ReDat
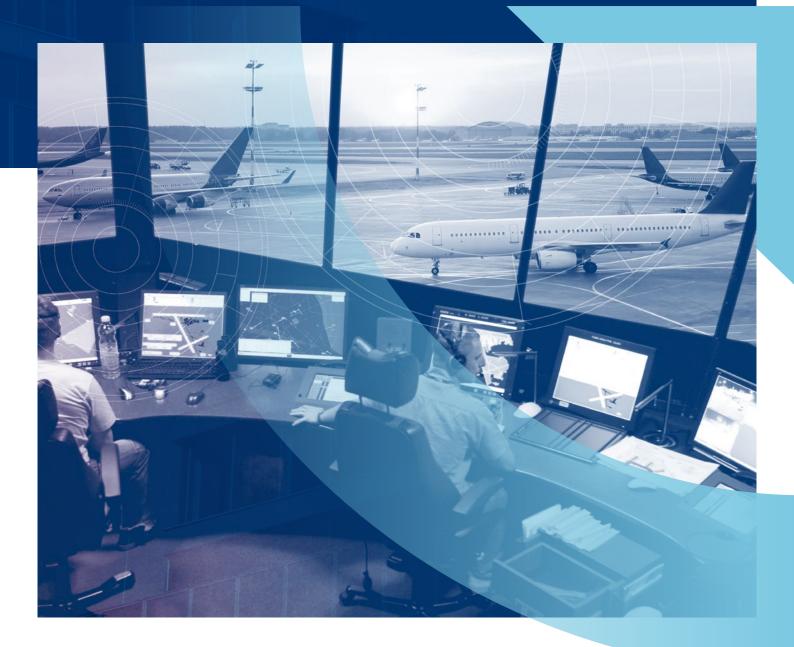## Recording

ATM/ATC data recording and analysis

We provide a modular data recording system which was developed in close cooperation with air navigation service providers. We understand the needs of our customers and are able to provide required security and intuitive features that supports safe air navigation.

AUDIO RECORDING

The basic function of the ReDat Recording Systems is reliable recording of audio signals transmitted by variable sources based on different technologies. Hundreds of analog, digital and IP telephony channels can be recorded simultaneously.

SCREEN RECORDING

The system supports software and hardware recording solutions up to 4K resolution. Software solution is an installed driver that captures PC' screens directly. The hardware solution consists of DVI or DisplayPort Box, which is non-intrusively placed between the workstation and the display.

HID RECORDING

For a complete reconstruction of an incident it is vital to be aware of all the facts. Therefore, our recording system records Human Interface Devices (HIDs) - keyboard, mouse and touchscreen. Owing to this an investigator is able to pinpoint exactly what was happening at the controller's workplace at the time of the incident.

RADAR DATA RECORDING

The ReDat Recording Systems are able to record any type of data streaming through an Ethernet interface. It provides recording and synchronous playback of radar data simultaneously with audio, screens, HIDs etc. The features of the radar data player are similar to the ones used in the voice player (acceleration, slow down, jumps etc.)

CCTV RECORDING

CCTV camera systems integration is an essential security component of any complex system. The ReDat Recording Systems can integrate a variety of CCTV technologies.

WEB APPLICATION REDAT EXPERIENCE

ReDat eXperience provides an intuitive and configurable user environment along with a sufficient set of tools necessary to analyze and report. It is based on users' hierarchy which enables the classifying of recording sources and detailed configuration access rights defined by user roles.

LIST OF SOURCES

The left panel shows all the recording sources that are integrated into the system. Access to them is carried out by a hierarchical structure and can be further adjusted according to user's rights. It is possible to filter, sort, group but also play or start live monitoring directly from the panel.

LIVE MONITORING AND PLAYBACK FROM THE HISTORY

The system allows users to play live events happening on individual recording sources, simultaneously and in context. At the same time, stored data is always available from the archive. The archiving time is fully configurable and literally unlimited.

VOICE ANALYSES

The first step of the analysis is speech to text transcriptions. This gives users the ability to search by keywords or phrases, emotions, detection of a failure of a predefined call script communication (call flow) and detection of a noise presence (channel failure). These features are part of the VoiceProcessor module. The next step is carried out by the TopicDetection module, which, based on the transcribed call, determines a particular topic of the recordings, (increased occurrence of specific words, etc.).

THIRD-PARTY APPLICATIONS INTEGRATION

Air navigation service providers use large number of applications from different vendors to monitor system and collect logs. The data is crucial for flawless situation assessment. Our platform integrates, stores and plays 3rd party data or analyzes its content.

ANS PROVIDERS' NEEDS

Time, accuracy and availability are the key factors. Most air navigation service providers monitor several independent sources such as audio and video channels or data integration of other systems, including logs. All of these inputs are technologically independent, which means they do not "see" each other. The ReDat Recording Systems ensure that the ATM/ATC systems are able to monitor, control and analyze situations as they appear, in a comprehensive manner and using all available resources. ReDat Recording Systems also allow users to create complex reports, which are automatically generated and sent according to the user's requirements.

ABOUT THE SYSTEM

Experienced in implementing sophisticated projects, we are confident in our ability to record any technology. We believe that complex recordings (phones, radios, ambient microphones, screens, CCTV, HID and other sources) provide a comprehensive and a multidimensional overview of any situation that occurs. The ReDat solution ensures the entire control of employees' activities and provides tools for investigating and analyzing incidents. The tools are designed to simplify processes as much as possible while ensuring the transparency of the entire system.

INVESTIGATION OF INCIDENTS

Solving an incident has become faster, easier and clearer thanks to a specially designed module. An investigator has a full range of useful tools and thanks to synchronous multichannel playback, is able to simply reconstruct the situation the way it happened. External documents, such as photos, recordings, PDFs and more can be attached into the investigation of the incident. Incidents can be exported to the so-called investigation packages.

ReDat Recording

KEY FEATURES

— Easy access via a web interface

— Simple and intuitive user application environment

— Centralized data recording and storage

— Incidents reconstruction and analysis

— View of a situation in real-time

— Synchronous playback

— Reporting tools and analytic functions with online outputs

— Integration of "third-party systems"

— Hierarchical access to data

— Fully audited system

— Speech to text

— Attachments to investigation reports

— Insertion of notes to recordings

— Live streaming capabilities

— Automatic voice analysis

— Radar data recording and playback

The product fully complies with selected ICAO (e.g. Annex 11, 12, 13) and ICAO standards (e.g. ED 137B and ED 137C).

RETIA, a.s. is a member of EUROCAE Working Group-67 and Working Group-115.

EXPERTS´ OPINIONS

„RETIA always runs an extra mile for us. We really appreciate their flexibility and customer orientation. RETIA carefully listens to our needs and although they were new to the ATC industry, they were very accommodating and quite quickly fulfilled all our demands."

Ján Letaši
Project Manager LPS SR
Letové prevádzkové služby Slovenskej republiky

„RETIA demonstrates its full adherence to quality and dedication to agile product development and does its best to respond to all our concerns."

Martin Jelínek
Project Manager
Air Navigation Services of the Czech Republic

REFERENCES

— Air Baltic (Latvia)

— Airports Authority of India (43 airports) (India)

— Řízení letového provozu České republiky, s. p. (Air Navigation Services of the Czech Republic)

— Dhaka International Airport (Bangladesh)

— ENAIRE (Barcelona and Palma de Mallorca) (Spain)

— Čáslav Airport (military airport) (Czech Republic)

— ENNA (Etablissement National de la Navigation Aérienne) (Algeria)

— Heliport (India)

— Letiště Praha Letňany s.r.o. (military airport Prague) (Czech Republic)

— Letové prevádzkové služby Slovenskej republiky, štátny podnik (Air Navigation Services of Slovakia)

— Manila International Airport (Philippines)

— O.N.D.A. (ATC/ATM Morocco) (Morocco)

— Polish Air Navigation Services Agency (PANSA), Krakow (Poland)

— Stará Boleslav Airport (military airport) (Czech Republic)

— Vilnius International Airport (Lithuania)

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