Cadmos microsystems

ISS Recording & Playback

reliable technologies

SCOPE

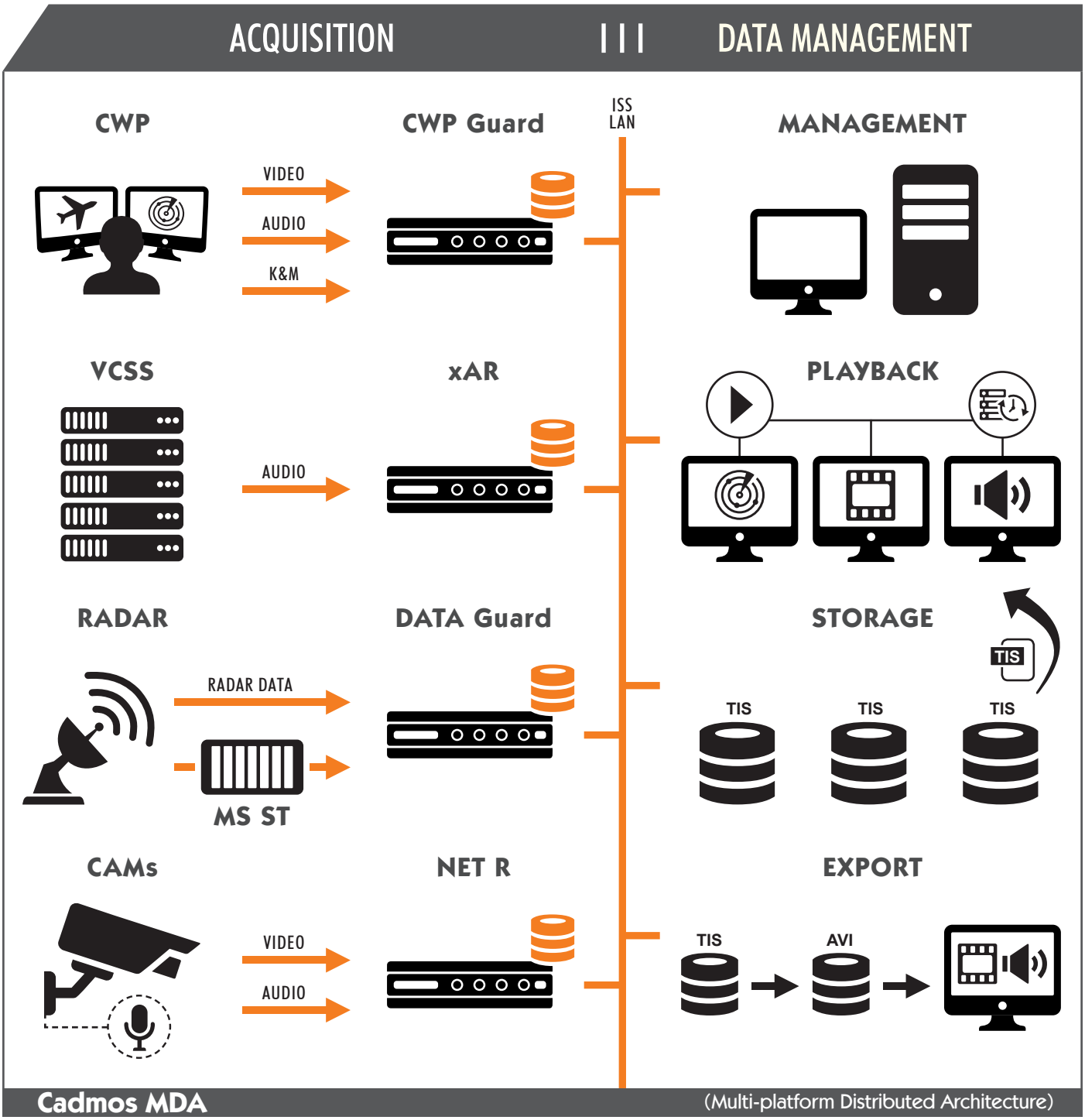
- **Legal Investigation**. Compliance with ICAO recommendations - Annexes 10, 11, 13
- **Training**. Real scenarios playback and analysis
- **Post-event analysis**. Interoperable also with external tools (e.g. FAA Continuing Analysis and Surveillance System CASS; Eurocontrol SASS-C)
- **ATC system verification and deployment**. Input/Output data correlation and Critical data replay

HIGHLIGHTS

- **Distributed architecture**: flexible, scalable, and redundant
- **Unbeatable value for money**: top performances and competitive price
- **Full integration and synchronization of multiple and unlimited data sources**
- **Guaranteed storage capacity**: compliant with ICAO regulations
- **Safe data acquisition**: no streaming, reducing network load
- **High-performance video quality recording**: up to 25 fps
- **Scalability**: uncoupled performance from system dimension
- **Multi-protocol data acquisition**
- **Real-time and post-acquisition advanced data analysis**: decoding data packets implementing several protocol decoders

"IMAGINE YOU CAN RECREATE THE PAST WITH 1 CLICK..."

The ISS suite is a complete network solution designed to record, playback and analyze all data exchanged in the ATC environment without modifying your infrastructure. The suite is made up of hardware and software components connected together through a redundant LAN (ISS LAN) and can be used for servicing and supervision purposes in a fully operational environment.

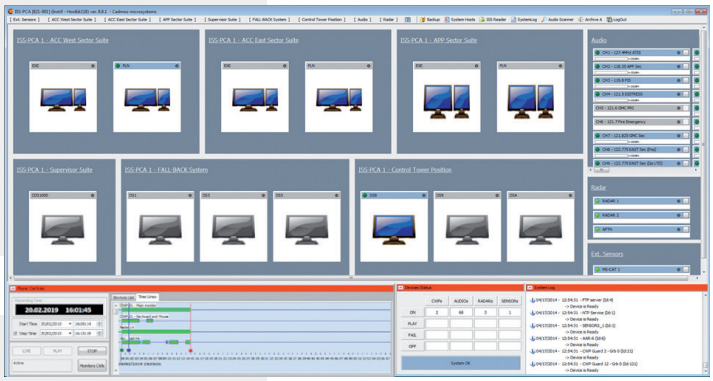


DATA ACQUISITION

ISS Suite components interface with the hardware acquisition peripherals and generate information flows towards the storage components. The main hardware acquisition components are the recorders (RECS) and the media switches: Video, Audio, Keyboard & Mouse Recorder (CWP Guard), Analog, Digital and VoIP sources Recorder (xAR), Radar Data Recorder (Data Guard), Ambient Video & Voice Recorder (NET R) and ATC Router (MediaSwitch ST). The Radar Performance Guard (RPG) is a unique optional software package that analyzes all the radar data acquired measuring the performance of the sensors as specified by EUROCONTROL (target position (PD) and / or radar accuracy in both gamma and azimuth).

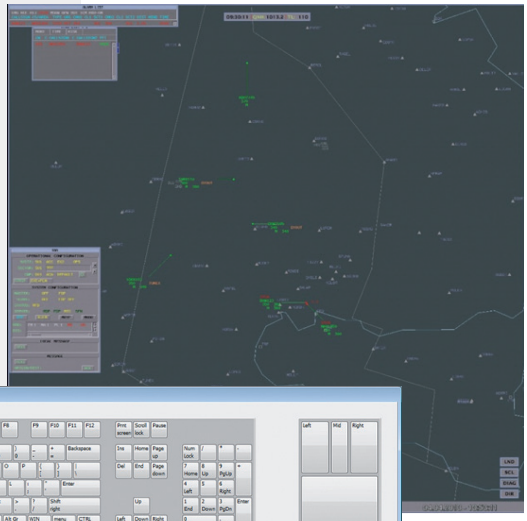
MANAGEMENT

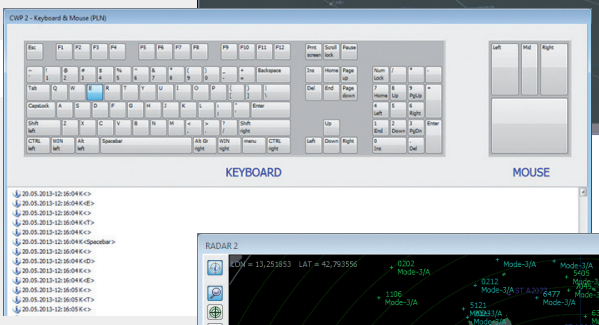
Management components allow achieving a consistent control upon all system elements. The user can perform a complete system configuration as well as a data flow path control. The configuration management is implemented within the Configuration Server Daemon (CSD).



PLAYBACK

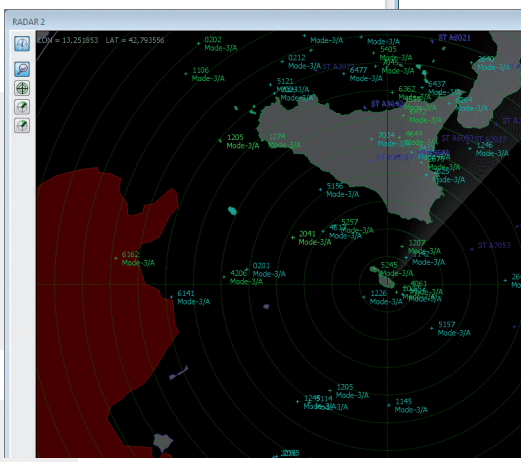
Playback components are software modules that provide a synchronized presentation of different data flows in a consistent context, reproducing and showing a complete operational scenario. In the same application environment, several presentations components specialized for different data flow typologies are available: Synthetic Radar Data Player (Asterix, AIRCAT500, etc.), Video Player, Audio Player, Keyboard & Mouse actions Viewer. Presentation components are used to monitor the entire ATC communication system, performing data packets acquisition from Storage System via LAN. Real-time and post-acquisition analysis of the acquired data is performed through the Playback Console Application (PCA).





STORAGE

Storage components can record any type of information coming from the acquisition components in a common proprietary format (TIS), inserting, during the acquisition phase a high precision absolute time-stamp for data flow synchronization. As for acquisition components, the management system controls the configuration and execution of the storage components. Storage processes can be instantiated on dedicated servers (centralized storage) and locally on the node which interfaces with the acquisition peripherals.



EXPORT

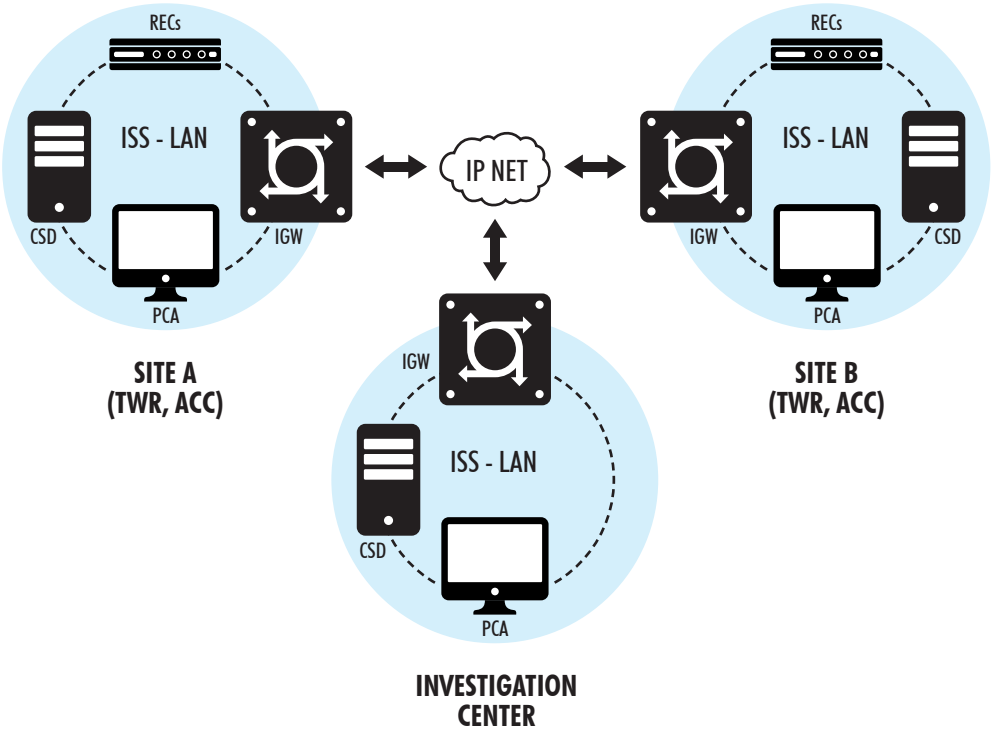
Export components allow to export, in a single standard format data stream (e.g. AVI), one or more synchronized information flows related to a specific context.

Legal Recording ISS

"THE WORLD'S LARGEST AIR TRAFFIC CONTROL CENTER RECORDING SYSTEM"

ISS ENTERPRISE

ISS enterprise allows, through the ISS Gateway (IGW), to remotely control and access (according to configuration rights) the recorded data of air traffic control rooms located in different sites. This technology creates a whole new world of possibilities for recording and playback.



Reference letter

"The equipment deployed by Cadmos is very flexible while maintaining a high degree of reliability."

Malta Air Traffic Services Ltd.

CERTIFIED COMPANY SMC ISO 9001:2015

Cadmos microsystems S.r.l.
Via B. Pontecorvo, 11
00012 Guidonia Montecelio (RM) - Italy
Phone +39 0774 353919 - Fax +39 0774 014367
www.cadmos.it - info@cadmos.it