

Radio modems – CFE, Mexico

Mexico's Federal Electricity Commission, Comisión Federal de Electricidad (CFE) issued a tender in July 2012 for the radio communication backbone of its SCADA system, which controls the power distribution in the Mexico City area. RipEX was the only product to have met customer requirements in full, successfully passing the strictest selection criteria, in what was a contest among all the mainstream competitors in the industry. The RipEX radio modem produced the optimal solution for this CFE project both for commercial and technical reasons.

- More than 3500 remote sites
- SCADA network in Mexico City area
- 2 serial ports on each location concurrently
- DNP3/TCP in the centre, either DNP3 serial or DNP3/TCP on remotes
- Both polling and report-by-exception



RACOM
www.racom.eu

Cellular routers – MEDC, Oman

MIDGE router from RACOM is installed as a part of Muscat Electricity Distribution Company (MEDC) SCADA System to monitor and control HV/MV Electric power distribution sub-stations spread across vast areas within Muscat, capital city of Oman on the Arabian peninsula.

MIDGE cellular routers connect Remote Terminal Units (RTU) installed on more than 150 power sub-stations, to exchange data with MEDC Distribution Control Centre (DCC) over long distances.

MIDGE excels not only in a unique set of features (dual Eth ports, IOs, IPsec VPN tunneling etc.), but also in its ability to maintain high link integrity with end-to-end IP functionality, even in the harsh environmental conditions and difficult / hilly terrain of Oman.

- Backup solution for fiber lines
- End-to-end IP device
- More than 150 sites and growing

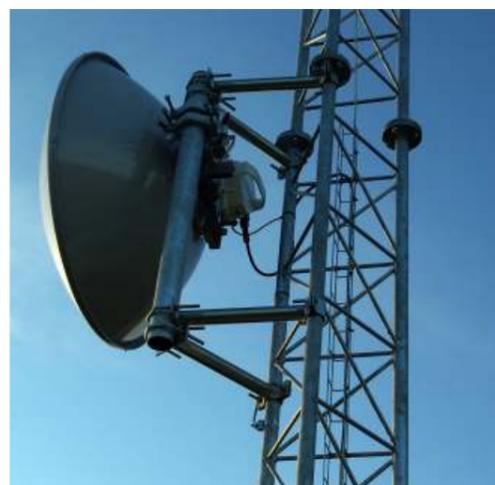


Microwave links – O2, Czech Republic

RAy has been chosen by competitive tender as the standard solution for mobile operator O2 Czech Republic (previously Telefonica O2 at the time of the tender). The tender was for 10, 17 and 24 GHz free-band solution and RACOM products were chosen from among almost all world-renowned known producers seeking for the contract.

The tender was for more than 700 links which will be commissioned by 2016 with significant potential for further growth.

- 10, 17, 24 GHz
- 700 links tendered
- Backbone for mobile operator
- Last-mile for key customers
- Chosen for excellent performance



Radio modems
Cellular routers
Microwave links

Company profile



In Brief

- Established in 1989 – still privately owned by founders
- Installations in over 100 countries
- Over 10% annual growth with no overdraft
- Trend-setting, best-in-class market leader

- Over 20% resources dedicated to R&D
- Maximum in-house production, ISO 9001
- Over 120 staff
- Pro-active, customer focused support mechanisms

History

RACOM's foundations were laid in 1989, shortly before the fall of communism in the former Czechoslovakia. The company started out producing equipment for radio amateurs in a small workshop. With ongoing R&D and developing expertise we soon outgrew this market and in 1990 moved into the wireless data transmission market and began manufacturing radio modems. In 2005 we responded to the significant development of GSM networking and entered the market with a new product line for GSM data transfer. The first product was GPRS modem MG100. Another landmark year for RACOM was 2009. We entered the growing but very competitive microwave links market with a product called RAY.



Research & Development

RACOM is a primary producer; we perform our own Research & Development of Hardware and Software for all product lines ensuring RACOM stays at the cutting edge in its field.

Every aspect is fully developed and tested before being integrated into a product. We understand the demands for reliability after our equipment has been put to work 'in the field' – Precision is key!

The successful long term relationships we enjoy with customers and trade partners is a vital component to help us understand the exact demands of the market and meet these within our product lines.

RACOM has worked in collaboration with national universities for many years in software and hardware projects.

Production

RACOM has its own SMT and mechanical production technology centres and also completes final product assembly and testing; the entire manufacturing and production process takes place in-house.

This also gives us complete control in component sourcing from authorized dealers, continual QC throughout the process and on-the-fly measurement during assembly; we always place maximum emphasis on quality and reliability.

Our maximum-in-house philosophy gives us full control of completion dates for orders supporting specific need. The specialists responsible for every aspect of production are RACOM employees further strengthening our support mechanisms.

Radio modems

Ideal for onerous mission-critical applications, suitable for frequent transmission of short messages. Typically used in SCADA & Telemetry applications with high demands on safety and reliability.



- **Licensed frequency**
=> guaranteed quality of service
- **Own private network**
=> constantly under the user's control
- **Single user**
=> guaranteed capacity and behaviour

Cellular routers

Suitable for non-mission-critical applications, infrequent transmission of longer messages. Typically used in SCADA & Telemetry, security and surveillance applications, also in networks for fleet management as well as in transaction wireless networks.



- **Existing infrastructure**
- **Low investment cost**
- **Public networks**
=> Quality of service not guaranteed

Microwave links

P2P links are ideal for customers who need more than a legacy wired connection can offer, or require a LAN extension. Our links are particularly useful for organisations that require a high speed backbone, high quality reliable network connections and/or fibre optic extensions. A major bonus of using Microwave links as a solution is the speed of implementation.



- **Alternative of fiber and copper lines**
- **Wireless**
=> simple installation
- **Private**
=> constantly under the user's control

References

- Oil & Gas
- Water
- Electricity
- Smart grid
- Windmills
- POS & ATM
- Lottery
- Weather
- Security
- Fleet management
- Telco
- ISP
- P-t-P link
- Backbones
- High speed last mile

RACOM equipment truly is everywhere around us, from the Poles to the Equator, working seamlessly in the background to offer all of us an improved quality of life. Our philosophy, company strengths and high levels of customer focused support are key to our continuing success and why we are a major, trend-setting player in the SCADA, Telemetry and Microwave markets. Our customer base is made up of governments, multinationals like RWE, Vodafone, ABB and Siemens to local corporates and utility distributors.

