

CASE STUDY

FM SFN Transmission for local radio station CFM Coromandel

New Zealand

HIGHLIGHTS

Customer: Radio Coromandel Ltd

Products:

- Eceso Digital SFN (Single Frequency Network) enabled FM transmitters
- APT Digital MPX IP codecs with SynchroStream technology

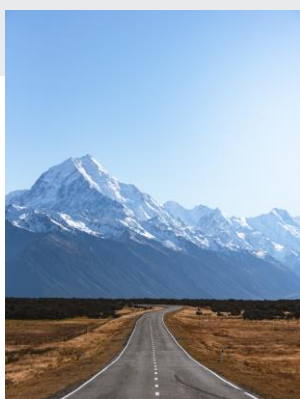
Developed and supplied by: WorldCast Systems, a WorldCast Group company

Main benefits of SFN (by SynchroStream):

- Industry leading accuracy of SFN timing allowing almost total elimination of 'mush zones'

Challenges:

- Severe coverage difficulties due to local terrain
- State highway 25A is one of the two main routes onto the peninsula, and is extremely hard to cover without multiple frequencies from multiple sites. Multiple frequencies were not available.
- The Station needed to maximise its coverage and revenue with limited frequencies, and enhance return on investment (ROI).
- Create a better listener experience by removing the need to continually hunt for local frequencies while driving.



The beautiful Coromandel Peninsula is located on the North Island of New Zealand extends 85 kilometres (53 mi) north from the western end. It is 40 kilometres (25 mi) wide at its broadest point.

Almost its entire population lives on the narrow coastal strips fronting the Hauraki Gulf and the Bay of Plenty. In clear weather the peninsula is clearly visible from Auckland, the country's biggest city, 55 kilometres (34 mi) to the west.

The peninsula is steep and hilly and largely covered in bush. The Coromandel Range forms the spine for most of the peninsula, with the highest point at nearly 900 metres (3,000 ft).

The Peninsula has a permanent population of around 30,000 and approximately 60,000 reside in the stations broadcast coverage area.



On securing a single FM license in one of the towns on the Peninsula, the challenge for the station owners was how to maximise their investment by extending coverage into other towns across such a rugged area. The main competitor boasted a staggering 12 frequencies to provide coverage in a similar area.

CASE STUDY

FM SFN Transmission for local radio station CFM Coromandel

The station has 4 synchronous sites broadcasting on the same frequency. The station established its own Microwave radio network to carry the IP traffic from the first transmission site to the 4 other linked sites.

Station owner John Grant says “the synchronous transmission works well and has become a very popular feature with many listeners commenting on how easy it is to stay tuned to our station that has seamless coverage down one entire coast and across hills on a single frequency.

We could not have achieved this without WorldCast APT codecs and Ecreso transmitters”.



“The synchronous transmission works well and has become a very popular feature with many listeners commenting on how easy it is to stay tuned to our station that has seamless coverage down one entire coast and across hills on a single frequency”

– John Grant, Station Owner – CFM Coromandel



Co-authors: **Chantal Fourgeaud**, Director of Marketing & Communication – WorldCast Systems
& **Marcus Bekker** – Southern Broadcast