

# Integrated real-time video recording, storage, transcription and indexing of TV contents

Integrated solution for video recording, storage and retrieval, comprising real-time tools for automatic transcription, segmentation and topic indexing of TV contents. MMS is a fully automated solution for legal recording TV programming and building large-sized (searchable) audiovisual archives with different purposes (audit, reissuing, building multiplatform clips).

# **MEDIA RECORDING AND STORAGE**

24/7 recording in H.264 format;

Video storage for 1-year archiving (customizable); Frame-by-frame browsing and loudness registration;

Legal recording for auditing;

Audiovisual archives (repeat/deferred broadcasts; clips to publish on the web);

Monitoring and competitive analysis of rival channel programming.

# **SEGMENTATION AND CLIPPING**

Full transcription of News programs by real-time automatic speech recognition;

Automatic story segmentation based on acoustic and semantic content analysis:

Automatic creation of custom clips for multiple platforms (web, mobile, second screen).

# **INDEXING AND SEARCH**

Text search based on indexing of media transcriptions;

Acoustic and image search based on similarity measures:

Integration with TV audience measurements; AsRun integration for automatic indexing and

Ease-of-integration with broadcaster's workflow (e.g. MAM, ingest).





VIDEO RECORDING, STORAGE AND RETRIEVAL, COMPRISING REAL-TIME TOOLS FOR AUTOMATIC TRANSCRIPTION, SEGMENTATION AND TOPIC INDEXING OF TV CONTENTS.



## WHAT IT IS FOR

Monitoring of compliance with legal requirements by TV broadcasters

Long-term storage of broadcast programming Contents available in multiple platforms Quick access to recorded broadcast programs by journalists and editors

Monitoring and competitive analysis of rival channel programming

## WHO IT IS FOR

**AUDIOVISUAL CONTENT CREATORS, SUCH AS TV BROADCASTERS** 

**GOVERNMENT DEPARTMENTS, REGULATORY AGENCIES** 

**CONTENT DELIVERY FIRMS** 

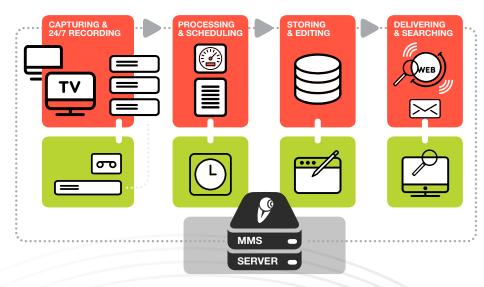
LARGE CORPORATIONS SUCH AS LEADING TELECOMMUNICATION AND ENERGY OPERATORS. **INSURANCE COMPANIES AND BANKS** 

#### 24/7 RECORDING

Daily recording and storage of TV and Radio broadcast (or webcast) programs – also on-demand contents such as podcasts - in a server for archive purposes or later use in repeat/deferred broadcasts (or webcasts). The data is recorded in blocks using a format dependent on the audiovisual materials' source (e.g. H.264). Front-end application available on any computer connected to the customer's internal network. A user can browse and visualize the recordings (up to the current time) without affecting the recording procedure.

## **LEGAL RECORDING**

Broadcasters are required to retain copies of their broadcasts for some period of time to provide evidence of compliance with legal (and other) obligations. MMS meets their need for reliable recording solutions for that purpose. The recording of broadcast contents is synchronized with the broadcaster's (or any customer's) clock, adds a time/date overlay, and allows frame-byframe browsing. In addition to video files – recorded with a quality (and stored for a period of time) in accordance with the customer requisites -, the system computes and keeps a record of loudness values for each channel.



#### **CREATION OF VIDEO CLIPS**

MMS allows for automatically creating custom video clips for delivery in various platforms (web, mobile, second screen). MMS provides the user with an automatic EPG – for browsing the channels' programming - that can be replaced by more detailed, user-supplied programming descriptions in AsRun (or other) format, for more precise navigations.

The audio and video processing tools available in MMS are able to automatically segment information blocks. News video clips can then be created from the chosen segments and delivered in multiple platforms.

## **DATA PROCESSING**

Automatic speech recognition based on stateof-the-art speech processing technologies developed by VoiceInteraction for the transcription of audiovisual contents.

Multimedia contents are segmented and indexed by automatic means through the combination of acoustic signal features and semantic data extracted from the transcriptions. The speech analysis tools are optimized in order to achieve the best performance, even in real-time scenarios. The results are stored in a database (MySQL or SQL Server) allowing free text searches over the full TV programming recorded up to the moment.

## TV RATINGS AND COMPETITIVE **ANALYSIS**

By allowing audience measurement reports to be loaded into the system and timesynchronized with TV programming recordings, MMS is a powerful tool for broadcasters' marketing/sales departments to make a competitive analysis of the business area. After loading the reports, the system presents the temporal evolution of the rating points (according to multiple metrics) of each channel for the reported time period. Yet, MMS' advanced search facilities (free text or image similarity search) allow for a more efficient (thus, effective) monitoring of competing TV channels' contents.

#### INTERFACES

MMS provides user-friendly interfaces for scheduling tasks (speech transcription, video transcoding, spot detection, etc.); editing tasks (enabling the user to correct potential mistakes or insert additional information to enrich the news story's description) and searching (based on text content indexing or acoustic/image similarity metrics).

**ALREADY TRUSTED MMS BROADCAST** 

















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