TACITUS

AIR TRAFFIC CONTROL

**Multimedia Recording for
ATC Communication and data**

- ✔ ED137 compliant
- ✔ Multichannel and Scenario playback
- ✔ Impound tool and Offline player
- ✔ Synchronized playback with ATM systems
- ✔ ATG and TTW recording options
- ✔ OS Independent

TACITUS

Multimedia Recording Systems for Critical Communications in ATC / ATM Applications

TACITUS is your legal recording solution, based on up-to date technology, for Towers (TWR), Area Control Centers (ACC), Mobile Towers (MTWR), Remote and Virtual Towers (RVT).

TACITUS records analogue, digital and VoIP based audio signals and different types of multimedia data like Radar, Video, and CCTV from your ATC/ATM communication systems.

TACITUS stores the recorded data in a proprietary format on a highly available memory. These cannot be changed or modified and are stored for as long as specified in the storage configuration. Archiving options on portable media, on the network or in the cloud are available.

TACITUS offers browser-based management and monitoring as well as playback with extensive search and filter functions.

TACITUS Forensic playback provides you a full overview of the incident with Multichannel playback, Scenario playback, Flexi Speech, Tagging and Comment features.
Quarantine and Impound functionality as well as multiple export options with offline player support the incident evaluation.

TACITUS is available in fully redundant configuration (1+1) and operates in parallel mode, with both recorders connected to the recording sources.
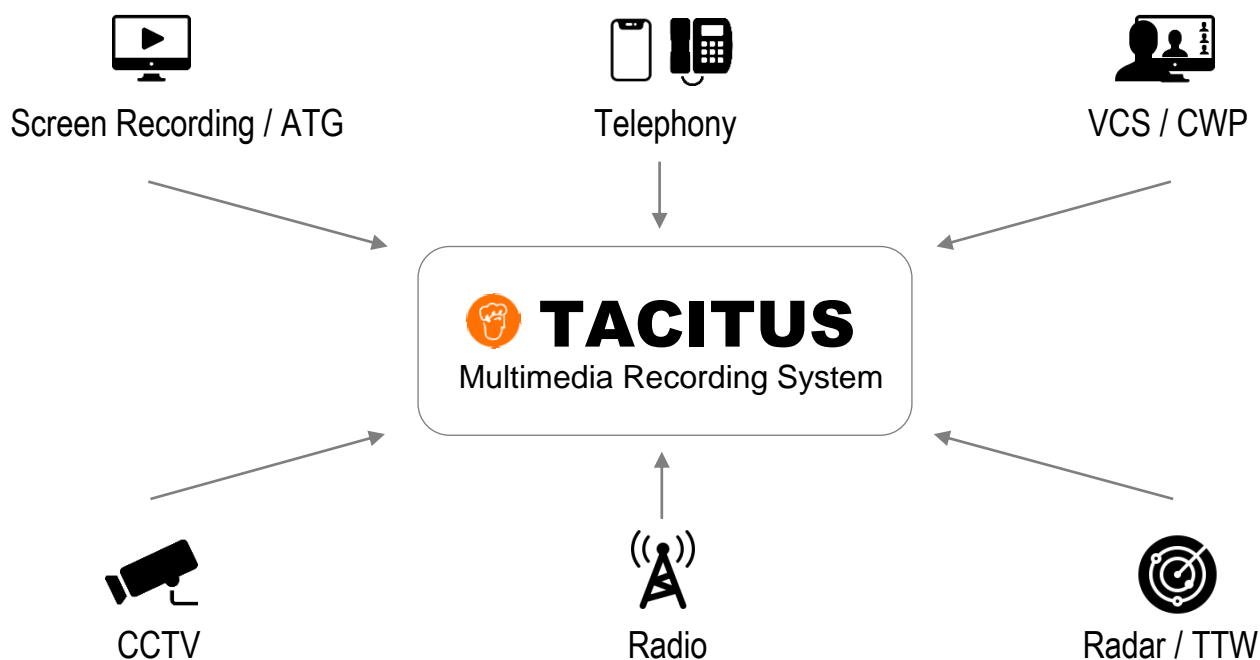
Features

ATC

- ED137 compliant

- Multichannel and Scenario playback

- Impound tool and Offline player

- Synchronized playback with ATM systems

- ATG and TTW recording options

System

- Unlimited number of recording channels on distributed systems

- Storage local, network or cloud based

- Covering all common Audio, Video and data sources

- Browser based Playback, Configuration and Supervision

- OS independent

Tacitus Brings Different Sources Together

Screen Recording / ATG

Telephony

VCS / CWP

TACITUS
Multimedia Recording System

CCTV

Radio

Radar / TTW

VCS / CWP Recording
Recording of all communication to and from the Controller Working Position by ED137 protocol or other interfaces like analogue, E1 or RTP.

Radio Recording
Recording of ATC radios via ED137 protocol or other interfaces like analogue, E1 or RTP.

Ambient Recording
Ambient Recording involves recording ambient noise – for example in the tower console and ATC rooms – in order to document any interference. Either via analogue interfaces or IP based.

Telephony Recording
Recording of Calls – incoming and outgoing – from analogue, digital or VoIP telephone systems (PBX/PABX). Full documentation of telephone conferences.

Screen Recording (ATG)
Recording of screen content at the CWP. Non-intrusive solution supporting VGA, DVI, HDMI and Display Port and software based solution available.

CCTV Recording
Recording of video content from IP cameras (CCTV), for example from areas not visible from the tower or of critical environments.
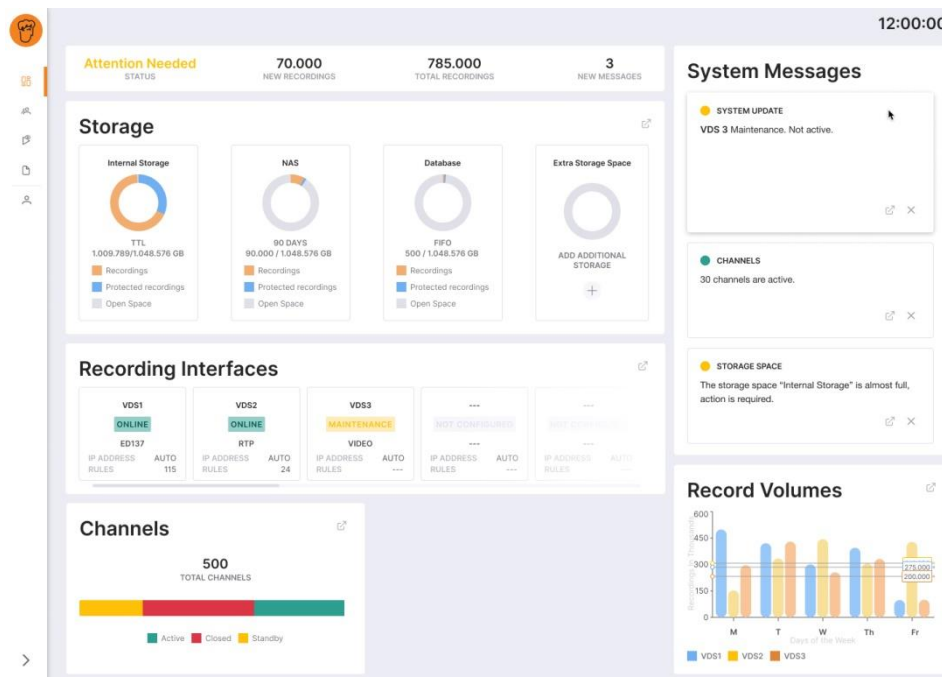
Through the Wall Recording
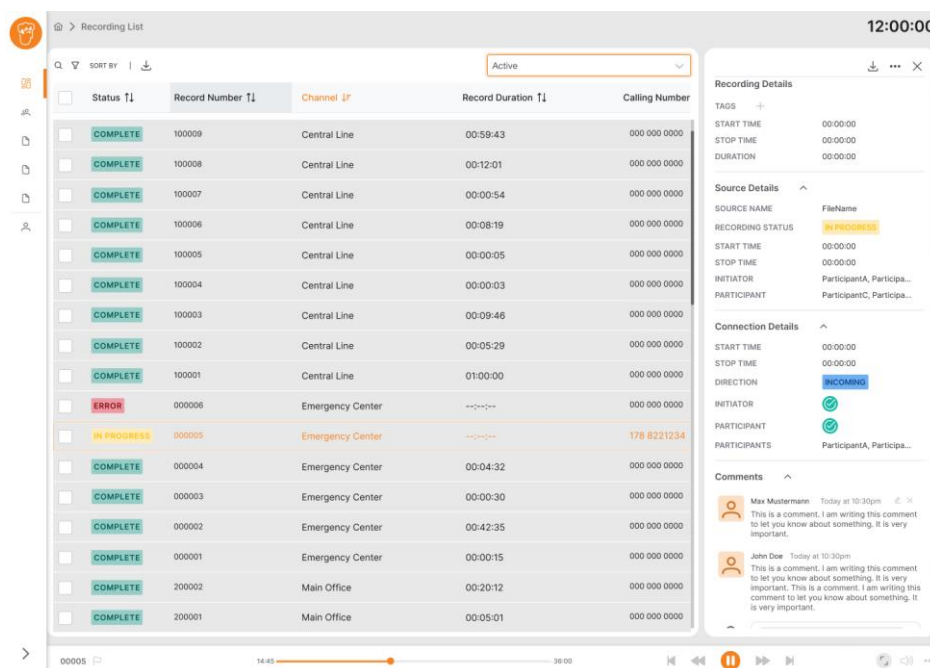TTW Recording captures the data streams generated by radar systems. Support of Asterix protocol (Eurocontrol).

Deployment & Security

Supported Operating Systems	Windows 10, Windows 11, Windows Server 2022 Linux (Ubuntu, CentOS, Red Hat, others)
Platform	Hardware agnostic. Deployment on COTS servers or Virtual Machines
Operation	Browser based (Chrome, Firefox, Edge, Safari). API for third party integration.
Design	Enhanced security by modular design. Internal communication fully encrypted. Hashed and encrypted storage of recording content.
Access control	User accounts with strong passwords. Role based user management. Optional two factor authentication and four-eyes passwords. Support of LDAP, Active Directory and other single sign on solutions.
Cyber Security	Antivirus and Firewall protection with integrated configuration support.
Health Monitoring	SNMP v3 support. Integrated Grafana analytics and monitoring. Syslog and JSON support.
Time synchronisation	All recordings are time stamped. Time synchronisation by NTP protocol.

TACITUS Dashboard presents all relevant system information on one screen

TACITUS Recording List with call details for selected recording

Interfaces, Storage & Playback

IP Interfaces	ED137 B & C, SIP, RTP, proprietary IP-PBX protocols
Audio Interfaces	Analogue, PCM 30/E1, ISDN BRI, ISDN PRI, Up0 Digital PBX
Data Interfaces	Asterix protocol and all types of LAN based data
Video Interfaces	H.264, NVR, VGA, DVI, Display port, HDMI
Storage	Local storage, network storage, cloud storage and export.
Playback	Single Playback, Multichannel Playback, Scenario Playback, synchronized playback with ATM systems. Speech-to-Text.