

Case Study



Record ► Analyse ► Visualise

Belgocontrol introduces one of Europe's largest ATC Recording systems

Belgocontrol Air Traffic Control service is expecting a significant reduction in costs with the introduction of a 2760 channel digital recording system from AudioSoft.

Belgocontrol project manager Luc Veroft is anticipating improved capability from a central replay and monitoring system that connects four regional airports and Brussels, which serves one of the world's busiest airspaces.

Background

Belgocontrol is responsible for the low airspace above Belgium and Luxembourg, one of the busiest in the world. London Heathrow, London Gatwick and Paris Charles de Gaulle all route many of their flights through Belgian airspace.

Due to the ever increasing volumes of air traffic a decision was made to replace ageing analogue recording devices with a digital system in compliance with ICAO regulations. With the new CANAC control centre being built at Brussels, Belgocontrol needed a system that could easily be upgraded.



Distributed Solution

To minimise costs, Belgocontrol required a system that capitalised on an existing national network to control and monitor the systems at Antwerp, Charleroi, Liege and Ostend.

Luc Veroft explains further,

“What we required was a complete solution that was fully compliant with ICAO requirements.

“Of particular importance was the ability to monitor the regional airports from our CANAC control centre at Brussels through our existing network”.

Maximising Return On Investment

In order to maximise his Return On Investment, Luc Veroft chose to archive to a RAID hard drive configuration. This has led to significant savings over using tapes or disks, which must be changed on a daily basis and have a high media cost. A dual-redundant system was required to ensure compliance with ICAO requirements and Belgocontrol security protocols. Each recording required accurate stamping of UTC time code. A database of all recordings was required for a minimum of 30 days and all recordings needed to be fully tamperproof. The new system also had to integrate smoothly with the existing CWP recording set-up at Belgocontrol to ensure synchronised replay of Audio and CWP recordings.

*“AudioSoft’s proven track record of supplying ICAO compliant recording systems since 1995 was key to our choice”
Luc Veroft, Belgocontrol*

Robust, Reliable and Best of Breed

Belgocontrol needed a solution that would be robust, reliable and easily expanded to meet future legislative changes.

AudioSoft were chosen as the preferred supplier to Belgocontrol having satisfied all the requirements at a competitive price.

Case Study Solution



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Clear benefits

As well as the savings offered by the partnership with AudioSoft, Luc Veroft has become aware of other key benefits:

► Improved Reliability

Centralised management allows unmanned operation, safe in the knowledge that any alarms will immediately alert an engineer at Brussels. AudioSoft's heartbeat alarm technology ensures alarm notification, even in the event of complete power failure to the recorders. The heartbeat technology uses SNMP communications, allowing future potential integration with other commercial monitoring packages such as HP's OpenView.

► Improved Capability

A Graphical User Interface designed by ATC operators overcomes any potential problems associated with identifying active channels during incident or maintenance operations.

"Without the ATC user interface, finding the right recording would be like searching for a needle in a haystack", Luc Veroft.

Remote local area network playback is provided by twenty-five AudioSoft systems, some of which include AudioWord, a

sophisticated transcription device for safety occurrence reconstruction. A user with the appropriate access can replay any airport's recordings from one of the distributed PCs; no more need for tapes to be transported or people to travel from one airport to another.

► Improved Integration

AudioSoft's documented interface fully supports synchronised replay of the audio with other recorded data such as radar and CWP. The system can easily be expanded to support recording of X Server and screen

capture of Operators' screens, providing Luc Veroft with several options to meet new ICAO mandated radar recording requirements*.

► Reduced Costs

The use of standard PC components makes maintenance straightforward, whilst the huge savings on archive media and reduced manpower through centralised monitoring and control will give Belgocontrol a quick Return on Investment.

► Improved Future

Belgocontrol have recently placed a new contract to further digitise the ATC control centre at CANAC. In order to meet new ICAO recommendations, Belgocontrol have commissioned AudioSoft to also include ambient noise recording. Through 46 pairs (for dual redundancy) of E1 trunks there will soon be 2760 recording channels.

Says Armand Van Cappellen, Manager, Navigation-Communication division, Belgocontrol "value the ability to be able to easily upgrade and expand the PC based system"

As well as offering high quality systems, AudioSoft "have a flexible approach and their assistance in installation, training, configuration and support has also been of a very high standard" states Van Cappellen.



Both Luc Veroft and Armand Van Cappellen are now keen to continue Belgocontrol's partnership with AudioSoft through the expansion program in 2007.

* State Letter reference AN 13/13/1-05/37 issued on the 24th March 2005, "Adoption of Amendment 43 to Annex 11" © AudioSoft, January 2007. AudioSoft duly acknowledges all trademarks and names mentioned in this case study. AudioSoft Ltd., 3 Longwood Court, Love Lane, Cirencester, Gloucestershire, GL7 1YG, United Kingdom.