delivery network. It uses robust HTTP Live Streaming (HLS) or MPEG# protocol to reach your customers even in areas with limited quality of public internet.

Thanks to the years of Antik Media Streamer development you can benefit from modules covering all the areas of live streaming, VOD, state-of-art catch-up TV (archive of linear TV) over public internet as well as timezone shifting together with durable fully adjustable replication and mirroring modules combined with stream protection.

Antik Media streamer can be successfully used inside of managed networks of telco operators to provide their customers with interactive OTT content (VOD, catchup TV) as well as for global OTT content providers who can benefit from the robustness of Antik live streaming with mirroring and replication technology to achieve 24/7 access of huge number of users distributed around the world.



#### Free trial on www.antiktech.com

- Antik linear TV
- Catch-up TV
- VOD
- Electronic Programme Guide
- Customer Zone
- In-app purchase
- TV Plugin: Self-Service enduser channels add-on
- Multi DRM integrated

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### **Live Streaming**

- Powerful scalable HTTP Live Streaming Solution for global live content delivery. Ideal for low-speed and unstable access network conditions
  and OTT distribution thanks to state-of-art segment streaming feature.
- Allows unicast streaming using HLS protocol.
- Allows to stream up to 2Gbps of traffic per individual server (based on your server hw e.g. when using 1mbps stream system can serve up to 1000 users simultaneously, increase of streaming capacity is possible).
- Allows to pre-buffer the content into client device memory.
- Fast-zapping support- using burst data transfer which can pre-fill buffer rapidly to decrease zapping time.
- Full recovery of the stream in case of network drop-out (up to 30s) non-visible for the viewer.
- Includes segmenter which push segments into RAM to increase system performance.
- Allows to setup length and number of segments stored in playlist of the server.

3	RUNNING 1.85	S Mbit's	IV MUSIC	OK	10/0	2012-10-16 12:46.01 (43min)
8	NUNNING 1.65	5 Mbit/s	Cacao	OK	10/5	2012-10-16 12.46.01 (43min)
5	RUNNING 1.65	S MUIUN C	Thildren TV	OK	10/5	2012-10-16 12.46.01 (43mirt)

## Catch-Up TV Modul (TV Archive)

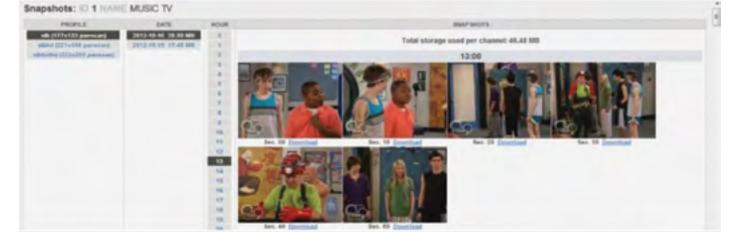
Λ.	chive record	ing				Storage used. 18.9	0 GB Total recording time. 2r	n 26d Remainin	ig line. 2m 2d RX Total. 1.97 Mbl9s
10	STATUS	RX	NAME	PAUSES	STORAGE USED	DAYS ARCHIVED	TODAY INTEGRITY	INTEGRITY	LAST START, UPTIME
1	RUNNING	1.97 Mbit/s	Planico		18.90 GB	2 / 20	GAPS: 20 (36min 13see)	Integrity	2012-10-15 12:45:55 (43min)

- Records all content of the specific stream and allows access to it using EPG information
- Includes segmenter which creates 10s files- directly enables to use HLS protocol for content delivery
- High availability even currently played program can be accessed (less than 2 minutes from original playback time)
- Uses HLS protocol for streaming, so all the features described in Live Streaming can be utilized
- Allows to define time breaks in broadcasting to save space during black screen period
- Large scale archiving (depends on storage capacity)
- Intelligent erasing mode identify oldest records and deletes them to free-up diskspace for new recordings
- Integrity analyser detects content drop-outs and enables them to other CDN components

# DATE	Tabland	STCALGE USED	GAPS	DEVERATED AT
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### **Archive Snapshots Module**

- · Creates snapshots for each video segment which was recorded by Catch-up TV module
- Allows comfortable end-user seeking in archived TV content
- Recorded pictures can be easily used for other Streamer modules
- Different snapshots profiles- profile name, picture size, resize method (LetterBox, Pan&Scan, Fill-in), background color (for LetterBox resize method), picture format
- (gif, bmp, jpeg), picture quality, jpeg compression quality, brighten effect



### **Archive Mirroring Module**

- Archive mirroring from other CDN server to overcome content distribution problems on large distances or variable quality networks when continuous live stream is unavailable
- It can be effectively used to achieve high scalability using mirroring together with Load Balancer Module

### **Streamer and Storage**

It is a module of the Antik Media Streamer which secures placement of the video content and provides it to the client's devices. The content must be prepared in form of a media package, which is an output of the VOD Encoder product. The VOD streamer provides the content through the HLS protocol, which enables a fluent and stable streaming also in slower networks. Thanks to the buffering it is capable of overcoming a short network downtimes without having the client side noticing it. Thanks to a real time streaming, it's not necessary to wait for the download of the whole movie to the client's device. The storage cooperates with the Load Balancer, and thus allows a scaling of the content into multiple servers while increasing the capacity and the load balancing. At the same time, the Load balancer is authenticating client and allowing an access to a secured content. As this module is an application of the Antik Media Streamer, there are all the monitoring functions and tools of this application available.

## Antik Media Streamer

## Video-On-Demand

This is an End-2-End system for a movie content preparation (encoding), storage, balancing the load, streaming and protection. Our robust segment streaming and buffering SW enables you to deliver content even in a lower quality Internet networks. The replication SW enables you to hold the VOD data load under control around-the-clock and ensure a non-stop operation even in the unlucky situation of partial server hosting drop-out. The VOD is the easiest way of watching movies online. The user is able to watch a movie just by a few clicks on his/her remote control. This video content will start immediately, the user doesn't need to wait on the full movie download as it is instantly streamed to the end-devices.

- Searching by the title, year, actor, genre, news and others
- Rate the movies or choose the movie with the highest rating amongst your network
- Filter by date, name, rating
- Virtual keyboard controlled by remote control or IPTV Multimedia keyboard
- Read movie description and watch movie trailer
- In more detailed view of movie description are also displaying similar movies
- Billing system connector

### **GUI and Management**

It is a web based Middleware, which secures the management of the VOD content and presents the user interface for an access to the VOD from the client's device (set-top box). It's able to scale the application on a large numbers of devices. It contains the billing connector module, which enables a secure invoicing for the seen content. It also cooperates with the Load Balancer to enable an immediate playing of a video content straight after a movie has been purchased meanwhile, it reserves the VoD storage capacity.

## **VOD Encoder**

This device encodes the VoD content into the HLS format, so that it can be stored on the CDN servers. It also supports an automated transcoding thanks to a transcoding queue. It offers many supported video formats like .avi, .mp4, .mpg, .and, DVD ISO images and lots of others. The VoD Encoder is easily controlled through the web interface which allows upload of big files into the queue. The Multi user support allows the sharing of the transcoding service. Multiple audio tracks are also supported as well as the DVB subtitles used in the DVD discs.

## Time-Zone Shifting Modul

Tir	nezone shift	ling					Storage used: 174.10 MB RX Total 2.05 Mbit's
ID	STATUS	RX	NAME	PLAYLISTS	STORAGE USED	SEGMENT DUR/CNT	LAST START, UPTIME
1	RUNNING	2.05 Mbit/s	Planko	00:10 OK	174.10 MB	10/5	2012-10-16 12:46:02 (43min)

- Shifts the playback time of live stream
- Modul is targeted to be used in case of streaming to global time zone different than the timezone of content origin
- More shifted streams from one source Allows multiple time off-sets of the same content (TV channel) using the same data to save storage
- Support long playback time off-sets (storage size is the only limit)
- Uses HLS protocol for streaming, so all the features described in Live Streaming can be utilized

## Antik TV Stream Cache

The global TV streams delivery is now even more stable and reliable with the Antik StreamCache System. It secures a good quality linear, timeshifted or archive TV distribution around the world at reasonable costs even to areas with expensive backbone connections.

- Automatically routes stream request to the appropriate
  - cache server based on:

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- Servers utilisation
- Rules
- Routing tables
- Cache servers ingests only streams which are used by at least one end-user device which leads to significant bandwidth savings on channels entered into streamer nearest cache server selection based on IP address group rules (e.g. geography, provider IP block)
- Alternative cache server prioritization based on routing tables enables to create robust redundant content delivery networks
- Multiplatform STBs, mobiles, tablets, PCs as end devices

## Load Balancer

The managing CDN server cluster, checking in periodical intervals and their status, and forwarding clients to each server depending on required service. In case of a failure of a CDN server, the Load Balancer will redirect end customers to a working CDN server. It allows an authentication of the end customer devices and manages the access to the content and services. It contains statistical functions for the analysis utilization rate and the recording data about the watched content for the billing purposes and for the audience measurement. It also contains the monitoring interface for the CDN server cluster surveillance.



# Antik DVB / IP CAS / Scrambling

## Multicast and Cable TV (DVB-C/T/T2) Scrambling System

ANTIKCrypt stream encryption system provides an efficient and secure way of protecting streams, including IP, DVBT/C/S. It can be quickly and easily deployed in existing headend infrastructure. Single Encryption can be utilised in both coax and IP networks.

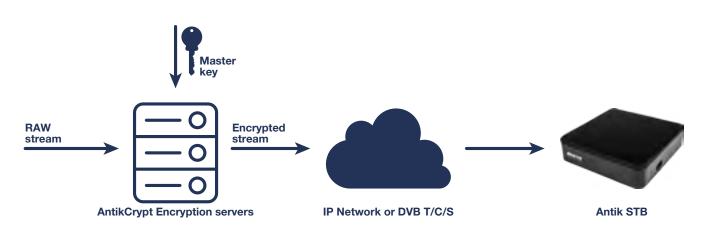
Encryption engine is based on robust Antik Media Streamer platform as its module and it can be easily installed on any virtual or bare metal server, lowering the initial cost.

Encryption is based on a 2-level model, with combination of CAS encryption with fast key rotation, which is further secured with AES256 encrypted master key. ANTIKCrypt player is already embedded ANTIK set-top box FW which provides fast and easy deployment, with minimal configuration.

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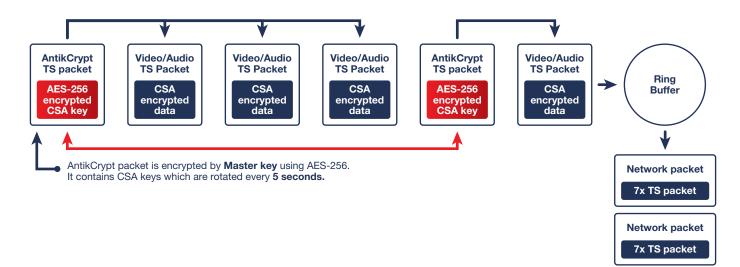
Key Features

- Advanced 2-level encryption based on CSA + AES256 with fast key rotation
- Fast and easy deployment using commodity virtual or bare metal servers
- Suitable for IP, DVB T/C/S
- Player already included in standard ANTIK set-top box firmware



### **Encryption scheme**

Scheme shows 2-level encryption. CSA keys are rotated and transmitted in special TS packets encrypted with AES256 master key.



## Antik KeyRider Scrambling for Unicast/OTT

#### Protection management for your content monetization

Protect your system against unauthorised viewing and dangerous server overflow. Uses strong AES 128 encryption required by content owners.

The Key Server defines keys and assigns them to specific channels. The Key server continuously generates a new version of keys in defined intervals (for each key the interval can be defined independently) - the key rotation. The Media Streamer periodically downloads new versions of keys and enciphers the channels which it finds in the keyserver definitions using a strong AES-128 algorithm. There is a mediaplayer decypher in playlist KeyID for each video segment included. The player asks the KeyServer for the exact key using the http XML request which is protected by an even stronger AES-256 algorithm. The KeyServer either does or does not answer with a key based on the client database. To communicate with the KeyServer each client has been assigned a unique cypher key. In case of compromising the unique end-user device, it is possible to block this device separately, without endangering the whole system. To allow operating with the archive (catch-up TV) the keys are stored on the KeyServer up to one year.

#### System components

- Antik Media Streamer
- Key Server
  - CPE devices:
    - STBs
       Smar
      - Smartphones (iOS, Android, Win8)
    - Tablets
       PC
  - Customer database

## **Key Features**

- Multiplatform solution STB, Android, Win8 and iOS
- Designed for TV Everywhere (OTT) environment
- Using above industry standard AES-128 algorithm -128bit long key!
- Protects live streaming, catchup (archive), VOD and PVR
- Easy to install and operate on standard HW equipment
- AES 256 used for data exchange between servers and devices

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## Antik Monitoring Room - New Version 5.0

#### Software based and cost-effective and high-performance tool for IPTV monitoring

The Antik Monitoring Room is a software based and a cost-effective but high performance IPTV monitoring tool, which displays 1 or more streams on submonitors and controls their quality. Every error is displayed immediately in the Log file, where the admin can see when an incident started, ended, in which input it has occurred and its description (audio, video, blackout, etc.).

## **Brief introduction**

- Software based and cost-effective but high-performance IPTV monitoring tool
- Supports a powerful mosaic overview for multiple services
- Supports various alarm detection to ensure QoE and QoS
- Provides a scalable pricing policy for an easy entry and extension
- UDP, RTSP protocols in format TS, RTSP, RTMP, HTTP streaming, HLS
- SNMP support

The Bluetop MultiViewer is suitable for various types of streaming media IP protocol. It can monitor audio and video alarms, display monitoring results on monitoring wall, which can provide the most effective broadcasting quality guarantee for IPTV/OTT. It supports most of the audio and video coding formats. The Buletop MultiViewer has flexible and convenient layout and configuration function, more suitable for all kinds of application scenes, and it is using GPU decoding technology, greatly improve the decoding efficiency.

## **Key Features**

- Dual output resolution up to 1920 x 1080
- Video decoding: MPEG-1, MPEG-2, MPEG-4, H.264, H.265, AVS/AVS+
- Audio decoding: MPEG1, MPEG2, MPEG2 AAC, MPEG4 AAC, MPEG4 HE-AAC, AC-3, Dolby 5.1, DRA
- IP source: UDP, RTSP, RTMP, HTTP, HLS
- Resolution: SD, HD
- Detections: Freeze frame , black , color bar , audio loss, video loss, loudness
- Alarm: 1 OSD(on-screen visual alarm )2 Alert tone 3 Database records 4 SNMP traps
- Log: <u>1</u> Alarm log storage <u>2</u> Query by time/ program name /error type
- Round-robin;
- Audio waveform spectrum;
- Layout too:
  - Provide templates for quick launch
  - Customization template with which customer could draw rectangles flexibly
  - Support both analogue and digital clock
  - Support GIF picture and customized text
  - Support main TV wall and secondary TV wall
  - Encode: Support single program encode output and full screen encoding
    - (Video: 352\*288, 720\*576, 1280\*720, 1920\*1080 Audio: AAC MP3)

## **Other Features**

- Web based control
- Layout tool provide templates for quick launch, also customization template with which customer could draw rectangles flexibly
- Support both Analog and digital Clock
- Support GIF picture and customized TEXT
- Support main TV wall and secondary TV wall
- Support round-robin
- Multiple rotating mosaic screens



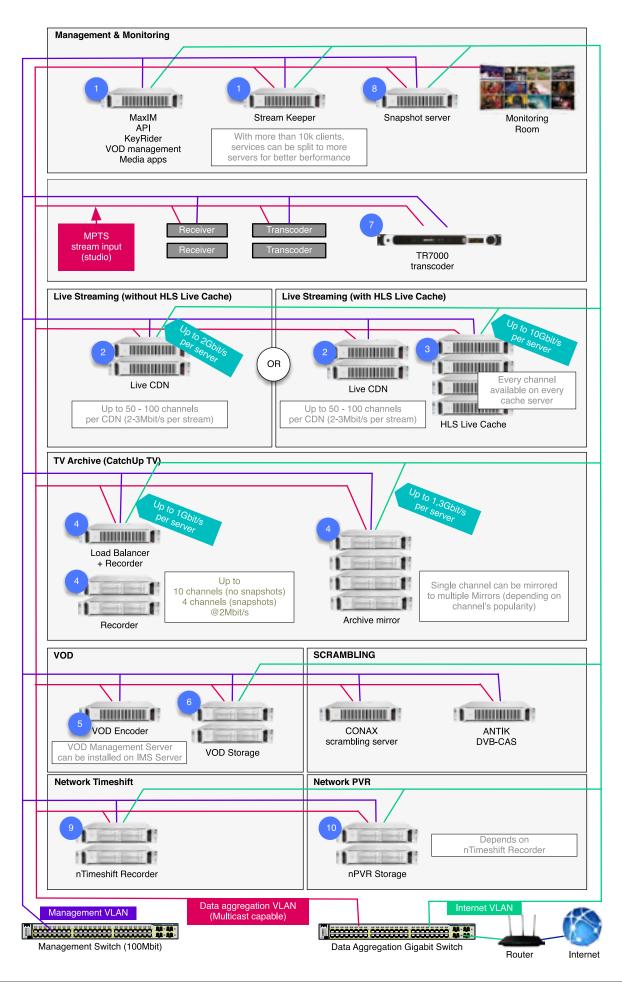


## Antik Stream Keeper

Multicast Parallel testing for maximum speed. With default settings, StreamGuard can test 10 channels simultaneously in 3 seconds. That means 200 channels in one minute. Specified number of retries while channel is marked as offline/warning can minimize small network-related problems. Self-monitored Ajax Web-based client application allows to remotely monitor one StreamGuard probe from many locations, or monitor more StreamGuard probes in one or more locations. Web application contain indicators of browser-server connection and server process status. Channel status history tracks all status changes for downtime analysis. Sound alarm to indicate any stream downtime. Automatic channel import/synchronization from your channel database using standard XML format.



## Server Schematics and Configuration



Minima	al or low-cost setup		Recommended commercial use (high performance and date integrity)	
Warning using th			Tested server (guaranteed compatibility): HP DL 160G8 / DL 360G8 / DL380G8 RAID (if needed): P410 or P420	
F F	CPU: Intel Core i5 RAM: 4GB IDD: 1x 100GB SATA Ethernet: 100Mbit SS: Linux Debian 8 64bit	Up to 1000 users	CPU: Intel Xeon Dual / Quad Core RAM: 8GB HDD: 2x 300GB SATA or SAS (recommended) RAID: LSI Megaraid od HP P4XX or compatible Ethernet: 1x 1Gbit/s OS: Linux Debian 8 64bit	
F F	CPU: Intel Core i5 AM: 8GB IDD: 1x 100GB SATA Ethernet: 1Gbit/s SS: Linux Debian 8 64bit	Up to 20 channels	CPU: Intel Xeon Dual / Quad Core RAM: 16GB HDD: 2x 100GB SATA RAID: Software Ethernet: 1x or 2x 1Gbit/s OS: Linux Debian 8 64bit	Up to 100 channels
F F	CPU: Intel Core i5 RAM: 8GB IDD: 1x 100GB SATA Ethernet: 1Gbit/s SS: Linux Debian 8 64bit	Up to 500 streams	CPU: Intel Xeon Quad Core RAM: 32GB HDD: 2x 100GB SATA Ethernet: up to 10Gbit/s OS: Linux Debian 8 64bit	Up to 5000 streams
F F	CPU: Intel Core i5 AM: 4GB IDD: 1x 500GB SATA Ethernet: 1Gbit/s SS: Linux Debian 8 64bit	Up to 4 channels 50 streams	CPU: Intel Xeon Quad Core RAM: 8GB HDD: 8x 300-900 GB SAS 10k RPM RAID: LSI Megaraid or HP P4XX with 512MB cache or compatible Ethernet: up to 2x 1Gbit/s OS: Linux Debian 8 64bit Note: If snapshots are enabled, 4 channels are recommended per one Quad Core Xeon	Up to 10 channels 500 streams
F F	CPU: Intel Core i5 RAM: 2GB IDD: 1x 500GB SATA Ethernet: 100Mbit DS: Linux Debian 8 64bit		CPU: Intel Core i5 / i7 /Xeon RAM: 2GB HDD: 1x 1TB SATA RAID: optional OS: Linux Debian 8 64bit	
F H E	CPU: Intel Core i5 RAM: 4GB IDD: 1x 500GB SATA tihernet: 1Gbit/s DS: Linux Debian 8 64bit	Up to 50 streams	CPU: Intel Xeon Dual Core RAM: 8GB HDD: min. 8x 500GB - 1TB SATA RAID: LSI Megaraid or HP P4XX with 512MB cache or compatible OS: Linux Debian 8 64bit	Up to 500 streams
F F	CPU: 1.4GHz RAM: 2GB HDD: 30GB Graphic Card: support DirectX 9.0c OS: Microsoft Windows 7 Ult. 32/64bit		CPU: 1.4GHz RAM: 2GB HDD: 30GB Graphic Card: support DirectX 9.0c OS: Microsoft Windows 7 Ult. 32/64bit	
F H	CPU: Intel Core i5 RAM: 8GB IDD: 1x 100GB SATA Ethernet: 1Gbit/s DS: Linux Debian 8 64bit		CPU: Intel Core i7 / Xeon RAM: 8GB HDD: 1x 100GB SATA OS: Linux Debian 8 64bit	
F F F	CPU: Intel Core i5 RAM: 4GB HDD: 1x 100GB SATA Ethernet: 100Mbit DS: Linux Debian 8 64bit	Up to 10 channels 50 output streams	CPU: Intel Core i7 / Xeon RAM: 16GB HDD: SSD 500GB (SATA or PCIExpress) OS: Linux Debian 8 64bit	Up to 50 channels 500 output streams
F F	CPU: Intel Core i5 RAM: 4GB IDD: 1x 500GB SATA Ethernet: 100Mbit DS: Linux Debian 8 64bit	Up to 400 hours of video 50 output streams	CPU: Intel Core i7 / Xeon RAM: 16GB HDD: 20TB SATA RAID or External SAN Storage OS: Linux Debian 8 64bit	Up to 1700 hours of video 500 output streams

## Server Schematics and Configurations

## Antik TR 6265 Transcoder

#### HiDensity IP-to-IP HEVC FullHD transcoder



New ANTIK Hi-Density HW Transcoder is great for telco-grade IP-to-IP FullHD H.265 transcoding for all operators and OTT providers scenarios.

## **Key Features**

- MPEG2
- MPEG4 part2
- H.264/AVC
- AVS

## **Video Encoding Specifications**

- H.265 MP@level 5 main tier and H.264BP/MP/HP@level 4.2 video encoding
- maximum 12 x 1080p @ 30 fps or 24 x 720p @ 30 fps encoding
- VBR or CBR mode
- Low-delay endocing
- Encoding of multiple ROIs

## Transcoder TR6265 interface

#### **Video Encoding Specifications**

- H.265/HEVC (Main/Main 10 profile @ level 5.1)
- H.264/AVC (BP/MP/HP @ level 5.1)
- MPEG 4/2/1, VC 1/WMV9, VP8/VP6, AVS, REAL 8/9/10, DivX 3/4/5/6 and some other legacy codecs

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## Trancoder TR6265 task configuration

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## **Detailed specifications**



## ITU-T H.265 Main Profile @ Level 5 main-tier encoding

- Motion compensation with 1/2 or 1/4 pixel precision
- Three prediction unit (PU) types (32 x 32, 16 x 16, 8 x 8) for intraframe prediction
- Two PU types (16 x 16, 8 x 8) for intra-frame prediction
- Skip mode and merge mode with a maximum of two candidate points to be merged
- Three transmission unit (TU) types (16 x 16, 8 x 8, 4 x 4)
- Context-adaptive binary arithmetic coding (CABAC) entropy encoding
- De-blocking (DB) filtering
- Sample adaptive offset (SAO)
- Inter-Precessor Communications Module (IPCM) encoding

## ITU-T H. 264 High Profile/Main Profile/Baseline Profile @ Level 4.2 encoding

- Motion compensation with 1/2 or 1/4 pixel precision
- Two sub-block types (16 x 16 and 8 x 8) for inter-frame prediction
- Prediction modes of intra 4 x 4, intra 8 x 8 and intra 16 x 16
- Rans 4 x 4 and trans 8 x 8

### Support for multiple input image formats

- Semi-planar YCbCr4:2:0
- Planar YCbCr4.2.0

- CABAC and context-adaptive variable-length coding (CAVLC) entropy
- encoding DB filtering
- **IPCM** encoding
- Package YUYV

### 1080p @ 30 fps H.265/H.264 multi-stream encoding Configurable image resolutions

- Minimum image resolution: 128 x 128 (H.265) or 256 x 128 (H.264)
- Maximum image resolution: 1920 x 2048

## Region of interest (ROI) encoding

- Encoding of at most eight ROIs
- Separate enable/disable control of the encoding function for each ROI

- Image width or height step: 2

## Antik TR 6265M Transcoder + Streamer

### IP-to-IP FullHD HEVC Adaptive Bitrate Transcoder + HLS/MPEG# Streamer



New ANTIK Hi-Density HW Transcoder is great for telco-grade IP-to-IP FullHD adaptive bitrate H.265 transcoding with MPEG# streaming output

## **Key Features**

- up to 24 chanels/1U unit
- SoC HW transcoding system with very low power consumption
- MPEG2
- MPEG4
- H.264/AVC
- AVS

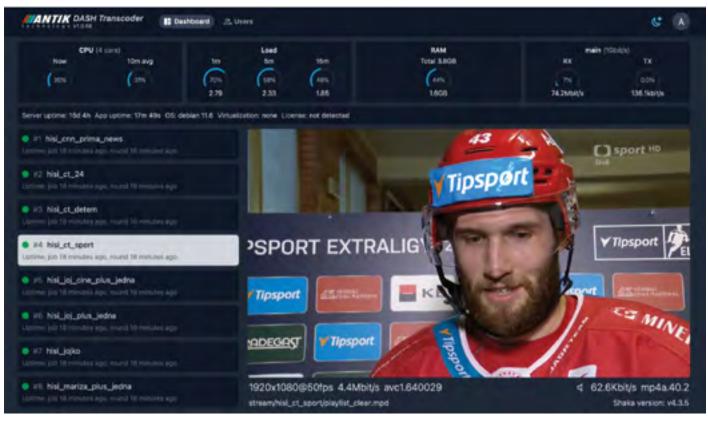
## Video Encoding Specifications

- H.265 MP@level 5 main tier and H.264BP/MP/HP@level 4.2 video encoding
- maximum 12 x 1080p @ 30 fps or 24 x 720p @ 30 fps encoding
  VBR or CBR mode
- Low-delay endocing
- Encoding of multiple ROIs

## Video Encoding Specifications

- H.265/HEVC (Main/Main 10 profile @ level 5.1)
- H.264/AVC (BP/MP/HP @ level 5.1)
- MPEG 4/2/1, VC 1/WMV9, AVS, REAL 8/9/10, DivX 3/4/5/6 and some other legacy codecs

## Transcoder TR6265M Control Panel



## **Detailed specifications**



## ITU-T H.265 Main Profile @ Level 5 main-tier encoding

- Motion compensation with 1/2 or 1/4 pixel precision
- Three prediction unit (PU) types (32 x 32, 16 x 16, 8 x 8) for intraframe prediction
- Two PU types (16 x 16, 8 x 8) for intra-frame prediction
- Skip mode and merge mode with a maximum of two candidate points to be merged
- ITU-T H. 264 High Profile/Main Profile/Baseline Profile @ Level 4.2 encoding
- Motion compensation with 1/2 or 1/4 pixel precision
- Two sub-block types (16 x 16 and 8 x 8) for inter-frame prediction
- Prediction modes of intra 4 x 4, intra 8 x 8 and intra 16 x 16
  Rans 4 x 4 and trans 8 x 8
- Support for multiple input image formats
- Semi-planar YCbCr4:2:0
- Planar YCbCr4:2:0
- 1080p @ 30 fps H.265/H.264 multi-stream encoding Configurable image resolutions
- Minimum image resolution: 128 x 128 (H.265) or 256 x 128 (H.264)
- Maximum image resolution: 1920 x 2048

#### **Region of interest (ROI) encoding**

- Encoding of at most eight ROIs
- Separate enable/disable control of the encoding function for each ROI

- Three transmission unit (TU) types (16 x 16, 8 x 8, 4 x 4)
- Context-adaptive binary arithmetic coding (CABAC) entropy
   encoding
- De-blocking (DB) filtering
- Sample adaptive offset (SAO)
- Inter-Precessor Communications Module (IPCM) encoding
- CABAC and context-adaptive variable-length coding (CAVLC) entropy encoding
- DB filtering
- IPCM encoding
- Package YUYV
- Image width or height step: 2

## **Antik** GX 6000

## **Digital Contents Processing Platform**

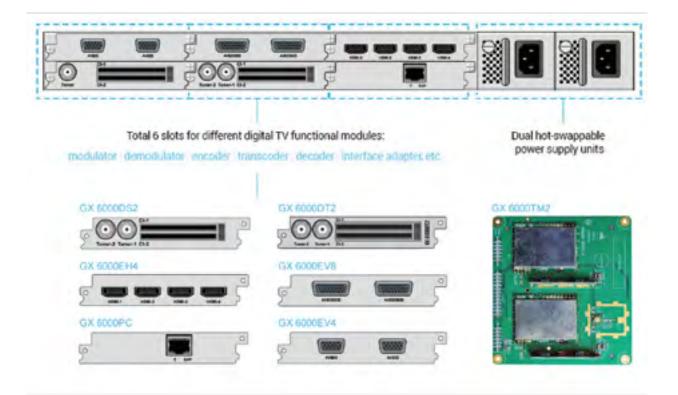


GX 6000Pro brings compact, costeffective and flexible solutions that allow the users to build or update the CATV or DTV or IPTV headend to meet a variety of requirements of today's new network architecture. GX 6000Pro is a 1 U platform which has six independent input modules and two extended modulator modules. these modules can be configured individually to the encoder, demodulator, descrambler or modulator. This full function device makes it ideal for small CATV or DTV or IPTV headend system, and it is a smart choice for hotel TV system, entertainment system in sports bar, hospital, apartment and so on.

## **Key Features**

- A variety of functional modules to build flexible headend combinations
- 6 Input modules and 2 modulating modules (factory option)
- PSI/SI editing and PI remapping
- MPTS/SPTS outputs over UDP/RTP

- Support demodulating, descrambling, encoding, remux, TS over IP and modulating function
- Dual hot-swappable power supply modules
- Web management



#### GX 6000DS2

#### Tuner

- RF Input: DVB/S/S2/S2X
- Type: F × 2, 75Ω
- Input Frequency: 950 ~ 2150MHz
- Input Level: -65dBm ~ -25dBm
- Symbol Rate: DVB-S2X/S2 QPSK 8PSK: 1~60MSps 16APSK: 1~58 MSps 32APSK: 1~55 MSps 64APSK: 1~34 MSps DVB-S QPSK: 1~54 MSps

#### **GX 6000DT2**

#### DVB-T

- Input: DVB-T
- Type: F ×2, 75 Ω
- Input Frequency: 42 ~ 1002 MHz
- Input Level: -60 dBm ~ -20 dBm
- Symbol Rate: 1.8 ~ 7.2 MSps
- Constellation: QPSK, 16QAM, 64QAM
- Bandwidth: 6 MHz, 7 MHz, 8 MHz
- FFT Mode: 2k, 8k
- FEC Code Rate: 1/2, 2/3, 3/4, 5/6, 7/8
- Guarding Interval: 1/32, 1/16, 1/8, 1/4
- Input Return Loss: 7 dB (typ.)

#### GX 6000EH4

#### Video Compression

- Input: HDMI ×4
- Compression Standard: H.265 MP, H.264 BP&MP (Default)
- Sampling Format: YCbCr 4:2:0
- Video Resolution & Recommend Compression Bit Rate (H.265): 1080P (1920 × 1080) @50 Hz, 60 Hz SMPTE274M:3 ~ 7 Mb/s 1080i (1920 × 1080) @25 Hz, 29.97 Hz SMPTE274:3 ~ 7 Mb/s 720P (1280 × 720) @50 Hz, 59.94 Hz SMPTE296M: 3 ~ 7 Mb/s
- 720P (1280 × 720) @25 Hz, 29.97 Hz SMPTE296M: 3 ~ 7 Mb/s
- Video Resolution & Recommend Compression Bit Rate (H.264): 1080P (1920 × 1080) @50 Hz, 60 Hz SMPTE274M:3 ~ 7 Mb/s 1080i (1920 × 1080) @25 Hz, 29.97 Hz SMPTE274:3 ~ 7 Mb/s 720P (1280 × 720) @50 Hz, 59.94 Hz SMPTE296M: 3 ~ 7 Mb/s 720P (1280 × 720) @25 Hz, 29.97 Hz SMPTE296M: 3 ~ 7 Mb/s

#### **GX 6000EV8**

#### Video Compression

- Input: CVBS ×8
- Coding Standard: H.264 BP&MP (Default)
- Sampling Format: YCbCr 4:2:0
- Video Resolution & Recommend Compression Bit Rate (H.264): 480i (720 × 480) @29.97 Hz SMPTE656M: 2 ~ 4 Mb/s 576i (720 × 576) @25 Hz SMPTE656M: 2 ~ 4 Mb/s

#### **GX 6000PC**

- Type: RJ45 10/100 Base-T
- Data Protocol: UDP, SRT, WebRTC
- Max. Effective Bit Rate: 70 Mb/s

- Roll Off Factor DVB-S QPSK: 0.35 DVB-S2 8PSK: 0.35, 0.25, 0.2 DVB-S2X: 0.35 0.25 0.2 0.15 0.1 0.05
- LNB Polarity Voltage: 0, 13 V, 18 V
- LB Band Selection: 0/22 KHz
- DiSEqC: DiSEqC 2.0
- PLS: 0 ~ 262141
- ISI: 1 ~ 255

#### **TS Processing**

- TS Input: Tuner1, Tuner2
- TS Output: TS over IP
- Common Interface: PCMCIA, DVB-CI ×2
- CI Monitor: Yes

#### **TS Processing**

- Type: F ×2, 75 Ω
- Input Freguency: 42 ~ 1002 MHz
- Input Level: -60 dBm ~ -20 dBm
- Symbol Rate: 1.8 ~ 7.2 MSps
- Constellation: 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- Bandwidth: 6 MHz, 7 MHz, 8 MHz
- Input Return Loss: 7 dB

#### **TS Processing**

- TS Input: Tuner1, Tuner2
- TS Output: TS over IP
- Common Interface: PCMCIA, DVB-CI ×2
- CI Monitor: Yes

#### Audio Compression

- Connect Type: Embedded
- Coding Standard: MPEG1 Layer II,
- MPEG-2/AAC/HE-AAC (V1, V2)
- Sampling Rate: Passthrough
- Recommend Compression Bit Rate: MPEG-2/4 AAC-LC: 32/48/64/128/192 Kbps MPEG2/4 HE-AAC (V1, V2): 32/48/64/128/192 Kbps

#### **Audio Compression**

- Coding Standard: MPEG1 Layer II,
- MPEG-2/AAC/HE-AAC (V1, V2) Sampling Rate: 11.25/12/16/22/24/32/44.1/48 KHz
- Recommend Compression Bit Rate: MPEG-2/4 AAC-LC: 32/48/64/128/192 Kbbs MPEG2/4 HE-AAC(V1, V2): 32/48/64/128/192 Kbps
- SRT: Caller, Listener, Rendezvous UDP, Multicast, IGMPv2
- Protocol Convert: UDP to SRT, SRT to UDP, WebRTC to UDP

## **Encoders / Transcoders / Modulators**

## Antik MX 5318 Receiver

## 8 x Tuner DVB-T/T2/C/S2/ISDB-T

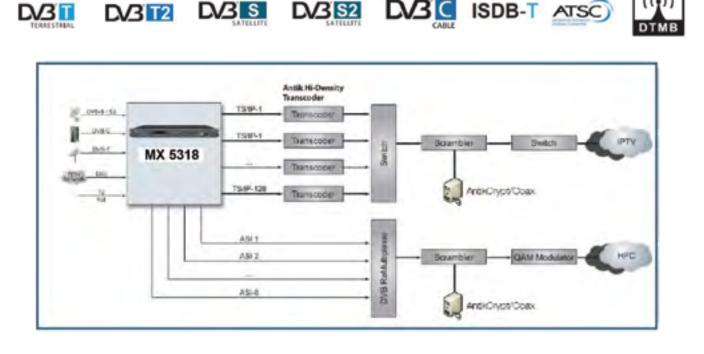


The MX-5318 is a high-density, modular and CI decryption professional TS processor equipped with 8 independent tuners, which can be any of the DVB-T/ T2, DVB-S2/S, DVB-C, DTMB, ISDB-T or ATSC type. It supports a wide range of application by combining 8 tuners processing capability with industry standard outputs including ASI and TS/ IP. The MX-5308 has 8 DVB common interface slots capable of working with the most of the well-known CAS in the market to de-crypt multiple pay TV services.

The MX-5308 provides operators with an ideal solution for multi receiving, remultiplexing, descrambling and TS over IP operations, the compact 8 tuners and the powerful 8 CI decryption design which makes it one of the most competitive products in the head-end market.

## **Key Features**

- 8 x Tuners Input, Supports variety of input options DVB-T2/T/ S2/S/C/DTMB/ATSC/ISDB-T
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T2 Multi PLP and SFN MIP pass through
- Built-in TS re-multiplexer receives from ASI, CI Slot1 to CI Slot8 and TS/IP inputs
- 8×DVB-CI Slots, multi-program decryption, BISS-1 and BISS-E decryption
- 8xASI output the transport stream from CI Slot1 to CI Slot8 or BISS
- 1xchannel full duplex TS over IP or 9xchannels IP out without IP input
- Remote Control and Supervision by SNMP v2, HTTP WEB and Proprietary HDMS software
- On Site software update through IP or USB
- RSSI, received signal strength, Eb/N0, C/N and BER monitoring
- Redundant power supply





## **Specifications**

#### **DVB-S/S2 Tuner Input (ISI Factory Optional)**

- Connector Type 8×F type female 75Ω for Input •
- Input Frequency Range 950 ~ 2150MHz Input Level -25 ~ -65dBm Symbol Rate 2 ~ 45MBaud • •
- •
- Roll-off Factor (DVB-S QPSK: 0.35/DVB-S2 8PSK: 0.35, 0.25, 0.2)
- FEC Code Rate:
- DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8

#### **DVB-C Tuner Input**

- Connector Type 8×F type female 75 $\Omega$  for Input .
- Input Frequency Range 51 ~ 862MHz Input Level 51~75dBµV .
- Symbol Rate 1~7MBaud (ITU J.83 Annex A)

#### **DVB-T/T2 Tuner Input**

- Connector Type 8×F type female 75Ω for Input •
- Input Frequency 104 ~ 862MHz (VHF/UHF) Input Level -20 ~ -70dBm
- •
- Constellation (DVB-T: QPSK, 16QAM, 64QAM/DVB-T2: QPSK, 16QAM, 64QAM, 256QAM Bandwidth 6MHz, 7MHz, 8MHz
- FFT Mode DVB-T: 2K, 8K •

#### **DTMB Tuner Input**

- Connector Type 8×F type female 75Ω for Input .
- Input Frequency Range 46.5~866MHz
- Input Level -87~-29dBm
- Symbol Rate 7.56MBaud
- Bandwidth 6MHz/7MHz/8MHz

#### **ATSC Tuner Input**

- Connector Type 8×F type female 75 $\Omega$  for Input
- Input Frequency Range 54~864MHz Input Level -75~-7dBm(ATSC 8VSB) •
- Symbol Rate 10.762MBaud

#### TS Processing

- TS Input Management Demux and Remux among ASI, TS/IP and CI Inputs •
- TS Output Management Demux and Remux for ASI output Service and PID Management Service and PID level for Remux, filtering and
- remapping

#### **ASI Output**

- Connector Type 9 independence BNC female, 75Ω,
- Standard DVB-ASI, EN50083-9

#### **ASI Input**

- Connector Type 1×BNC female,  $75\Omega$
- Standard DVB-ASI, EN50083-9

#### TS over IP

Connector Type 1×RJ-45, 100/1000 Base-T Effective Bit Rate 200Mb/s for 9 channel IP out without IP in and IP channel 1 to IP channel 8 just pass through the TS from CI or BISS, the IP channel 9 can output the TS from ASI in or Remux. 80Mb/s for full duplex 1 channel

#### Alarm

Connector Type 1×D-sub 9 male

#### Control and Monitoring

- Connector Type 1×RJ-45, 10/100 Base-T,for equipment IP Control Remote Control SNMP, HT T P (Web Interface), Proprietary HDMS (Headend
- Device Management System)

#### **Physical**

- Dimension 44mm x 255mm x 430mm
- Weight 3 5kg
- Power Supply AC 90V ~ 250V, 50/60Hz Power Consumption 30W (exclusive of LNB power)

#### Certification

- EMC: .
- EN 55024:1998+A1:2001+A2:2003. •
- EN 55022:2006+A1:2007, • EN 61000-3-2:2006,
- EN 61000-3-3:2008

- DVB-S2 QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9,9/10
- DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9,9/10
- LNB Polarity Selection Voltage 0, 13V, 18V selectable LNB Band Selection Tone 0/22KHz selectable • .
- Satellite Selection Command DiSEqC 1.0
- ISI ID 1 ~ 255 user configurable
- .
- Constellation 16QAM, 32QAM, 64QAM, 128QAM, 256QAM Bandwidth 6MHz, 7MHz, 8MHz
- Input Return Loss 7dB (typ.)
- DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
- Guarding Interval
- DVB-T: 1/4, 1/8, 1/16, 1/32 • DVB-T2: 1/4, 5/32, 1/8, 5/64, 1/16, 1/32,1/64, 1/128
- FEC Code Rate
- DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8
- DVB-T2: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 •
- . Input Return Loss 7dB (typ.)
- Constellation 4QAM-NR,4QAM,16QAM,32QAM,64QAM .
- Guard Interval PN420, PN595, PN945 •
- Roll-off Factor 0.05 •
- Interleaving Depth 240,720 .
- FEC Code Rate 0.4, 0.6, 0.8 .
- Constellation 8VSB •
- Roll-off Factor 0.115
- Bandwidth 6MHz
- PSI/SI PSI/SI table regeneration, NIT and SDT edition, LCN Edition and Re-generation .
- Descrambler DVB Common Scrambling Algorithm (CSA) BISS Mode BISS-1, BISS-E
- Common Interface 8 x PCMCIA slots, compatible with major CA CAMs in the market .
- Output Bit Rate ≤ 200Mb/s
- TS Processing 8xASI out pass through the TS from CI 1 to CI8, 1xASI Out from Remux .
- Input Bit Rate ≤100Mb/s
- Connector Type 1×BNC female, 75Ω
- Protocol UDP / RTP, Multicast / Unicast, IGMPv3, ARP
- Switching Condition User Defined •
- Local Control LCD display and 6-key keypad
- Serial Port 1×RS-232 D-sub female, for debug use only .
- Equipment Upgrade Embedded FTP loader, Telnet and http •
- Operating temperature 0~45°C •
- Storage temperature -10~60°C .
- Operating Humidity 10~90%, non-condensed •
- FCC: .
- Part 15 Class B • LVD: .
- EN 60950-1:2006 + A11:2009

## Antik EN 8000 Encoder

4/8-way Integrated Encoder HDMI/SDI/CVBS



ANTIK EN 8000 consists of two 4-way (total 8) H.264 / MPEG-2 encoder modules, TS reMultiplexer. All encoders are real time and independent operated. Each encoder accepts one stereo program through its HDMI (HD or SD) input, or CVBS(SD) Input. These programs encoded are multiplexed onto one Transport Stream (TS). The essential PSI/SI tables of the TS, including LCN (Logical Channel Number), are generated automatically and are editable by user. This TS Stream is also available through the TS/IP port on the front panel with 3 modes: Full Duplex, 128 IPTV & 32 IPTV with 2 RJ-45 ports. EN-800 is accommodated in a standard 1U x 19 rack mountable chassis.

## **Key Features**

- Compliant with H.264/AVC HP@L4.0 & MPEG-2 MP@ ML
- Supports MPTS & SPTS, Re-multiplexed integrated
- Total bitrate up to 400Mb/s at 128 IPTV Mode
- Total bitrate up to 200Mb/s at 32 IPTV Mode with both RJ-45 port
- Total bitrate up to 80Mb/s at Full Duplex Mode

- HD/SD Video Resolution: 1080p, 720p, 576i, 480i
- MPEG1-L2, MPEG-2/4 AAC-LC/HE-AAC Audio Encode
- Remote control/monitoring with SNMP and HTTP/Web
  interface
- Two Redundant Power Supplies

## **Back Panel Interface**

#### EN-8000-82H



#### EN-8000-42H



#### EN-8000-82C



#### EN-8000-42C



## **Specifications**

#### Video

- Input Interface: HDMI, type A (EN8000, HD/SD) RCA, 75Ω (8100, SD)
- Encode Standard: H.264/AVC HP@L4.0&MPEG-2 MP@ML (EN8000, HD/SD) H.264/AVC MP@L4.0&MPEG-2 MP@ML (8100, SD)
- Chrominance Sampling Format: 4:2:0
- Video Resolution & Recommend range for H.264: 1080i(1920x 1080)@25Hz, 29,97Hz, 30Ht: SMPTE274M: 1~13Mb/s 720p(1280x720)@25Hz,29,97Hz,30Hz:SMPTE296M: 1~13Mb/s
- 480i(720x480)@25Hz:SMPTE656M:600K~10Mb/s 56i(720x576)@25Hz:SMPTE656M:600K~8Mb/s
- Video Resolution & Recommend range for Mpeg2: 480i(720x480)@25hz:SMPTE656M:3,5~8Mb/s 576i(720x576)@25Hz:SMPTE656M3,5~8Mb/s
- Other Output Resolution: Manually enter, Arbitrarily
- Aspect Ratio: 4:3 or 16:9, configurable

#### TS/IP, Mode 3: 32 IPTV Output from two RJ-45 port

- Standard: IEEE 802.3, 10/100/1000 Base-T
- Maximum Bit Rate: 200Mb/s
- Data Encapsulation: UDP, RTP, SPTS or MPTS
- Protocol: ICMP, ARP, IGMPv2/v3

#### **Rear panel**

- HDMI IN: HDMI (see model list) x 8
- CVBS & Audio IN: RCA, 75Ω (see model list) x 8

#### **Front panel**

- Control: RJ-45, 100/100 base-T x 1, USB x 1
- TS/IP: RJ-45X2, 10/100/1000 Base-T x 2; 1Back up Output only
- Display: 2 x 16 LCD module

## Back Panel Interface

#### Audio

- Input Interface:
- HDMI, x8 or RCA x 8 pair Encode Standard:
- Encode Standard: MPEG1 Layer II MPEG-2/4 AAC-LC, HE-AAc (V1,V2)
- Sampling Frequency: 48KHz
   Encoder Bit Rate Range MPEG1 Layer II:32~192Kbps (Mono), 64~384Kbps (stereo) MPEG2/4AAc-LC:24~256Kbps(Mono), 48~512Kbps (Stereo) MPEG2/4 HE-AAC(V1/V2): 16~128Kbps (Mono), 32~256Kbps (stereo)

#### TS/IP, Mode 1:Full Duplex, Single TS in Single TS out

- Standard: IEEE 802.3, 10/100/1000 Base-T
- Maximum Bit Rate: 80Mb/s in + 80Mb/s out
- Data Encapsulation: UDP, RTP, SPTS or MPTS
- Protocol: ICMP, ARP,IGMPv2/v3

#### TS/IP, Mode 2: 128 IPTV Output Only

- Standard: IEEE 802.3, 10/100/1000 Base-T
- Maximum Bit Rate: 400Mb/s
- Data Encapsulation: UDP, RTP, SPTS or MPTS
- Protocol: ICMP, ARP,IGMPv2/v3

#### Others

- Inpt AC Voltage Range: AC100~ 260V 50/60Hz
- Operating Temperature: 0~40°C
- Storage Temperature: -10~60°C
- Operating Humidity: 10~90%, Non-condensed

	Description	Encoder input	Encoder Way	TR/IP (Full Duplex/ IPTV Output)	Audio Encode (AAC)
01	EN-8000-82H	HDMI	8	Y	Y
02	EN-8000-42H	HDMI	4	Υ	Υ
03	EN-8000-80H	HDMI	8	Ν	Υ
04	EN-8000-40H	HDMI	4	Ν	Υ
05	EN-8000-82C	CVBS & Audio	8	Υ	Ν
06	EN-8000-42C	CVBS & Audio	4	Υ	Ν
07	EN-8000-80C	CVBS & Audio	8	Ν	Ν
08	EN-8000-40C	CVBS & Audio	4	Ν	Ν
09	EN-8000-82S	SDI	8	Υ	Υ
10	EN-8000-42S	SDI	4	Υ	Υ
11	EN-8000-80S	SDI	8	Ν	Υ
12	EN-8000-40S	SDI	4	Ν	Υ

## Antik Nano 4



Pure IP or IP&DVB box for ISP/OTT/Hospitality



## **Key Features**

- CPU Quad-core Amlogic S905X4
- GPU Mali-G31 MP2
- AV1, HEVC codec support 4K@60fps
- Performance 21000 DMIPS
- Bluetooth remote control

## **Back Panel Interface**



Nano 4 OTT



Nano 4 S (DVB-S2+IP)





Nano 4 T (DVB-T2+IP)



Nano 4 - 4 PORT (side panel)

Nano 4 Giga

### **Set-top boxes**

### **Side Panel Interface**





Nano 4 C/T (DVB-C2/T2+IP)



### Video

- AV1/VP9 (10-bit)
- H.265/HEVC (10-bit)
- H.264/AVC
- MPEG-1/2/4
- VC-1/WMV
- AVS+/AVS2
- MJPEG

### Audio

- MPEG-1/2 (layer I/II)
- MP3
- AAC (HE-AAC v2 Profile)
- FLAC, Vorbis

### Streaming

- MPEG-2 transport stream
- Multicast or Unicast
- TS over UDP
- TS over RTP
- HTTP streaming
- RTSP (with trick play support) for VoD
- Teletext and subtitles
- IGMP v2 & v3
- HLS

### Inputs/Outputs

- HDMI 2.1
- AV conector (CVBS, L+R audio)
- TOSLINK (S/PDIF optic digital audio output)
- 4× RJ45 (Ethernet 1000BaseTx)/1× RJ45 (Ethernet 100BaseTx)
- 1× USB 3.0 + 1× USB 2.0 (side panel)
- external IR sensor
- Antenna RF input (optional)

### **Technical Specification**

- Dimensions 115mm × 115mm × 32mm (without packaging)
- Power Consumption 6W
- Power Input 12V/1.5A DC
- Power Adaptor 100 240V/50 60Hz AC
- Operating Temperature 0°C to 45°C
- Operating Humidity 8% 95% (non-condensing)

### CAS/SCRAMBLING/DRM

- AntikCrypt
- Conax
- Widevine

### **Software Integration**

- Operating system Linux 3.18/4.4
- Copy Protection HDCP 2.2
- Ekioh SVG integrated

www.antiktech.com

### Middleware

• ANTIK MaxIM Middleware 2.0

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Accessories (optional)

- Remote control
- Cable AV adapter (only on selected models)
- Input power adapter
- HDMI cable
- Batteries
  - User manual
  - Extended IR2 cable (only on selected models)

### **Application**

- Telco IPTV
- Hotel IPTV
- OTT IPTVDTH
- DTH
   Digital Signad
- Digital Signage

### Hardware

- CPU: Amlogic S905X4 4× CortexA55
- GPU: Mali-G31 MP2
- DRAM: 2GB (DDR4-2666)
- Flash: eMMC 16GB
- Embedded Wi-Fi 802.11 ac/b/g/n (2.4/5GHz, 1×1, 433M, BT 4.2)
- Embedded TUYA Zigbee gateway
- DVB-S/S2/T/T2/C tuner (optional)
- Modem

### Bluetooth for the most convenient control





# Antik TV Stick







### **Key Features**

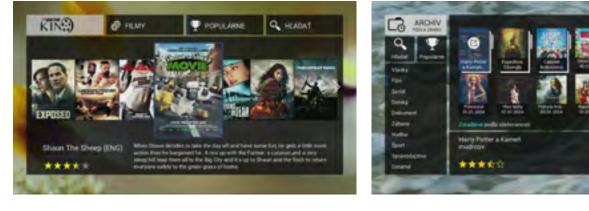
- CPU Amlogic S905Y4 4× Cortex A35
- GPU Mali-G31 MP2
- AV1, HEVC codec support 4K@60fps
- Performance 21000 DMIPS
- Bluetooth remote control

### **User Interface**



Electronic programme guide (EPG)

Weather forecast



**Movie section** 

TV archive by genre

### **Specifications**

### Video

- AV1/VP9 (10-bit)
- H.265/HEVC (10-bit)
- H.264/AVC
- MPEG-1/2/4
- VC-1/WMV
- AVS+/AVS2
- MJPEG

### Audio

- MPEG-1/2 (layer I/II)
- MP3
- AAC (HE-AAC v2 Profile)
- FLAC, Vorbis

### **Technical Specification**

- Dimensions 86 mm × 25 mm × 11 mm (without packaging)
- Operating system Linux
- Power Input 5V/1A USB-C

### Accessories (optional)

- Bluetooth remote control
- Input power cabel USB-A/USB-C
- Batteries
- User manual

### **Application**

- Telco IPTV
- Hotel IPTV
- OTT IPTV
- Digital Signage

### Hardware

- CPU: Amlogic S905Y4 4× Cortex A35
- GPU: Mali-G31 MP2
- DRAM: 2 GB (DDR4-2666)
- Flash: eMMC 16 GB
- Built in Wi-Fi 802.11 ac/b/g/n (2.4/5 GHz, 1 × 1, 433 M, BT 4.2)

### Bluetooth for the most convenient control





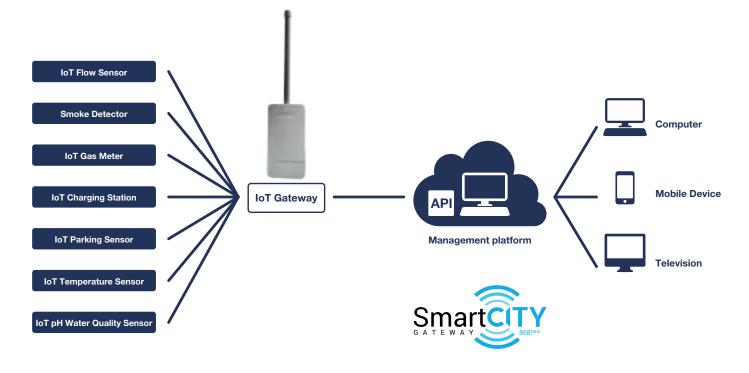
# End-2-End IoT/SMART City Platform



The need for smart city solution has been mandated by urbanization and growing importance of information and communication technologies. Beside it is improving the quality of citizens life, Smart City is also future enabler in accelerating economic growth.

Smart City rely on everything being connected to each other. Antik's portfolio of smart city products use digital, informational and communication technologies and it ranges from traffic and waste management optimisation of energy consumption to home and public safety.

Antik Technology's solutions are in the hands of its own inhouse research and development team that is responsible for software development (sensor firmware, back-end cloud management, API interface to 3rd parties front-ends) and hardware design - IoT Gateways and sensors itself. Besides own production we offer professional consulting services.



# Antik SmartCity Network Infrastructure Gateways

Antik SmartCity Infrastructure brings to your community everything need to upgrade it to SMART level. Durable Antik LoRaWAN Transmitters, Management Platform and easy integration to any 3rd party system covers the city or region with unbeatable data connection for all ultra-narrow-band scenarios for incredible costs.

### **Benefits**

- Large coverage with low CAPEX
- Quick network roll-out
- 10 years lifetime of sensor without battery change
- Ideal for areas without power grid and data networks



### **ANTIK SCN 10**

- Omnidirectional LoRaWAN Transmitter
- Gigabit ethernet Interface to connect to Antik SmartCity cloud

### **Key Features**

- 802.3af PoE powered, typical consumption 10W
- Mast mount, IP54 enclosure
- Omnidirectional +3dBi antenna
- 470/868/915MHz frequency bands
- Support 8 channels
- Sensitivity -142dBm
- Output power up to 23dBm
  Range up to 15km (line of sight)
- Operational temperature range -40 to 80°C



### ANTIK SCN 20

- Omnidirectional LoRaWAN Transmitter
- Solar power and battery
- 3G/4G modem to connect to Antik SmartCity cloud



### **Cloud Management System**

It categorizes all elements of the network (sensors based on clients or projects).

- Seamlessly enable collected data via state of art API
- API allows to flexible integrate and 3rd party analytic or processing software or visualization platform such as smartphone, tablets, PC's or digital signage

All data are pre-processed for visualisation or control databases. Various authorization options. High level of security on the way from sensors to cloud, inside cloud and on delivery to 3rd party applications. Each device uses its own keys, it is authenticated by QR code which after authorization by system the devices are allowed to communicate with cloud.

### Key Features

- Compact design
- Smart measurement
- Borderless usage flexibility
- Close to zero power consumption
- No service operation
- Smart dependences definition across devices
   Network Monitoring System

# Consulting

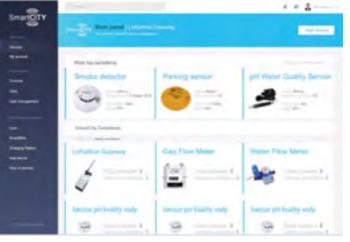
- IoT Rollout strategy
- IoT network Topology Plan
- Strategies for integration 3rd parties hardware design
- IoT software Analyzes
- PoC various option for piloting and proofed concepts

### **SmartCity User Interface**

Monitoring and managing cities is more seamless with the new user interface for management system released by Antik Technology. The system offers help to customers with tracking traffic conditions, monitor energy usage, check water quality and even predict when certain assests- such as lifts and water pumps are due to.

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### AntikLoRaWAN Tester

Antik LoRaWAN Tester is a practical device to measure SmartCity/IoT availability



# **Use** Cases

### **Transparent parking**

The parking sensor has a wide usage Besides directing a driver to the nearest parking space you can ensure that ruthless driver won't occupy the access roads for fire brigades or VIP parking lot.

### **Traffic Light Control**

With low cost of Antik SmartCity Network operation you can easy control city-wide traffic light system from centralised location.

### Simplify traffic flow

If there is reconstruction on the roads, so city has to close the streets, road signs can easily advice drivers days and hours when it is closed. It will also navigate them where to go.

### More Accurate control of Air Pollution

You can monitor and analyse important parameters of the air as temperature, humidity, dust, CO, CO2 and others. The low costs of Antik SmartCity sensors and network operation enables your city to monitor environment at street level to deliver to your citizens precise information.

### Improved data collection for better air quality monitoring

Sensor are easy to install and so cheap to run that an entire city can be covered, enabling dozens of metrics to be tracked such as humidity, temperature, air quality and more. With increased availability of data, it's easy to build interactive, real-time mapping of air pollution and improve pollution prediction.

### Waste Management

A full or overturned container won't surprise you anymore. In that event it will immediately sends alert to company responsible for collection. It presents double victory, satisfied citizen and effective company that can follow the history and effectively plan replacing of container according the needs.

### **Optimized refuse collection routes**

Collection routes can be optimized to save time, energy and money with low-power connected sensors that indicate the level of waste in dumpsters. The sensors also provide valuable data about dumpster usage, emptying cycles and more.

### **Smart Cameras**

Cameras can secure that your parking lot won't be occupied by anybody else. If it detects car with another vehicle licence number it will notify you and the police.

### Safety on the Streets

Make sure, that objects are at their places. E. g. you can control, if the hatches or fire protection equipment haven't disappear or the cables are not dropped and so increase the safety. In case abnormal movement happens, sensor sends notification, so you can arrange quick action.

### **Collect consumption data effortlessly**

Put an end to manual on-site meter readings and data-processing of water, gas and electricity consumption. You can now monitor and optimize your remote assets in real-time, detecting issues such as leaks and breakdowns. Service companies can also automate billing and remotely activate and deactivate services. IoT enabled meters can transmit data immediately with no pairing or configuration required and no need to replace or recharge batteries for years.

### **Tap Water Monitoring**

Water is irreplaceable, so we have to monitor the quality of water. Sensor is suitable for monitoring water, chemical leakage detection, water pollution, corrosion prevention and sedimentation, evaluation of quality condition for aquatic animals and plants.









### End-2-End IoT/SMART City Platform

# SmartCity Elements

### **Parking sensors**

Antik LoRaWan parking sensor, the solution for Smart Cities that allows citizens to detect available parking spots. Antik LoRaWan parking sensor monitors parking lot uses high sensitivity geomagnetic sensor, which measures all changes of magnetic field above the sensor. The device is manufactured in two variants: 1.surface mount variant – easy to deploy, no need to dig holes to the road surface 2. buried variant – need hole in road surface, takes little more time to deploy, but final solution is more robust and resistant against winter time road maintenance.

### **Street Light Module**

To manage street lighting is important part of modern smart cities. Antik LoRaWan Street light control unit brings way how to control lights using LoRaWan protocol. Module has IP68 coverage and standard ANSI C136.41 connector. Device uses DALI protocol to control LED lamp driver. There is also embedded energy meter to measure actual and longtime consumption of whole lamp. GPS module provides exact time information for scheduled operations. Ambient light sensor provides information for autonomous operation depend of actual lights conditions.

### Industry sensors platform

Antik LoRaWan Industry sensors device is platform to collect data from standard industry sensors powered from 12 to 24V equipped with RS485 bus and MODBUS communication protocol. Device is designed to be powered from primary lithium batteries or with solar panel rechargeable batteries. Device is able to read-out data form multiple sensors and transmit collected data in configurable interval. Typical types of sensors: Temperature, Pressure, Water quality (PH sensor, Dissolved Oxygene sensor), Ultrasonic water level sensors etc.

### **Trash Bin Sensor**

One of the key role for "Smart City" is to find the efficient way how to get rid of the trash to maintain clean city. Antik LoRaWan Trash Can monitor, uses ultrasonic sensors to detect level of trash in waste bin. Sensor can be used for waste management company to plan optimal path for trash collecting cars.

### **Temperature and Humidity Sensor**

Antik LoRaWan Temperature and Humidity sensor is designed for outdoor and indoor use. It uses very precise digital sensor with 0.1°C and 0,5% RH resolution. Industrial enclosure provides IP54 coverage rating. Internal lithium battery guarantees sensor life time up to 10 years.

### Wall Plug Smart City

SmartCity Wall Plug is remotely controlled devices with you can easily detect in case of power is down. It also measures the power consumption, so you can see what has the highest consumption.

















# SmartCity Elements

### **Power Meter**

Precise certified smart powermeter with LoRaWAN transmission.



Antik LoRaWan Gas Metering device is designed to count pulses from pulse output of gas meter. Gas meter status is periodically transmitted.

### Indoor Air Quality Sensor

Fully autonomous device which measures temperature, humidity, CO2 and aromatic particles in the air. Equipped with low consumption eINK display and longlife battery.

### Water Level Sensor

Antik LoRaWan Water level sensor monitors level of water in rivers, lakes or other water reservoirs. Sensor sends alert in case water reaches maximum level.

### Water Meter

Antik LoRaWan Water Metering device is designed to use with pulse output water maters. Device counts pulses from two independent water meters. Water meters status is periodically transmitted.







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# Antik Charging Station

Considering scarce energy resources and increasing pollution concerns, interest in use electric vehicles also increases. As people need to find the way to keep their cars on the move, Antik brings a new charging management platform, billing and variety of chargers.



Power Socket Nano-E



Charging station E-Chiron-X



Charging station E-Chiron Signage

Charging station type	EVSE mode 1	EVSE mode 3	EVSE mode 3
Charging connector	1x CEE 7 / 4 16A	1x 22kW AC Type 2 / 4 16A	1x / 2x IEC Type2
Maximum output	3,6kW	7,4W/22kW	7,4W/22kW
Connectivity	LoRaWAN/NB-IoT	LoRaWAN/NB-IoT	4G/Ethernet
User interface	LED	LED	55 ich LCD
Operating temperatures	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Electrical connection	1 x 16A	3 x 32A	3 x 63A
Protection rating	IP66	IP54	IP54
Built in 230V outlet	Yes	Yes	Yes
Electric car	-	Yes	Yes
Electric bike	Yes	Yes	Yes
Electric motorbike	Yes	Yes	Yes
Complies with regulations for MH SR grant for electric chargers for municipalities	-	Yes	Yes



SCC-EV-DC-180M



SCC-EV-DC-120

Specific input voltage	380VAC ± 15%	380VAC
Output voltage	200-500/350-700VDC	200-500/350-700VDC
Output power	30kW, 60kW, 120kW, 180kW	30kW, 60kW, 120kW
Input frequency	50Hz ± 10%	50Hz ± 10%
Short-circuit protection	Yes	Yes
Overheat protection	Yes	Yes
Battery discharge protection	Yes	Yes
IP Rating	IP55	IP54
Working temperature	-25°C ~ 55°C	-25°C ~ 55°C
Ambient humidity	90°C	90°C

**E-mobility** 

# **E-mobility**

L250

FERTRO

# **Antik Smart Mobility**

### Everything you need to lanch your own sharing today

ANTIK Technology® paves the way for a future of mobility which is smarter, more efficient and importantly, emission-free. We provide an entire mobility-sharing solution for your company's specific fleet requirements that includes custom charging infrastructure, customised e-vehicle fleet, a personalized mobile app, and a management backend.



Custom-tailored full package solution



### EMOBILITY FLEET

City Bike Sharing City E-bike Sharing Mountain E-bike Sharing E-scooter Sharing E-moped Sharing E-motorcycle Sharing Canoe & Kayak Sharing



### CHARGING INFRASTRUCTURE

ECHIRON-X CHARGING STATION ECHIRON-T CHARGING STATION ECHIRON-SIGNAGE EV CHARGING STATION NANO-E 230V POWER SOCKET POWERBANK SHARING



App Store

Google play

### CUSTOMIZED APP

We develop a personalized end-to-end APP that incorporates a payment gateway. Choose your colors, artwork, language, vehicle types and charging infrastructure.



AppGaller

### ADMINISTRATIVE BACK-END

Cloud application Device monitoring, fleet tracking & remote control, maintenance management, operational data statistics, secure connection, pricing & tariffs, manage notifications, analytics & reporting etc.

# **Antik Smart Mobility**

**Select your vehicles** 



### Your brand, your colors, your visibility

Custom ANTIK City Bikes are designed for a small, medium or large scale bike sharing schemes where reliability and low-maintenance characteristics are essential. We design, develop and build the type of mobility sharing you're looking for, from private city bike sharing schemes for businesses and corporations, to public city bike sharing for major city systems. Request a quote for a personalized ready-to-go, super-stylish and maintenancefree fleet that your customers will fall in love with, today.

- Delivery
- Sharing
- Security

### Customizable elements of the bike

- Choose your base color
- Your brand's logos
- Smart 4G lock
- Custom artwork and design











### **X-sharing Software Platform**

# **Antik Smart Mobility**

### Custom sharing App

The overall appearance of the APP, as well as the main features, are customized to best reflect the brand of your business. Amaze your customers with a wide range of innovative features and an elegant, intuitive user interface.

### Features:

- QR scan function
- Secure on-line payment
- Map of vehicles and charging stations
- User profile settings
- Ride history and payment history
- Subscriptions charges

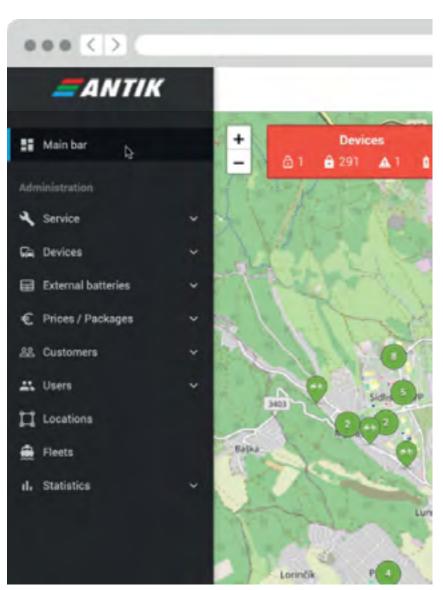


# **Back-end managing software and API**

### Administrative back-end

Cloud application, device monitoring, fleet tracking & remote control, maintenance management, operational data statistics, secure connection, pricing & tariffs, manage notifications, analytics & reporting etc.

- Admin panel dashboard
- Manage your fleet
- Track your fleet
- Manage users
- Manage promotions
- Manage notifications
- Manage pricing and tarrifs
- Analytics and reporting




### **ANTIK Hospitality Suite**

# Antik Hospitality Suite



- Guest room interactive TV
- Event navigation
- Digital Signage
- Guest APP
- Housekeeping management

### Top-level entertainment for you guests

- Crystal clear HD/4K TV channels
- Welcome screen
- All guest services on TV screen
- Hotel bill, Food ordering, Messaged and more
- On-demand movies
- Catch-up TV
- Content Management System
- Internet apps + Mediaplayer
- Quick setup
- Weather
- Sightseeing info

### **New!**

SAMSUNG TV EN Hospitality app for Stb-less experience!



Validated Integration

Oracle Hospitality

### HD/4K TV, latest entertainment options, top guest experience

Antik Hospitality delivers easy to set-up turnkey head-end and room premises equipment for live TV integrated with all premises related services and entertainment options. Using Antik HD set-top boxes you can be sure about future-proof media solution fulfilling highest guest expectations.

### **All-Property Content Distribution**

Single system to manage and deliver advertising, information, upsell and public awareness information throughout the property. All your conference rooms rented to major event organizer? With one button click distribute their promos to all your public premises displays, even show it during boot-up of guest rooms TV sets. Major sport event during dinner time? Easy switch your display remotely to specific liveTV channel while displaying your corporate client ads or upsell promo other times of the day.

### All Guest Services on TV screen

Antik Hospitality IPTV brings all your hospitality offers on your guests TV Screen. 24/7 available, easy understandable multilanguage interface increases the chance to sell your food service, relaxation, sightseeing and business guest products. All easy to setup and modify without any need of complicated coding or development.

### **Top-Notch Fun Features**

Perfect to keep your guest entertained any time of the day. Latest HD movies, local sightseeing information, or using USB mediaplayer to allow guests to view latest pictures from the busy day spent on attractions mediaplayer to share hotel entertainment database or guests USB storage to allow them to view latest pictures from the busy day spent on attractions. Instant access to web browser and most viewed apps - youtube, facebook, etc.

### **IPTV Management Server MaxIM**

The Antik Technology presents a professional cost-effective SW solution for a seamless management of your Antik set-top box and Mobile Application network. MaxIM is the corner stone of Antik Middleware Server Family. You can easily define your channel packages, configure all or only selected customers' STBs, collaborate with other part of the Antik Server Family such as Antik Archive Servers, Antik Mosaic Servers and VoD servers. The MaxIM management server SW can be easily connected to your billing or to the customer care application, so that your users' set-top boxes will be automatically activated and monitored using the same software your employees are familiar with.

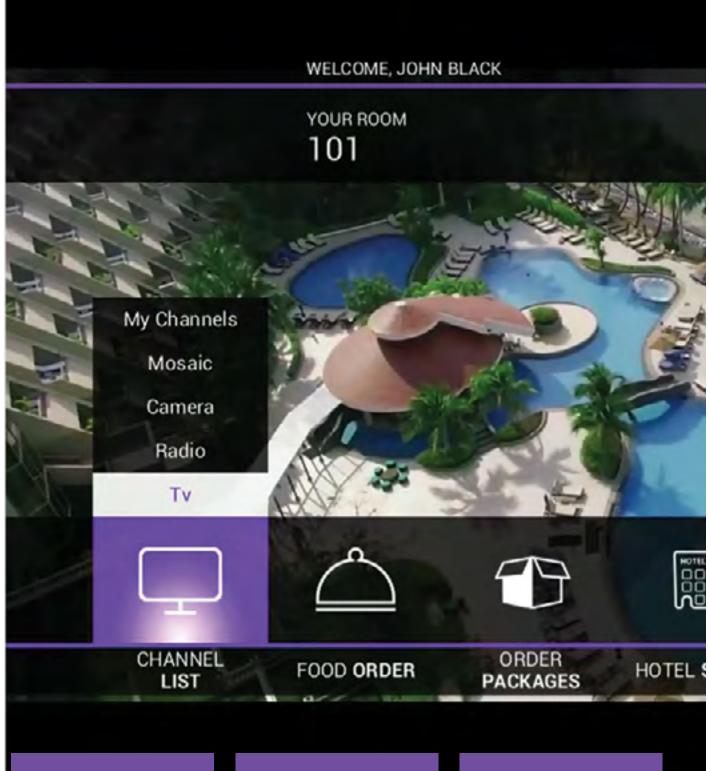
- In-room TVs
- Lift displays
- Restaurant TVs
- Lobby&Public Premises
- Outdoor Displays
- Conference Premises Screens











### Main Menu

Easy to navigate customisable interface with direct access to food delivery, video on demand, my bill and other upsell and crosssell options.

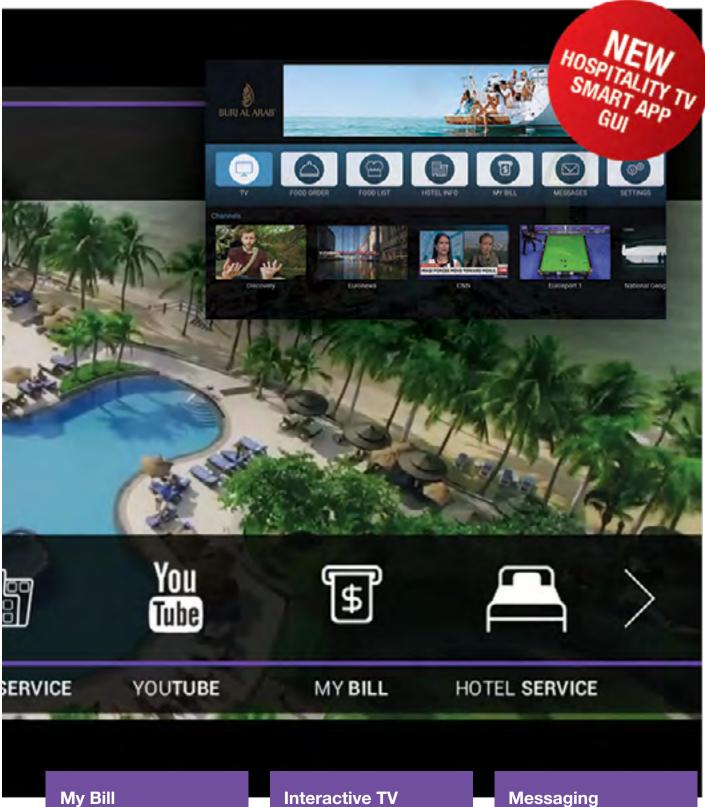
### **Food Delivery**

All your room-service offer is now available via guest TV set. The only thing that a guest has to do is select food option and confirm by OK button. All guest requests appear on reception dashboard or in your hotel system instantly.

### **Hotel Services**

Hotel can easily add or remove its products and services - from wakeup calls, through massages, restaurant or tours reservations to taxi orders. Everything is managed by content management system and the result appears without any intermediary work on guests TV sets.

### **NEW Hospitality TV Smart App GUI**

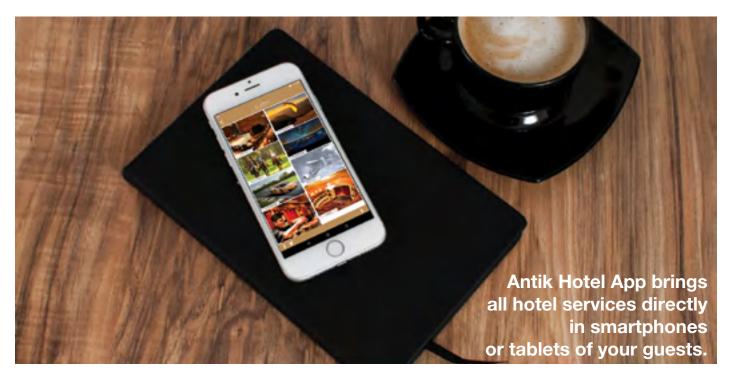


Thanks to integration with your hotel PMS, all guest orders ordered through IPTV or other hotel departments will appear on one simple table for guest to review before check-out.

UHD TV, Electronic Program Guide, timeshifted TV and movies on demand all on your guest room screens. Media Player, web access and internet apps will complete the guest experience.

All messages from reception appear on TV screens immediately. Older messages are stored in guests inbox on TV, notifications as well as scrolling messages are available too.

# Antik Hotel App



Immediate response to all requests of your guests to make sure they are comfortable, without appearing invasive and compromising their enjoyment of their stay is a must. Earn your bonus in the form of increased customer engagement and revenue growth!

- Mass messages
- Orders
- Reception services
- Live chatFeedback

# Antik Hotel App has the solution

### Maximize guests' spending

Upsell your services and earn additional revenue from services provided by hotel.

### Gather guests' feedback

Learn how guests feel about your hotel and its services and eliminate negative reviews.

### Address your guests in real time

No posters, no brochures. Communicate with your guests immediately.

### **Build long-term relationship**

Address your guests after check-out and make them come to your hotel again!

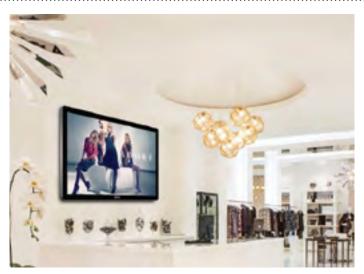
- Social networks
- After stay promotion
- Language selection
- Staff efficiency



# Antik Digital Signage Solution

**Comprehensive Multimedia Advertising Delivery System** 







### Key Features

- Complex advertising delivery system
- Combination of live TV streams with standard multimedia designing components available
- Large variety of indoor & outdoor LED TV panels
- Low power consumption
- HD & Full HD resolution
- Low operational costs

TV and many years in IPTV, we created low-investment and low operational costs LED panel system controlled by state-of-art ANTIK DS Management System MaxIM. You can either upload ready to publish campaign delivered by your advertising clients or build your own campaign. To design the campaign, all standard multimedia components can be used – pictures, music, video (even in combination with live TV channel broadcasting) all mixed with many eyecatching effects.

TV panels itself are controlled by low-power Antik DS set-top boxes. In comparison to Intel PC based panels, in each project you save significant investment money, not mentioning dramatically lower power consumption and quiet operation (no fan on set-top box necessary).

### **ANTIK Digital Signage**

### Totem 55" vertical indoor

Typical power consumption: 250 W Screen size: 139 cm (55") Inputs: HDMI, CVBS, DVI, TOSLINK Weight: 95 kg Dimensions: 2040 x 960 x 350 mm

**Use Cases:** 4Hotel Lobby, conference centres Navigation, Shopping Mall Corridors Advertising



### Leaflet holder 26" vertical indoor

Typical power consumption: 65 W Screen size: 66 cm (26") Inputs: HDMI, CVBS, DVI, TOSLINK Weight: 50 kg Dimensions: 1850 x 750 x 610 mm Use Cases: Retail Shops, Exhibition Stands



### Totem 55" dual-screen outdoor

Typical power consumption: 600 W Screen size: 139 cm (55") Inputs: HDMI, DVI, VGA, USB Weight: 220 kg Dimensions: 880 x 300 x 1950 mm Use Cases: Office/Public Building Entrances, Public Places Advertising



### Wall-mount 10"/19" horizontal panel indoor

Typical power consumption: 35 W Screen size: 25 cm (10")/( 48 cm (19") Inputs: HDMI, CVBS, DVI, TOSLINK Weight: 11 kg Dimensions: 467 x 315 x 42 mm Use Cases: Conference Room Schedule, Office Corridors Navigation



### Totem 42" vertical indoor

Typical power consumption: 240 W Screen size: 106 cm (42") Inputs: HDMI, CVBS, DVI, TOSLINK Weight: 70 kg Dimensions: 2005 x 805 x 350mm Use Cases: Hotel Lobby, Conference centres Navigation, Shopping Mall Corridors Advertising



### Totem 47" single-screen outdoor

Typical power consumption: 120 W Screen size: 119 cm (47") Inputs: HDMI, DVI, VGA, USB Weight: 150 kg Dimensions: 800 x 230 x 1800 mm Use Cases: Office/Public Building Entrances, Public Places Advertising



### Totem 55" single-screen outdoor

Typical power consumption: 600 W Screen size: 139 cm (55") Inputs: HDMI, DVI, VGA, USB Weight: 220 kg Dimensions: 880 x 300 x 1950 mm Use Cases: Office/Public Building Entrances, Public Places Advertising



### Wall-mount 42" horizontal panel indoor

Typical power consumption: 240 W Screen size: 106 cm (42") Inputs: HDMI, CVBS, DVI, TOSLINK Weight: 38 kg Dimensions: 1075 x 335 x 150 mm Use Cases: Retail shops Advertising, Hote Lobby Navigation



# Antik Event Navigation System

State-of-Art digital content delivery system to improve your vision experience

### **Key Features**

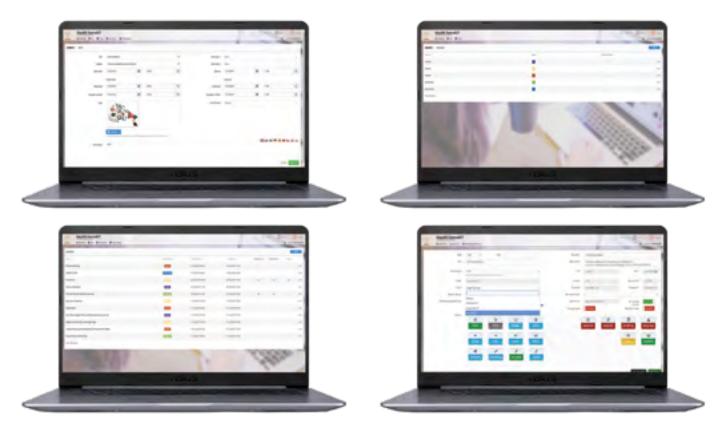
- Flexible event plan •
- Variety of visual ter •
- Easy adaptable to y •
- **Remote control of**
- Mixed digital signa • roles
- Indoor and outde • screens
- Weather info, world • metadata

### Content Manageme

Manage the information dis panels. Make sure you guidance to be on time point. Easy operation enal update.

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### Event planning tool



### Remote screen control



One-click change of screen role



# **Variety of templates**

### Navigation totem



### Room entrance daily schedule

# 24 ° STRUSS Image: Strugger S

### Room entrance screen



### Room entrance with advertising



### Vertical navigation screen

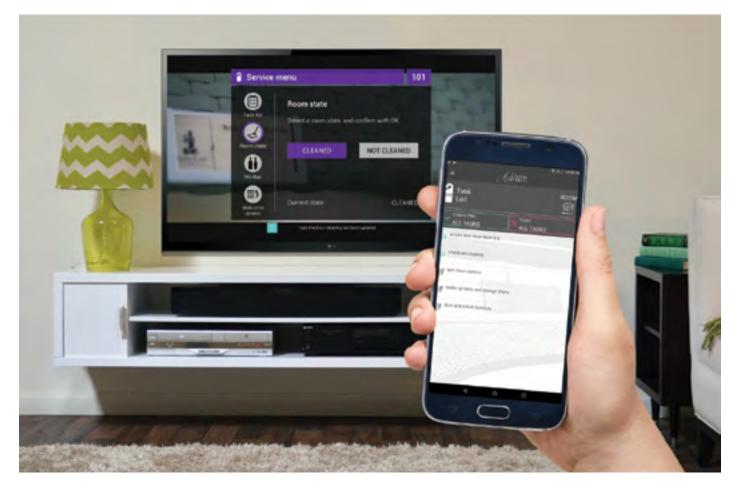


### Vertical navigation totem combined with advertising



# Antik Housekeeping and Facility Management

Smart cleaning and maintenance under control-anywhere



Antik Housekeeping and Facility Management helps you to bring your guest satisfaction to another level. Fully integrated to your PMS, system check data about room occupancy and based on your own predefined templates creates every day cleaning tasks – automatically! It allows you to copy typical chambermaids room allocation from any day from the past to simplify your morning routines. Due to the system flexibility you can add manual tasks anytime. On the simple dashboard you can follow, what is the cleaning and inspection status of the rooms. System automatically reports to PMS when the room is done, so next guest can be checked-in quickly – without unnecessary waiting in the lobby. Your inspectors and managers can overlook the situation from any place as the interface is easily readable on tablets or any other smart devices – no need to return back to the office. Based on your selection, housekeepers can confirm their tasks either on guest room TV sets or via smartphone applications. SOS button for chambermaids to bring attention in unusual situations.

### **Key Features**

- Automated housekeeping tasks planning tool
- Personnel task allocation cloning to simplify daily routines
- Daily tasks status under control in dashboard
- Repeating cleaning tasks templates definition tool
- Fully integrated to major PMS
- Room maintenance tasks queues
- PC, Tablet, SmartPhone and TV apps for managers, inspectors, maintenance and housekeepers



Validated Integration

**Oracle Hospitality** 

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### **ANTIK Housekeeping and Facility Management**

### Roomlist



My room plan

### My room plan 2



### Room detail



### Room plan settings



### Teams of cleaners and maintenance



### Housekeepers Service menu on guestroom TV

### Task list



### Enter an acess code

Mini bar - add an item



### Room state - cleaned











Housekeepers App for Android Smartphone

Maintenance Engineer App for Android Smartphone

# Antik – SmartHotel

With ANTIK guest room management system (GRMS) hotel is able to manage different scenario in each guest room. Lighting, temperature or curtains are controlled by guest with touch panel situated in the room or centrally by the hotel. System provides the key to efficiently and centrally manage guestroom energy consumption, gives more comfort, higher security to the room and easy maintenance system.



### **GRMS – Guest room management system**

### **Central unit**

- Display type: color OLED
- Resolution: 128x128/1:1 aspect ratio
- Visible area: 26 x 26 mm
- Maximum number of units: max. 32 units to one BUS line
- Communication speed: 100 Mbps
- Supply voltage/tolerance: 27 V DC, -20/ +10%
- **Dimensions:** 90 x 105 x 65 mm

### **Glass card holder**

- Switching voltage: 230 V AC or 30 V DC.
- Operating temperature: -20 .. +55 °C.
- Glass card holder supports RFID media with a carrier frequency of 13.56 MHz. Supported card types are MIFARE Ultralight, DESFire 2K, Plus S 4K.
- The Glass card holder unit is equipped with an 8A relay output and an AgSnO2 contact.
- Glass card holder are designed for mounting into an installation box.
- Dimensions: 142 x 94 x 36 mm.

### **Touch Screen With Display**

- Supply voltage/tolerance: 27 V DC, -20 / +10 %
- Aspect ratio: 3:4
- Visible area: 52,5 x 70 mm
- Backlight: active
- Touchpad: 4-wire resistive
- **Display:** 3,5"
- Dimensions: 94 x 94 x 36 mm

### **Glass Switch Panel**

- Number of control buttons: 10
- Temperature measuring: YES, built-in temperature sensor
- Resolution: by setting 10-bit
- Installation BUS: BUS
- Supply voltage/tolerance: 27 V DC, -20 / +10 %
- Dimensions: 142 x 94 x 36 mm









### ANTIK LED Panels

# Antik Street LED Panels

- Remote control and managing of monitor units •
- Wireless communication through 4G network
- Low operating costs
- Modern futuristic design

- Sharp picture at an 8 meters distance Pillar installation/220V power supply Wireless communication via 4G network with own SIM card
- Weather resistant
- Image visible even in daylight
- Creative combinations of displayed themes •





# **TV Scenarios**

**TELCO** operator

### Using multicast (IGMP) enabled network

- MaxIM Middleware Management System
- GX5000 IRD, HDMI Encoders
- TR6265 HEVC Transcoders
- Archive System Catch-UP TV
- Video-on-Demand System
- nPRV System
- API Server for Smart Apps
- Multiroom System live matrix monitoring
- StreamKeeper stream monitoring
- Smart TV Apps for iOS, Android, AndroidTVs, AppleTV
- KeyRider HLS Encryption System
- AntikCRYPT multicast encryption
- Nano 4 IP set-top boxes
- SmartHome devices

# CABLE operator

# Using Coax digital DVB-C/T network with DOCSIS or parallel GPON for data services

- MaxIM Middleware Management System
- GX5000 Transmodulator DVB-S2-DVB-C/T
- TR6265 HEVC Transcoders
- Archive System Catch-UP TV
- nPRV System
- Video-On-Demand System
- Multiroom System live matrix monitoring
- StreamKeeper stream monitoring
- API Server for Smart Apps
- Smart TV Apps for iOS, Android, Android TVs, Apple TV
- KeyRider HLS Encryption system
- AntikCRYPT SVB-C/T encryption
- Nano 4C/T+ IP hybrid set-top boxes
- SmartHome devices

# HOSPITALITY Project

### Multicast (IGMP) enabled network

- MaxIM Middleware Management System
- Digital Signage System
- Event Navigation System
- Facility Management System
- Hotel Guest App
- GX5000 IRD, HDMI Encoders
- TR6265 HEVC Transcoders
- Archive System Catch-Up TV
- Video-on-Demand System
- Nano 4 IP set-top boxes

# **TELCO** operator

### Using non-multicast enabled network

- MaxIM Middleware Management System
- GX5000 IRD, HDMI Encoders
- TR6265 HEVC Transcoders
- Live streamers HLS streaming of linear TV streams
- Archive System Catch-UP TV
- nPRV System
- Video-on-Demand System
- Multiroom System live matrix monitoring
- StreamKeeper stream monitoring
- API Server for Smart Apps
- Smart TV Apps for iOS, Android, AndroidTVs, AppleTV
- KeyRider HLS Encryption System
- Nano 4 IP set-top boxes
- SmartHome devices

### **OTT Content Provider**

### Broadcasting over public internet

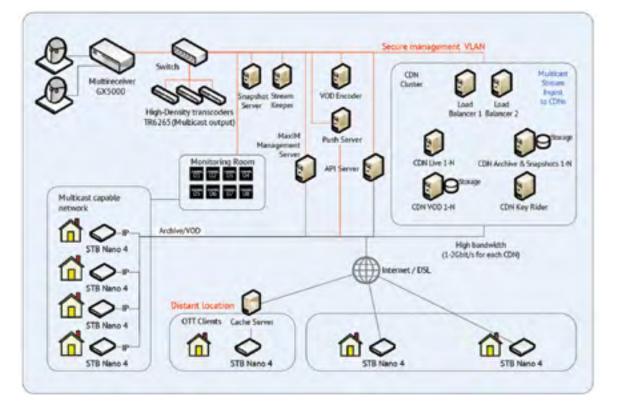
- MaxIM Middleware Management System
- GX5000 IRD, HDMI Encoders
- TR6265 HEVC Transcoders
- Live streamers HLS streaming of linear TV streams
- Archive System Catch-UP TV
- Video-on-Demand System
- nPRV System
- Multiroom System live matrix monitoring
- StreamKeeper stream monitoring
- KeyRider HLS Encryption System
- API Server for Smart Apps
- Smart TV Apps for iOS, Android, AndroidTVs, AppleTV
- Nano 4 IP set-top boxes
- SmartHome devices

# HOSPITALITY Project

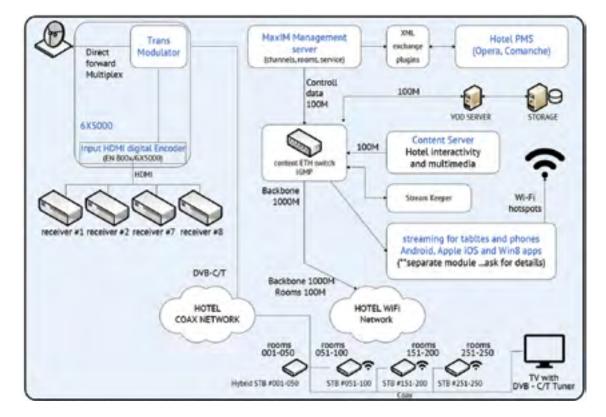
### Coax Network with Wi-Fi or non-multicast IP network

- MaxIM Middleware Management System
- Digital Signage System
- Event Navigation System
- Facility Management System
- Hotel Guest App
- GX5000 Transmodulator DVB-S2-DVVB-C/T, HDMI Encoders
- TR6265 HEVC Transcoders
- Archive System Catch-Up TV
- Video-on-Demand System
- Nano 4C/T + IP hybrid set-top boxes

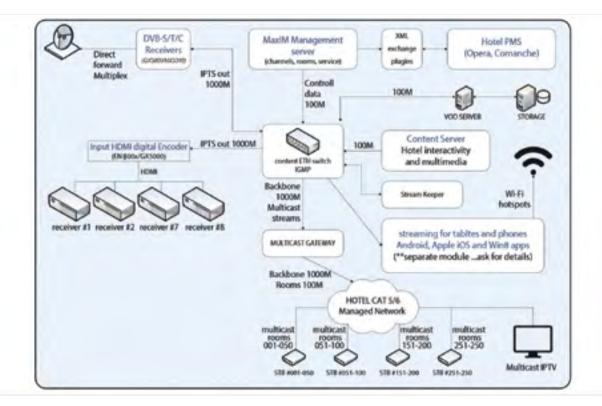
# **Schemes** Telco/ISP/OTT/ANTIK Digital Headend



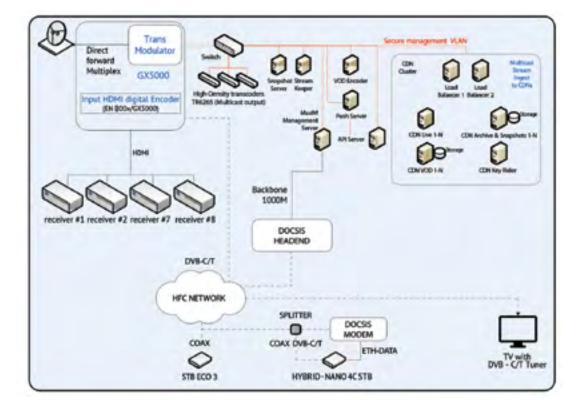
# Hospitality Cable+IP Scenario



# Hospitality IPTV (Hotels, Hospitals, Schools)



# Cable Operator (DVB-C/T + IP)



# Digital Signage Scenario - Public Internet



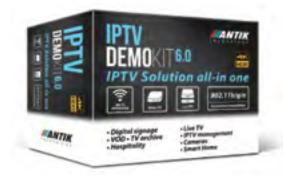
MaxIM Management Server

Digital Signage Scenario – Corporate Network



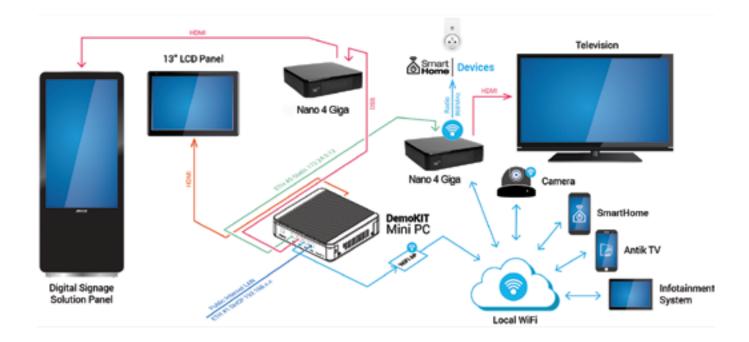
# IPTV Solution all-in one Most of Antik in one valuable pack

Antik IPTV Demokit offers you the possibility to check all the important features of Antik products. It serves as proof-of-concept of your next IPTV project and gives you chance to become familiar with major SW and HW components. Demokit you can easily run in your network or lab. Preinstalled OS Nano PC with all necessary SW servers such as IPTV Management Server, EPG, Streaming Server, Hospitality Suite, etc. are all part of delivery. 2 4K set-top boxes enabled to use on public internet as well as in multicast network are included. Pre-recorded content includes SD and HD streams, radios, TV archive and cameras. Technical support covers (incl. in price) all necessary help with IPTV demokit setup.



- UHD, HD & SD streams
- Catch up TV/TV Archive
- Timeshift
- MediaPlayer
- VOD
- Hospitality IPTV
- Event navigation
- Housekeeping Management
- TV Plugins
- EPG
- Digital Signage
- IPTV Management MaxIM
- SmartHome included





### **Key Features**



### State-of-art User Interface

Easy operation for your SmartTV applications. Browsing web pages will be fast with embedded trackball. Browse the internet without turning the TV off.



### MaxIM Management System

Single Web Interface for all systems setup and control from devices, channels, CMS to signage and housekeeping.



### **Hospitality TV**

Easy-to-learn and customizable access to all Hotel services as 4K TV, Food order, Youtube and much more.



### VOD

Choose a movie from the database or search some new in your favorite category. Watch trailers, movie description or rank the movie.



### Archive by genre

Enables control of archive program feature which allows users to pause, rewind and forward. All are categorizes by genres and series.



### **NEW! Hospitality Modules**

Digital Signage – Event Navigation – Housekeeping. All inclusive system to remote control of digital advertising, dynamic navigation through premises and facility management.

# IPTV DemoKIT 6.0 order

Customer copy-order for demo kit

### Supplier

ANTIK TECHNOLOGY (CY) LTD. Account number: 357-029048-326 IBAN: CY06 0020 0195 0000 3570 2904 8326 Beneficiary Bank Name: Bank of Cyprus Beneficiary Bank Address: Larnaca, Cyprus SWIFT Address: BCYPCY2N (Bank of Cyprus) Paypal: kolla@antik.sk

Description	QTY
NANO server with end-to-end demo licensed SW	1
Antik Nano 4	2
Wireless multimedia IPTV keyboard	1
5-port GB Switch	1
8 GB Capacity USB Flash Drive	1
Wireless Acess Point for multicreen	1
demo	2
USB ETH Adapter	
ETH cables (2m)	2
Travel adapter for EU/UK/US	1
Antik STB Debug cable	1
SmartHome - Wall Power Plug	1
IP Camera SCI	
Total pcs	16 pcs
Total weight	5 kg
Total price	\$ 665

QTY
1
1
18 pcs
6,5 kg
\$ 860

- Shipping Term DDU (Deliver Duty Unpaid)
- Delivery Lead Time: up to 3 weeks after receipt of payment
- Delivery Forwarder: DHL (free of charge)
- Terms of Payment: 100 % value of PO paid in advance by TT/\*All bank charges are for the account of the customer
- Price of HW is EXW China /Country of Origin: China
- Warranty period: 23 months \* Support included

### **Customer:**

Contact Name:

Tel. Number:

Company Name:

Delivery Adress:

E-mail:

Signature:

### Purchase order for demo kit

### Supplier

ANTIK TECHNOLOGY (CY) LTD. Account number: 357-029048-326 IBAN: CY06 0020 0195 0000 3570 2904 8326 Beneficiary Bank Name: Bank of Cyprus Beneficiary Bank Address: Larnaca, Cyprus SWIFT Address: BCYPCY2N (Bank of Cyprus) Paypal: kolla@antik.sk

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Antik STB Debug cable	1
SmartHome - Wall Power Plug	1
IP Camera SCI	
Total pcs	16 pcs
Total weight	5 kg
Total price	\$ 665

Optional	QTY
LCD Display 13.3"	1
IP Camera SCI-10	1
Total pcs	18 pcs
Total weight	6,5 kg
Total price	\$ 860

- Shipping Term DDU (Deliver Duty Unpaid)
- Delivery Lead Time: up to 3 weeks after receipt of payment
- Delivery Forwarder: DHL (free of charge)
- Terms of Payment: 100 % value of PO paid in advance by TT/\*All bank charges are for the account of the customer
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Contact Name:

Tel. Number:

Company Name:

Delivery Adress:

E-mail:

Signature:




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05/2024