

RTÉ NL

Nationwide Digital Microwave Network

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System Components

- NEC 5000s Digital Microwave
- NetInsight MUX
- Scientific Atlanta Codec
- WebAccess SCADA
- Eltek Stand-by Power Systems

Introduction

2rn, formerly known as RTÉ Transmission Network Ltd (RTÉ NL) was the subsidiary of RTÉ, the state broadcast company, charged with responsibility for operating and maintaining broadcaster's transmission high sites throughout Ireland. RTÉ NL's network provides the infrastructure to allow the transmission of radio and television for RTÉ and the commercial stations including TV3, Today FM and TG4 as well as accommodating communications equipment for the cellular, public safety, commercial and state organisations.

Digital Microwave Network

In mid-2008 EMR was awarded a €3.8 million contract to supply, install and commission a new national microwave network to provide RTÉ NL with the capability to roll out Digital Terrestrial Television (DTT). The project entailed not only the installation of the microwave elements, but also incorporated the video multiplexers, the audio codes, the stand-by power systems and the integration of the Network Management systems with the RTÉ NL SCADA system.

Two of the main challenges posed were the very tight deadlines and the requirement to work on a live network without interrupting TV or radio service. The fact that the high sites are located in some of the most remote locations in the country added to the complexity. Working closely with RTÉ NL, EMR began the rollout in October 2008 and the first sites went live in November of that year. By the following March all twenty high sites and the studios in the Dublin headquarters in Donnybrook and the studios in Donegal, Sligo, Galway Limerick and Cork and Waterford had been switched over and were fully operational.

Alongside the rollout of the hardware EMR undertook the task of integrating the information from a diverse range of Network Management Software (NMS) feeds for each of the main system elements. This information was aggregated and presented to the RTÉ NL NMC SCADA system.

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This integration was critical to the rollout of the system as it provides the NMC operators with a realtime view of the status of the network and immediately notifies the operators of alarm conditions.

It also forms a key part of the management reporting required for compliance with the Service Level Agreements RTÉ NL have with their third part customers.

The Digital Microwave Network installed by EMR provides RTÉ NL with the capacity and capability to deliver digital television service countrywide and provides a platform for the introduction of commercial DTT operators bringing many more TV channels in coming years. It also provides RTÉ NL with the infrastructure to carry other third party traffic such as communications, telecoms and high speed data for use by public safety and other state organisations. The reliability of the equipment combined with the inbuilt redundancy ensures an unrivalled level of resilience and guarantees delivery of what is a key public service.

About EMR

Established in the early 1980s EMR has grown to become one of the leading system integrators in wireless communications, broadcast transport and automation systems in Ireland. With customers including RTÉ NL, CyBC, Velister, ESB, Eircom, Northern Ireland Water, O2 and UPC to name but a few, we take pride in delivering best-of-breed solutions from the world's leading manufacturers.

NEC



net insight™



Scientific Atlanta

"This distribution system is the backbone from which all terrestrial services are provided in Ireland and a successful switch over from the old system to the new system was a key goal of this project. This objective was achieved thanks to the great efforts from both RTNÉL and EMR engineering teams. Overall, this project has proved to be a great success for RTÉ NL and EMR deserve praise for their efforts in ensuring that this was the case."

Eamonn Reid, Head of Projects, RTÉ NL