



End-to-End IPTV Solutions 2015

IPTV Head End
Streaming servers
Middleware
Set-top Boxes
Global TV delivery



Telco/ISP – OTT Broadcasting
STB&Mobile Apps – Hotels – Advertising

About ANTIK Technology



ANTIK Technology develops End-to-End IPTV / OTT Solutions for operators, content providers and retailers. 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 150 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 HD set-top boxes with free middleware and smart devices apps both in closed multicast networks and on public internet, streaming thousands of live or archived TV channels to end-users located elsewhere with low-cost Antik HLS 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. Our own network of satellite acquisition centers in all important world regions equipped with Antik SAT2IP head-end receivers and HD Hi-Density transcoders together with our distribution network serve content providers worldwide to enable them to have the right linear channels in high picture quality on right place all for minimum running costs.



CUSTOMER COPY-ORDER FOR DEMO KIT

SUPPLIER:

ANTIK TECHNOLOGY HK LIMITED, HongKong, S.A.R.

Account number: 033-162017-838

Beneficiary Bank Name: HSBC Hong Kong

Beneficiary Bank Address: 1 Queen's Road Central, Hong Kong, 6-floor

Beneficiary Bank Code: 004 (for local payment)

SWIFT Address: HSBCHKHKKHPPaypal: kolla@antik.sk

Description	Amount (US\$)
ANTIK IPTV DEMO KIT * 1x Antik Nano STB, 1x Antik Mini 2 STB * 1x HDD 500GB with full IPTV Server environment (Live TV, TV Archive, VOD, IMS, etc.) - system requirement : CPU i3 and above, 4GB RAM * 2x ETH external adapter (ETH#1 for internet, ETH#2 for streaming to mobile devices) * 1x Gigabit switch (5 ports) * 1x Wifi Access point for multiscreen demo * 1x 16GB USB storage (for time shift, PVR and media center demo) * 3x ETH cables * 1x RF IPTV Keyboard * 1x Antik Debug cable (with USB to RS232 adapter) * 2x power adapter (please inform us if EU plug is not OK) * more info about Demokit on pg 64 or on www.antik-tech.com * weight 5 kg	\$ 515
DHL express delivery (worldwide)	\$ 150
Total Amount US\$:	\$ 665

- Shipping Term DDU (Deliver Duty Unpaid)
- Delivery Lead Time: ABOUT TWO WEEKS UPON RECEIPT OF PAYMENT
- Terms of Payment: money transfer in advance (payment charges pays customer- OUR), or payment by Paypal (add 5% for Paypal charges)
- Quotation Validity: 15 days

CUSTOMER:

Contact Name:

Tel. Number:

Company Name:

Delivery Address:

Date od delivery:

Signature:

PURCHASE ORDER FOR DEMO KIT

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CUSTOMER:

Contact Name:

Tel. Number:

Company Name:

Delivery Address:

Date od delivery:

Signature:



Exhibition Records

Visit us in 2015 at

Event name	Contact person	Antik office
Contact Details Company name* Contact person* Position business card Skype* E-mail* Phone City, Country		

CABSAT 2015

March 11-12, Dubai WTC, Dubai, UAE

CCBN 2015

March 26-28, CIEC, Beijing, China

HOTELEX 2015

March 30-April 2, International Expo Centre, Shanghai, CN

NAB show 2015

April 11-16, LV Convention Centre, Las Vegas, USA

Client Description ISP (Multicast) OTT provider Hotel / Hospitality System Integrator Content owner OTT project partner
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MIPTV 2015

April 13-16, Palais des Festivals, Cannes, France

Angacomm 2015

June 9-11, Cologne, Germany

CommunicAsia 2015

June 2-5, Marina Bay Sands, Singapore

Project Information (size, launch date...) OTT No. of channels SD/HD, Bitrates/target countries, Origin of channel Hotel Network - multicast (IGMP snooping support)/coax only, No. rooms, Multicast Current client volume, Network topology, VLAN support

ABTA 2015

August 4-6, Sao Paulo, Brasil

IBC 2015

Amsterdam, Netherlands

HotelShow 2015

September 28-30, Dubai WTC, Dubai, UAE

SCaT India 2015

November 5-7, Mumbai, India

AfricaCast 2015

November 17-19, Cape Town, Africa

STB	Headend	Smart	End-to-End
Mcast / OTT	IRD (DVB T/C/S2)	iOS / Android / Win8	Hotel
eth 1x / 2x / 4x	En- / Transcoding	Scrambling	OTT / partner
Tuner	Monitoring	PC ? / web	Multicast
Gateway	Scrambling Stream/Archive/ VOD	CDN for mobile	Other MW

After show actions (send info, contact, order demokit) <div style="text-align: right;">Status</div>



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MIDDLEWARE



Basic menu
Very fast, clear and easy to navigate.



Single EPG
Offers simple look at channel line-up. Single EPG offers simple look at channel program list and basic data.



Multi EPG
Provides program guide data for all TV channels shows channels list and programs timeline and program info.



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.



Archive program player
Enables control of archive program feature which allows users to pause, rewind, forward and also basic program data, like total time, name, image preview.



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.



Timeshifting
The user can pause, rewind, forward, stop and play TV program anytime without recording request.



PiP
Allows you to watch TV channel and another video source, while one of it will be in the main screen and the other in the PiP screen. Location of PiP screen is adjustable by end-user.



Channel editor
Change order of the channel, set parental lock, individual adjustment of sound level and language.



Audio tracks and Subtitles
Choose language of the channel from the offered options or turn on subtitles in proper language just with one button.



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

The power of Antik Set-Top Box



Advertisement delivery client

Increase revenues by broadcasting marketing messages during peak viewing hours - in graphical layer over any channel the user is watching!



Fully customizable skins

Based on your visual identity we can adapt the GUI to your corporate visual language.



PVR

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



Music on Demand

Audio fun for everyone. Playlists, shuffle, huge variety of content access.



WiFi interface

Plug Antik TV Home Connector (see p. 58) into Antik STB and connect it without cables.



DVB-T/T2/S2/C interface

Integrated channels from DVB-T IPTV and OTT channels into single list. All tuning features supported.



Weather

Access to predefined cities weather forecast up to 7 days.



TV Anywhere

Your linear TV channels are available everywhere with internet connection restreamed from Antik STB.



Wireless Keyboard and Internet Browser

Easy operation for your SmartTV applications. Browsing web pages will be fast with embedded trackball. Browse the internet directly on TV.



HbbTV

Access to the online part of the channels, browse their interactive web pages and another bonus content.



YouTube

Easy to navigate, adapted to TV screen. Full access to YouTube movie content.



Apps Market

Customize your IPTV product with easy to implement 3rd party content - events, shopping, traffic, etc...

Basic Services

Basic Menu is offering easy to learn interface, where user can choose from various actions, which are offered by the set-top box like Live TV, Radios, EPG, Archive, DVR, Mediacenter, VoD, web browser, games and many more.



Use left / right arrows on remote control to navigate through Menu.



Electronical program guide provide users of television with continuously updated menus displaying broadcast programming or scheduling information for current and upcoming programming. User can choose between vertical horizontal and multi-channel EPG.



Other general features like teletext multiple, audio tracks, language selection and subtitles.

TV Archive (Catch-Up TV)



Through Antik Archive, subscribers can access recorded programs without having to go through the hassle of having to schedule the recording themselves in advance. On the Archive service, the subscriber can see all recent programs through a menu.

In many countries broadcasters do not start movies at time given by EPG. Antik gives end-user chance to set correct movie begin and share this info with other users. This feature is globally unique and available in Antik only.

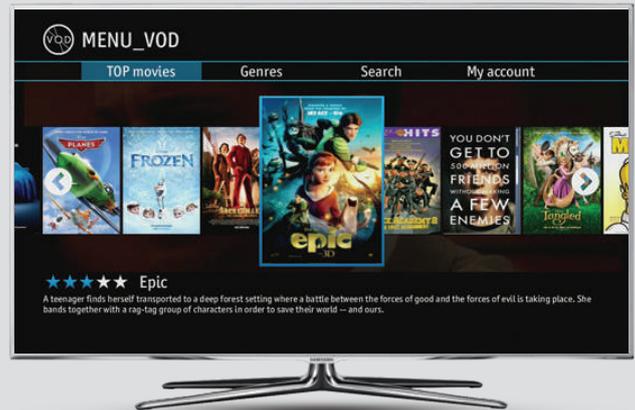


To operate TV archive you need to obtain Antik Archive Server SW license which will be installed on standard, fast storage server. Scalable architecture allows to operate with increasing number of users. Clustering support with online balancer for high loads. High availability and performance is ensured using Antik KeyRider security mechanism. Archive size and channel count depend on and channels count depending on your storage possibilities only. Easy configuration by XML format. Archive is interconnected with EPG, which is forwarded from the IMS.

VOD

Instant movie play, rewind, pause, subtitles and other functions without internal storage requirement. Movies are transformed to special HLS format using Antik VoD content encoder. Movie is then uploaded to storage cluster. Thanks to Antik VoD Streamer working with HLS format, VOD is stable on lower quality networks, too.

- Search by the title, year, actor, genre 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
- Movie description and movie trailer
- Import and export interface to your billing system- Keyrider scrambling integrated to protect your content
- Different payment models (pay-per-view, prepaid, postpaid, pay-per-minute, free content...)
- Module is connected to your billing



DVR

A digital video recorder (DVR), sometimes referred to by the merchandising term personal video recorder (PVR), is a consumer electronics device or application software that records video in a digital format to a disk drive, USB flash drive or other local or networked mass storage device.



- Record scheduling based on EPG or exact time and date
- Integrated in EPG UI
- List of the recorded programs
- Possibilities of editing the name of recorded program (Save As "...")
- Option of earlier start and later end of recording of the program
- Disc info about free space, capacity and option to format disk
- Instant recording with red button
- User friendly interface

Multimedia center



User can plug his external memory drive, whether it is USB or external HDD and play his multimedia files. The offer of user's data is easily accessible from the basic menu, where customer will get into his folders and files of music, videos, pictures etc.

Antik set-top box can be connected also with home network through the DLNA technology. User can setup his own home media center, where he can connect PC, Laptop and Smartphones through the DLNA client. Then all media files like videos, photos, music, to which user give access, will be able to run also on user's TV.

Application is supporting multimedia content in various formats like: **avi, H264, Xvid, Mov, VOP, mkv, Mpeg 1,2, TS, mp4, txt, sub, srt** subtitles and multiple audio tracks are supported.

Music portal / Music on demand



Great looking user interface to search, sort and play audio content.

Internet browser



Browsing the internet is available also on customers TV thanks to our set-top boxes with integrated web browser. Easy launch of the browser straight from the TV menu and many options how to browse the internet, whether it will be with our wireless IPTV keyboard, virtual keyboard or customers own accessories. Popular internet services like YouTube, Facebook, Twitter, Google, etc. are within easy reach.

Multiscreen middleware



LiveTV, Archive, EPG features and remote control of the box in our **Android, iOS, Win8 apps** is supported by multiscreen API. All to create entertainment experience whenever your clients live and work.

New ANTIK Middleware

Revolutional content centric GUI from ANTIK. All latest trends in user experience research and up-sell/crosssell development are present in new ANTIK Middleware after 12 months of hard work. Top visual design, coded to be fast for rendering on all new Antik boxes and perfect pricing, all will be included in new ANTIK Middleware to be deployed in 2015.

Key features

- Fast and up-to-date design
- Single view on media sources – linear, VOD, catchup, user generated content
- Dynamic mosaic integrated into channel selection
- Deep media recommendation integration with x-sell opportunities

Quick Channel Change



Media Content Recommended content from Archive, PVR, VOD, UGC



Actual Channel EPG

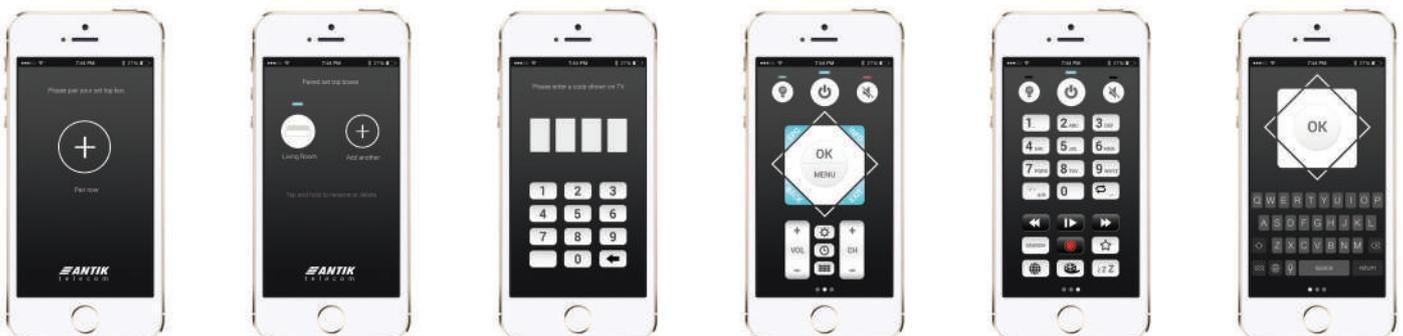


EPG

All features supported

- LiveTV of all sources (IP, DVB, OTT)
- EPG (vertical, horizontal, multi, mosaic)
- VOD
- PVR
- Archive (catch-up TV)
- Mediaplayer (local, network)
- Media Portal
- Music on Demand
- Messaging
- Advertising
- Internet browser

Control your TV from Mobile/Tablet





Main Menu



EPG - vertikál



EPG - horizontal



VOD



Content Approach



Archive Content Selection



Archive by Genre



TOP Content Mosaic



VOD



Fast Channel Change



Channel Editor



Mediaplayer



Advertising Placement example



Weather

IPTV Servers + Head End

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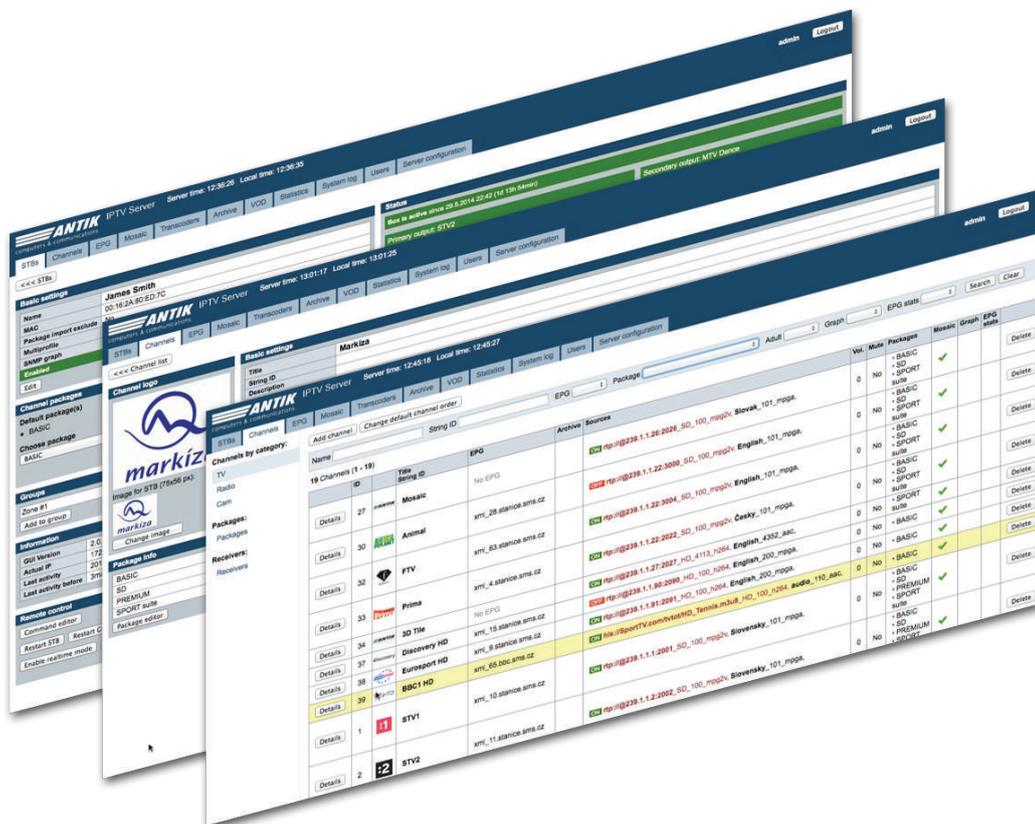
Antik IPTV Management Server

The power of Antik Technology!

Antik Technology presents professional cost-effective SW solution for seamless management of your Antik set-top box network. **Antik IPTV Management Server** is corner stone of Antik Middleware Server Family. You can easily define your channel packages, configure all or selected customer's STBs, collaborate with other part of Antik Server family such as Antik Archive Servers, AntikMosaic Servers or VoD servers. Management Server SW can be easily connected to your billing or customer care application so your user's set-top boxes can be automatically activated and monitored using same software your employees are familiar with. Don't hesitate to request a licensing offer specially designed for your IPTV project.

Key features

- Simple channel and channel packages management
- Full remote control of set-top boxes and remote restart features (even on 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
- Antik headend components control (IRD, transcoders, ...)
- VOD management



IMS Administration

STB

Manage STBs in your network easily with powerful management interface. Monitor wide variety of parameters of each box. Superior statistics module brings detailed statistic overview of active STB, active viewers and other vital information. Manual STB / user registration and channel pack allocation. Automatic XML data import from billing, which handles package expiration, package block or notice the STB user.

Viewing	ON	Enabled	Name	Mac	Arkat IP	Group	Last activity	Last activity before	Package	Multiscreen	Import exclude	SNMP graph	Delete
			David White	00:16:2A:88:87:54	172.24.0.101		2013-12-09 22:40:31	5m 20s 9h 48min	Default (BASIC,)	No	No	No	Delete
			James Smith	00:16:2A:80:ED:7C	172.24.0.102	Zone #1	2014-05-31 12:52:29	2min	Default (BASIC,)	No	No	No	Delete
			Juice FRO	00:16:2A:80:7A:8F	172.24.0.199		2013-03-20 17:54:12	1y 2m 10s 16h 13min	SPORT suite.	No	No	No	Delete
			Kristopy Lipset	00:16:2A:80:5C:02	172.24.0.191		2012-03-08 22:23:31	2y 3m 20s 19h 26min	PREMIUM	No	No	No	Delete
			Maria Clark	00:16:2A:80:C9:79	172.24.0.113		2013-10-10 13:58:21	7m 19s 21h 33min	Default (BASIC,)	No	No	No	Delete
			Mark Johnson	00:16:2A:80:E8:19	172.24.0.160		2014-04-03 13:20:15	1m 27s 13h 5min	PREMIUM	No	No	No	Delete
			Michael Wilson	00:16:2A:80:50:C9	172.24.0.153		2013-09-09 22:21:33	8m 20s 2h 40min	Default (BASIC,)	No	No	No	Delete
			Nancy Moore	00:16:2A:80:52:36	172.24.0.124		2012-12-15 01:00:30	1y 5m 15s 1h 40min	MOVIE suite. PREMIUM	No	No	Yes	Delete
			Patricia Anderson	00:16:2A:80:DA:CF	172.24.0.131		2014-05-20 21:45:27	15s 15h 9min	Default (BASIC,)	No	No	No	Delete
			Richard Parker	00:16:2A:80:5A:09	172.24.0.167		2013-01-31 14:13:04	1y 3m 28s 8h 25min	MOVIE suite.	No	No	Yes	Delete
			Robert Miller	00:16:2A:88:CF:1D	172.24.0.163		2014-05-09 12:29:29	22s 23min	SPORT suite.	No	No	No	Delete
			Sandra Turner	00:16:2A:80:5E:9C	172.24.0.111		2013-04-25 10:36:22	1y 1m 5d 10h	Default (BASIC,)	No	No	Yes	Delete
			Steven Young	00:16:2A:80:AD:34	172.24.0.113		2013-04-04 16:43:29	1y 1m 26s 3h 53min	Default (BASIC,)	No	No	No	Delete

Detail

Packages VLAN info Groups

- Add channel packages to selected set-top box. Set package validity.
- STB embeded switch can be controlled from here.
- Add selected set-top box to the group of STB's. Each set-top box can be added to specific group. STB's in this group can be controlled all together, so admin doesn't have to change settings on each set-top box separately.

Remote control

- List of command buttons, which can remotely control set-top box. It is functional also behind NAT {router}.

Status

- List of last activity on the set-top box, admin can see for example what was user watching before some error occurs.

Edit STB name, MAC, package import, description, enable/disable STB

Add package to which has this STB access

STB Group Add selected STB to the group of STB's

The screenshot shows the 'Realtime settings' tab for STB 'James Smith'. Fields include Name, MAC, Package import exclude, Multiscreen, and SNMP graph. Below are sections for 'Channel packages', 'Group' (Zone #1), and 'Information' (GUI Version, Actual IP, Last activity). The 'Remote control' section contains buttons for Command editor, Restart STB, Restart GUI, Reload, Sleep, Wake up, Change channel, Enable realtime mode, Disable realtime mode, Message, Ping (MS), and Traceroute (MS).

The 'Status' tab shows a 'Back to active since 20.5.2014 20:42 (14 13h 56min)' message. It features two tables: 'Primary output: STV2' and 'Secondary output: MTV Dance'. The primary output table lists channels like 'Zna parolama', 'Orkeo i medem', 'SPECIAL WEEKEND', 'Megastavka', 'Luxe HD', 'Moroc', 'Tubnasy 2 Mirogoparku I (14:20)', 'Intingina', 'Secherpack', and 'Zbrovodyatv FTV Prima'. The secondary output table lists 'MTV Dance', 'Orkeo i medem', 'SPECIAL WEEKEND', and 'Star Trek: Do temoty'. A 'Status list of the last activity on the STB' table shows recent activity with columns for From, To, Duration, Channel, and Show (if any).

The 'Online history' table at the bottom shows a list of recent activity with columns for From, To, Duration, and Bit.

Status list of the last activity on the STB

Remote control: standby, restart, wake up, send message.

Channels management

Managing channels and packages has never been easier. Channel and package manager allows you to configure parameters of TV, Radio and LiveCam streams in your network, or enable advanced statistic features. Channel source by URL (UDP, RTP, HTTP, HLS) can be easily defined. Global volume level correction in case of uneven audio sources.

Filter – admin can search channels by various categories, so searching subject can be found without long searching.

Categories (tv, radio, cam) – streams can be divided depending on media – TV streams, digital radios, city (or security) cameras.

Receiver inventory – overview of channels assigned to specific receiver

ID	Title	String ID	EPG	Active	Source	Vol	Mute	Package	Mosaic	Graph	EPG state	Delete
27	Musica	No EPG	No EPG	<input checked="" type="checkbox"/>	http://238.1.1.22.2028_50_101_mpeg1_Slovak_101.mpeg	0	No	- BASIC - SD - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
30	Animal	ant_28_starica.srvb.cz	ant_28_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.22.2028_50_101_mpeg1_English_101.mpeg	0	No	- BASIC - SD - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
32	FTV	ant_83_starica.srvb.cz	ant_83_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.22.2028_50_101_mpeg1_English_101.mpeg	0	No	- BASIC - SD - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
33	Prima	ant_4_starica.srvb.cz	ant_4_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.22.2028_50_101_mpeg1_Cesky_101.mpeg	0	No	- BASIC - SD - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
34	SD file	No EPG	No EPG	<input checked="" type="checkbox"/>	http://238.1.1.27.2027_HD_4110_1004_English_4102.mpeg	0	No	- SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
37	Discovery HD	ant_16_starica.srvb.cz	ant_16_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.99.2080_HD_100_1004_English_200.mpeg	0	No	- BASIC - SD - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
38	Europeport HD	ant_9_starica.srvb.cz	ant_9_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.99.2091_HD_100_1004_English_200.mpeg	0	No	- BASIC - SD - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
39	BBC1 HD	ant_83_starica.srvb.cz	ant_83_starica.srvb.cz	<input checked="" type="checkbox"/>	http://sportv.com/uk/bbc1_HD_100_1004_audio_100.mpeg	0	No	- BASIC - SD - PREMIUM - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
1	STV1	ant_10_starica.srvb.cz	ant_10_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.1.2041_50_100_mpeg1_Slovaksky_101.mpeg	0	No	- BASIC - SD - PREMIUM - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete
2	STV2	ant_11_starica.srvb.cz	ant_11_starica.srvb.cz	<input checked="" type="checkbox"/>	http://238.1.1.2.2002_50_100_mpeg1_Slovaksky_101.mpeg	0	No	- BASIC - SD - PREMIUM - SPORT - Suite	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete

Channel Details

Edit the channel's details, properties, channel's icon and much more. Simple channel packages creation and adding management, channel sources management, video and audio codecs management and more.

In this section admin can add channel logo for IMS and also logo will be displayed in the STB GUI menu of end user. Parental control flag to manage adult content.

Channel logo



Image for STB (75x75 px)

Change image

Basic settings

Title: Markiza

String ID: [empty]

Description: [empty]

ID: 4

EPG site: ant_4_starica.srvb.cz

Adult: No

Volume correction: 0

Volume mute: No

Include in mosaic: Yes

Enable graph state: No

Enable EPG state: No

Aut only: No

Aut only parent channel ID: [empty]

Package info

BASIC

SD

PREMIUM

SPORT suite

Package editor

Sources

Enabled	Details	Audio PIDs	Description
<input checked="" type="checkbox"/>	Stream: rtp://238.1.1.4.2004 Quality: [empty] Resolution: SD Video PID: 401 Video codec: mpeg2v Scrambling: None Flags: 0 Pul ECM: 0	561 Slovensky mpeg	[empty]

ADD source

Receiver info

No receiver

Receiver list

Statistics

EPG management

EPG database import module is great tool to transform EPG from XML TV data formats into Antik Server Database. Movie title, genre, long description, time, image cover supported. XML TV format supported for seamless program metadata import to system. System automatically downloads new data and check consistency. Same data are used for STBs and mobile apps.

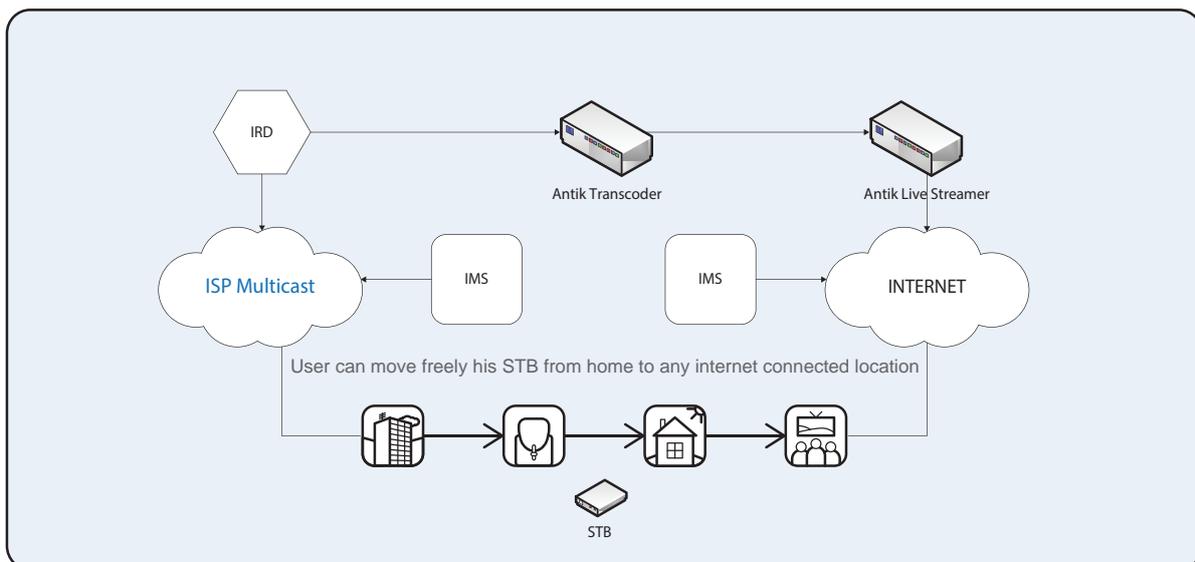
ID	Title	EPG site	Timezone
1	STV1	xm: 10.stanice.ams.cz	FROM: 2014-05-07 00:18:00 TO: 2014-06-15 02:30:00
2	STV2	xm: 11.stanice.ams.cz	FROM: 2014-05-07 00:45:00 TO: 2014-06-15 01:00:00
4	Markiza	xm: 8.stanice.ams.cz	FROM: 2014-05-07 00:30:00 TO: 2014-06-15 03:20:00
5	Doma	xm: 225.stanice.ams.cz	FROM: 2014-05-07 00:20:00 TO: 2014-06-15 04:20:00
9	MTV Dance	xm: 160.stanice.ams.cz	FROM: 2014-05-07 02:00:00 TO: 2014-06-06 00:00:00
10	Discovery	xm: 15.stanice.ams.cz	FROM: 2014-05-07 00:55:00 TO: 2014-06-15 04:40:00
12	Luxe HD	xm: 583.stanice.ams.cz	FROM: 2014-05-07 06:00:00 TO: 2014-06-15 00:00:00
13	SRO1	xm: 618.stanice.ams.cz	FROM: 2014-05-07 00:11:00 TO: 2014-06-15 03:43:00
14	Expres	xm: 613.stanice.ams.cz	FROM: 2014-05-07 06:00:00 TO: 2014-06-01 20:00:00
15	Funradio	xm: 605.stanice.ams.cz	FROM: 2014-05-07 06:00:00 TO: 2014-06-14 23:00:00
16	Jemné mládež	xm: 608.stanice.ams.cz	FROM: 2014-05-07 06:00:00 TO: 2014-06-13 20:00:00
17	Viva	xm: 628.stanice.ams.cz	FROM: 2014-05-07 06:00:00 TO: 2014-06-15 00:00:00
18	Halmark	xm: 670.stanice.ams.cz	FROM: 2014-05-07 01:25:00 TO: 2014-06-15 04:10:00
19	HBO2	xm: 54.stanice.ams.cz	FROM: 2014-05-07 01:25:00 TO: 2014-06-15 04:30:00
20	SAT1	xm: 24.stanice.ams.cz	FROM: 2014-05-07 00:20:00 TO: 2014-06-15 04:20:00
30	Animal	xm: 38.stanice.ams.cz	FROM: 2014-05-07 00:35:00 TO: 2014-06-15 04:45:00
32	FTV	xm: 83.stanice.ams.cz	FROM: 2014-05-07 00:30:00 TO: 2014-06-15 04:55:00
33	Prima	xm: 4.stanice.ams.cz	FROM: 2014-05-07 00:18:00 TO: 2014-06-15 04:18:00
37	Discovery HD	xm: 15.stanice.ams.cz	FROM: 2014-05-07 00:55:00 TO: 2014-06-15 04:40:00
38	Eurosport HD	xm: 9.stanice.ams.cz	FROM: 2014-05-07 00:19:00 TO: 2014-06-15 03:00:00
39	BBC1 HD	xm: 65.bbc.ams.cz	FROM: -- TO: --

Hybrid multicast + OTT operation in same box

Same STB, same FW - working on internet and closed network. Unique Antik SW development - STB can automatically recognize, if is it connected to closed network or public internet. Same channels can be set in both scenarios so end-user can streamlessly nomade between OTT and multicast worlds.



Recommended config: 2xIMS, Antik Live Streamer, Antik Transcoders.



Users activity stats

Detailed IPTV usage stats. Channels, programmes, box, PAL/NTSC, PIP, aspect ratio, resolution, restarts, FW versions, etc.

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) 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.

Key features

- Ingest Module
- Management & System Monitoring Module
- Stream Replication
- Live Streaming
- Time-Zone Shifting Module
- Catch-Up TV Module
- Archive Snapshots Module
- TV Stream Cache & Restreaming
- Load Balancer
- Archive Mirroring Module
- Streaming mutual features
- AES 128 scrambling module (Antik KeyRider)
- Debian 7.5 supported

ID: 1 NAME: ANTIK CDN 1

VERSION: v1.0.0-87-g3a6b717, BRANCH: testing, BUILD: 2012-10-09 09:12:59

REFRESH IN: 2, CONNECTION OK

Logout

- Primary stream for channel 1 Planko is OFFLINE (Module: Ingest)
- Primary stream for channel 2 Cacao TV is OFFLINE (Module: Ingest)
- Unauthorized stream from "88.212.8.3" is blocked for primary ingest of channel 2 "National Geographic" (Module: Ingest)

Management & System monitoring

MGMT PROCESS		HTTP SERVER		PHP FAST-CGI		CLIENT AUTH		SYSTEM MONITOR		CONFIGURATION		LICENSE	
UP: 4d 21h		RUNNING		RUNNING		ENABLED		RUNNING		VER:2012-10-18 21:06:45		OK, DETAILS	
CPU	LOAD	IOWAIT	STORAGE	RX	TX	AUTHORIZED SESSIONS	RAID	INTERFACES	DATE/TIME			UPTIME	
2%	0.75 / 8	0%	660.97 GB / 1.78 TB	↓ 20Mbit/s	↑ 0Mbit/s	0	OK	bond0	Wed Oct 24 13:58:54 CEST 2012			26d 23h	

Ingest RX Total: 14.56 Mbit/s

Global UDP/RTP IP authorization ENABLED

Show settings

RUNNING 1 Planko

0.00 Mbit/s rtp://@232.232.54.2:5004

1.88 Mbit/s http://aaa:bbb@10.254.9.201:2002

UDP/RTP IP authorization enabled. [Show settings](#)

RUNNING 2 Cacao TV

0.00 Mbit/s rtp://@232.232.64.2:5004

1.74 Mbit/s http://aaa:bbb@10.254.9.202:2001

RUNNING 3 Feature TV

1.76 Mbit/s http://aaa:bbb@10.254.9.202:2001

2.12 Mbit/s http://aaa:bbb@10.254.9.202:2002

RUNNING 8 Sciology

1.77 Mbit/s http://aaa:bbb@10.254.9.202:2001

RUNNING 5 Karaoke

1.77 Mbit/s http://aaa:bbb@10.254.9.202:2001

RUNNING 6 TV Mickey

1.77 Mbit/s http://aaa:bbb@10.254.9.202:2001

RUNNING 7 Film+

1.77 Mbit/s http://aaa:bbb@10.254.9.202:2001

Stream replication RX Total: 2.03 Mbit/s

ID	STATUS	RX	NAME	DESTINATIONS	LAST START, UPTIME
1	RUNNING	2.03 Mbit/s	Planko	10.254.9.10:9191	2012-10-19 16:06:45 (4d 21h)

Live streaming RX Total: 12.09 Mbit/s

ID	STATUS	RX	NAME	PLAYLIST	SEGMENT DUR/CNT	LAST START, UPTIME
1	RUNNING	2.01 Mbit/s	Planko	OK	10 / 5	2012-10-19 16:06:45 (4d 21h)
2	RUNNING	1.57 Mbit/s	Cacao TV	OK	10 / 5	2012-10-19 16:06:45 (4d 21h)
3	RUNNING	1.61 Mbit/s	Feature TV	OK	10 / 5	2012-10-19 16:06:46 (4d 21h)
8	RUNNING	1.77 Mbit/s	Sciology	OK	10 / 5	2012-10-19 16:06:46 (4d 21h)
5	RUNNING	1.63 Mbit/s	Karaoke	OK	10 / 5	2012-10-19 16:06:46 (4d 21h)
6	RUNNING	1.81 Mbit/s	TV Mickey	OK	10 / 5	2012-10-19 16:06:48 (4d 21h)
7	RUNNING	1.81 Mbit/s	Film+	OK	10 / 5	2012-10-19 16:06:48 (4d 21h)

Timezone shifting Storage used: 175.88 MB RX Total: 2.05 Mbit/s

Mode: hdd

ID	STATUS	RX	NAME	PLAYLISTS	STORAGE USED	SEGMENT DUR/CNT	LAST START, UPTIME
1	RUNNING	2.05 Mbit/s	Planko	00-10 OK	175.88 MB	10 / 5	2012-10-19 16:06:48 (4d 21h)

Archive recording Storage used: 178.69 GB Total recording time: 2m 24d Remaining time: 1m 24d RX Total: 2.01 Mbit/s

ID	STATUS	RX	NAME	PAUSES	STORAGE USED	DAYS ARCHIVED	TODAY INTEGRITY	INTEGRITY	LAST START, UPTIME
1	RUNNING	2.01 Mbit/s	Planko		178.69 GB	10 / 20	GAPS: 0 (0sec)	Integrity	2012-10-19 16:06:45 (4d 21h)

Archive mirroring Storage used: 479.22 GB

ID	STATUS	NAME	SOURCE SERVER	LAST SUCCESSFUL SYNC	STORAGE USED	LAST START, UPTIME
4	RUNNING	Eurosport	10.254.9.150	OK (-59sec)	479.22 GB	2012-10-19 16:06:44 (4d 21h)

HLS

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. Continuous stream is segmented in to 10 seconds segments and provided using fast storage through http protocol. It allows client device to quickly pre-buffer video and audio data which allows to work in unstable networks without dropouts.

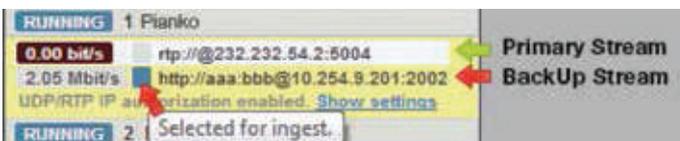
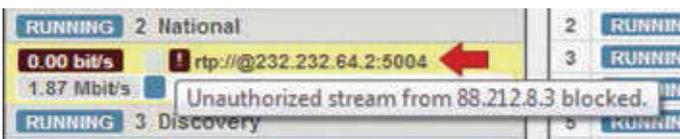
Ingest Modul

Receives streams from various sources

Duplicates the stream to other Antik modules simultaneously (live streaming, replication, archiving, time-zone shifting) to save bandwidth.

Supported input protocols: UDP, RTP, HTTP

Basic authentication supported (if using http stream) on input



Security feature allows to define allowed/not allowed stream sources (in case of UDP/RTP push).

Stream back-up set-up – continues watchdog automatically starts to use back-up stream in case of drop-out of the main stream.



Media Gateway – together with Replication modul.

Management & System Monitoring Modul



Controls all Antik Streamer modules

Automatically controls all running processes within Streamer

Monitors CPU/System/HDD load, network throughput, HDD usage, actual number of authorised clients,

RAID status, server uptime, configuration file consistency,

Modules licensing status, current module version information

Global System warning messages

Uses Ajax for Web Monitoring – doesn't need page reload to see actual information

Stream Replication

Allows to replicate input streams to CDN edge servers using UDP and HLS protocol

One stream can be replicated to more destinations (Antik Stream Cache, see p. 21)

Dramatically increases durability and stability of the system

Capable of Multicasting stream into closed network

Monitoring interface visualises:

destination IPs

input stream bitrates (coming from ingest module)

replicator uptime

Live Streaming

Live streaming						RX Total: 11.85 Mbit/s
ID	STATUS	RX	NAME	PLAYLIST	SEGMENT DUR/CNT	LAST START, UPTIME
1	RUNNING	1.89 Mbit/s	Planko	OK	10 / 5	2012-10-16 12:45:58 (43min)
2	RUNNING	1.73 Mbit/s	Scifology	OK	10 / 5	2012-10-16 12:45:59 (43min)
3	RUNNING	1.65 Mbit/s	TV MUSIC	OK	10 / 5	2012-10-16 12:46:01 (43min)
4	RUNNING	1.65 Mbit/s	Cacao	OK	10 / 5	2012-10-16 12:46:01 (43min)
5	RUNNING	1.65 Mbit/s	Children TV	OK	10 / 5	2012-10-16 12:46:01 (43min)

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

Monitoring interface visualises:

- total data inflow into modul

- input stream bitrates (coming from ingest module)

- count and length of segment in playlist

- playlist status

- segmenter process uptime
- destination IPs
- input stream bitrates (coming from ingest module)
- replicator uptime

Time-Zone Shifting Modul

Timezone shifting						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

Module 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

Monitoring interface:

- zone-shifter process status and uptime

- input stream bitrate

- availability of each shifted playlist

- unused content still available in storage

- storage usage

- count and length of segment in playlist

Catch-Up TV Modul (TV Archive)

Archive recording		Storage used: 18.90 GB Total recording time: 2m 26d Remaining time: 2m 2d RX Total: 1.87 Mbit/s							
ID	STATUS	RX	NAME	PAUSES	STORAGE USED	DAYS ARCHIVED	TODAY INTEGRITY	INTEGRITY	LAST START,UPTIME
1	RUNNING	1.87 Mbit/s	Planko		18.90 GB	2 / 20	GAPS: 20 (35min 13sec)	Integrity	2012-10-16 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 disk space for new recordings
- Integrity analyser detects content drop-outs and enables them to other CDN components

Archive integrity: ID 1 NAME XPLOSION TV		Data refresh interval: 1 min, Page refresh interval: 30 seconds.			
#	DATE	TIMELINE	STORAGE USED	GAPS	GENERATED AT
1	2012-10-16 Tuesday		11.30 GB	1: 00:00:27-00:00:50: 23sec 2: 00:02:42-00:03:05: 24sec 3: 00:04:57-00:05:39: 42sec 4: 00:19:37-00:20:00: 23sec 5: 00:21:10-00:21:32: 22sec 6: 00:22:02-00:22:25: 23sec 7: 00:23:35-00:23:58: 23sec 8: 00:31:41-00:32:22: 41sec 9: 09:18:31-09:19:10: 39sec 10: 08:25:04-09:25:54: 60sec 11: 08:27:25-09:27:43: 18sec 12: 08:55:30-09:57:18: 45sec 13: 10:13:25-10:14:54: 1min 29sec 14: 10:53:05-10:55:55: 2min 47sec	2012-10-16 13:30:26

- Uses HLS protocol for streaming, so all the features described in Live Streaming can be utilized

Monitoring interface visualises:

- Catch-up segmenter process status and uptime
- Input stream bitrate
- disk storage usage
- number of days archived in the individual stream
- unused content still available in storage
- record integrity within actual day
- detailed fine-grain integrity information for each recording day – includes timeline to visualise archived content and drop-outs
- count and length of segment in playlist
- actual total bitrate
- estimated remaining archiving time according to actual bitrate

Load Balancer

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

- Regularly checking status of CDN servers
- Active failover protection in case of HW failure
- Advanced login features allowing connectivity with billing system

Managing CDN server cluster

- Client authentication and authorization with advanced per session generated passwords.

MPEG4 SD/HD AVC to MPEG4 SP/ASP

- CIF, or QCIF 2x to 12x depending on format conversion

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 snapshot 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

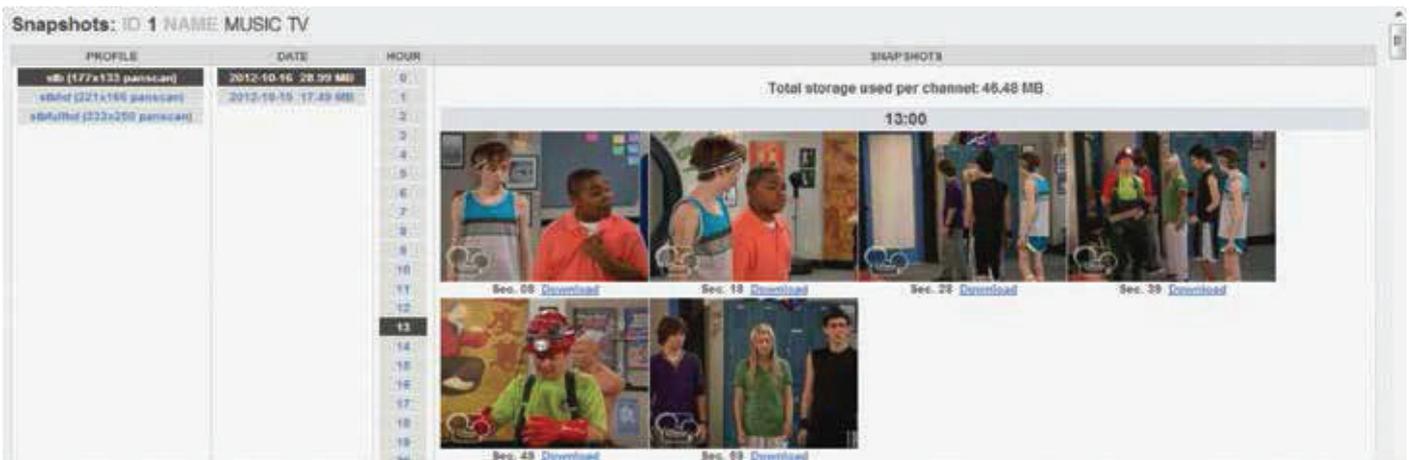
Monitoring interface visualises:

- profile list

- snapshoter process status and uptime

- last processed segment for each channel

- snapshot browser – to visualise all snapshots recorded



Archive Mirroring Module

Archive mirroring						Storage used: 475.45 GB
ID	STATUS	NAME	SOURCE SERVER	LAST SUCCESSFUL SYNC	STORAGE USED	LAST START, UPTIME
4	RUNNING	Sport TV	10.254.9.150	OK (-52sec)	475.45 GB	2012-10-16 12:46:52 (-43min)

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

Monitoring interface visualises:

- mirroring process status uptime

- source server IPs

- time of last successful synchronization

- unused content still available in storage

- disk space usage

- mirroring progress bar

Antik streamer mutual features

Global configuration using one XML interface – easy to back-up

API for communication with Load Balancer

Automated update of information about status

Different server load parameters – which enable effectively balance the load between different CDN HW components

Provides warnings/error message which could be used in one single Central Monitoring App

Authentication/Authorisation per session information for client device access to content

Antik TV Stream Cache / Retranslator

Robust TV CDN Solution Add-on for Global TV Delivery

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

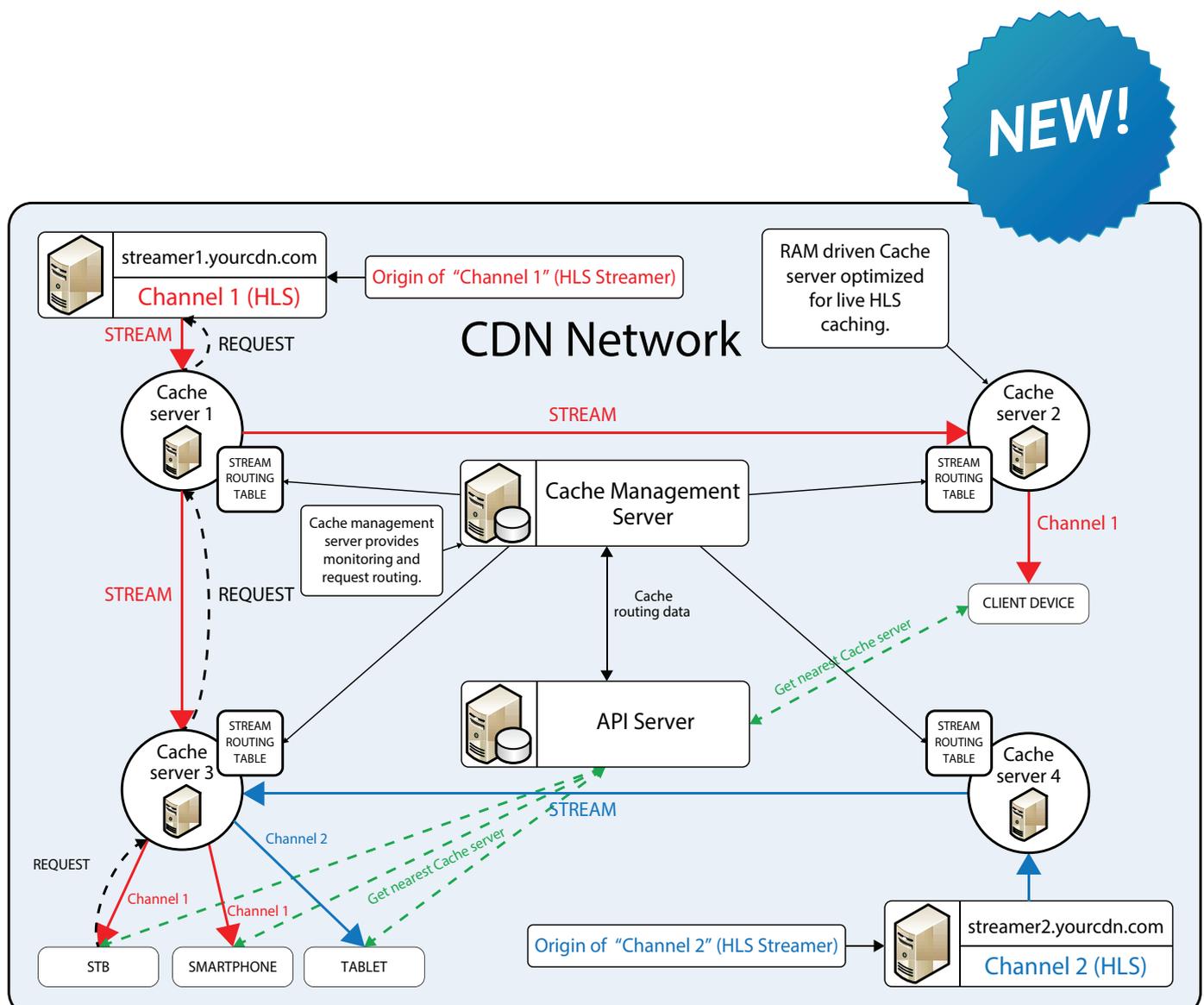
Key features

Automatically routes stream request to the appropriate cache server based on
 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

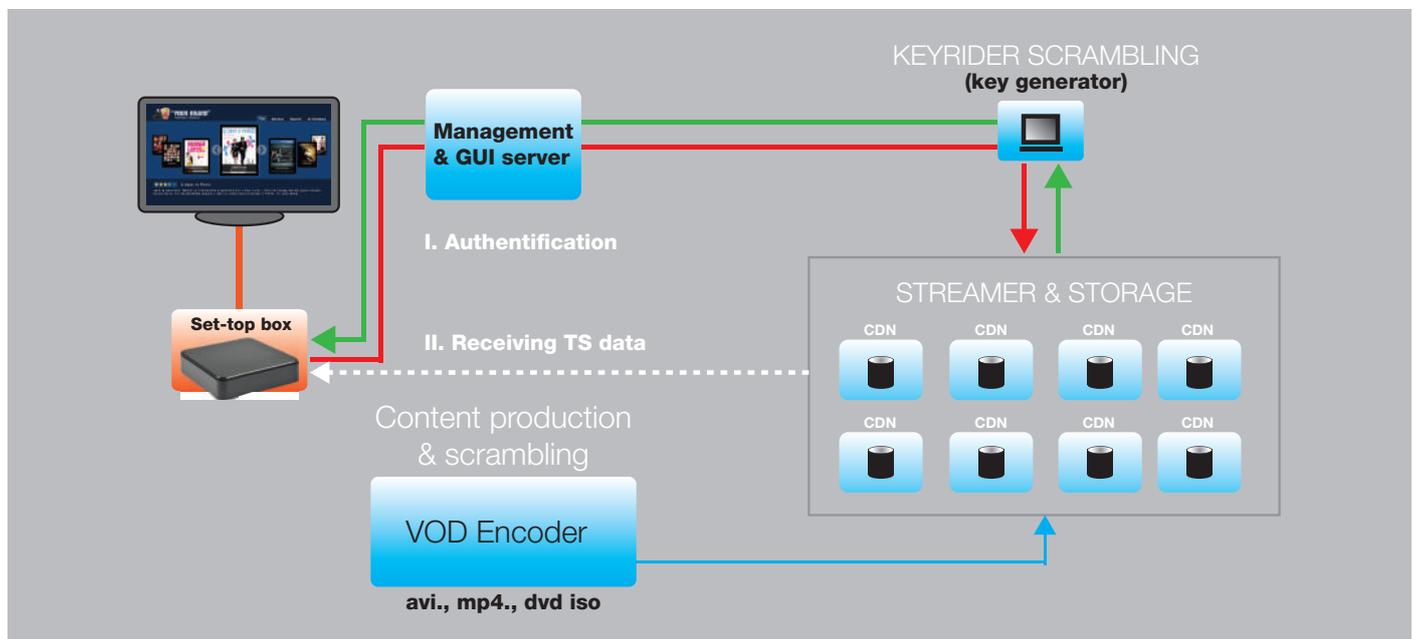
Multiplatform – STBs, mobiles, tablets, PCs as end devices



Video-On-Demand Media solution

End-2-End VOD for OTT and closed networks

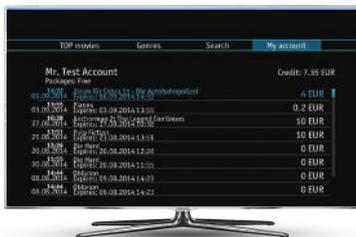
End-2-End system for movie content preparation (encoding), storage, balancing the load, streaming and protection. Our robust segment streaming and buffering SW enables you to deliver content even in lower quality internet networks. Replication SW enables you to hold the VOD data load under control around-the-clock and ensure non-stop operation even in the unlucky situation of partial server hosting drop-out. This video content will start immediately, user doesn't need to wait for downloading full movie as it is instantly streamed to 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 & Management

Its web based Middleware, which secure management of VOD content and also it present user interface for access to VOD from the client's device (set-top box). With a large numbers of devices it's able to scale the application on more servers. It contains billing connector module, which enables secure invoicing for the seen content. Also it is cooperating with Load Balancer to enable immediate playing of video content straight after the movie purchase while it is reserving capacity on VOD storage. API for content providers reporting included



Streamer & Storage

It is module of product Antik Media Streamer, where it secures placement of video content and it's providing to client's devices. Content must be prepared in form of media package, which is output of product VOD Encoder. VOD streamer is providing content through the HLS protocol, which enables fluent and stable streaming also in slower networks. Thanks to buffering it is capable of overcome short network downtimes without noticing it on client side. Thanks to real time streaming it's not necessary to wait for downloading of the whole movie to the client's device. Storage is cooperating with Load Balancer what allows scaling of content in to multiple servers for increasing capacity and also load balancing. At the same time Load balancer is authenticating client and allow access on secured content. As it is module of application Antik Media Streamer, there are available all monitoring functions and tools of this application.

Recommended configuration:

- Quad Core Xeon
- 6GB RAM
- RAID: Hardware RAID5 adapter, 512MB, battery backup
- HDD: 8x SAS min. 300GB 10K-15K
- Ethernet: 2x 1Gbit/s

VOD Encoder

Encodes VoD content into HLS format so it can be stored on CDN servers. Supports automated transcoding thanks to transcoding queue. Many supported video formats like .avi, .mp4, .mpg, .and, DVD ISO images and many others. VoD Envoder is easily controlled through the web interface which allows upload of big files into the queue. Multi user support allows sharing of transcoding service. Multiple audio tracks are also supported as well as DVB subtitles used in DVD discs.

Features:

- Multiuser queued transcoding
- Transcodes into HLS format
- Video formats support: .avi, .mp4, .mpg, .and, DVD ISO images and many other
- Web interface control
- Support of multiple audio tracks
- Support of DVD subtitles

System is based on standard open source operating system Linux, what can minimize deployment costs. Additionally this product can be easily installed on dedicated server in any hosting data center. Product contains advanced remote management and monitoring applications.

Recommended configuration:

- Core i7 processor
- 2 GB RAM
- 500 GB HDD
- Operating System Ubuntu Server 12.04 64bit

Requirements:

Client side JAVA browser support (for large files upload)

Example of movie encoding

Video format (avi, mp4...) -> encode -> HLS (customized for VOD)

Encoding duration: from 2 to 5 hours (depending on the movie length and HW server configuration)

Encoding process:

- Login in to web based application
- Upload movie(s) using integrated JAVA applet
- Enter basic information about movie and define bitrate
- Enqueue movie for encoding
- Wait until movie is being encoded
- Download final movie package
- Transport encoded package on VOD storage server (product Streamer)



KeyRider Scrambling / Stream Protection

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.

Key Server defines keys and assign them to specific channels. Key server continuously generates new version of keys in defined interval (for each key the interval can be defined independently) - key rotation. Media Streamer periodically downloads new versions of keys and encipher the channels which it finds in keyserver definitions using strong AES-128 algorithm. For mediaplayer decipher there is in playlist KeyID for each video segment included. Player asks KeyServer for the exact key using http XML request which is protected by even stronger AES-256 algorithm. KeyServer answers with the key or not based on the client database. For communication with KeyServer each client has assigned unique cipher key. In case of compromising unique end-user device it is possible to block this device separately, not to endanger the whole system. To allow to operate 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
 - smartphones (iOS, Android, Win8)
 - tablets
 - PC
- Customer database



Key features

- multiplatform solution - STB, Android, Win8, iOS and multi-cast delivery
- designed for TV Everywhere (OTT) environment
- using above industry standard AES-128 algorithm - 128bit long key!
- protects live streaming, catch-up (archive), VOD and PVR
- easy to install and operate on standard HW equipment
- AES 256 used for data exchange between servers and devices

ID	RENEW	ACTIVE VERSION	LATEST VERSION	OLDEST VERSION	VERSIONS
STV1	twice	Version: 136306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 184363ad6209b4d872586c3338a	Version: 1363306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 1040163af8f093a4d72386c3383a	Version: 1361444344 Generated: 2013-02-21 11:59:04 (234.20h) Value: 85d8e79981d2435d0b6e4d4e9140	30990
MARKIZA	twice	Version: 136306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 4d01021317782d6d631e4b8a61098	Version: 1363306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 4d01021317782d6d631e4b8a61098	Version: 1361444344 Generated: 2013-02-21 11:59:04 (234.20h) Value: 85d8e79981d2435d0b6e4d4e9140	30884
STV2	twice	Version: 136306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 1ee32e4c08baa07f43ae9b30c8419	Version: 1363306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 1ee32e4c08baa07f43ae9b30c8419	Version: 1361444344 Generated: 2013-02-21 11:59:04 (234.20h) Value: 1532750b3cd0c8d0e40c7e1a603f	30881
DOMA	twice	Version: 136306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 9026b3079d3303b0d7f9e0770793d1	Version: 1363306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 9026b3079d3303b0d7f9e0770793d1	Version: 1361444344 Generated: 2013-02-21 11:59:04 (234.20h) Value: 1e30413c703a3a3a3a3a3a3a3a3a3a	30880
JOJ	twice	Version: 136306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 1ee32e4c08baa07f43ae9b30c8419	Version: 1363306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 1ee32e4c08baa07f43ae9b30c8419	Version: 1361444344 Generated: 2013-02-21 11:59:04 (234.20h) Value: 1532750b3cd0c8d0e40c7e1a603f	30880
JOJPLUS	twice	Version: 136306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 4d7479a160a3d85e07e3d8d8e13a3	Version: 1363306100 Generated: 2013-02-17 08:41:40 (34sec) Value: 4d7479a160a3d85e07e3d8d8e13a3	Version: 1361444344 Generated: 2013-02-21 11:59:04 (234.20h) Value: 7af0d0d91a2a38a8972791e146a34	30880

Stream Keeper

Easy to use stream monitoring solution with web interface

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.

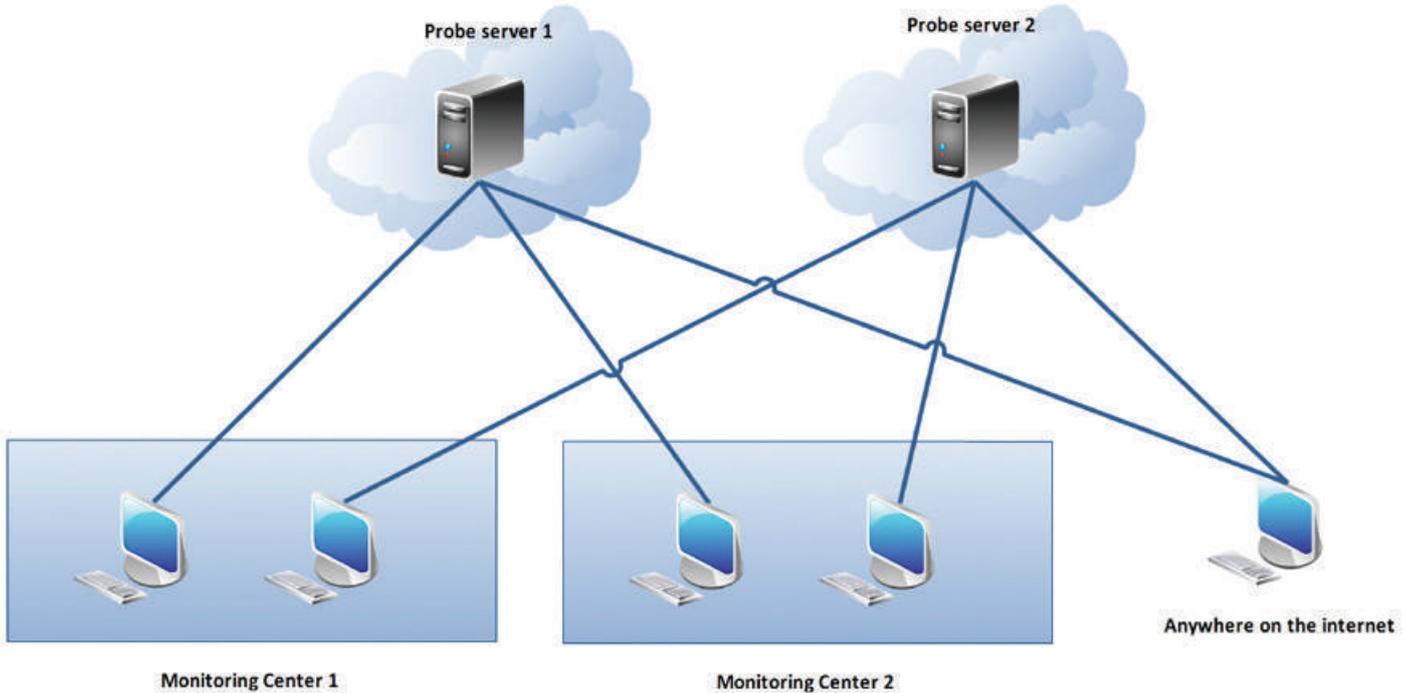
NEW: Buffer underflow and TS discontinuity detection., unicast UDP, RTP, HTTP, MMS and many more types of stream.

- High-speed paralel stream testing
- Advanced web-based ajax monitoring application
- Stream status history and error statistics
- Sound alarm
- XML stream database synchronization



SERVER - WebCLIENT ARCHITECTURE

StreamGuard allows you to use many probes in your network and display monitoring screens in many locations.

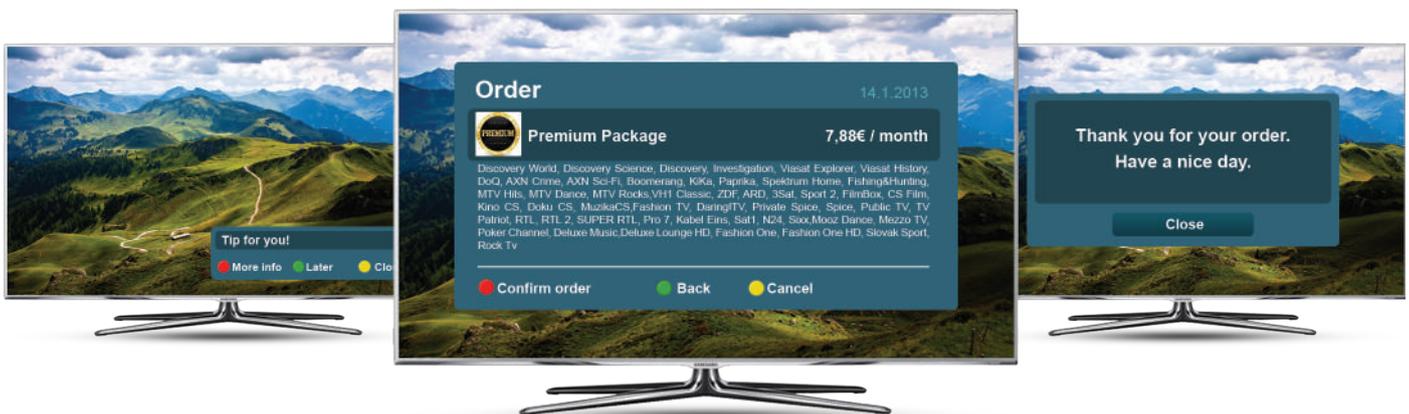


Advertising Delivery Client

Allows targeted ad insertion that is highly effective and interactive. IPTV providers can target ad based on customer groups and geographical location even when many users are watching the same video program. Main identification is MAC address of each set-top box.

Controlling of movement and selecting options can be made by arrows and OK button or by pressing color buttons (yellow, red, green, blue). Various options of interaction, e.g. end user can choose from 3 simple buttons: close, later, more. After clicking on the More button new window can appear with information, images and order button. This is new form of advertising where Telco Operators can benefit from new revenue streams.

Easy XML editor is bringing wide scale of possibilities to customize your ad or announcement to fit in particular end user group. Admin can edit various settings like font size and type, bold, layout, images, buttons etc. In this editor admin can configure also what will happen after making order or confirming some choice, e.g. automatic change, confirmation email or phone call.



Admin can set up time plan of all campaigns and also their repetition in scheduled times.

The targeted and interactive IPTV advertising system gives IPTV operators the ability to insert ads into TV programs that are aimed at particular communities of interest and even specific households.

After each campaign is available statistics, where admin can see success of the campaign and reached KPIs with other analytical data.

For running this feature is needed just simple web server for storing campaign information files and custom scripts to analyze received data. In saved XML file are processed requirements from end customer, e.g. buy TV package, food, product, questionnaire, ranking, etc. For this server part is needed just low HW requirements, which are depending on the quantity of set-top boxes.

Global OTT IPTV Service

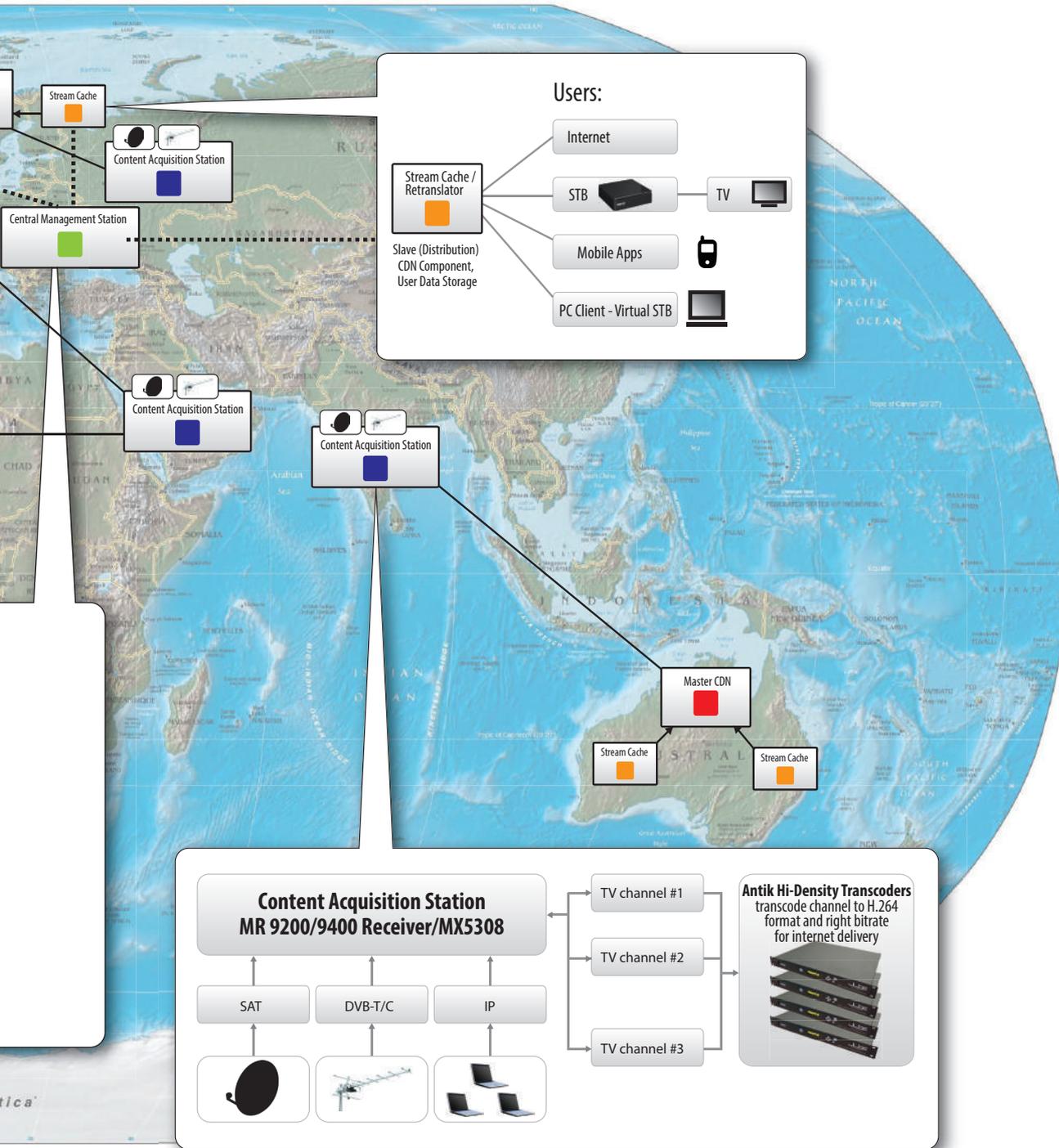
Acquisition - Transcoding - Streaming - Protection - Mid



Legend:

 Master CDN Component	 Central Management Station
 Slave (Distribution) CDN Component, User Data Storage	 BackUp Management Station
 Content Acquisition Station	 HTTP Segment Streaming OTT Set-Top Box
 Stream	 Control connection

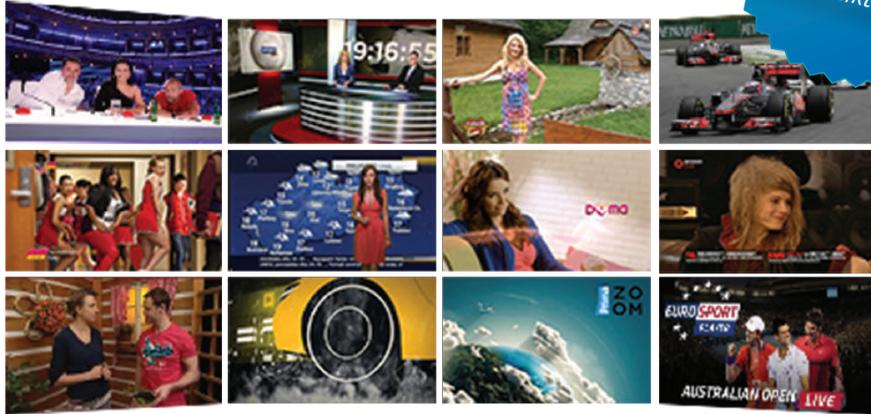
Middleware - Monitoring - VOD - TV Archive - Mozaic - EPG



Antik Monitoring Room

Cost-effective and high-performance tool for NOC IPTV monitoring

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



Brief Introduction

- Software based and cost-effective but high-performance IPTV monitoring tool
- Support a powerful mosaic overview for multiple services
- Multiple rotating mosaic screens with dozens streams can be visualised on same monitor using round-robin feature
- Support various alarm detection to ensure QoE and QoS
- Providing scalable pricing policy for easy entry and easy extension
- UDP, RTSP protocols in format TS, RTSP, RTMP, HTTP streaming, HLS streaming
- SNMP supported



Window configuration



Monitoring Room window



Alarm window

Antik Monitoring Room Specification

Key Features

Video	Audio	IP Source
<ul style="list-style-type: none"> • MPEG2 • MPEG4 part2 • H.264/AVC • AVS 	<ul style="list-style-type: none"> • MPEG1/2 • AAC • AC3 • Dolby 5.1 	<ul style="list-style-type: none"> • UDP • RTP • RTSP • RTMP • HLS
Resolution	Capacity	OS
<ul style="list-style-type: none"> • SD • HD 	<ul style="list-style-type: none"> • 8/32/48 • 64/80/ULT 	<ul style="list-style-type: none"> • Windows Server 2008 R2 • Windows 7 Professional / Ultimate
Detections	Alarm	Log
<ul style="list-style-type: none"> • freeze frame • black • color bar • audio loss • video loss • loudness 	<ul style="list-style-type: none"> • OSD (on-screen visual alarm) • Alert tone • Database records 	<ul style="list-style-type: none"> • Alarm log storage • Query by time/ program name / error type

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

IPTV Hospitality Solution

All you need to operate hi-end entertainment system on your premises

ANTIK Technology brings top-level entertainment, x-sell opportunities and state-of-art guest services for your hospitality business. Starting from crystal clear HD TV channels reception, through fully customizable guest services user interface on your screen to modern on-demand movies, TV archive, internet services access, guest mediaplayer, local touristic information service and many more. Easy to use reception interface for guest requests management. Quick setup in hotel of any size for standalone operation or full integration with hotel informations systems.



Top Features

- Crystal clear HD TV channels
- Welcome screen
- Hotel bill, Food ordering, Messages and more
- On-demand movies
- Content Management System
- Internet apps + Mediaplayer
- Quick setup
- In-room wifi

ORDER DEMOKIT NOW!

Full solution in hospitality demokit:

- hardware included
- free support for instalation

Guest Internet Services Management

Fully integrated with hotel PMS and Antik IPTV Hospitality Internet Services Management covers all needs of all kinds of your guests – from one-day conference visitors, through families on holidays to long-term apartment users. Plenty of billing choices – per time/per data consumption/per date period/free vouchers or completely free system. Both cable and wireless internet distribution in-room and on-premises supported. Internet users welcome screens customizable to serve your up-sell and cross-sell needs interconnected with TV screen conten offerings.



End-To-End IPTV FOR YOUR PROPERTY

High-Definition 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 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 DLNA 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.



Reception User Interface

All guest requests and messages are easily collected and managed directly from reception desk and/or other hotel departments using unified user interface.



Content Management System and Integration

Feature-rich CMS allows the hotel to bring all new guest offers and services to the TV screens instantly – without expensive technical support or development – from new room service options, through special promotions to 3rd party offers. Nothing is easier than to add or remove menus, submenus and specific items, all ready within minutes to give you enough time to spend time with your guests not with technology.





New Hospitality UI

Main Menu

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



Interactive TV

High Definition 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.



New Hospitality UI

Food Delivery

All your room-service offer is now available via guest TV set. All guest must do is to select food option and confirm by OK button. All guest request appear on reception dashboard or in your hotel system instantly.



New Hospitality UI

My Bill

All guest orders ordered by IPTV or in other hotel departments will appear in one simple table for guest to review before check-out thanks to integration with your hotel system.



Messaging

All communication from reception can appear on TV screen instantly. Older messages are stored in guests inbox on TV.



Content Management System

All guest offers (main menu, food service, hotel services, sightseeing options, etc.) can be quickly modified or extended using content management system. No coding is necessary, everything is provided by simple WYSIWYG interface.



Hotel Systems Integration

Antik Hospitality IPTV communicates with Fidelio information system so all guests orders are automatically transferred to your hotel system and data from the system are imported to IPTV system. This way the client can see his hotel bill or kitchen know about food order instantly.



Reception Desk Dashboard

Antik IPTV System can work independently without integration with 3rd party systems as well. Reception Desk collects all requests coming from the rooms as well as my bill status and messaging systems to guest rooms.



New Hospitality UI

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 systems and the result appears without any intermediary work on guests TV sets.

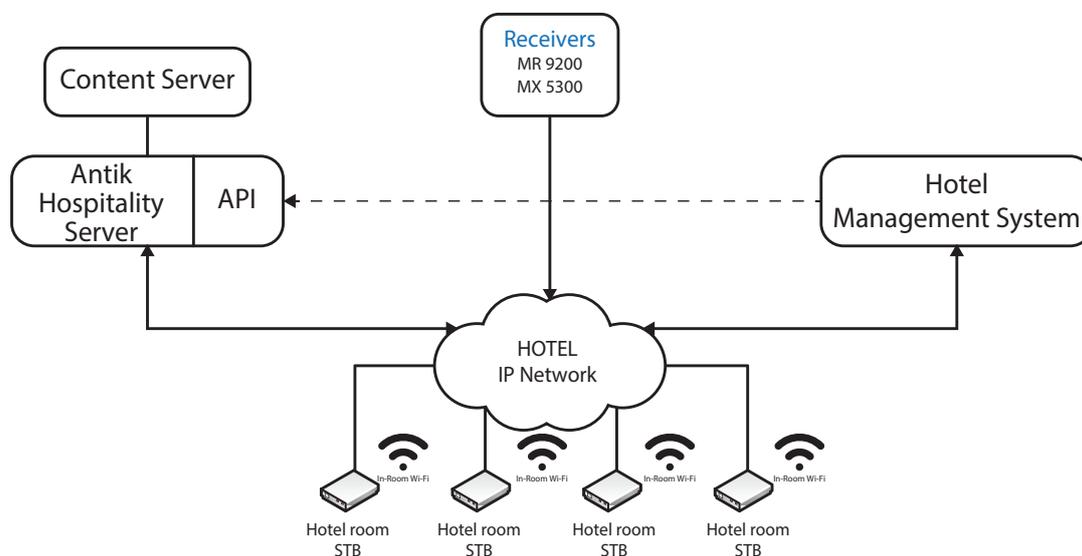
Hospitality IPTV Set-Top Box&In-Room Wi-Fi



ANTI-K delivers state-of-art Antik Mini 2 set-tops customized for hospitality operation. Set-top boxes are equipped with remote IR receiver and they have embedded WiFi feature as a client mode.

How to setup your hotel IPTV?

ANTI-K Technology provides all components necessary to setup IPTV in your hotel. In case your hotel is equipped with Ethernet cabling and multicast supported switches, only components you will need are Antik Hospitality content management system, Antik receivers and Antik IP STBs. In case of coaxial cabling our hybrid DVB-C+IP set-top boxes will be used for decoding live TV and for headend you will need content management system and Antik MultiReceiver&Transmodulator. For exact BOM, tuned to your project please ask our sales team.



Antik Hospitality IPTV Components at Glance

- Antik MR 9200 / 9400 DVB-C/S2/T receiver
- Antik HDMI / CVBS Encoder
- Antik VOD Server
- Antik IPTV Management System & PMS
- Antik Hospitality CMS
- Antik Hospitality Middleware
- Antik Hospitality STB
- Antik Media Apps
- Antik Hospitality IPTV Accessories (Keyboard, Wi-Fi)
- Antik DVB-C/S2/T to IP receiver (MX | MR series)

Encoding Analog - Digital

Up to 8 simultaneous programs - ANTIK ENCODER EN 4900

Antik Encoder EN 4900 is an integrated high density MPEG-2 Encoder. Eight streams of base-band Standard Definition (SD) real time A/V programs could be encoded simultaneously. These encoded streams could be re-multiplexed with the stream from its ASI input port. The final re-multiplexed Transport Stream (TS) is available at its Gigabit TS over IP port and ASI output port.



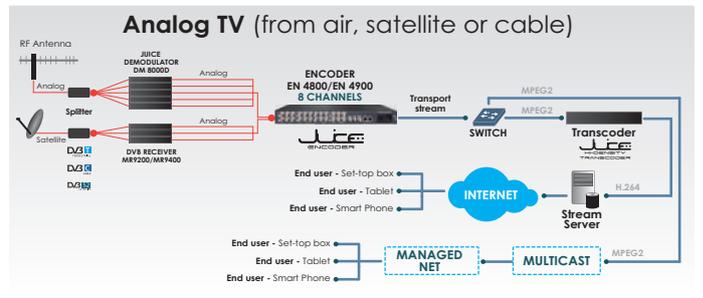
Key Features

- Support 8AV, 1 ASI Input
- Support MPEG2 format encoding
- Support PAL NTSC format
- Support Maximal 108Mbps ASI input
- 0.8Mbps~20Mbps each channel
- Support D1, HD1, 2/3D1, 3/4D1 resolution
- Support multiplexer function
- Support ASI and IP output
- Support Keyboard and LCD operation
- Update device through NMS port

Specification

- | | | |
|---|---|--|
| <p>Video Resolution:</p> <ul style="list-style-type: none"> • PAL 720x576_50i, 704x576_50i, 640x576_50i, 320x288_50i, 176x288_50i, 176x144_50i • NTSC 720x480_60i, 544x480_60i, 352x480_60i, 320x240_60i, 176x240_60i, 176x120_60i • Encoding MPEG-2 MP@ML • Bit-rate 0.125Mbps~19Mbps each channel • Rate Control CBR/VBR • GOP Structure IPPPP, IBPBP, IBBPB, IBBPB • Advanced Pretreatment De-interlacing, noise reduction, sharpening | <p>System Function</p> <ul style="list-style-type: none"> • LCD/keyboard operating, NMS support-ing • English control interface • Ethernet software upgrade <p>Input</p> <ul style="list-style-type: none"> • 8 CVBS inputs , BNC interface • 8 pairs unbalanced stereo audio input, BNC interface • 1 ASI input, BNC interface <p>Stream Output</p> <ul style="list-style-type: none"> • 2*ASI output, BNC interface • MPTS over UDP, 10/100Base-T Ethernet interface (UDP uni-cast • /multicast), 8 SPTS (optional) | <p>Audio</p> <ul style="list-style-type: none"> • Encoding MPEG1 Audio Layer 2, LC-AAC, HE-AAC • Sampling rate 32 KHz, 44.1 KHz, 48KHz • Bit-rate 32Kb/s~384Kb/s each channel <p>Multiplexing</p> <ul style="list-style-type: none"> • 1 ASI input multiplexed with local 8 channels of TS <p>Interfaces On Rear Panel</p> <ul style="list-style-type: none"> • Dimension (Wx Lx H) 482mmx455mmx44mm • Approx weight 4kg • Temperature 0~45 °C (work), -20~80 °C (Storage) • Power AC 100V-220V±10%, 50/60Hz • Consumption 17.6W |
|---|---|--|

	Function	Encoder EN 4900-CVBS	Encoder EN 4900-HDMI	Encoder EN 4900-SDI
Input	8x CVBS	•		
	8x HDMI		•	
	8x SDI			•
	ASI	•	•	•
Output	2x ASI (1x Backup)	•	•	•
	Gigabit Ethernet	•	•	•



Back Panel EN 4900 Encoder

Antik Bandwidth Efficient H264 Encoder / Transcoder

EX6200 Antik optimised encoder for low bit-rate streams



Specification

INPUT

Interface

- IP stream input over multiple Ethernet ports
- Optional HDMI / SDI / HD-SDI / ASI

Stream

- **Live**
 - MPEG2 TS (SPTS & MPTS)
 - MPEG TS / RTP
- **File**
 - MPEG2 TS / MPEG2 PS
 - MP4
 - MKV
 - FLV
 - WAV
 - 3GP

Video codec

- MPEG 2 HL / ML
- MPEG4 SP / ASP
- H264 BP/MP/HP

Audio codec

- AAC-LC, HE-AAC v1, HE-AAC v2
- AC3
- MP3, MP2
- LPCM

OUTPUT

Interface

- IP stream input over multiple Ethernet ports
- Optional ASI

Stream

- Apple HLS*
- Microsoft Smooth streaming*
- Flash-RTMP*
- RTSP*
- MPEG TS over UDP
- File mode

Video stream processing

- Output Video Codec - H264 BP/MP/HP
- Fixed and dynamic GOP
- On the Fly dynamic bit rate - 32Kbps to 25Mbps
- Rate control - CBR, VBR, Constrained VBR
- Screen size - from 80x64 to 1080p
- Transcode acceleration mode
- Output profiles balancing

Audio

- Output Audio Codec - AAC-LC, HE-AAC v1, HE-AAC v2
- Sample rate - 8Khz to 48 KHz
- Channels - 2 to 8
- Bit rate - 32Kbps to 384Kbps

IMAGE PROCESSING

Pre processing

- De interlacing
- Image enhancement features
- Resizing - Upscaling / Down Scaling
- Frame rate adaption
- Cropping

Post processing

- Popular DRM

Management

- CLI (command line interface)
- SNMP
- Web Management

Application interface

- Antik IPTV platform
- Customisable for popular CDNs and Cloud interface

Platform specification

- **1RU form factor**
- **Optional redundancy**
- **Based on INTEL X86 architecture**
- **Linux RedHat OS (RHEL)**
- **Customisable for specific set of input / output features**
- **Warranty high-quality streams**
- **support Antik STREAMER, WOWZA**

Antik HDMI Encoder

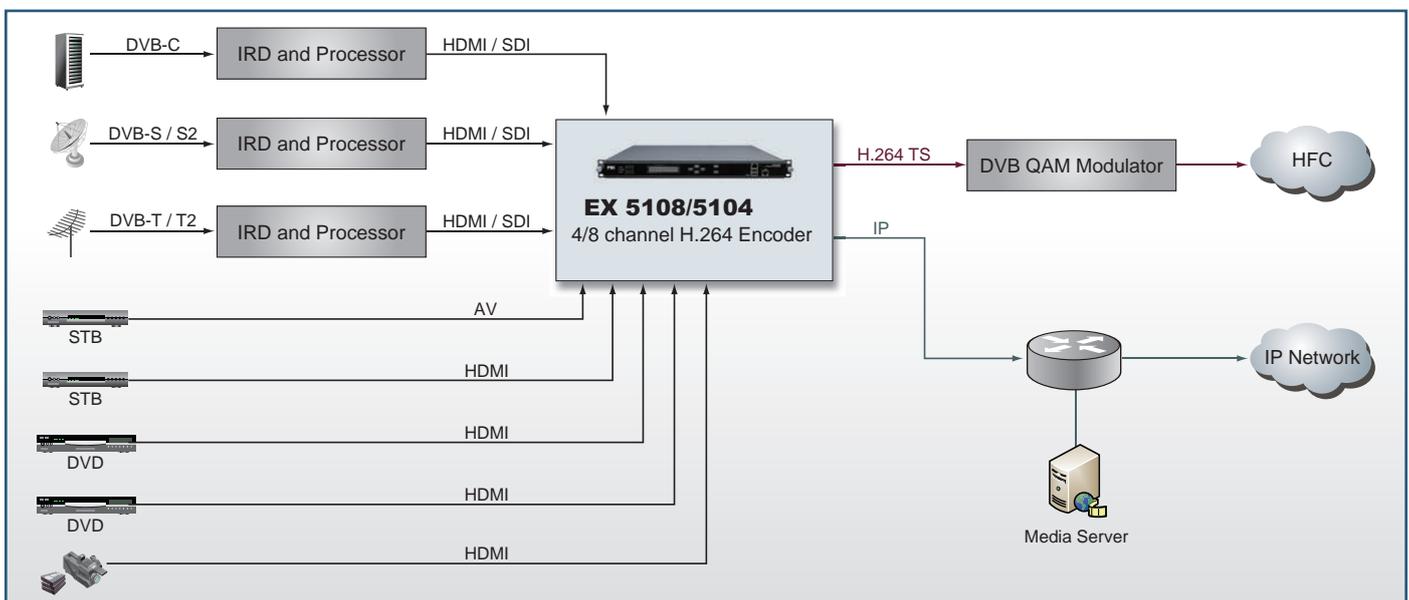
EX5108 / EX 5104 Encoder 8x / 4x (HDMI / SDI / CVBS) Encoder for Multicast / OTT IPTV

EX5108/EX5104 is a series of high density real-time H.264 HD/SD Encoders that can support up to eight High Definition (HD) A/V signals compressing and encoding simultaneously. These A/V signals can be fed into the unit via 8x HDMI or 8x SDI input ports as different factory options. The encoded streams can be then remultiplexed and output over its GbE IP and ASI ports. All models support Time Base Correction (TBC) to ensure the audio and video synchronisation, the features necessary for the professional TV signal flow. The series provide two TS/IP operation modes. The first is "Full Duplex", which allows one MPTS or SPTS inputted over 1 multicast/unicast to make up a new MPTS with local encoders, then sends out the new one over 1 multicast/unicast. In the second mode "Multiple output" which delivers up to 9 streams over IP. There are 8 un-stuffed SPTS (lower bit rate but less PCR accurate than normal SPTS, from local encoders) and 1 MPTS (from internal reMultiplexer) over the IP with different Unicast or Multicast IP addresses. EX5108/EX5104 allows user to configure, monitoring and manage over the informative front panel and keypad, or Web interface, or SNMP based management software from 3rd party. This Encoder family presents brilliant picture quality, high density design, high stability system architecture, and the hot-swappable power supply.



Key Features

- H.264/AVC HP@L4.0 Encoder
- MPEG1 Layer II, MPEG2 AAC-LC, MPEG4
- AAC-LC audio compression
- 4/8 channels real time encoder with re-multiplexed integrated
- Built-in re-Mux accepts up to 10 SPTS / MPTS
- ASI input & Redundant ASI output
- Full duplex Gigabit TS over IP I/O
- Up to 9 multicast/unicast output
- VBR and CBR encoding mode
- Free resolution downscale at same frame rate
- SNMP & HTTP WEB
- Redundant Power Supplies





Model		EX5108H	EX5104H	EX5108S	EX5104S	EX5108AV
Input	HDMI	x8	x4			
	HD-SDI (BNC)			x8	x4	
	ASI (BNC)	•	•	•	•	•
	AV (BNC)					8x
	TS/IP (under full duplex mode)	•	•	•	•	•
Output	2x ASI (1x Back-up)	•	•	•	•	•
	TS/IP (GbE)	•	•	•	•	•
AAC-LC Audio		•	•	•	•	

Specification

Video input & compression

- Number of input ports HDMI x 4/8 or HD-SDI x 4/8
- Compression Standard H.264/AVC HP@ L4.0
- Video Sampling Format 4:2:0, 8-bit, YCbCr
- Video Encoding Bit Rate 2~30Mbps for each channel
- Video Resolution & Recommended Bit Rate
 - 1080p (1920x1080) @ 59.94 Hz,50Hz: SMPTE296M: 6~30Mb/s
 - 1080 (1920x1080) @25Hz,29.97Hz,30Hz:SMPTE274M: 6~24Mb/s
 - 1080i (1440x1080) @25Hz,29.97Hz, 30Hz:SMPTE274M: 5~24Mb/s
 - 720p (1280x720) @50Hz,59.94Hz, 60Hz:SMPTE296M: 4~24Mb/s
 - 480i (720x480) @29.97Hz:SMP-TE656M: 2~10Mb/s
 - 576i (720x576) @25Hz: SMPTE656M: 2~10Mb/s
- Other Video Resolution Free resolution downscale at same frame rate
- Aspect Ratio 4:3/16:9 Selectable

DVB-ASI Input

- Interface BNC Female, 75Ω
- Maximum Input Bit Rate 100 Mb/s
- Data Transfer type Byte
- Packet Length 188 or 204 Bytes
- Signal Level 200 ~ 880mVp-p

DVB-ASI Output

- Interface BNC Female, 75Ω
- Maximum Input Bit Rate 120 Mb/s
- Data Transfer type Byte
- Packet Length 188 or 204 Bytes
- Signal Level 800 ± 80mV

Gigabit TS_over_IP (Full Duplex Mode)

- Standard IEEE 802.3, 10/100/1000 Base-T, Full Duplex
- Max. Effective Bit Rate 80Mb/s
- Data Protocol UDP or RTP, SPTS or MPTS
- Control Protocol ICMP, ARP, IGMPv2

Gigabit TS_over_IP Output (Multi-Channel IPTV Mode)

- Standard IEEE 802.3, 10/100/1000 Base-T
- Max. Effective Bit Rate 200Mb/s
- Data Protocol UDP or RTP, SPTS or MPTS
- Control Protocol ICMP, ARP, IGMPv2

Rear Panel

- ASI In 1xBNC Female, 75Ω
- HD-SDI In 8xBNC Female, 75Ω (DXP-5800/5801EC-S)
- HDMI In 8xHDMI Male, 75Ω (DXP-5800/5801EC-H)
- ASI Out 2xBNC Female, 75Ω (1 Backup)

Front Panel

- Control 1xRJ-45, 10/100 Base-T
- TS/IP 1x IP (GbE), RJ-45, 10/100/1000 Base-T
- Display 2x20 LCD Display

Audio Input & compression

- Input HDMI or SDI Embedded audio
- Audio Compression MPEG1 Layer II, MPEG2 AAC-LC, MPEG4 AAC-LC (option)
- Sampling Rate 48KHz
- Compression Bit Rate 32~192Kbps(-Mono), 64~384Kbps (Stereo), 128~512Kbps(AAC LC)

Others

- Power Supply AC90~260V 50/60Hz
- Operating Temperature 0~45°C
- Storage Temperature -10~60°C
- Operation Humidity 10~90%, (Non-condensed)

Antik Hi-Density Transcoder

15 Channels ASIC H264 Transcoder for 1U rack Max 120CH per 8 transcoders x 1U

Antik's Hi-Density Multi-Transcoder based on ultra-fast ViXS chipset is offering you a great tool for your project. It's capable of transcoding up to 15 SD or HD channels. Slim 2x1U Rack design will save you space and money. You can have up to 8 transcoding modules, each can transcode 15 TV channels, so in total you will be able to manage 120 channels. This solution is great for any IPTV project, from typical Telco headends to large scale OTT projects. Extremely cost effective solution per channel.



Key Features

- Real time transcoding of up to 15 video streams
- Multi-format IP2IP video transcode (H.264, MPEG2)
- HD Encoding up to 1080i
- 2x1U slim rack-mounted design
- Low power consumption
- 10/100/1000 Base-TX Ethernet network interface
- Front panel with OLED display
- WEB-based remote configuration and control (HTTP), SNMP support
- All SD and HD resolutions support
- Support of wide range of bit rates: 6Kbps to 40 Mbps
- Compatible with all major television broadcasting standards: NTSC, PAL, SECAM

Antik Hi-Density Transcoder is professional tool for headend application developed to enhance transcoding efficiency and decrease its time delay. Supports a wide range of operating programs, from low to very high bit rates. The device features the latest advancements in video encoding, performing to H.264 and MPEG specifications. Multiprofilng option can secure various, impressive & flexible transcoding functions, which can be controlled to provide a plenty of transcoding applications.

All features are well supported by Antik Transcoder Web Management, where you can easily configure settings for your optimal performance. Front panel with OLED display is offering also another way how to manage or check the status of device. All together, this system is extremely cost effective solution per channel.



15Channels ASIC H264 Transcoder for 1U rack Max 120CH per 8 transcoders x 1U

Specification

Video Transcoding

- MPEG2 SD/HD to MPEG2 SD/HD
- MPEG2 SD/HD to MPEG4 SD/HD AVC
- MPEG2 SD/HD to MPEG4 SP/ASP
- MPEG4 SD/HD AVC to MPEG2 SD/HD
- MPEG4 SD/HD AVC to MPEG4 SD/HD AVC
- MPEG4 SD/HD AVC to MPEG4 SP/ASP
- Bit-rate reduction of multiple streams, 40Mbps to 64Kbps Resolution reduction, HDTV to HDTV, SDTV.

Outputs

- RJ45 Ethernet 10/100/1000Mbps

Typical Applications

- Multiprofile/Multistream Transcoder for Over-the-Top delivery: MPEG2/MPEG4 to H.264 transcoding and transrating
- Multiprofile/Multistream Transcoder for Over-the-Top delivery: MPEG2/MPEG4 to H.264 transcoding and transrating, SD->SD, HD->HD, HD->SD

Strong Chipset Platform

- 1200DMIPS Multi-Chip Platform for highest transcoding performance

Audio / Video Containers

- Multiple Audio / Video containers supported

Programmable Audio Processing

- MPEG2 LI, LII
- MPEG2 AAC-LC-Stereo
- Dolby AC-3 True HD, 7.1, 5.1, Stereo

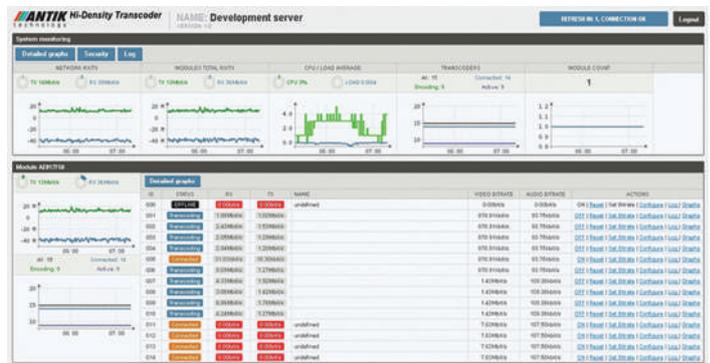
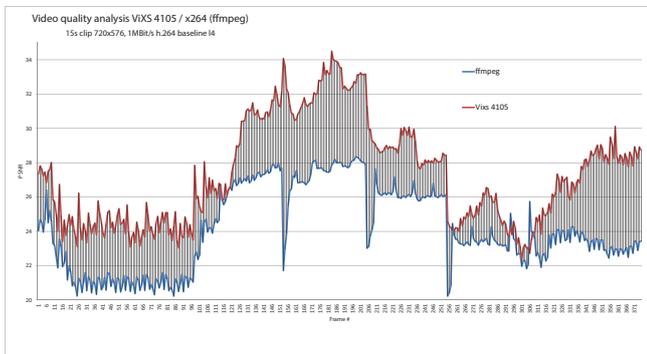
Audio Processing

- MPEG1, L1, L2, MP3, AAC, Dolby AC-3 True HD 7.1, 5.1.

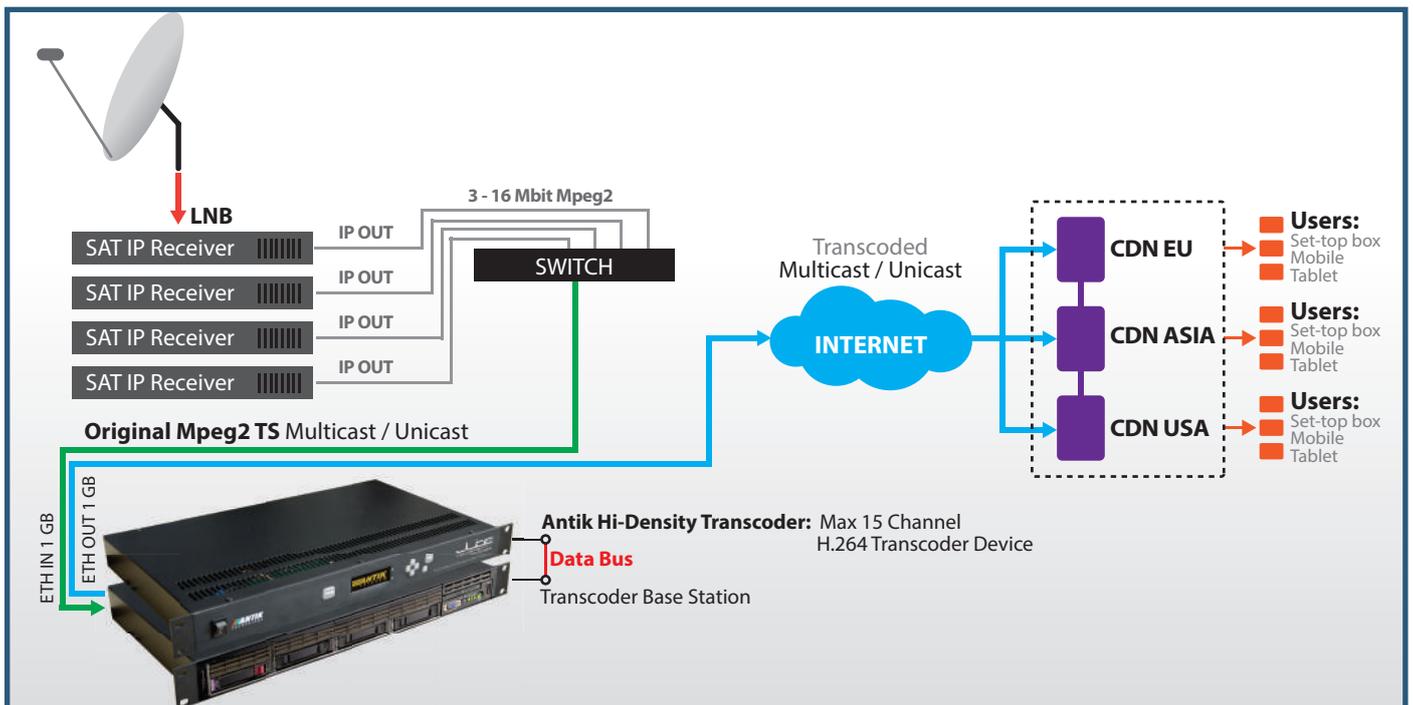
Environmental Conditions

- Operating Temperature 0°C - +50°C
- Storage Temperature -20°C - +70°C

Antik Hi-Density Transcoder vs. SW Encoder Picture Quality Comparison



Antik Ember
Hi-Density
Transcoder
Web Management



Antik MR 9200/9400 Multireceiver

HD & SD Digital TV Headend

Antik MR 9000 is a compact modular digital TV headend that includes professional MPEG-2 and MPEG-4 AVC/H.264 SD/HD IRD, MPEG-2 and MPEG-4 AVC/H.264 SD/HD Encoder/Transcoder, Re-Multiplexer, QAM/COFDM Trans-Modulator, Dual Channel Analog Modulator, DVB Scrambler and so on. Within a 4U×19" chassis, it provides 8 slots for any type of modules and 2 redundant power supply units. Thanks for its flexibility and high density, Antik MR 9000 offers operators the advanced headend architectures in the marketplace for delivering analog and digital broadcast services to their subscribers. Coming with more new modules, Antik MR 9000 is most suitable for future multiple network architectures: streaming and multiplexing of digital content over IP based networks and conversion of digital content for analog networks.



Specifications

- DVB-S2/S, DVB-S, DVB-C, DVB-T2/T IRD modules with CI
- DVB-S/S2T/T2 to DVB-C QAM and DVB-T COFDM trans-modulator module
- MPEG-2, H.264 HD/SD encoder and trans-coder module
- 8 Way re-multiplexer module
- DVB Simulcrypt, BISS-1, BISS-E scrambler module
- Rich interface with ASI, IP, SDI, YPbPr, CVBS, XLR
- Web, SNMP Remote Control or handheld programmer unit local control
- 4RU 19"chassis compact modular design, supporting up to 8 modules
- Functional module hot-swappable
- Redundant power supply
- Intelligent cooling system with temperature
- Stand-alone function of each module
- Cost-saving by backward compatible with new modules
- On site software update through IP

Antik MR 9000 Main Chassis

- Standard 8 slots for modules (could be extended to 9 slots by removing one power supply unit)
- Hot-swappable power supply unit
- Intelligent cooling system
- Wall mount or rack mount
- Backward compatible with new modules
- Power Supply: AC 100V-260V, 50-60Hz
- Dimension: L=340mm, W=483mm, H=178mm (4U)

MR 100 P Power supply

- Hot-backup power supply unit
- Power Supply: AC 100V-260V, 50-60Hz
- High reliability & efficiency
- 150Watts stable output power
- Dimension 343 110 x 47.5 mm
- 2nd Power supply only as backup

Antik MR 9200 Series

Professional MPEG-2 SD IRD and Processor Module

Antik MR 9200 DVB-S/S2 Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency Range 950~2150MHz
- Input Level -25~-65dBm
- Symbol Rates DVB-S QPSK: 5~45MS/s; DVB-S2 8PSK 10~31MS/s
- Roll-off Factor DVB-S QPSK: 0.35; DVB-S2 8PSK: 0.35, 0.25, 0.2
- Puncture Rates
- DVB-S2 8PSK: 2/3, 3/4, 3/5, 5/6, 8/9, 9/10,
- DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 6/7, 7/8
- LNB Power 0, 13V, 18V selectable
- 0/22K 0/22KHz selectable

Antik MR 9200 DVB-S Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency Range 950~2150MHz
- Input Level -25~-65dBm
- Symbol Rates 2~45MS/s
- Roll off factor 0.35
- Puncture Rates 1/2, 2/3, 3/4, 5/6, 7/8
- LNB Power 0, 13V, 18V selectable
- 0/22K 0/22KHz selectable

Antik MR 9200 DVB-C Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency Range 48~860MHz
- Symbol Rates 1~7MS/s (ITU J.83 Annex A)
- Constellation 64/128/256 QAM
- Input Level -15~-15dBmV
- Bandwidth 6/7/8MHz
- Input Return Loss 7dB (typ.)

Antik MR 9200 DVB-T Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency Range 174~230MHz (VHF); 470~860MHz (UHF)
- Input Level -20~-70dBm
- Constellation QPSK, 16-QAM, 64-QAM
- Carrier bandwidth 6/7/8 MHz
- FTT Mode 2K/8K
- Guard Interval 1/4, 1/8, 1/16, 1/32, off
- Puncture Rates 1/2, 2/3, 3/4, 5/6, 7/8



Antik MR 9400 Series

Professional Multi-format HD/SD IRD and Processor Module

Antik MR 9400 DVB-S/S2 Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency Range 950~2150MHz
- Input Level -25~-65dBm
- Symbol Rates DVB-S QPSK: 5~45MS/s; DVB-S2 8PSK 10~31MS/s
- Roll-off Factor DVB-S QPSK: 0.35; DVB-S2 8PSK: 0.35, 0.25, 0.2
- Puncture Rates
- DVB-S2 8PSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 8/10
- DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 6/7, 7/8
- LNB Power 0, 13V, 18V selectable
- 0/22K 0/22KHz selectable
- DiSEqC DiSEqC 1.0

Antik MR 9400 DVB-S Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency 48~860MHz
- Input Level 45~ 75dBuV
- Symbol Rate 1~7MS/s (ITU J.83 Annex A)
- Constellation 64/128/256QAM
- Bandwidth 6/7/8MHz
- Input return loss 7dB (typ.)

Antik MR 9400 DVB-C Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency Range 48~860MHz
- Input Level 45~75dBuV
- Symbol Rate 1~7MS/s (ITU J.83 Annex A)
- Constellation 64/128/256 QAM
- Bandwidth 6/7/8MHz
- Input Return Loss 7dB (typ.)

Antik MR 9400 DVB-T/T2 Tuner Input

- Connector Type 1 x F type female 75Ω for Input, 1 x F type female 75Ω for loop through output
- Input Frequency 104~862MHz (VHF/UHF)
- Input Level -20 ~ -70dBm (Quasi Error Free, QEF)
- Constellation
- DVB-T: QPSK/16-QAM/64-QAM
- DVB-T2: QPSK, 16QAM, 64QAM, 256QAM
- Bandwidth 6MHz/7MHz/8MHz
- FFT mode
- DVB-T: 2K/8K
- DVB-T2: 1K, 2K, 4K, 8K, 16K, 32K
- Guard 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.)

Interface	9200 S	9200 S2	9200 C	9200 T	9200 32S	9200 32S2	9200 32C	9200 32T	9400 32S	9400 32S2	9400 32C	9400 32T	9400 32T2	9400 32I
Tuner	S	S2	C	T	S	S2	C	T	S	S2	C	T	T2	ISDBT
ASI Input	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Common Interface	x2	x2	x2	x2	x2	x2	x2	x2	x2	x2	x2	x2	x2	x2
Built-in Re-mux	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ASI Output	•	•	•	•	•	•	•	•	x2	x2	x2	x2	x2	x2
SDI	•	•	•	•	•	•	•	•	x2	x2	x2	x2	x2	x2
Y Pb Pr									•	•	•	•	•	•
Audio L/R	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CVBS	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TS/IP (Max.6 SPTS or MPTS output)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TS/IP (Max. 32 SPTS or MPTS output)					•	•	•	•	•	•	•	•	•	•

Antik GX 5204/8

Multireceiver + Encoder / Transmodulator

GX-5204 integrates 4 DVB input Receiver on input and Transmodulator or Encoder as output in one 1U 19" chassis. It provides operators an ideal DTV headend setup solution by combining multi-channel receiving, descrambling, remultiplexing or encoding.

DVB QAM/COFDM modulation and TS over IP operations together in one single unit. Equipped with 4 independent tuner front end with various factory options for DVB-T/T2, DVB-S2/S, DVB-C, DTMB, ISDB-T and ATSC types, and industrial standard ASI and TS/IP inputs outputs, GX-5204 ensures the compatibility with all kind of transmission media.

High density real-time H.264 HD/SD Encoders use input from dedicated tuner frontend. The encoded streams can be then remultiplexed and output over its GbE IP and ASI ports.

All models support Time Base Correction (TBC) to ensure the audio and video synchronisation, the features necessary for the professional TV signal flow. The series provide two TS/IP operation modes. The first is "Full Duplex", which allows one MPTS or SPTS inputted over 1 multicast/unicast to make up a new MPTS with local encoders, then sends out the new one over 1 multicast/unicast.



Key Features

- 4 x Tuner Input, Supports variety of input options DVB-T2/T/S2/S/C/DTMB/ATSC/ISDB-T
- H.264/AVC HPOL 4.0 Encoder (MX5204SITH)
- Supports DVB-S2 Input Stream Identifier (ISI, optional) and DVB-T2 Multi PLP and SFN MIP pass through
- 4 x DVB QAM/COFDM Modulation, 4 x RF Channel Output (Adjacent channel)
- Built-in TS re-multiplexer receives from ASI, CI Slot1 to CI Slot4 and TS/IP inputs
- 4 x DVB-CI Slots, multi-program decryption, BISS-1 and BISS-E decryption
- 4 x ASI output the transport stream from CI Slot1 to CI Slot4 or BISS decryption
- 1xchannel full duplex TS over IP or 5xchannels 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

Function		MX5204SQ	MX5204SH	MX5204TQ	MX5204TH
Input	Tuner	DVB-S2/S	DVB-S2/S	DVB-T2/T/C	DVB-T2/T/C
	ASI (BNC)	x1	x1	x1	x1
	TS/IP (GbE, RJ45)	•	•	•	•
Output	ASI x 4 (BNC)	•	•	•	•
	TS/IP (GbE, RJ45)	•	•	•	•
	QAM Modulation	•		•	
	COFDM Modulation		•		•
	RF Monitor -20dB	•	•	•	•



Back Panel GX 5204/8 Multireceiver + Encoder / Transmodulator

Specification

Tuner

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

- **Connector Type** 4×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-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, available for Tuner 1&2
- **LNB Band Selection Tone** 0/22KHz selectable, available for Tuner 1&2
- **Satellite Selection Command** DiSEqC 1.0
- **ISI ID** 1~255 user configurable

DVB-C Tuner Input

- **Connector Type** 4×F type female 75Ω for Input
- **Standard** EN 300 429, ITU J.83 Annex A, B, C
- **Input Frequency Range** 51~862MHz
- **Input Level**
 - 47~95dBμV 16QAM, SR=6.875Msps
 - 256QAM, SR=6.875Msps
- **Symbol Rate** 1~7MBaud (ITU J.83 Annex A)
- **Constellation** 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- **Bandwidth** 6MHz, 7MHz, 8MHz
- **Input Return Loss** 8dB (typ.)

DVB-T/T2 Tuner Input

- **Connector Type** 4×F type female 75Ω for Input
- **Standard**
 - EN 300 744(DVB-T)
 - EN 302 755 (DVB-T2)
- **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
 - 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.)

Encoder

Video input & compression

- **Number of input ports** HDMI x 4/8 or HD-SDI x 4/8
- **Compression Standard** H.264/AVC HP@ L4.0
- **Video Sampling Format** 4:2:0, 8-bit, YCbCr
- **Video Encoding Bit Rate** 2~30Mbps for each channel
- **Video Resolution & Recommended Bit Rate**
 - 1080p (1920×1080) @ 59.94 Hz,50Hz: SMPTE296M: 6~30Mb/s
 - 1080 (1920×1080) @25Hz,29.97Hz,30Hz:SMPTE274M: 6~24Mb/s
 - 1080i (1440×1080) @25Hz,29.97Hz, 30Hz:SMPTE274M: 5~24Mb/s
 - 720p (1280×720) @50Hz,59.94Hz, 60Hz:SMPTE296M: 4~24Mb/s
 - 480i (720×480) @29.97Hz:SMP-TE656M: 2~10Mb/s
 - 576i (720×576) @25Hz: SMPTE656M: 2~10Mb/s
- **Other Video Resolution** Free resolution downscale at same frame rate
- **Aspect Ratio** 4:3/16:9 Selectable

Gigabit TS_over_IP (Full Duplex Mode)

- **Standard** IEEE 802.3, 10/100/1000 Base-T, Full Duplex
- **Max. Effective Bit Rate** 80Mb/s
- **Data Protocol** UDP or RTP, SPTS or MPTS
- **Control Protocol** ICMP, ARP, IGMPv2

Audio Input & compression

- **Input** HDMI or SDI Embedded audio
- **Audio Compression** MPEG1 Layer II, MPEG2 AAC-LC, MPEG4 AAC-LC (option)
- **Sampling Rate** 48KHz
- **Compression Bit Rate** 32~192Kbps(- Mono), 64~384Kbps (Stereo), 128~512Kbps(AAC LC)

Transmodulator

QAM Modulation

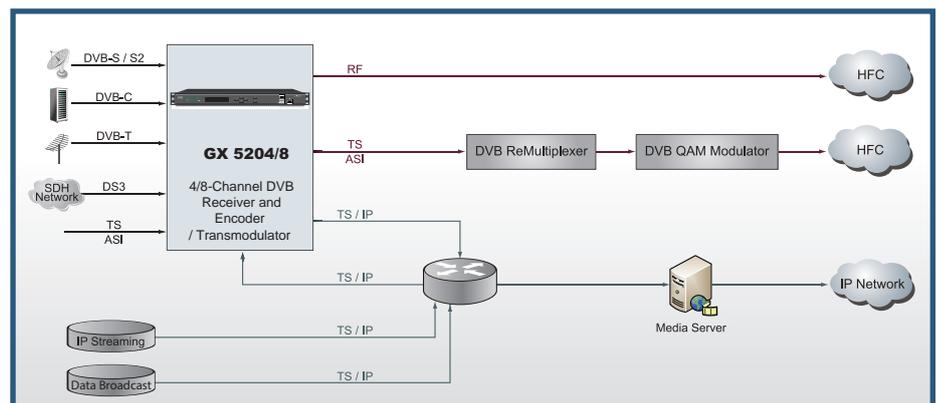
- **Standard of System** ETSI EN300 492, ITU J.83, Annex A/C: 16/32/64/128/256QAM
- **Symbol Rate** 2.5~6.99 Bauds
- **Constellation** 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- **I/Q Amplitude Error** ≤ 0.1%
- **I/Q Phase Error** ≤ 0.1%
- **Phase Jitter** < 0.5°RMS
- **MER** 36dB min., 42dB typ. (with tester equalizer "off")

COFDM Modulation

- **Standard of System** ETSI EN 300 744
- **Constellation** QPSK/16QAM/64QAM
- **Bandwidth** 5/6/7/8MHz
- **FTT carrier number** 2K, 8K
- **Guard Interval** 1/4, 1/8, 1/16, 1/32
- **FEC rate** 1/2, 2/3, 3/4, 5/6, 7/8
- **MER** 36dB min., 40dB typ.

RF Output

- **Interface** 1x F-type Female, 1x F-type Female(-20dB), 75Ω
- **Carrier Central Frequency** 48~996MHz adjustable, step by 1 KHz
- **Output Level**
 - 92-109dBμV@1 RF output enabled,
 - 88-105dBμV@ 2 RF output enabled,
 - 85-102dBμV@3 RF output enabled,
 - 83-100dBμV@ 4RF output enabled step by 1dB
- **Spurious** ≥55dBc typ.
- **Return Loss** ≥12dB typ.



Antik MX 5308 Receiver

8 x DVB to IP Multifunction Receiver (IRD)

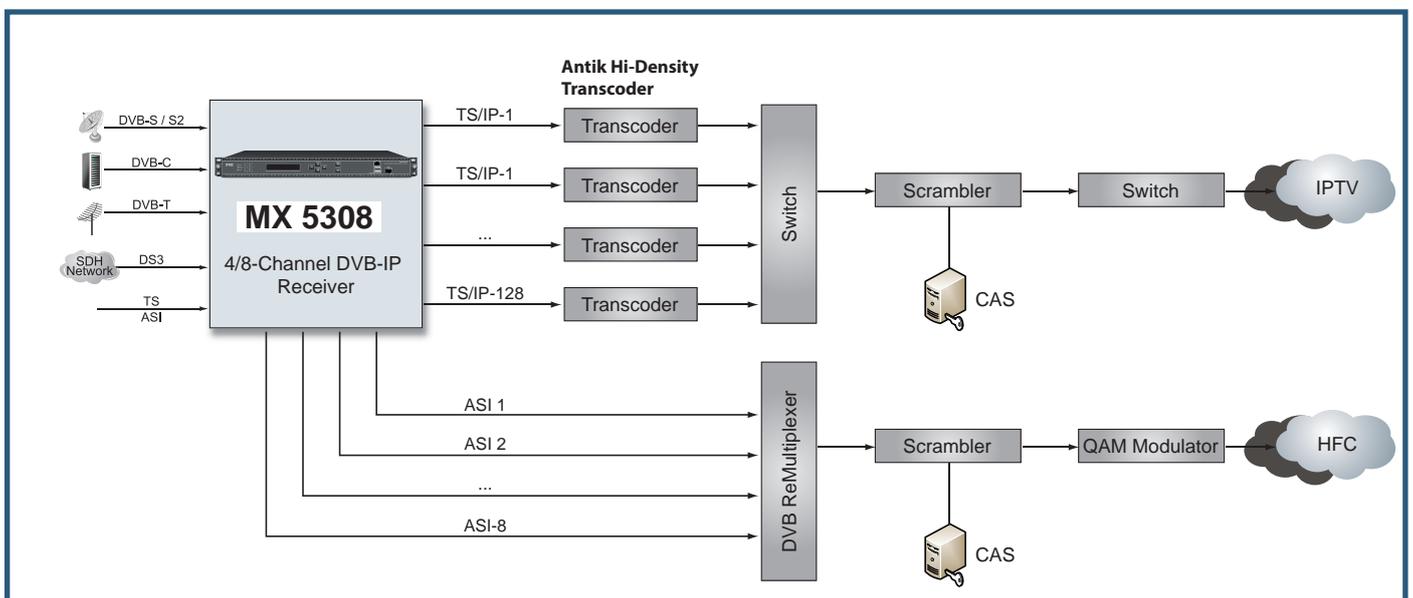
MX-5308 is a high-density, modular and CI decryption professional TS processor equipped with 8 independent tuners, which can be either of DVB-T/ T2, DVB-S2/S, DVB-C, DTMB, ISDB-T and ATSC types. It supports a wide range of application by combining 8 tuners processing capability with industry standard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

MX-5308 provides operators an ideal solution for multi receiving, remultiplexing, descrambling and TS over IP operations, the compact 8 tuners and the powerful 8 CI decryption design make MX-5308 one of the most competitive product 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 x DVB-CI Slots, multi-program decryption, BISS-1 and BISS-E decryption
- 8 x ASI output the transport stream from CI Slot1 to
- CI Slot8 or BISS decryption
- 1 x channel 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





Back Panel MX 5308 Receiver

Specification

Tuner Input

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-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

DVB-C Tuner Input

- **Connector Type** 8×F type female 75Ω for Input
- **Input Frequency Range** 51 ~ 862MHz
- **Input Level** 51~75dBμV
- **Symbol Rate** 1~7Mbaud (ITU J.83 Annex A)
- **Constellation** 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- **Bandwidth** 6MHz, 7MHz, 8MHz
- **Input Return Loss** 7dB (typ.)

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
 - 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.)

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
- **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

ATSC Tuner Input

- **Connector Type** 8×F type female 75Ω for Input
- **Input Frequency Range** 54~864MHz
- **Input Level** -75~-7dBm(ATSC 8VSB)
- **Symbol Rate** 10.762Mbaud
- **Constellation** 8VSB
- **Roll-off Factor** 0.115
- **Bandwidth** 6MHz

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
- **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

ASI Output

- **Connector Type** 9 independence BNC female, 75Ω,
- **Standard** DVB-ASI, EN50083-9
- **Output Bit Rate** ≤ 200Mb/s
- **TS Processing** 8xASI out pass through the TS from CI 1 to CI8, 1xASI Out from Remux

ASI Input

- **Connector Type** 1×BNC female, 75Ω
- **Standard** DVB-ASI, EN50083-9
- **Input Bit Rate** ≤ 100Mb/s
- **Connector Type** 1×BNC female, 75Ω

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
- **Protocol** UDP / RTP, Multicast / Unicast, IGMPv3, ARP

Alarm

- **Connector Type** 1×D-sub 9 male
- **Switching Condition** User Defined

Control & Monitoring

- **Connector Type** 1×RJ-45, 10/100 Base-T, for equipment IP Control
- **Remote Control** SNMP, HT T P (We b I n t e r f a c e), Proprietary HDMS (Headend Device Management System)
- **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

Physical

- **Dimension** 44mm x 255mm x 430mm
- **Weight** 3.5kg
- **Power Supply** AC 90V ~ 250V, 50/60Hz
- **Power Consumption** 30W (exclusive of LNB power)
- **Operating temperature** 0~45°C
- **Storage temperature** -10~60°C
- **Operating Humidity** 10~90%, non-condensed

Certification

- **EMC:**
 - EN 55024:1998+A1:2001+A2:2003,
 - EN 55022:2006+A1:2007,
 - EN 61000-3-2:2006,
 - EN 61000-3-3:2008
- **FCC:**
 - Part 15 Class B
- **LVD:**
 - EN 60950-1:2006 + A11:2009

Antik Mosaic Generator

Live Navigation through your channel line-up

Antik Mosaic Generator enables to create single channel selection screen from up to 48 SD or HD channels mixed with EPG metadata. Give your end-users chance to select live content they love by watching huge number of channels at once. For small portion of the typical mosaic systems costs you will get robust encoder supporting both SD and HD channel sources and wide variety of protocols.



Key features

- Low cost and high performance SW based solution running on standard server HW
- Up to 48 channels on single screen encoding
- Integrated with Antik Middleware
- Complete STB User Interface
- Electronic Programme Guide Metadata integration on single GUI screen



Specification

Video	Audio	IP Source
<ul style="list-style-type: none"> ● MPEG2 ● MPEG4 part2 ● H.264/AVC ● AVS 	<ul style="list-style-type: none"> ● MPEG1/2 ● AAC ● AC3 ● Dolby 5.1 	<ul style="list-style-type: none"> ● UDP ● RTP ● RTSP ● RTMP ● HLS
Resolution	Capacity	OS
<ul style="list-style-type: none"> ● SD ● HD 	<ul style="list-style-type: none"> ● 8/32/48 ● 64/80/ULT 	<ul style="list-style-type: none"> ● Windows Server 2008 R2 ● Windows 7 Professional / Ultimate

Set Top Box

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Product	CPU	Performance (DMIPS)	Resolution	HEVC	SWITCH	DVB	Price Level	 אנדרואיד
Antik Nano	STiH 206	1020	720p/60	NO	NO	NO	*	NO
Antik Mini 2	STiH 256	1020	1080p/60	NO	1x 10/100 4x 100/1000 mbps	Optional T2/C/S2	**	NO
Antik Plus	STiH 412	10000	4K 2160p/30	YES	4x 100/1000 mbps	Optional 2x S2	***	Optional
Antik TV Home Gateway	STiH 412	10000	4K 2160p/30	YES	4x 100/1000 mbps	Optional 4x S2/T2	****	Optional
Antik Plus 2	STiH 318	12000	4K 2160p/60	YES	Optional	Optional	***	Optional

Antik Nano

NEW Low-cost Multicast / OTT / Hospitality HD IP Set-Top Box

Antik Nano is ultra low-cost IPTV set-top box based on STi Liege chipset in miniature design, which can fit to your hand. It's ultra cost-effective solution because of higher performance and low power features. Device in tiny design and unbeatable price with enhanced video decoding performance supports dual H.264 HD decoding (2 x HP @L4.1, 1080i/720p). It allows HD web content video decoding including DivX and MP4pt2 to 1080p30 and 3DTV decoding with HDMI1.4b support.



Inputs / Outputs

- HDMI 1.4
- TOSLINK Digital Audio interface
- USB 2.0
- RJ45 (Ethernet 10/100BaseTX)
- 3,5 mm jack suitable for SCART or RCA adapter
- Embedded WiFi (optional 802.11n)
- External IR input

Key Features

- Enhanced Host CPU performance (1200DMIPS)
- Faster DDR performance with DDR3 support
- Dual H264 HD decoding
- 3DTV decoding and display capability compatible with HDMI1.4b
- Low power on standby
- Wake on HDMI CEC, IR/UHF RC input

Features





Antik Nano Specifications

Other Features

- FullHD (1080p) video support and crystal clear digital audio
- Interactive TV Support - Multicast TV, Electronic Program Guide, VOD, Mozaic
- PVR and Network PVR support
- Major DRM systems integrated
- Segment streaming and buffering for OTT delivery even in low-speed networks
- Hybrid broadcast-broadband TV (HbbTV) support (optional)
- Hardware generated Picture-in-Picture
- Intelligent low power consumption management
- Optional internal Wi-Fi

DRM/CA

- Verimatrix
- Securemedia
- Key Rider

Accessories (optional)

- Remote control
- RCA/SCART cable
- Ethernet Cable
- HDMI cable
- Full size/Compact Keyboard
- WiFi Adapter
- Antik TV Anywhere Personal H.264 Transcoder
- IR extender cable

Video

- MPEG-2
- H.264 (AVC)
- VC-1 (WMV9)
- MPEG-4 part 2 (DivX, XviD)
- Flash (VP6, Sorenson)

Audio

- MPEG-1 (layer I/II)
- MP3
- Dolby Digital (AC-3)
- AAC (HE-AAC v2 Profile)
- FLAC
- Vorbis

Software integration

- Operating system Linux 2.6
- Copy Protection HDCP v 1.2 (optional)
- Opera, Access, Ekioh SVG integrated (optional)

Technical Specifications

- Width x depth x height 115 x 115 x 32 (mm) (without packaging)
- Weight 180g (without accessories and packaging)
- 12V/1A (external power supply adapter 100-240V, 50/60Hz)

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

CPU & Memory

- CPU STiH 206 (Liege) 650MHz, 1200 DMIPS
- DRAM 256 MB DDR3
- Flash 512 MB

Middleware

- ANTIK Built-in Middleware (optional)
- Beenius 3.2 Middleware (optional)

Antik Mini 2

Pure IP or IP&DVB / ISDB-T box for ISP/OTT/Hospitality

Antik Mini 2 with STiH207 is cost-effective solution because of higher performance and low power features target of < 0.5 W set-top box total standby power in controller passive standby mode. Device with enhanced video decoding performance supports dual H.264 HD decoding (2 x HP @L4.1, 1080i/720p). It allows HD web content video decoding including DivX and MP4pt2 to 1080p30 and 3DTV decoding with HDMI1.4b support.



Key Features

- Enhanced Host CPU performance (1200DMIPS)
- Hybrid device with dual DVB tuner + IP (optional)
- L2 managed switch up to 1Gbps
- Dual H264 HD decoding
- 3DTV decoding and display capability compatible with HDMI1.4b
- Low power on standby
- Wake on HDMI CEC, IR/UHF RC input



Inputs / Outputs

- DVB-C/T/T2/S2/ISDB-T Tuner Input (optional)
- HDMI 1.4
- TOSLINK Digital Audio interface
- CVBS (3,5mm jack for SCART/RCA cable connection)
- 1 x USB 2.0
- 1x, 2x, 4x RJ45 (Ethernet 10/100baseTx or 10/100/1000baseTx)
- Infrared Receiver
- Embedded Wi-Fi 802.11n (optional)
- External IR input

Highlights

- FullHD (1080p) video support and crystal clear digital audio
- Interactive TV Support - Multicast TV, Electronic
- Program Guide, VOD, Mozaic
- PVR and Network PVR support
- Major DRM systems integrated
- Segment streaming and buffering for OTT delivery even in low-speed networks
- Hybrid broadcast-broadband TV (HbbTV) support
- Hardware generated Picture-in-Picture
- Intelligent low power consumption management

Antik Mini 2 - Perfect STB for Hospitality IPTV

- Embedded Wi-Fi (client mode) inside set-top box
- 2nd IR receiver jack for easy STB mounting into room furniture



Features

- Digital Surround Support
- Different browsers integrated - Opera, Ekioh, Access
- DVB pre-integrated
- HTTP Live Streaming support
- Fast vector graphics thanks to integrated SVG Engine
- DRM support from Verimatrix and Securemedia
- Dual H.264 HD decoding
- HbbTV Support (coming soon)
- DLNA Server&Player support (coming soon)
- High-Resolution front OLED display (optional)
- HDD – external through USB (optional)

Antik Mini 2 Specifications

Video

- MPEG-2
- H.264 (AVC)
- VC-1 (WMV9)
- MPEG-4 part 2 (DivX, XviD)
- Flash (VP6, Sorenson)

DRM/CA

- Verimatrix
- Securemedia
- Key Rider

Software integration

- Operating system Linux 2.6
- Copy Protection HDCP v 1.2 (optional)
- Opera, Access, Ekioh SVG integrated (optional)

Middleware

- ANTIK Built-in Middleware (optional)
- Beenius 3.2 Middleware (optional)

Audio

- MPEG-1 (layer I/II)
- MP3
- Dolby Digital (AC-3)
- AAC (HE-AAC v2 Profile)
- FLAC
- Vorbis

Accessories (optional)

- Remote control
- RCA/SCART cable
- Ethernet Cable
- HDMI cable
- Full size/Compact Keyboard
- WiFi Adapter
- Juice TV Anywhere Personal H.264 Transcoder
- IR Extender cable

CPU & Memory

- CPU STiH207/254/256 650MHz, 1020 DMIPS
- DRAM 512 MB DDR3
- Flash 512 MB

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

Technical Specifications

- Width x depth x height 203mm x 135mm x 41mm (without packaging)
- Weight 540g (without accessories and packaging)
- Power Consumption 8W
- Power Input 12V DC
- Power Adaptor 90-250V/50-60Hz AC
- Operating temperature 0°C to 45°C
- Operating Humidity 8%-95% (non-condensing)

Antik Plus

4K HEVC Android ISP/Telco Set-Top Box

Hybrid Android TV box with integrated chipset Monaco STiH412 SoC by STMicrosystems with 4K and HEVC (H.265) support. Transcoding and restreaming capability. Dual DVB tuner (S2) or pure IP version available. Ideal for telco operation.

Encoding
& Streaming
Inside



Key Features

- Broadcasting OTT internet content HEVC L 5.1 (H.265)
- Multiscreen simultaneous HD multimedia streaming
- Transcode and transrate 3 channels in real time
- Powered by Linux or Android operating system
- 7500 / 10000 DMIPS
- Networking of media throughout the home via standards such as DLNA or RVU
- HDMI input

Highlights

- UltraHD (2160p) video support and crystal clear digital audio
- Interactive TV Support - Multicast TV, Electronic Program Guide, VOD, Mozaic
- 3D TV up to 1080p30L30R
- Major DRM systems integrated
- Segment streaming and buffering for OTT delivery
- even in low-speed networks
- CPU: 2GHz dual-core ARM Cortex-A9
- GPU: 400MHz quad-core ARM Mali-400 MP dual DDR3 controller (2GB RAM)
- Hardware generated Picture-in-Picture
- Intelligent low power consumption management

Features

- Digital Surround Support
- Dual DVB tuner (S2/T/T2)
- HTTP Live Streaming support
- Fast vector graphics thanks to integrated SVG Engine
- Triple H.264 HD decoding
- USB 3.0
- HbbTV Support
- DLNA Server&Player support (coming soon)
- HDD – external through USB
- BitTorrent™ client support
- Software environments such as Android™ 4.0 and higher, XBMC,
- HTML5, Adobe® AIR® and Qt
- 4x RJ-45 up to 1Gbps



Antik Plus Specifications

Video

- Parallel decoding of 3 HD streams
- Picture in Picture
- Aspect ratio conversion (LetterBox, Pan&Scan, Combined, Fullscreen)

Interfaces

- HDMI 1.4b @ 2160p30
- CVBS/YPbPr (3,5mm jack)

Codecs

- H.265 HEVC L5.1 (2160p30)
- H.264 AVC, one L5.1 (2160p30) or three L4.1(1080i60/1080p30)
- WebM VP8, up to 1080p60
- VC-1 (WMV), MPEG4 (DivX, Xvid),MPEG2
- MJPEG, Flash (VP6, Sorenson)

Resolution

- SD 576i (PAL), 480i (NTSC)
- HD 720p, 1080i, 1080p
- UHD 2160p30
- 3D 1080i60L60R or 1080p30L30R

DRM/CA

- Verimatrix
- Securemedia
- Key Rider
- Conax

Other Interfaces

- Dual DVB tuner (S2/T/T2)
- 4x RJ-45 Gigabit Ethernet
- 1x USB 3.0 + 1x USB 2.0
- IR receiver
- mikro SD card slot
- Built in WIFI

Audio

Interfaces

- TOSLINK Digital Audio output
- L/R analogue stereo output

Codecs

- MPEG-1 (layer I/II)
- MP3
- Dolby Digital (AC-3)
- AAC (HE-AAC v2 Profile)
- FLAC, Vorbis

Software integration

- Operating system Linux 3.10, Android 4.4
- Copy Protection HDCP v 1.2 (optional)
- Ekioh SVG integrated (optional)

Middleware

- ANTIK Built-in Middleware (optional)
- Beenius 3.2 Middleware (optional)

Accessories (optional)

- Remote control
- 3.5mm/RCA cable
- RCA/SCART cable
- Ethernet Cable
- HDMI cable
- Full size/Compact Keyboard

Streaming

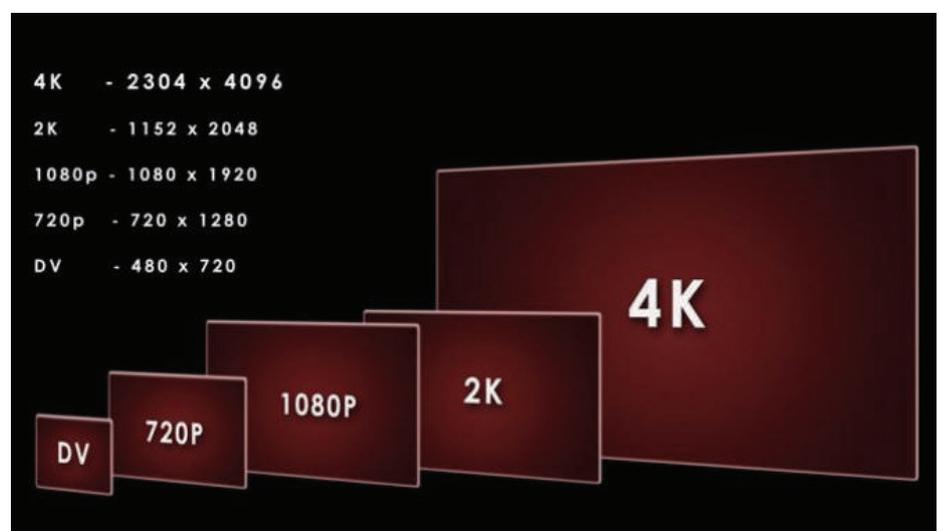
- MPEG-2 transport stream
- Multicast or Unicast
- TS over UDP
- TS over RTP
- HTTP streaming
- RTSP (with trick play support) for VoD
- Teletext and subtitles
- IGMP
- HLS

CPU & Memory

- CPU STiH410/STiH412
- GPU Mali-400MP
- DRAM 2 GB DDR3
- Flash 1 GB

Technical specifications

- Width x depth x height 200mm x 150mm x 50 mm (without packaging)
- Weight 540g (without accessories and packaging)
- Power Input 12V DC
- Power Adaptor 90-250V/50-60Hz AC
- Operating temperature 0°C to 45°C
- Operating Humidity 8%-95% (non-condensing)



TV Home Gateway

4K Home streaming and transcoding server

Revolutionary Android Home Gateway with integrated chipset Monaco STiH412 SoC by STMicrosystems for streaming and transcoding 3 channels in real time to home smart devices (tablets, smartphones, etc.). Antik's device with multi-tuner DVB-T/T2, DVB-C and DVB-S2 is characterized by extreme performance needed for multiscreen experience.



Key Features

- Broadcasting OTT internet content HEVC L 5.1 (H.265)
- Multiscreen simultaneous HD multimedia streaming
- Transcode and transrate 3 channels in real time
- Powered by Linux or Android operating system
- 7500 / 10000 DMIPS
- Networking of media throughout the home via standards such as DLNA or RVU
- HDMI input

Highlights

- UltraHD (2160p) video support and crystal clear digital audio
- Interactive TV Support - Multicast TV, Electronic Program Guide, VOD, Mozaic
- 3D TV up to 1080p30L30R
- Major DRM systems integrated
- Segment streaming and buffering for OTT delivery
- even in low-speed networks
- CPU: 2GHz dual-core ARM Cortex-A9
- GPU: 400MHz quad-core ARM Mali-400 MP dual DDR3 controller (2GB RAM)
- Hardware generated Picture-in-Picture
- Intelligent low power consumption management

Features

- Digital Surround Support
- Up to quadruple DVB tuner (T, T2, C, S2)
- HTTP Live Streaming support
- Fast vector graphics thanks to integrated SVG Engine
- Triple H.264 HD decoding
- USB 3.0
- HbbTV Support
- DLNA Server&Player support (coming soon)
- HDD – external through USB
- BitTorrent™ client support
- Software environments such as Android™ 4.0 and higher, XBMC,
- HTML5, Adobe® AIR® and Qt



Antik Home Gateway Specifications

Video

- Parallel decoding of 3 HD streams
- Picture in Picture
- Aspect ratio conversion (LetterBox, Pan&Scan, Combined, Fullscreen)

Interfaces

- HDMI 1.4b @ 2160p30
- CVBS/YPbPr (3,5mm jack)

Codecs

- H.265 HEVC L5.1 (2160p30)
- H.264 AVC, one L5.1 (2160p30) or three L4.1(1080i60/1080p30)
- WebM VP8, up to 1080p60
- VC-1 (WMV), MPEG4 (DivX, Xvid),MPEG2
- MJPEG, Flash (VP6, Sorenson)

Resolution

- SD 576i (PAL), 480i (NTSC)
- HD 720p, 1080i, 1080p
- UHD 2160p30
- 3D 1080i60L60R or 1080p30L30R

DRM/CA

- Verimatrix
- SecuMedia
- Key Rider

Other Interfaces

- Quadruple DVB Tuner
- RJ-45 Gigabit Ethernet
- 1x USB 3.0 + 1x USB 2.0
- IR receiver
- Built in WIFI

Audio

Interfaces

- TOSLINK Digital Audio output
- L/R analogue stereo output

Codecs

- MPEG-1 (layer I/II)
- MP3
- Dolby Digital (AC-3)
- AAC (HE-AAC v2 Profile)
- FLAC, Vorbis

Software integration

- Operating system Linux 3.10, Android 4.4
- Copy Protection HDCP v 1.2 (optional)
- Ekioh SVG integrated (optional)

Middleware

- ANTIK Built-in Middleware (optional)
- Beenius 3.2 Middleware (optional)

Accessories (optional)

- Remote control
- 3.5mm/RCA cable
- RCA/SCART cable
- Ethernet Cable
- HDMI cable
- Full size/Compact Keyboard

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
- HLS

CPU & Memory

- CPU STiH410/STiH412
- GPU Mali-400MP
- DRAM 2 GB DDR3
- Flash 1 GB

Technical specifications

- Width x depth x height 285 mm x 170 mm x 60 mm (without packaging)
- Weight 540g (without accessories and packaging)
- Power Input 12V DC
- Power Adaptor 90-250V/50-60Hz AC
- Operating temperature 0°C to 45°C
- Operating Humidity 8%-95% (non-condensing)



ANTIK SmartHome Systems

Bring COMFORT and SAFETY to your customer experience!

*Create difference to your telco products and add state-of-art smarthome features to your multiplay offers. From remote control of lighting, heating/AC and home devices, home security to control over your power and other resources consumption. Set your typical usage profile and your home is set to holiday mode in a second. Want to be prepared for your winter unexpected home arrival? Activate heating and lights on the access road from your app. Want to see how is your home power consumption in comparison with similar families – check it directly on ANTIK TV screen. Live monitoring of your very important places, movement tracking, temperature sensor, water and gas leakage and more...security component of **ANTIK SmartHome solution**.*

End-to-End SmartHome System integrated to ANTIK IPTV products – set-top boxes and TV smart apps. No need of expensive extra control unit at home – all is included in ANTIK TV user interface.



Coming soon!

- Telco Operators
- Developers
- Homeowners
- Condo Operators
- Gated Communities



Home Energy Costs Under Control

With simple inexpensive power consumption sensors wirelessly connected to ANTIK STBs (using ANTIK SmartHome USB Wireless Plugin) you can easy control how much it costs – and more, compare it with the average neighbour to see how efficient you are!



Make sure the lights are on when you need them

Never enter a dark room again — turn lights on while heading home, so you feel safer. Or, turn lights off when you're not at home to conserve energy. Plus, control your appliances so you never have to worry that you left the curling iron on. Set your own at home/work/night/holiday profiles remotely to feel comfortable about your place.



Stay safe from fire and floods

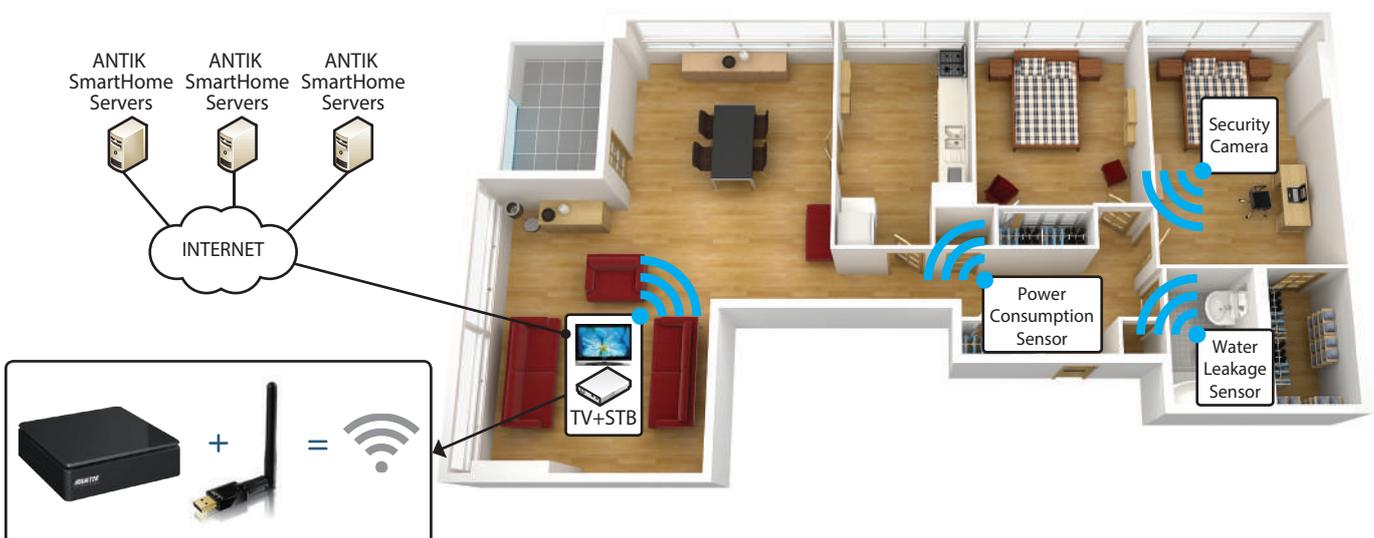
Smoke, fire, water and gas leakage detectors can be connected to the system easily. Rest easy knowing you're constantly monitored for emergencies like leaks or flooding in your laundry room.



Home security at low costs

Arm and disarm your system from anywhere – using Antik smart app. From cameras, motion detectors, door and window sensors, everything is at your fingertips and integrated to one single Antik app. Give panic button to your love ones, so they can call help or you at one button click.

How it works?



Accessories

TV Home Connector

802.11b/g/n

TV Home Connector is a Mini Wi-Fi module supporting IEEE 802.11 b/g/n standards. Designed in the product with MID, Netbook etc for the wireless connectivity.

- Maximum bitrate up to 150mbps
- Ultra compact usb wi-fi adapter
- Good for surfing the Internet, email and online chat
- Provides wireless access to your desktop, notebook, phones etc.
- Easy set-up
- Simple and secure way to share a broadband Internet connection
- Compatible with Juice IPTV solution



Remote Control



RCU 211



RC 301



RC 401



RC 501



RC 601

Multimedia IPTV keyboard

Control favorite function with one click

- Volume
- Web buttons (home, forward, back, refresh...)
- Changing programs
- Facebook button
- VoD, Mosaic, Archive, EPG, Text
- Chat
- Play/pause
- Record button
- TV/web switch button
- Trackball mouse and scroll wheel



Technical specification

- 2.4G wireless keyboard
- Multimedia optical trackball mouse
- Mini NANO Receiver
- Ergonomic design
- CE, FCC, ROHS
- Connection: PS/2, USB, U+P available.
- Standard keyboard with ergonomic design and comfortable touch feeling.
- Adopting high quality silicon and ABS case
- Key switch with tactile feedback, key knock life time up to 10,000,000 cycles.
- Size: 262mmx113mmx31mm
- Customization available

Multimedia optical trackball mouse



Infrared extender cable

Controlling a STB by a IR2 sensor, if STB is hidden (e.g. in furniture).



Antik TV Anywhere

Antik TV Anywhere is a compact USB dongle for video place-shifting applications. It is designed to view and control the re-streamed content from Antik IPTV set-top boxes on any device connected to home network or broadband Internet connection, such as laptop, smart-phones etc. Users don't have to stay in the living room to watch their TV channels, plugging the USB dongle into the set top box is all that is needed to take their TV anywhere. This unique chance to increase your customer's ARPU comes with adaptive bit-rate feature, delivering uninterrupted picture even in low-speed network environments.

Key Features

- **Transcoding:**
 - AVC/ MPEG2 to AVC / MPEG2 / MPEG4
 - HD to HD/SD
- **Powerfull CPU:**
 - 500 MHz , 1250 DMIPS
- **1x USB 2.0**



World's first decentralised MultiScreen solution

Encodes video into adapted bit rate stream to serve all the multi-screen formats. The idea is to encode content from video format in various codecs (mpeg2, ...) into the H.264 at a relatively low bit rate, which can be distributed over the common infrastructure.

Connect with your Antik set-top box and watch your home TV stations anywhere. All what is needed is to have in the Antik set-top box plugged in an usb dongle Antik TV Anywhere, which will transcode your TV channels broadcasting to the internet Antik TV Anywhere portal, where you can watch them on your mobile device.

Adative Bitrade Streaming

The video stream can increase or decrease the bit rate and resolution of the video (its quality) in real time so it's always streaming the best possible quality, which the available network connection can support. The better the network connection, better the video image quality. Viewer doesn't need to configure the settings because all the work will make the player and the stream.



At this moment your mobile device is communicating through the web portal with your home set-top box and you can browse the same list of the TV channels as you have at home.

When you press the play TV channel button, Antik TV Anywhere will transcode video format from your home set-top box in to the H.264 and will stream it to your account on the webportal so you can watch the LIVE TV broadcasting on your mobile device.

Other Features

Video Transcoding / Transrating

- **Format conversion of multiple streams (SD/HD)**
 - AVC >> MPEG2, MPEG4 (ASP, SP), AVC
 - MPEG2 >> AVC, MPEG2, MPEG4 (ASP,SP)
- **Bit-rate reduction of multiple streams:**
 - 40 Mbps >> 64 Kbps / VBR or CBR
- **Resolution reduction of streams:**
 - HDTV to HDTV, SDTV,CIF or QCIF

Interfaces

- 1x USB 2.0
- Micro SD Memory Slot

Audio transcoding

- MPEG >> AC3, AAC (LC/HE), MPEG
- AC3 >> MPEG, AAC (LC/HE)
- AAC >> AC3, MPEG

Core technologies

- **Smart XCode™** technology allows users to convert formats, resolution, and frame rates of pre-compressed video, up to 12Xfaster than real-time playback, to fit video to many viewing devices
- **MPEGPerfection™** technology defining low-bitrate HD compression without compromising video quality

Technology

- Efficient Low Power Design

Digital Video Filtering

- Pixel-based motion-adaptive 3D comb filter
- Pixel-based temporal/spatial filter
- Image edge rectification

Security features

- Supports DVB/DES/3DES/ Multi2/3DES descrambling

Typical applications

- Intelligent Transcoder:
 - Personal Video Recorders (PVR's)
 - STB PVR
 - Blu Ray Recorder/Player
 - DTV PVR



LOGIN SCREEN

Type address of TV Anywhere portal into the web browser and login in to your account. You can also choose a language.



CHANNEL CATEGORIES

Choose category of the TV stations or use a search function to find your favorite channel.



EPG

Choose TV station which you want to watch. You can read EPG information like next programs, image and information of running program.



ENJOY THE TV

Just press play button and watch the TV anywhere!

Antik Media Apps

Versatile Video Delivery to iOS, Android and Windows 8

Watch TV on mobile or tablet. Give your customers access to their TV channels anywhere. Customers only need to install this Antik Media application and they will be able to choose Live TV streams or Radios based on HLS or they can select favorite program from TV Archive. Application is supporting H.264 format and is fully compatible with Antik Media Streamer, where you can manage your own local or global content delivery. All is secured with Key Rider DRM scrambling solution which is designed for higher security of IPTV network.



Key Features



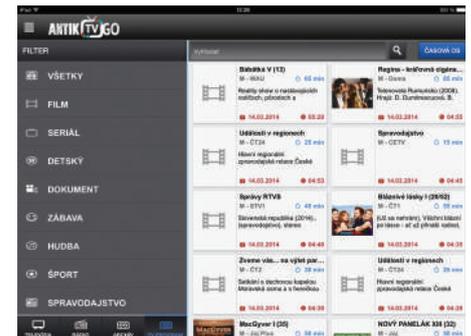
Live stream TV

Customers can enjoy Live TV broadcasting anywhere just with smartphone or tablet where they have internet connection.



EPG

Program guide with user friendly environment.



TV Archive

Access to the programs also after their live broadcast ended. User will just simply choose TV station, day and select his favorite program, which he missed.



Watching Bookmarks

Start to watch movie from archive on TV and finish on mobile or tablet (coming soon).



Live stream Radio

Users can listen radio stations also in this application and enjoy music on the road through the phone or tablet. Customer doesn't need to download any other additional radio applications.



STB Remote Control

Easy control of STB directly from mobile/tablet same as using classic RC.

All applications are optimized for smartphones and also tablets.

Application for devices with OS Windows Phone 8 a Windows 8.1 is using also unique capabilities of the new OS, such as Live Tiles, which are showing the most watched actually broadcasted TV programs.

Technical specifications

- Adaptive bitrate HTTP Live Streaming Supported
- Fully customizable user interface
- SD and HD Streams
- Backend Management System included
- Automatic EPG metadata update in backend
- XML interface to billing system
- Fully compatible with Antik Media Streamer Family
- AES-256 Scrambling Supported
- Skin adaptable to your product identity

Features

- Live streaming of TV and Radios
- TV program guide
- Streaming of archived TV shows
- Search of archived TV shows by genre or name
- Search of TV shows in EPG by genre or name
- Electronical Program Guide Set-top box control over phone/tablet

Supported platforms:



Windows 8



Android



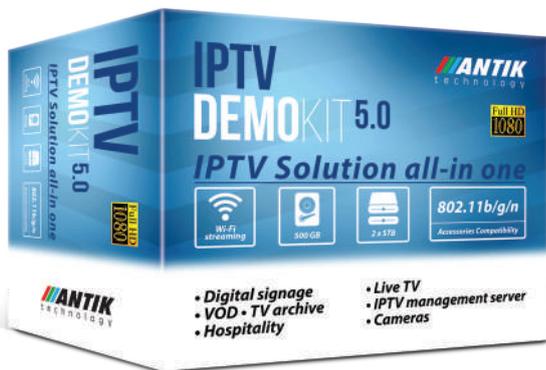
iOS



IPTV DEMO KIT 5.0

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 on HDD with all necessary SW servers such as IPTV Management Server, EPG Server, Streaming Server, Hospitality server, etc. are all part of delivery. 2 HD 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.



- HD&HD video streams
- Catch up TV / TV Archive
- DVR
- MediaPlayer
- VOD
- Mediaportal
- Hospitality IPTV
- DLNA
- BitTorrent™
- Browser
- EPG
- PIP
- IPTV Management
- Software lite

What will you get?

- 1x Antik Nano STB, 1x Antik Mini2 STB
- 1x HDD 500GB with full IPTV Server environment (Live TV, TV Archive, VOD, IMS, etc...)
 - System requirement : CPU i5 and above, 4GB RAM
 - IMS = IPTV Management
 - Live streams (12x SD TV channels, 2x HD TV channels, 5x Radios, 3x Cameras)
 - VOD server + content
 - Hospitality Management Server
 - EPG server (with real EPG data), DLNA server, Catch-Up TV archive (3 days content, Snapshot server, Multicast gateway, Media portal server and more ...)
- 2x USB ETH external adapter (ETH#1 for internet, ETH#2 for streaming to mobile devices)
- 1x Gigabit switch (5 ports)
- 1x Wifi Access Point
- 1x 16GB USB Flash Drive (for time shift, PVR and media center demo)
- 3x RJ45 ETH cables
- 1x RF IPTV Wireless Keyboard
- 1x Juice Debug cable (with USB to RS232 adapter)
- 2x power head US -> EU
- Support to setup live IPTV



Order mail: juicesales@antiktech.com

For more details please contact **Antik** representatives to specify HW configuration for your IPTV project

DemoKit full set:
515.00 USD

Key Features



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



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



PVR
Choose program from EPG and record it on HDD in set-top box. Make your own video library and watch your favorite film whenever you want.



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

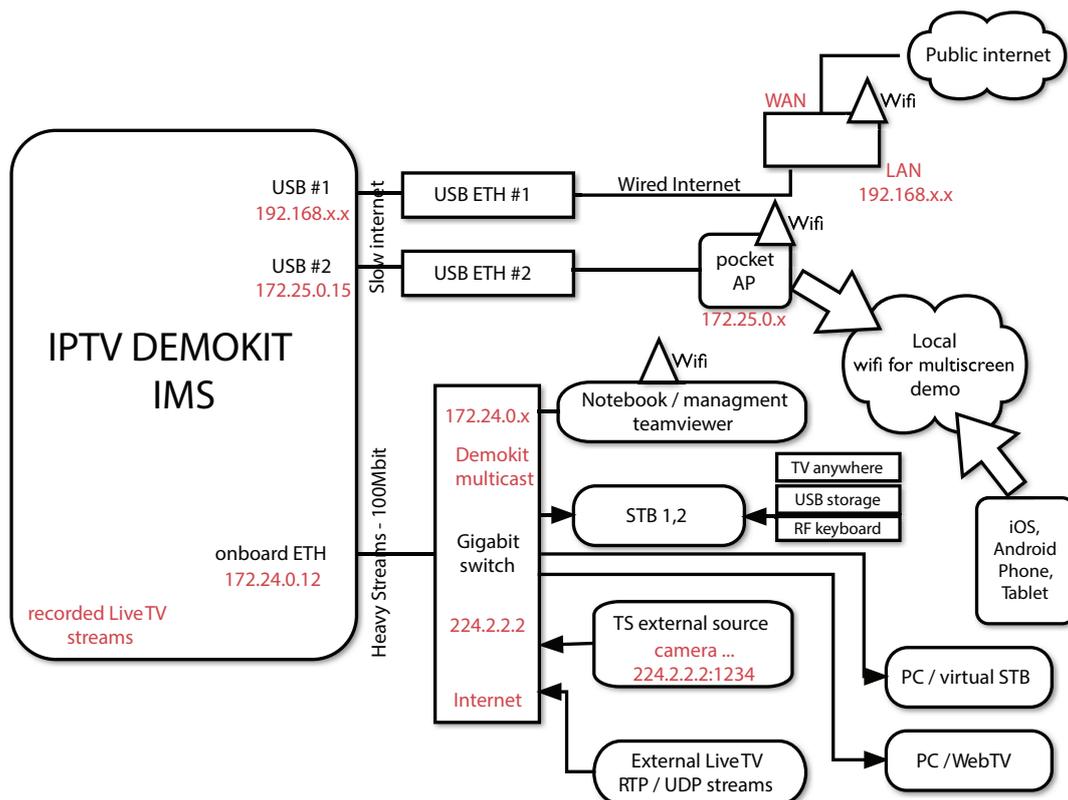


Hotel IPTV
Provides program guide data for all TV channels shows channels list and programs timeline, program info.



Archive by genre
Enables control of archive program feature which allows users to pause, rewind, forward and also basic program data, like total time, name, image preview.

IPTV DEMO KIT SET-UP SCHEME



Antik Digital Signage Solution

Comprehensive Multimedia Advertising Delivery System

ANTIK Technology presents complex indoor and outdoor advertising delivery system. From content creation using ANTIK DSS Producer through campaigns planning and control via ANTIK DS Management SW to large variety of indoor and outdoor LED TV panels and even set-top boxes for low cost advertising delivery.



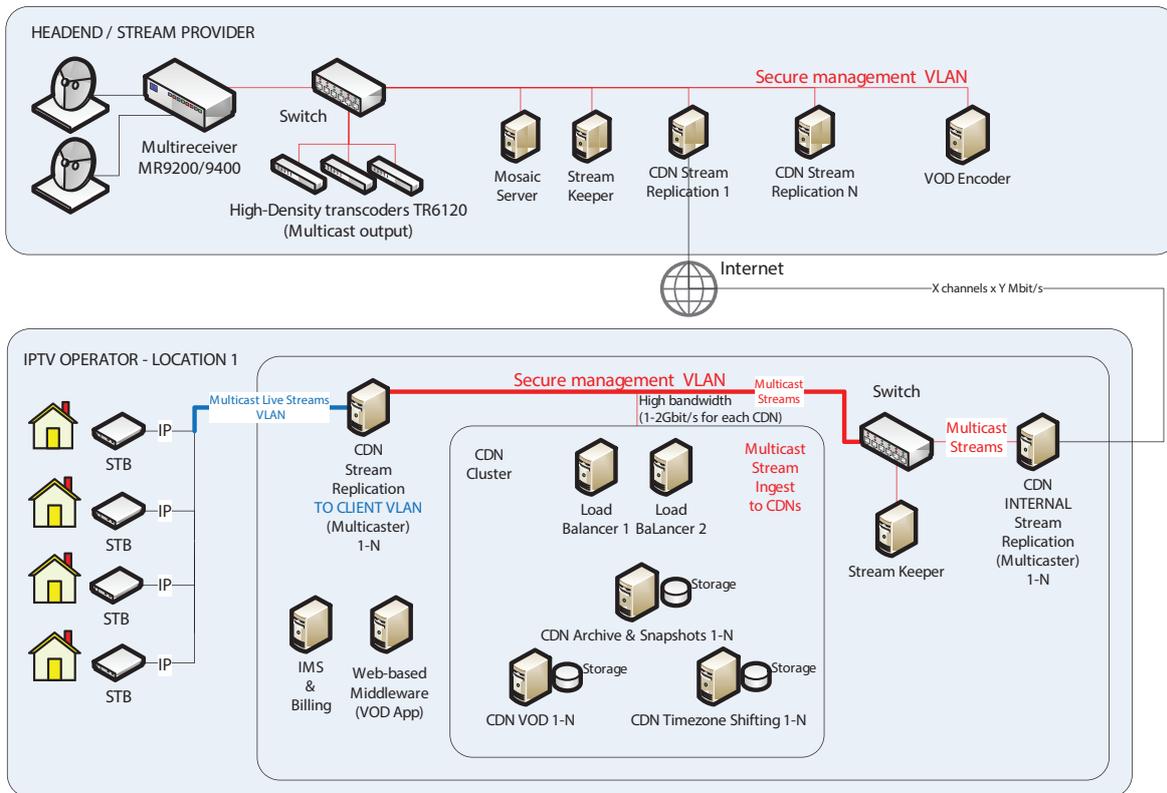
Built on more than 20 years of our experience in digital TV and many years in IPTV, we created low-investment and low operational costs LED panel system controlled by state-of-art ANTIK DS Management System. You can either upload ready to publish campaign delivered by your advertising clients or build the campaign for him using ANTIK DSS Producer. 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 eye-catching 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). There is wide range of panels which differs in size and usage for indoor or high contrast displays for outdoor. For low-cost operation, our Antik DS set-top boxes can be also utilized together with standard HD TV sets.

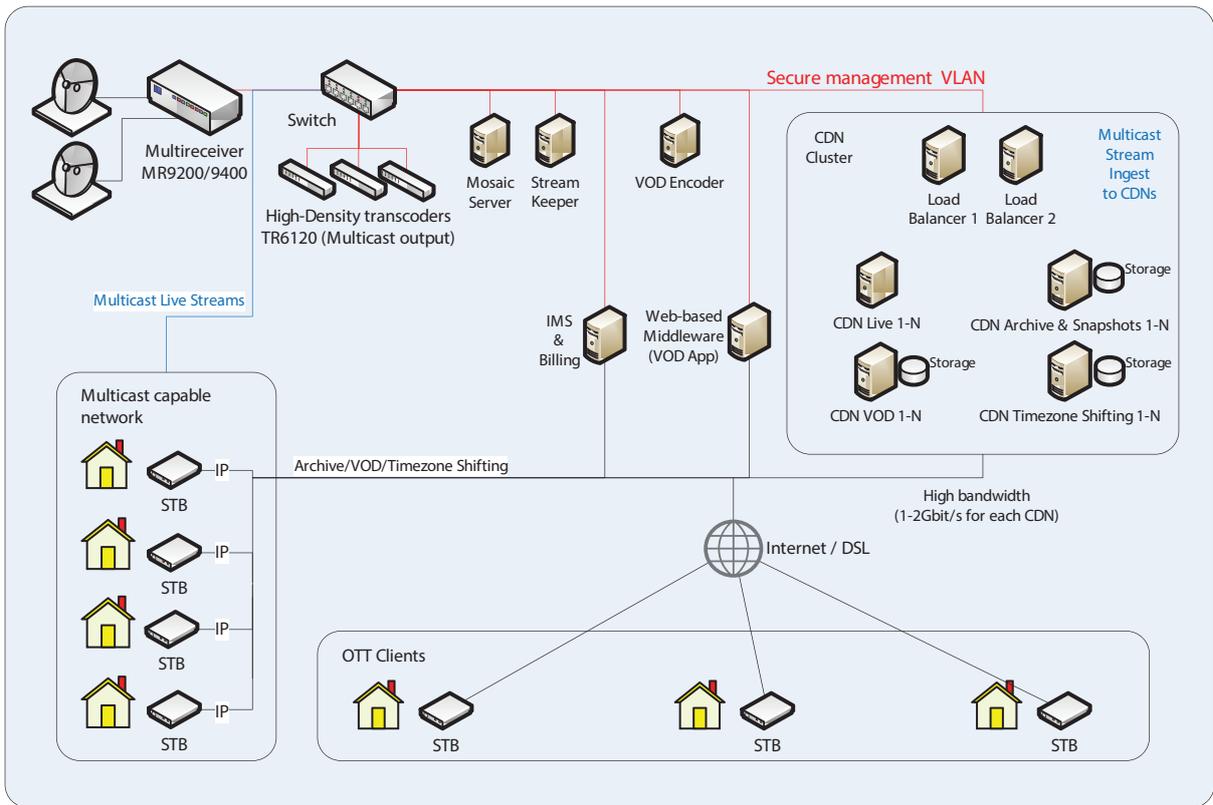


Scheme

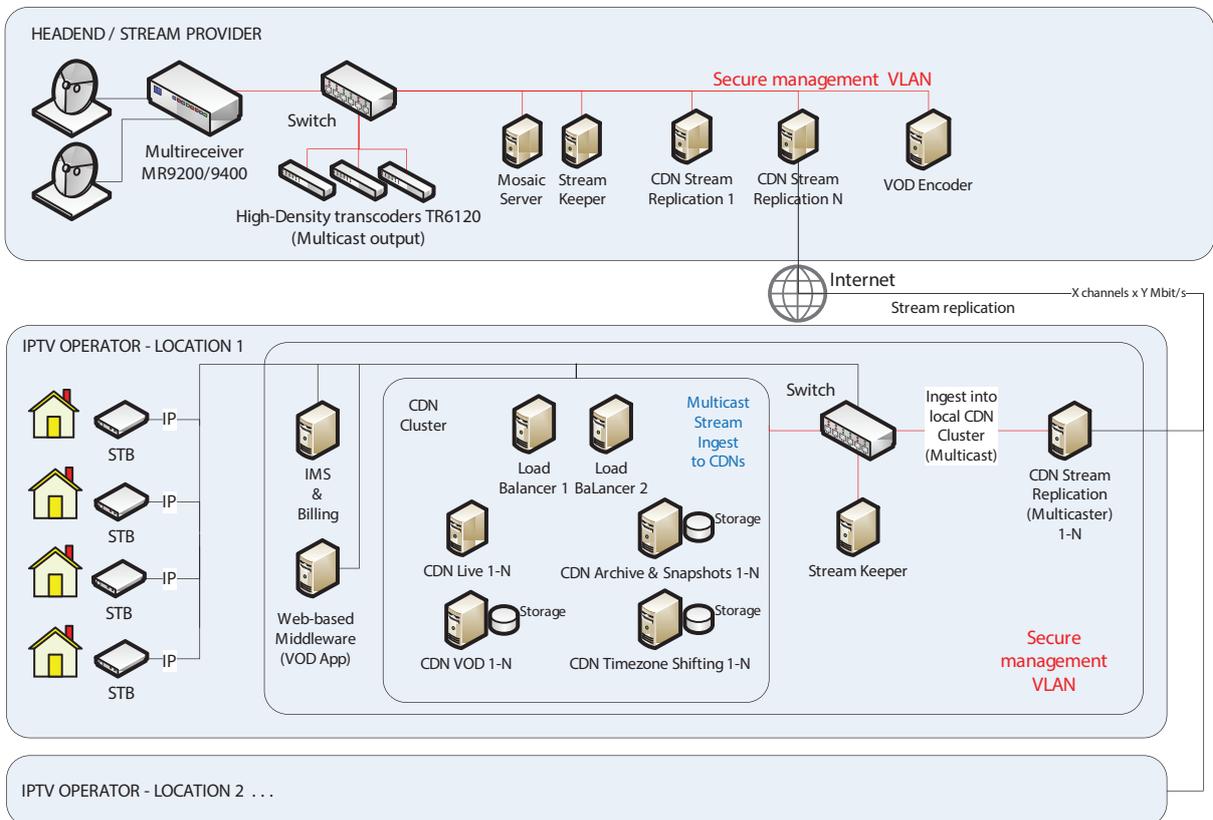
IPTV Operator with centralized Headend/Stream Provider With Separated Client VLAN (Cluster Distribution VLAN + Client VLAN)



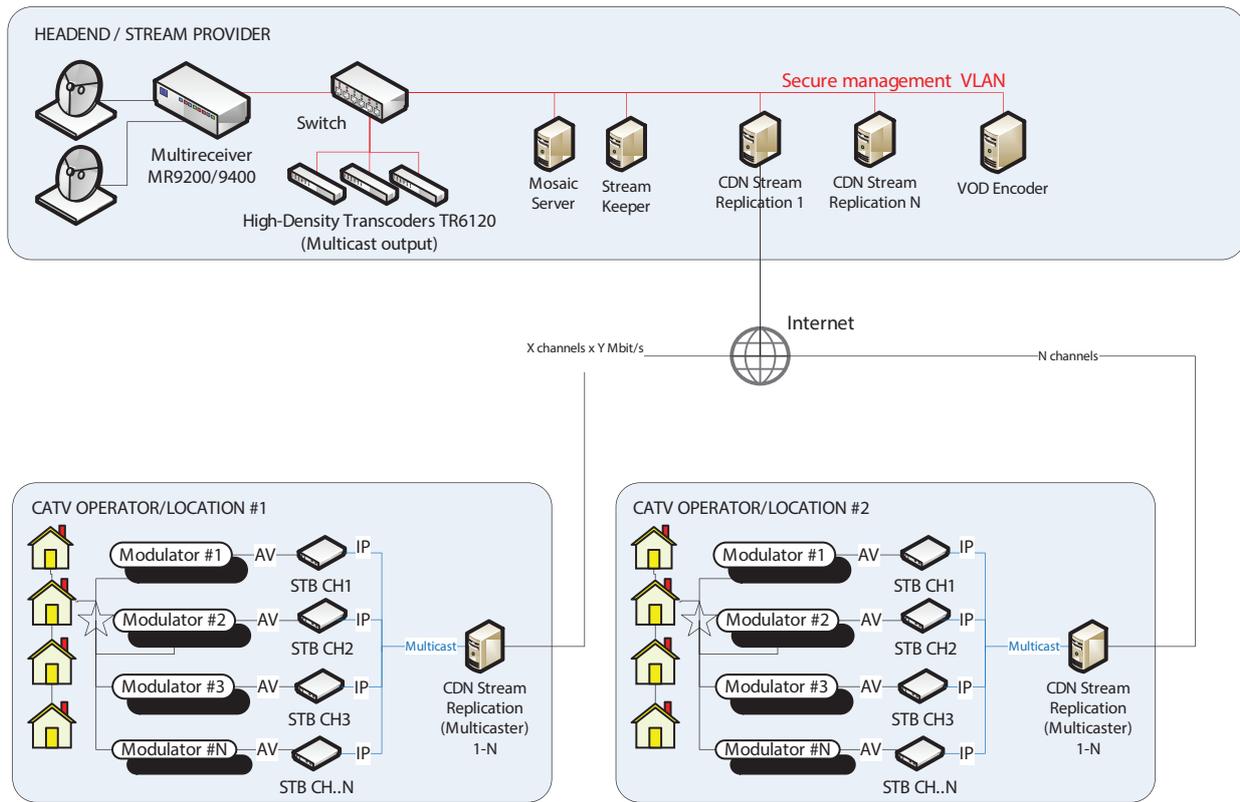
IPTV Operator – Multicast and OTT Clients All-in-One



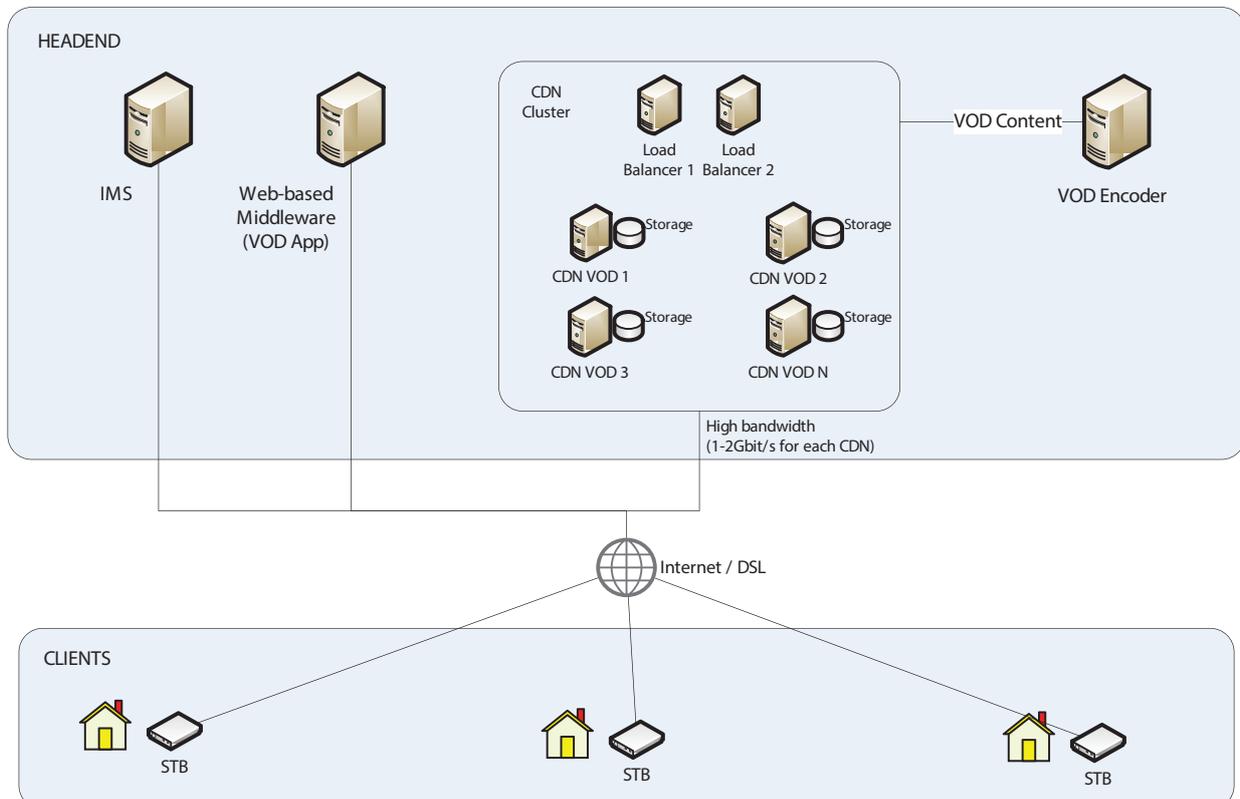
IPTV Operator with metropolitan network(s) or OTT location(s) Stream replication from centralized Headend/Stream Provider



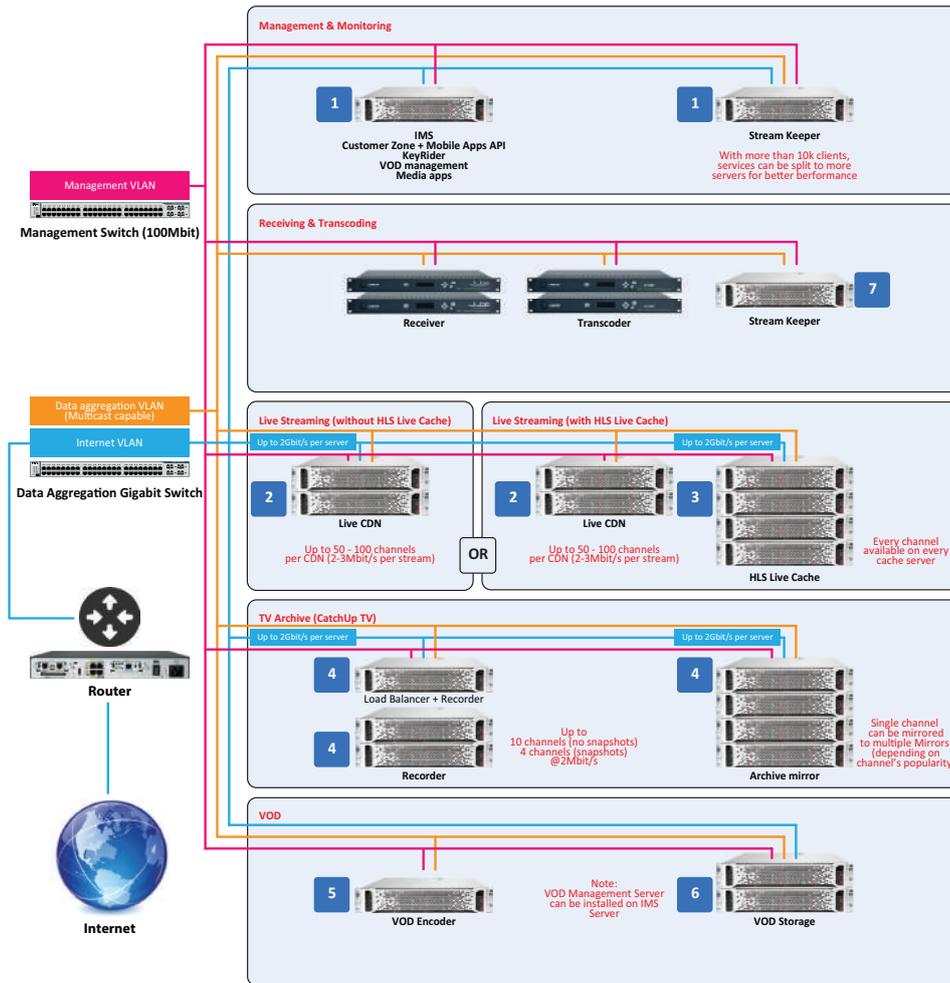
CATV Operator with many locations Stream replication from centralized Headend/Stream Provider



VOD



ANTIK Headend topology



Minimal

testing or low-cost setup

Warning: using this configuration for commercial use without hardware RAID and with slow/unreliable SATA drive can lead to service malfunction and high support costs

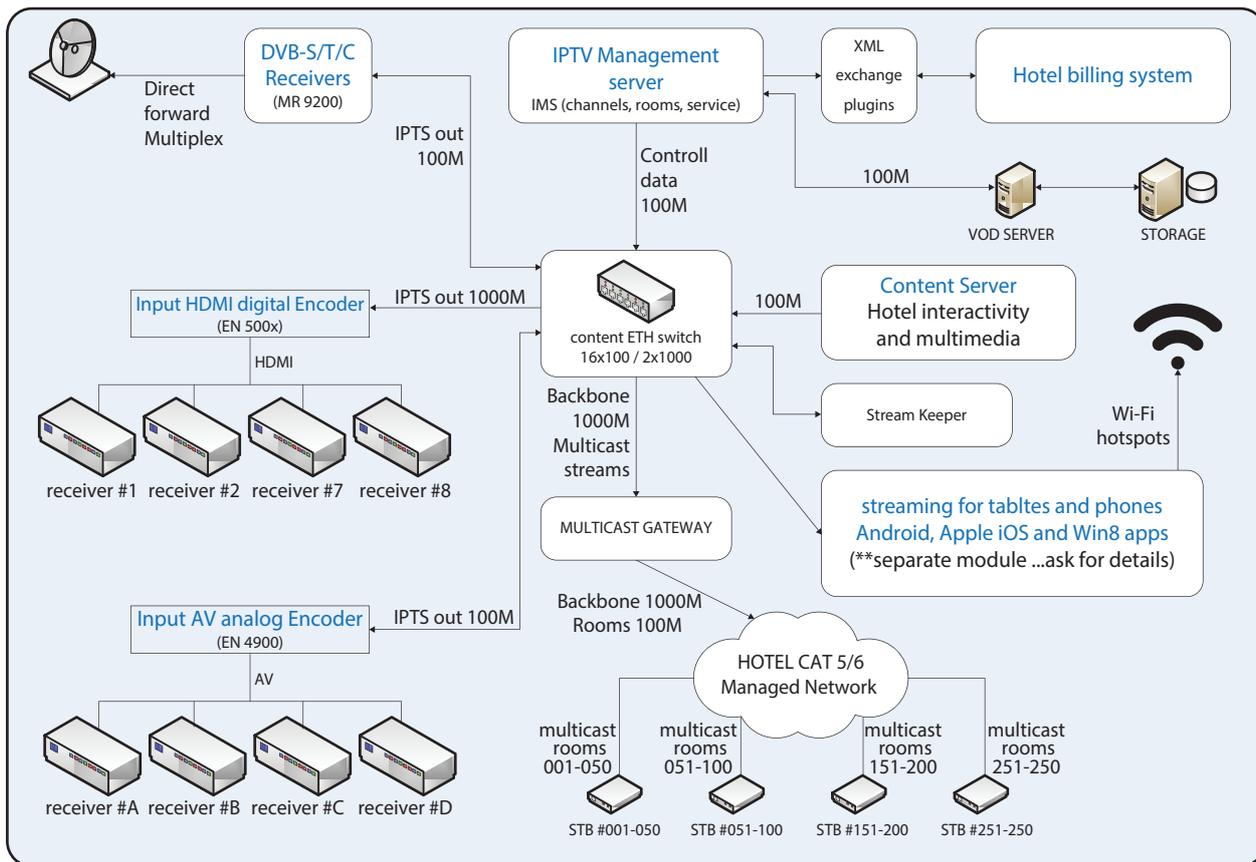
Recommended

commercial use (high performance & data integrity)

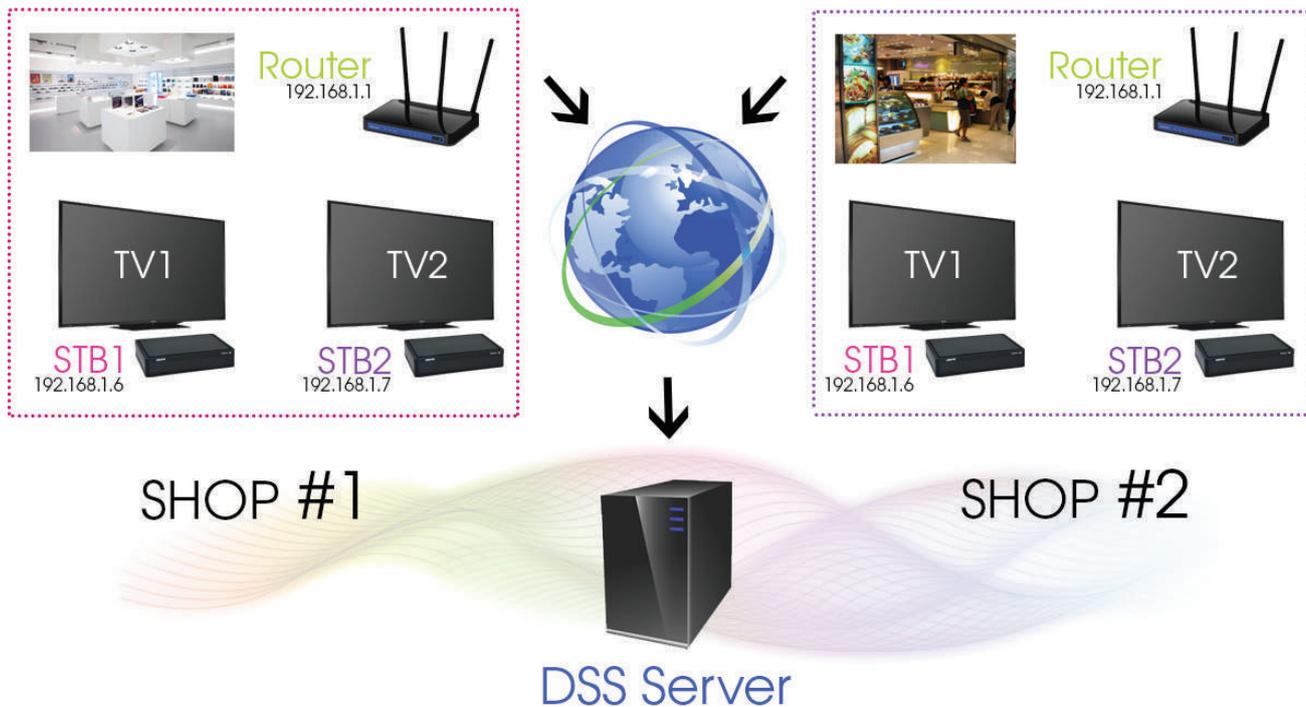
Tested server (guaranteed compatibility):
 HP DL160G8 / DL360G8 / DL380G8
 RAID(if needed): P410 or P420

1	CPU: Intel Core i5 RAM: 4GB HDD: 1x 100GB SATA Ethernet: 100Mbit OS: Linux Debian 7 64bit	Up to 1000 users	CPU: Intel Xeon dual/quad Core RAM: 8GB HDD: 2x 300GB SATA or SAS (recommended) RAID: LSI Megaraid or HP P4XX or compatible Ethernet: 1x 1Gbit/s OS: Linux Debian 7 64bit	
2	CPU: Intel Core i5 RAM: 8GB HDD: 1x 100GB SATA Ethernet: 1Gbit/s OS: Linux Debian 7 64bit	Up to 20 channels	CPU: Intel Xeon Dual/Quad Core RAM: 16GB HDD: 2x 100GB SATA RAID: LSI Megaraid or HP P4XX or compatible Ethernet: 1x or 2x 1Gbit/s OS: Linux Debian 7 64bit	Up to 100 channels
3	CPU: Intel Core i5 RAM: 8GB HDD: 1x 100GB SATA Ethernet: 1Gbit/s OS: Linux Debian 7 64bit	Up to 500 streams	CPU: Intel Xeon Quad Core RAM: 32GB HDD: 2x 100GB SATA RAID: LSI Megaraid or HP P410i or compatible Ethernet: up to 10Gbit/s OS: Linux Debian 7 64bit	Up to 5000 streams
4	CPU: Intel Core i5 RAM: 4GB HDD: 1x 500GB SATA Ethernet: 1Gbit/s OS: Linux Debian 7 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 P410i with 512MB cache or compatible Ethernet: up to 2x 1Gbit/s	Up to 10 channels 500 streams
5	CPU: Intel Core i5 RAM: 2GB HDD: 1x 500GB SATA Ethernet: 100Mbit/s OS: Linux Debian 7 64bit		CPU: Intel Core i5 / i7 / Xeon RAM: 2GB HDD: 1x 1TB SATA RAID: optional OS: Linux Debian 7 64bit	
6	CPU: Intel Core i5 RAM: 4GB HDD: 1x 500GB SATA Ethernet: 1Gbit/s OS: Linux Debian 7 64bit	Up to 50 streams	CPU: Intel Xeon Dual Core RAM: 8GB HDD: min 8x 500GB-1TB SATA RAID: LSI Megaraid or HP P410i with 512MB cache or compatible OS: Linux Debian 7 64bit	Up to 500 streams
7	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 CPU: 1.4GHz RAM: 2GB HDD: 30GB Graphic Card: support DirectX 9.0c	

Hospitality IPTV network infrastructure



Digital Signage Scenario



Notes

Košice / Singapore / New Jersey / Hong Kong / Shenzhen / Dubai / Perth / Brasil

www.antiktech.com

Antik Technology
Global Office
Carskeho 10
04001 Kosice
Slovakia (European Union)

Tel.: +421 55 30 12345
Fax: +421 55 623 4401
E-mail: info@antiktech.com
Skype: juiceiptv

Antik Technology USA / Canada
463 Twelfth St W
Cornwall K6J3E3
CANADA

US Office New Jersey
Tel: +1 (303) 551-5345
Cornwall
Tel: +1 (970) 300-2044
E-mail: usoffice@antiktech.com
USA / Canada Office

Antik Technology Australia Ltd
Unit 14, 3 King Edward Rd
Osborne Park
Western Australia - 6017

Tel: +61 430 321 491
E-mail: madan.morris@antiktech.com
Australia Office

Antik Technology (S) Pte Ltd
Block 4012 Ang Mo Kio Avenue 10
#06-04 Techplace 1
Singapore 569628

Tel: +65 9616 2725
E-mail: juiceiptv_asia@antiktech.com
Asia Office

Antik Technology Brasil LTDA
Rua. São Cristovão 1085,
Coqueiros - Florianópolis
SC Brasil

Tel: +55 48 9101 0802
E-mail: rafael.machado@antiktech.com
South America Office