

Video Headend



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BUSINESS NEEDS

When setting up digital TV networks, platform providers have to find perfect balance of economy, reliability and quality. While perfect audio and video quality including content protection is a must, high service availability is quite often seen as a matter of invest.

Furthermore, a video headend solution shall be easy to operate (regarding installation, configuration and maintenance), highly flexible for upcoming standards or formats and affordable even for small platforms. The latter concerns acquisition as well as annual maintenance costs.

These customer requirements form the design principles for the GMIT Video Headend Solution. Based on long term experiences in server solutions and digital TV, GMIT provides ready to run components of a fully IP-based Video Headend Solution.

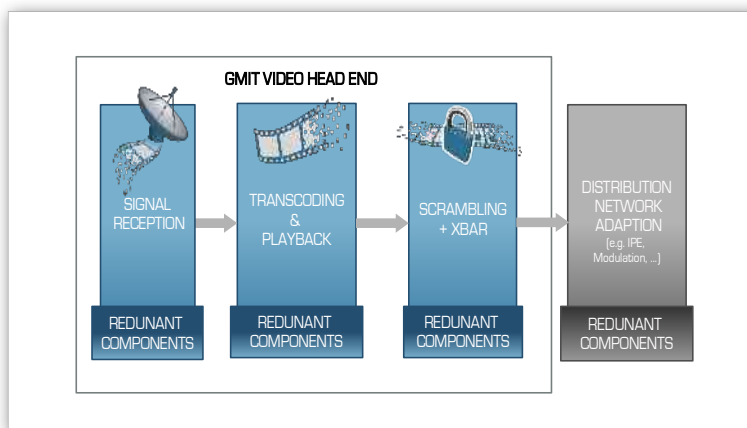
BUSINESS BENEFITS

- Cost-efficient and space-saving
- Decreasing your hardware invest
- Seamless failover & switching functionality
- Highly flexible and sustainable architecture

Using the GMIT Video Headend Solution provides numerous advantages to a platform provider. These were verified by many customers using GMIT Video Headend components or the complete Video Headend Solution in several commercial deployments, marketing trials or customer presentations.

As all headend components are software only solutions using IP-based signal distribution, immense costs can be avoided by using regular IT hardware and infrastructure. No SDI crossbars, cabling or ASI signal distribution are required between single headend components. Moreover, using high performance servers helps to reduce rack footprint and power consumption. That's why a complete redundant (n+n) GMIT Video Headend can be mounted in less than one regular 19" rack.

Using the GMIT X-Bar redundancy functions also provides seamless switching in failover cases. No drop-outs are visible at the client and therefore customer impact can be reduced and consumer satisfaction enlarged. Applying n+n redundancy setup also helps to avoid tune-in or start-up times and allows full redundant operation without any additional management system.



KEY FEATURES

The complete GMIT Video Headend Solution provides the following key functions:

- Complete software solutions using standard IT components and IP-based signal distribution
- Seamless failover functionality without additional external management system
- High service availability and ready to run 24x7, proofed in several commercial deployments
- Easy configuration and monitoring using built-in web-based user-interface or external SNMP monitoring & configuration system
- Easy installation by using the additional automatic installation system or easy manual installation by just executing two single Linux commands
- Rackspace-saving and low power consumption

GMIT PRODUCTS

GMIT products provide highest service availability and are ready to run 24x7, proved in several commercial deployments. They are based on software-only components, which allow the use of regular PC-based server hardware. Even one server can host more than one GMIT product.

Due to its highly flexible software architecture and design, the GMIT Video Headend Solution can easily be adapted. Customers are therefore flexible for future enhancements and upcoming standards, for individual integrations and customizations. This helps to reduce time-to-market and provides advantages compared to other vendors.



PRODUCTS AVAILABLE

GMIT provides a well-defined range of video headend components from the signal reception up to the distribution network adaption and is therefore able to deliver a highly flexible and reliable “all-in-one” solution. The following products are available:

Network Receiver

The Network Receiver is build to receive MPEG transport streams over various broadcast interfaces. The contained audio/video services will be encapsulated into several MPEG-2 single program transport streams and distributed over an IP-based network using IP Multicast or Unicast. This allows an easy implementation of an “all-IP-based” video headend. In addition, EIT event informations are analysed and transformed into OMA BCAST compliant ESG content fragments.

Streamer

The Streamer product family provides playback of locally stored files in to an IP-based network, supporting various formats and codecs. Streaming pre-encoded content (RTP), MPEG transport streams (MPTS or SPTS) or even arbitrary binary files (FLUTE) is possible and can be arranged using the NTP-based playlist functionality. Binding of pre-recorded content to the overall statistical multiplex is also supported to ensure highest bandwidth flexibility.

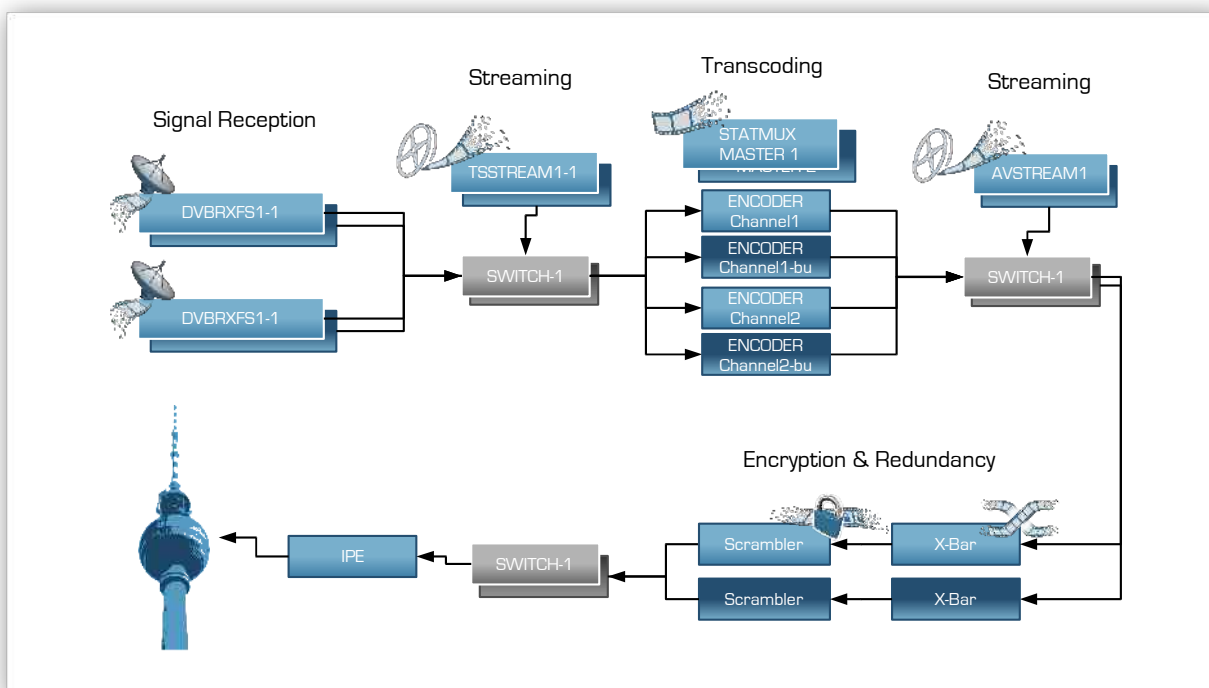
X-Bar

The X-Bar product family consists of several components providing input and output redundancy, switching and scrambling functionality. This allows the setup of highly available video headend components without interference to customers in case of failover scenarios. The seamless switching based on NTP timestamps enables to switch between live streams of the Network Receiver and recorded content from AV/TS-Streamer, This is especially useful for advertisements and program changes.

Statmux Encoder

The Statmux Encoder is capable of real-time transcoding of MPEG-2 source material using highly efficient DVB-H compliant media codecs (H.264 and HE AAC v1 or v2). Applying its statistical multiplexing functionality allows the transmission of more TV services with better video quality on a transponder with limited bandwidth.

The GMIT Video Headend Solution can perfectly be combined with other GMIT products like the GMIT Broadcast Multiscreen Monitor and the GMIT Interactivity and Data Services solutions.



Contact

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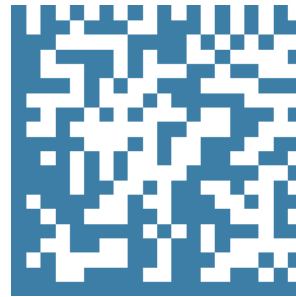
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Broadcast Multiscreen Monitor



Interactivity



GMIT is a component supplier providing headend technology and interactivity for digital and mobile broadcast. Our software products for stationary and mobile TV are optimized to satisfy the essential needs for reliability, economy and flexibility.