

Cloud-based system transforms ambulance control rooms

Ambulance Radio Programme Director, Duncan Bray, and Frequentis UK Managing Director, Andy Madge, discuss how new cloud-based communication technology is benefiting the public by enhancing ambulance services.

What is the Ambulance Radio Programme and how will it benefit the public?

Duncan Bray: The Ambulance Radio Programme (ARP) is a communications initiative designed to enhance ambulance service communication. ARP is replacing the Control Room Systems (CRS) across all 11 Ambulance Trusts in England as well as Scotland and Wales, to improve the efficiency and effectiveness of emergency responses. In addition, ARP will replace the current Mobile Data solutions in All English Ambulance Trusts and Wales.

Andy Madge: Frequentis is part of the CRS replacement and is providing its multimedia communication solution, 3020 LifeX™. The new system is being provided as a national solution which will improve control room efficiency, facilitate interworking and help optimise the allocation of resources to provide members of the public with the appropriate level of care in the best possible time.

What is the LifeX multimedia solution and how does it support the Ambulance Trusts?

AM: 3020 LifeX™ is a next generation control room solution, designed to handle multimedia communication on one application. Control room operators can see all the relevant incoming information about an incident at a glance. It is designed to meet the highest demands of mission-critical emergency services use-cases.

The system enables quick and efficient sharing of important information, including patient status, situation, and location details, resulting in better overall visibility of an emergency, allowing improved coordination and a more integrated response. The software seamlessly integrates with existing IT infrastructure and is scalable to meet the various needs of customers. The system for ARP has been scaled to be able to perform as a national system supporting the needs of the 13 Ambulance Trusts. Once rolled out to all Trusts this system will be the largest integrated control room communication system in the UK.

DB: Effective communication is crucial in emergency situations and the focus is to ensure there is seamless communication among multiple entities involved in emergency response. During the next 18 months, ARP and Frequentis will migrate all remaining Trusts in England onto the new LifeX platform.



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Which Ambulance Trusts are currently operating the system? And how has the roll out of the systems gone so far?

AM: The pilot system for the Isle of Wight was the first system to go live in February 2022 and in April 2023 the system for Welsh Ambulance Service was also put into operation. More recently we have achieved Go-Live with the Scottish Ambulance Service and West Midlands.

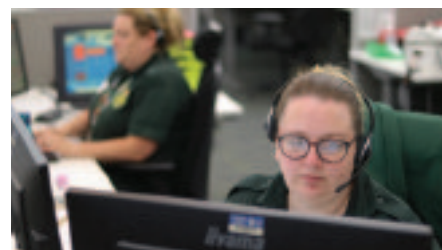
DB: The Welsh Ambulance Service is the largest ambulance service so far in the UK to go live and was delivered in collaboration with Frequentis and Ambulance Radio Programme over a three-day migration period. And, despite such a significant change, it was done so without any impact to normal services. With Frequentis we have gone on to roll out LifeX to the Scottish Ambulance Service with their Go Live being achieved on 8 June and West Midlands on 26 June 2023. Again, this was achieved with minimal impact on operations and the operators are already very enthusiastic about using LifeX as part of their control room solution.

“Control room operators can see all the relevant incoming information about an incident at a glance.”

What other features does the system have? And what makes it suitable for safety-critical use?

AM: 3020 LifeX™ has been designed to allow emergency services operators to maximise the benefits of multimedia communications and, when Next Generation 999 (NG999) becomes a standard, it will also allow members of the public to share images and videos of incidents that can be analysed in real-time. It also provides a map-based view of the location of all ambulances, to provide another layer of resilience. The 'private cloud' infrastructure, intuitive web-based front-end, and ability to integrate numerous third-party systems, means a single national solution can meet the specific needs of the individual Trusts. This brings the benefits of scale without compromising the individual needs of the emergency services operating on a regional basis.

DB: This enables control room staff access to leading-edge communication technology which will significantly benefit the lifesaving work they do, including managing and directing resources to the scenes of emergency situations.



Should we be concerned about cloud-based services?

AM: Emergency services organisations are starting to embrace the use of cloud-based services and realising the benefits of those services. But it is evolution not revolution, taking customers on a journey to adapt at their pace, starting with on premises systems and moving gradually to the cloud. All these services are resilient, protected, and secure to ensure that the critical services the emergency services provide can continue to deliver to the public.

We take for granted having 24/7 access to instant communication, data, and information sharing. Applications like location services, social media, and cameras have introduced massive amounts of data – nearly all of which is stored and processed in a cloud. As the pace of technology accelerates, more sensitive, highly available, and mission-critical emergency services applications are being delivered via cloud-based solutions. These solutions enable more efficient and cost-effective management and support because they are built on infrastructures shared by multiple agencies, with specific privileges to keep customers securely separated.

DB: It is important to recognise that technology is not a solution for emergency services, but an enabler for operators to use all available information to provide the best service. Emergency services organisations benefit from cloud-based delivery of applications because the supplier, in this case Frequentis, can handle technology protection and upgrades with minimal disruption. New features can also be introduced without the interruption of large-scale upgrades. Organisations also don't need to give technicians access to their IT environment because the environment is fully managed. The secure and encrypted communication channels offered by ARP ensure that sensitive information shared among emergency personnel remains confidential.

What's next for the programme?

DB: We are really pleased to have supported Scotland, Wales, the Isle of Wight, and the West Midlands, in delivering this technology and now look to rollout the solution across the other UK ambulance services. This is a prime example of collaborative working which will benefit everyone involved.

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