

# Wave FM adopts disruptive digital network



Radio station Wave FM, a part of DC Thomson Media's radio portfolio, broadcasts 24/7 to the Scottish cities of Perth and Dundee. Across the region, listeners can tune in on FM radio and online. When existing broadcast technology started to be phased out, they needed to take a forward-thinking approach.

## Challenges

To improve their coverage in Perth, the radio station acquired a new FM transmitter site – 30 miles from the location of their studios in Dundee. Clearly, they needed to connect the studios to the transmitter in order to broadcast, but they ran into a problem: Up until recently the industry standard Studio to Transmitter Link (STL) technology had been BT's Kilostream service, but this was due to be decommissioned.

The Wave FM team wanted an innovative, cutting edge solution to their STL problem. The technology would need to maintain a 24/7 link, maximise sound quality, deliver minimal jitter and keep end-to-end transmission delay to an absolute minimum.

## About Wave FM

Broadcasting chart hits and chat across Dundee and Perth, Wave FM is a part of DC Thomson Media's radio portfolio.

## Challenges

- Studio needed connecting to transmitter 30 miles away without compromising audio quality
- Existing studio to transmitter link technology being phased out
- 24/7 connection imperative

## Solution

- StudioNet, a revolutionary IP based STL service
- Automatic backup connection
- 24/7 remote monitoring

## Results

- Improved quality and reliability of service
- Increased broadcast range
- Significant cost saving
- Resilient service with no fear of dead air



## Solutions

Wave FM wanted a solution to their STL problem, and Beaming had one: StudioNet.

Developed by Beaming and codec manufacturer SystemBase, StudioNet combines Beaming's expertise in building and operating fast, resilient internet networks with SystemBase's ability to reliably transport high-quality audio streams through IP infrastructure.

Using advanced fibre optic networking and digital audio technologies, StudioNet is able to deliver uncompressed full linear audio and achieve the lowest levels of end-to-end transmission delay. It allows radio stations to deliver the highest quality audio possible through FM broadcasting.

To ensure the service never goes off air, the resilience of Wave FM's service has been enhanced through the use of a dedicated network that is isolated from the internet and protected from cyber threats. 24/7 remote monitoring optimises the flow of traffic across the network and there's an automatic backup connection ready to take over in the rare event of a problem with the primary path.

## Results

Wave FM's innovative stance on adopting new, disruptive technology is paying off. Adam Findlay, Head of Radio at DC Thomson Media comments, "FM remains an incredibly important means of delivering radio to listeners, and with StudioNet we have taken another big step forward to improve the quality and reliability of our service. Beaming and SystemBase have proven their ability to deliver everything we needed to connect our studio and transmitter locations, boosted the quality and reliability of our feed into Perth, and delivered a complete STL system for around a quarter of the cost of competing legacy services."

“

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**Adam Findlay,**  
Head of Radio,  
DC Thomson Media

**SystemBase**  
IP Audio Codecs

**Beaming**

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