

# Municipal network upgrade project



Think Smart • Get Connected

The SAF Radio solution allowed Cork County Council to implement a high availability network to support newer applications and IP telephony with higher bandwidth and low latency requirements.

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SAF CFQ and CFM systems provide the following services for Cork County council:

- Backbone and last mile for Internet and VoIP
- Advantages:**
- Range of comprehensive products and solutions
  - Cost effective solutions
  - Services through local partners
  - Efficient Customer Service
  - Lead time of equipment

**End-user:** Cork County Council  
**Location:** Ireland, Cork County  
**Industry:** Government institution  
**Challenge:** To increase network capacity

**Solution:** CFM 34Mbps and CFQ 155Mbps microwave radio systems

## About Cork County Council

Cork County is the largest county in Ireland with area of 7,457 KM<sup>2</sup>. Cork City Council provides a range of services to 123,000 citizens in Cork, Ireland's second largest city. Services include planning and economic development, housing and community support, roads and transportation, recreation and culture.

## Challenge

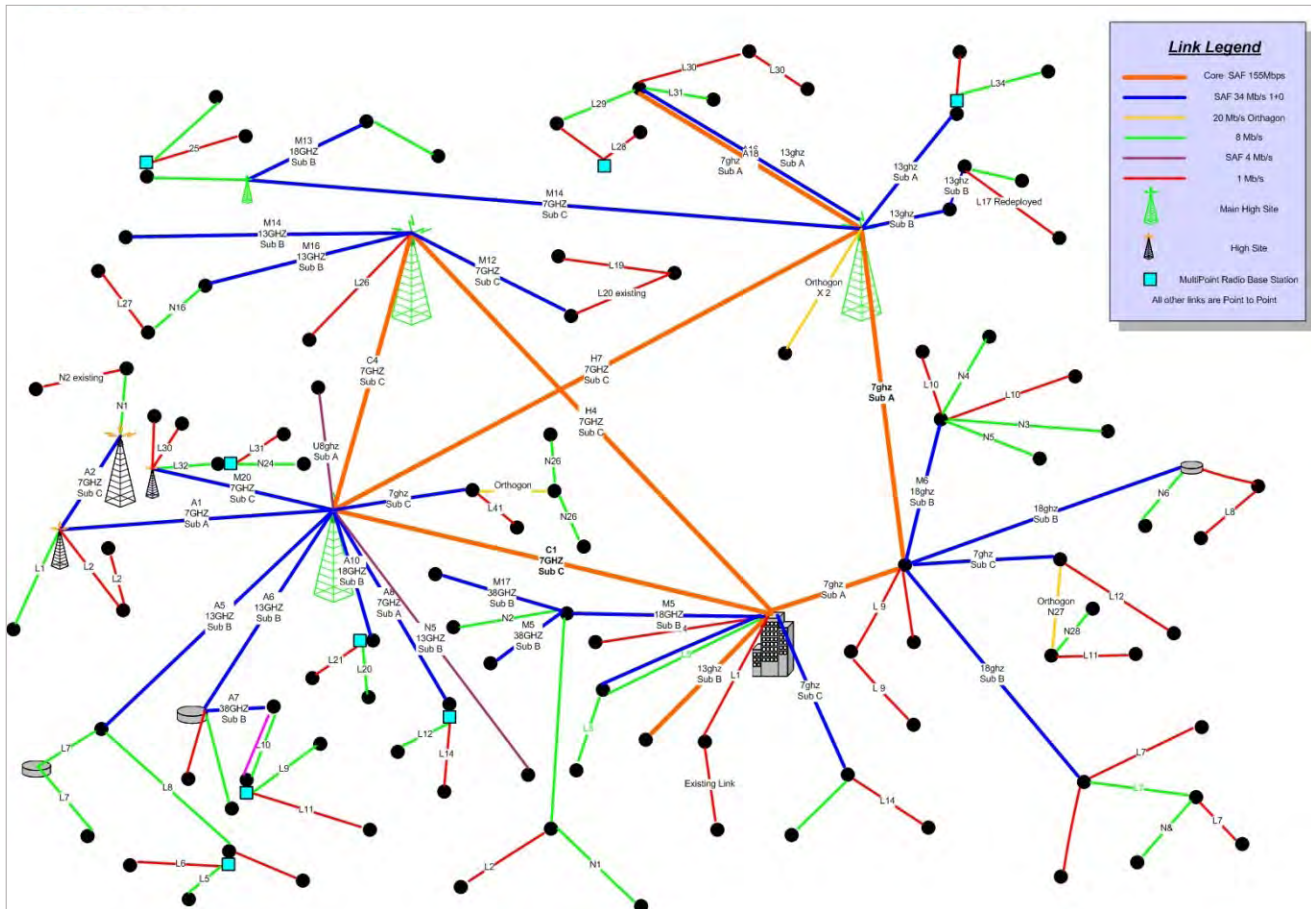
The requirement of newer applications and IP telephony with higher bandwidth and low latency requirements drove the need to upgrade the existing leased line network the capacity of which did not exceed 64 to 512kb. The decision in favour of microwave systems rather than fibre optics was made in process of public tender during which the selected provider chose radio technologies as a cost effective solution. In addition to that a lot of towns in rural areas of Cork County did not have access to fibre optic networks.

## Solution

The network based on SAF Tehnika's microwave radio systems was built to support the Council's voice and data requirements into the future. The implemented project of Cork County Council network upgrade involved building of network core with SAF CFQ systems and the last-mile access which was implemented with SAF CFM systems. The new network covers the functional area of Cork County Council and the 9 town Councils in Cork County supporting the applications that enable the Council to provide its services to the citizens of Cork County (including 2 islands off the west coast of Cork).

The increased capacity enabled through the use of SAF Tehnika's technology has allowed to deploy Geographic information system (GIS) based applications allowing users to display and manage all forms of geographically referenced information with capability of further expansion. The SAF Radio solution allowed to implement a high availability network to support these requirements. The partner of SAF Tehnika in Ireland - Exigent Network Integration LTD is responsible for the on going maintenance and support of the entire Wireless Network of the Cork County council.

## The topology of Cork County council network



### Cork County council network details

- Link distances: from 2km to 67km
- Capacity of previous links: 64 to 512kb leased lines
- Reasons for replacement: capacity limitation
- SAF equipment used:
  - Backbone - CFQ-IDU & CFQ-ODU (155Mbps)
  - Lastmile - CFM-IDU & CFM-ODU (4 - 34Mbps)
- Quantity of CFQ links: 7
- Quantity of CFM links: 44
- Frequencies: SDH - 7; 13 GHz  
PDH - 7; 13; 18; 38 GHz
- Capacity: up to 155 Mbps



■ CFQ Backbone site