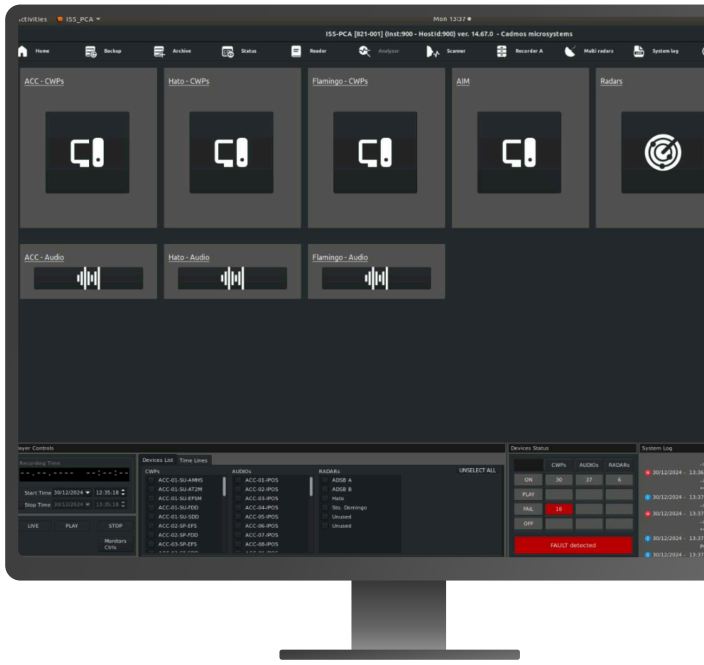
reliable technologies

ISS
Integrated Recording & Playback

The ultimate recording and playback solution specifically designed for ATM



Highlights

- **Independent recording and playback of all ATC related data flows**
- Full integration and synchronization of multiple and unlimited data sources
- **Fully compliant with ICAO regulations**
- **High-performance video quality recording**
- **Multi-protocol data acquisition**
- **Real-time and post-acquisition advanced data analysis**: decoding data packets implementing several protocol decoders
- **Worldwide operational usage**
- **ATM system provider agnostic**
- **Mini size HW platform**
- **Distributed Architecture:** flexible, scalable, redundant

PRODUCT OVERVIEW

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.

OPERATIONAL CONCEPT

Data Acquisition

ISS Suite components interface with the hardware acquisition peripherals and generate information flows towards the storage components. The following data are recorded independently:

- Video at the glass, each CWP guard can record 2×4K screen
- Audio: analog and digital
- Keyboard & Mouse Recorder Analog,
- Surveillance sources
- Ambient Video & Voice
- Flight Plan data (AMHS, OLDI, AIDC, ETC)

the recording can be stored also locally at each CWP or/and streamed to a remote NAS. Video cameras, and other environment sensors are recorded and synchronized as well.

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 modules provide a synchronized presentation of different data flows in a consistent context, reproducing and showing a complete operational scenario.
It is also possible to select and replay different synchronized flows:

- Surveillance Data (Asterix, AIRCAT500, etc.),
- Video
- Audio
- Keyboard & Mouse actions
- Ambient data

Real-time and post-acquisition analysis of the acquired data is performed through the Playback Console Application (PCA).

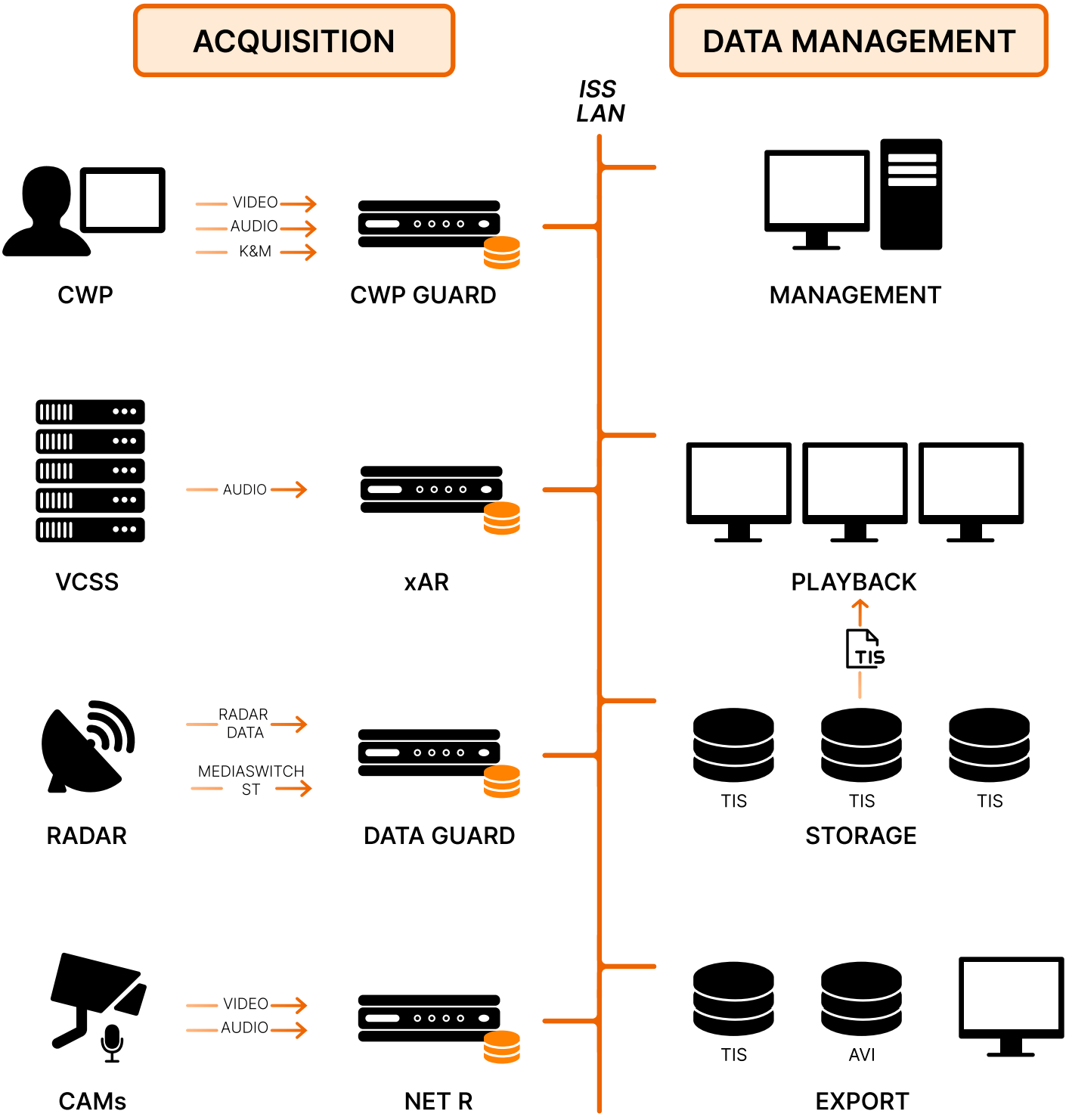
Storage

Storage components can record any type of information coming from the acquisition components , 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

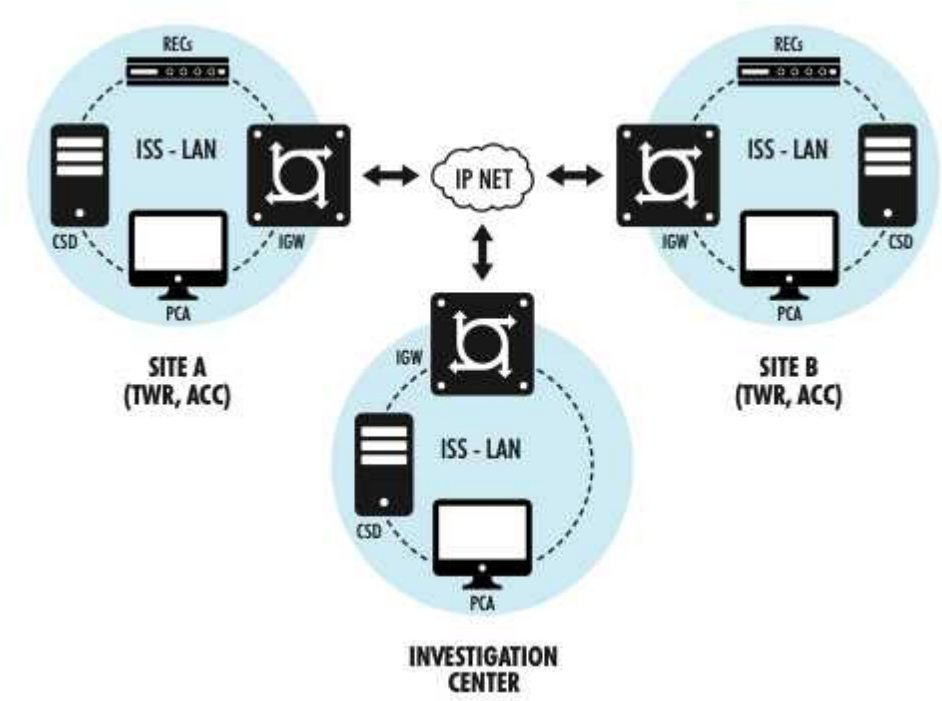
Export components allow to export, in a single standard format data stream, one or more synchronized information flows related to a specific context. Different formats are available (e.g. AVI, MP4 etc) and towards COTS like google earth (KML).

ISS ARCHITECTURE



ISS is agnostic in respect to the systems to be recorded and replayed, in other words is independent from ATM, VCSS and input devices vendors. It does not require any additional hardware to be installed on CWP and it does not impact the operations for installation and set up. ISS is also decoupled from the ATM system and any eventual failure in ISS does not impact the ATM system under recording thus maintaining the safety levels.

MULTI-SITE SCALABILITY



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RELATED SERVICES

- 1 year warranty, extendable
- Set-up and configuration
- Training
- Stock availability
- Obsolescence management
- Remote and on-site support
- Corrective and evolutive maintenance
- Integration with third parties systems

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