



TRIAX IPTV & Middleware

| innovative thinking - rewarding business



your ultimate connection

TRIAX IPTV

| innovative headend & middleware

Introducing TRIAX IPTV

Innovative, advanced technology, easy to install and commission are key phrases for the TRIAX Internet Protocol TV solution - TRIAX IPTV.

TRIAX IPTV brings a new level of control and flexibility to TV distribution. We deliver end-to-end IPTV solutions for many different applications including hotels, hospitals, corporate buildings, prisons, education and health/wellbeing.

We provide a full hardware and middleware solution that perfectly fits our customer's needs.

Live TV channels can be viewed on TV's, PC's, laptops or tablets. The TRIAX Middleware solution offers your clients valuable customised services, such as weather reports, bill overview, guest information, VOD and much more.

TRIAX IPTV Solutions

There is an increasing demand for distribution of TV signals over a Local Area Network. This requires an IP Headend to receive the TV signals and process them into an IP stream. The Middleware solution enables the channels and services to be viewed via an IP Set Top Box or on a Smart TV.

The network architecture and distribution equipment in the building must be compatible with IPTV requirements. For best signal quality we recommend CAT6 classified cabling.



Your benefits

- One-stop shopping. We specify and deliver the total solution.
- Only one type of distribution cabling delivered from the IP Headend is necessary.
- With the use of a transcode server it is possible to support different end-user devices (Set-Top-Boxes, smart TVs, desktops, laptops and tablets).

- Middleware can be delivered either as an on-site solution or as a cloud solution.



Middleware delivered through an on-site or cloud based solution

Both platforms have advantages. However a cloud solution demands a stable high speed internet VPN connection. Our centrally operated cloud solution minimises the administrative and operational workload.

Benefits for cloud solution include:

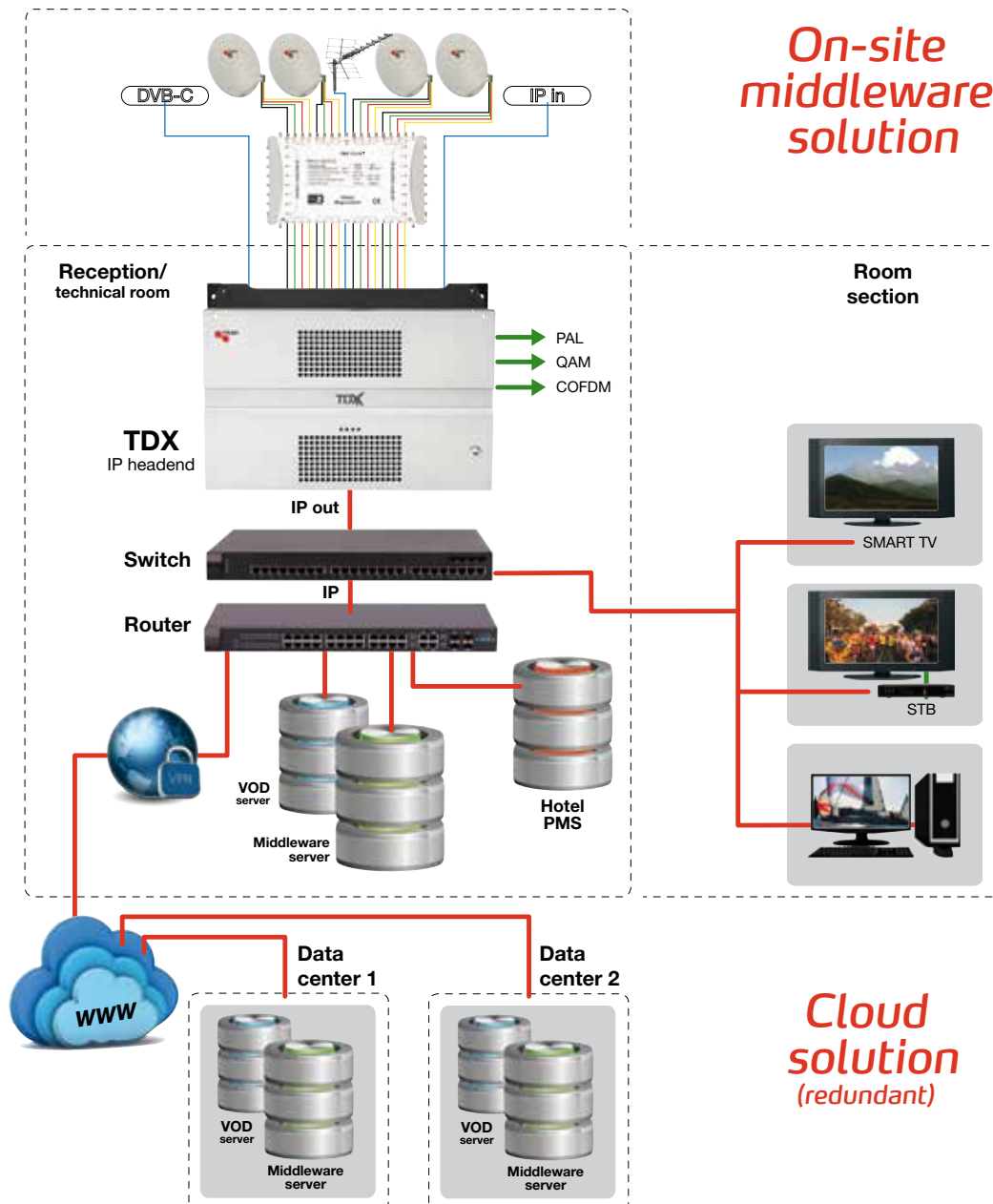
- No server required on-site.
- Save on hardware investment and upgrades.
- 24/7 monitoring of all devices.

TRIAX IPTV

| on-site or cloud solution

A typical IPTV installation consist of:

- Reception:** IPTV Headend TDX including a Conditional Access System if required.
- Distribution:** Switch, transcoder, gateway, access point and cabling.
- Middleware:** Server or cloud based management system, customised user interface and services.



TRIAX Headend

| intelligent flexibility

TRIAX Headend - TDX

TRIAX Headend -TDX - is the hub of our IPTV solution. The TDX enables all services from satellite, terrestrial, cable and IP inputs to be processed on simultaneous outputs. This gives you complete freedom to combine an IPTV solution with a traditional DVB installation. The Graphical User Interface of the TDX enables easy installation management of channel lists, EPG, etc. The IP output is distributed as a multicast stream into the IP network.

The multicast management protocol ensures TV streams not requested on a particular network segment are not forwarded, maximising the efficiency of the network.



TDX have very low power consumption

Innovative IP-Pool technology

The innovative TRIAX TDX IP-Pool technology allows the user to assign the input and output signals freely, rewriting the traditional rule book, as a single card per channel is not required.

All incoming signals enter the IP-Pool allowing unlimited possibilities to multiplex the selected services simultaneously onto all outputs.

The headend configuration can be changed at any time without the need to reinvest if required services are in the pool.

This makes the installation of the TDX uniquely flexible, user friendly and efficient.



Conditional Access System (CAS)

Our CAS solutions enable access for end-users to view subscribed content and services by smartcard or individual keys. We work with partners dedicated and specialised to high-end security solutions, preventing unauthorised viewers to access the distributed content and services.

TRIAX Middleware

| a complete in-room entertainment experience

TRIAX Middleware Solution

TRIAX Middleware is the central software that defines the Graphical User Interface (GUI) on the TV and provides access for end-users to view available TV channels and services.

The GUI is customisable – create a unique look and feel following your corporate identity while offering new services as required for additional revenue streams.

The GUI gives end-users access to a wide range of content from a full television and radio service to movies, guest information, local weather reports, App's, and much more.

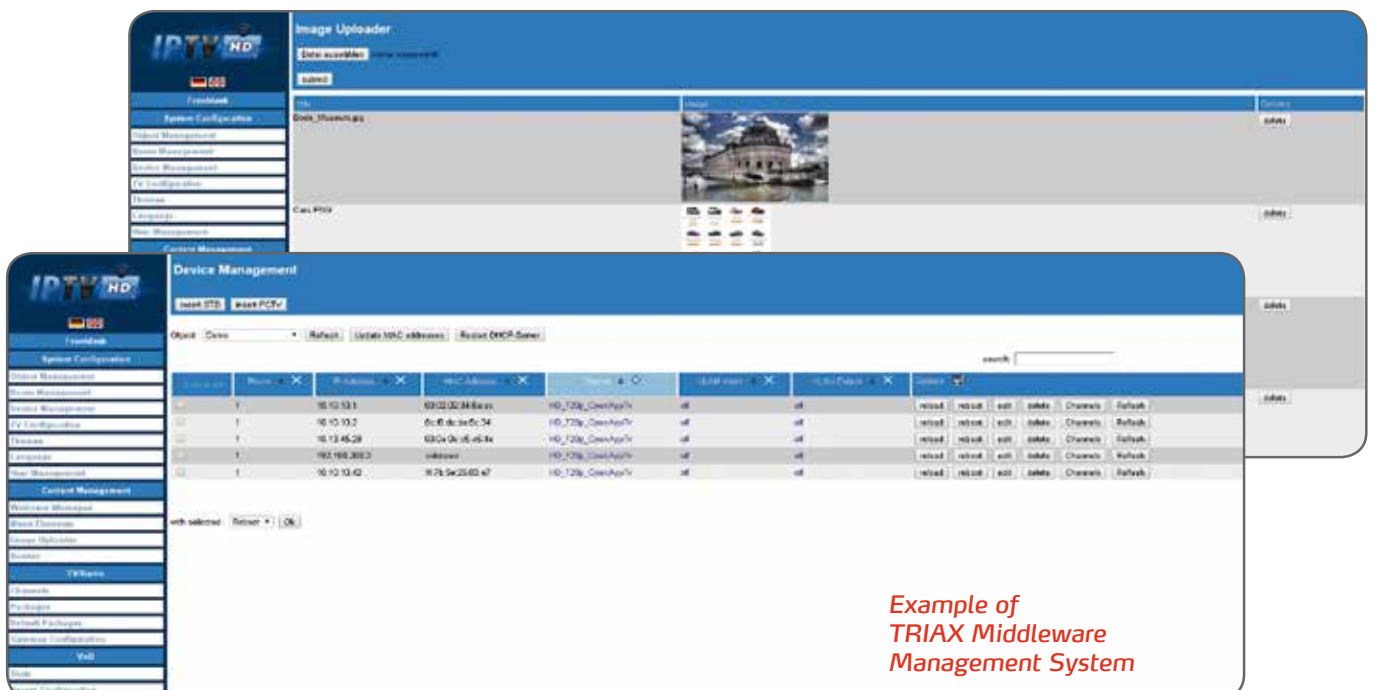


Example of TRIAX Middleware GUI on TV

The Management System

The Management System gives the system administrator access to configure TV & pay TV channels, STB, PMS, VOD (Video On Demand) and value-added services such as apps management and Internet access.

While the GUI style is created in collaboration with our developers, the hotel administrator can control the hotels own content including adverts and services such as restaurant and room service, messages, bill overview or for example introduction to loyalty schemes.



Example of TRIAX Middleware Management System

TRIAX Middleware

| scalable solutions to every need

TRIAX offer IPTV and Middleware solutions for 3 primary groups

TRIAX provides scalable solutions, typically starting at PRIMARY with TV & Radio channels, information and messaging possibilities up to our PLATINUM package which includes features such as full PMS integration, billing overview, room service, VOD and EPG. Our complete range of solutions offers end-users a unique guest experience.



PLATINUM	PREMIUM	PRIMARY
LIVE TV	LIVE TV	LIVE TV
LIVE RADIO	LIVE RADIO	LIVE RADIO
INFORMATION PAGES	INFORMATION PAGES	INFORMATION PAGES
MESSAGING	WEB TV	LOCAL WEATHER
LOCAL WEATHER	MESSAGING	MESSAGING
VIEW BILL	LANGUAGE	INFORMATION PAGES
ROOM SERVICE	INTERNET	LOCAL WEATHER
VIDEO ON DEMAND	LOCAL WEATHER	EPG TV GUIDE
EPG TV GUIDE	EPG TV GUIDE	
PMS PMS INTEGRATION		
WAKE UP		
LANGUAGE		
INTERNET		

- Hospitality:** Hotels, Hospitals, Clinics, Health/Wellbeing, Care/Retirement homes
- Corporate:** Companies, Maritime, Prisons, Oil rigs
- Educational:** Universities, Colleges, Schools, Student Accommodation

PRIMARY

Your first step into the IPTV world fulfilling your essential needs. The optimum solution for the education sector requiring TV and services on Set Top Boxes and smartTV. If you want the services distributed to desktops and laptop we also offer a WebTV solution.

PREMIUM

Our dedicated platform for corporate customers with distribution of broadcast video and content to audiences on Set Top Boxes, SmartTVs and via WebTV. All controlled through the agile and intuitive management system.

PLATINUM

Primarily used by our hospitality customers pushing the boundaries of In Room Entertainment and creating opportunities for increasing revenue per room.



TRIAX Middleware

| scalable solutions to every need

One stop shopping

- Your needs and objectives: We analyse your needs and define how your TRIAX IPTV System must be configured.
- Integration: Our mounting instruction and user manuals guide you through the installation and programming of the TRIAX IPTV System.
- After Sales Service: We are always available for you regarding questions, software upgrades or any other related issues.



TRIAX Middleware solutions...

Systems	WebTV	Primary	Premium	Platinum
	Typical setup for Student Accommod.	Typical setup for Educational	Typical setup for Corporate	Typical setup for Hospitality
Solutions				
On-site Solution (0-50 subscribers)		✓	✓	✓
On-site Solution (51-250 subscribers)			✓	✓
On-site Solution (251-500 subscribers)				✓
On-site Solution (501-1000 subscribers)				✓
Cloud Solution (0-1000 subscribers)	✓		✓	✓
Clients				
Set top box		✓	✓	✓
SmartTV		✓	✓	✓
Desktop (WebTV)	✓		✓	
Features				
Front office module (Customised branded GUI)	✓	✓	✓	✓
Back office module (Content Management System)	✓	✓	✓	✓
TV module	✓	✓	✓	✓
Radio module	✓	✓	✓	✓
Hotel information module		✓	✓	✓
Weather Information module		✓	✓	✓
2xLanguages			✓	✓
Guest-info module		✓	✓	✓
Wakeup module *			✓	✓
Billing module (Bill overview)			✓	✓
Room service module			✓	✓
Source-Select module*			✓	✓
Video on Demand Module			✓	✓
Extra Languages				✓
WebTV module	✓		**	
Optional modules				
PMS interface, 0-1000 subscribers				✓
VoD Server 12 streams			✓	✓
VoD Server 40 streams			✓	✓
Video content license per user			✓	✓
Set top boxes				
H140			✓	✓
A140		✓		

* TV has to support the feature

** Included in On-site solution. Available as ad-on service for cloud solution

The main benefits of Triax IPTV & Middleware

- Give users access to a wide range of content from a full television and radio service to movies, guest information and local weather reports, etc.
- Improved communication with end-users.
- PMS Integration enabling guests to access a variety of services. Integrates into billing systems enabling the creation of new or additional revenue streams (Platinum Package).
- Available through Smart TV's, Set Top Boxes, Desktops, Laptops, Tablets.
- Modular design means the solution can evolve as your requirements change.



A world wide company

| The Triax Group is among the leaders in the Multimedia business areas

Innovative thinking, service oriented people and advanced technology has made Triax one of the leading European suppliers of TV-systems. We offer everything that can be expected from a professional supplier within these fields.

TRIAX was founded in Denmark in 1949 and has kept growing ever since. 600 employees across the globe. The Triax Group is a part of Nielsen & Nielsen Holding A/S which is the Danish based mother company in an international group of companies and employs more than 2400 employees in 37 companies.

The Group Manufactures in Denmark, USA, China, UK, Lithuania, France, Germany and Mexico.

Triax is of course ISO 9001 & ISO 14001 certified and delivers products according to all acknowledged local and international quality standards.

www.triax.com