

Radio modems — CFE, Mexico

Mexico's Federal Electricity Commission, Comisión Federal de Electricidad (CFE) was looking for the optimal radio communication network for its SCADA system, which controls the power distribution network.

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
- Nation wide, in 11 of 16 divisions
- 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



Cellular routers — ADNOC, United Arab Emirates

Abu Dhabi Company for Onshore Petroleum Operations Ltd. (ADCO) now trading as ADNOC Onshore is using RACOM M!DGE routers to support a toxic gas leak detection system at sour H2S wells.

The M!DGE units, chosen specifically for reliability and ability to operate in these temperatures are integrated with Rockwell RTUs as a single assembled unit and installed using an outdoor antenna. Any gas leak alarm (10ppm) must also be notified through SMS by the RTU to a number of mobile telephones through M!DGE routers.

M!DGE not only excels due to 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 of oil fields and difficult Middle east desert climate with temperatures over 50 °C

- Wellhead monitoring
- Desert environment, +50 °C
- Mission critical application
- Hazardous locations



Microwave links — O2, Czech Republic

RAy has been chosen by competitive tender as the standard solution for mobile operator O2 Czech Republic (Telefonica O2 at the time of the tender). Subsequent to O2 restructuring, the network is now owned and operated by CETIN, the largest data provider in the Czech Republic.

With the 2014 tender valid for 3 years and for more than 700 links, it was essential to select future proofed and reliable Microwave links for 10, 17 and 24 GHz, all required for the project. After demanding testing, RAY was chosen ahead of almost all world-renowned producers who were also being considered for the contract.

Resulting from complete satisfaction with RAY, the contract was extended in 2017 for another period.

- 10, 17, 24 GHz
- Over 1000 links by 2017
- Backhaul for DSLAM connections
- Corporate last-mile solution
- Chosen for excellent performance



Radio modems
Cellular routers
Microwave links

Company profile

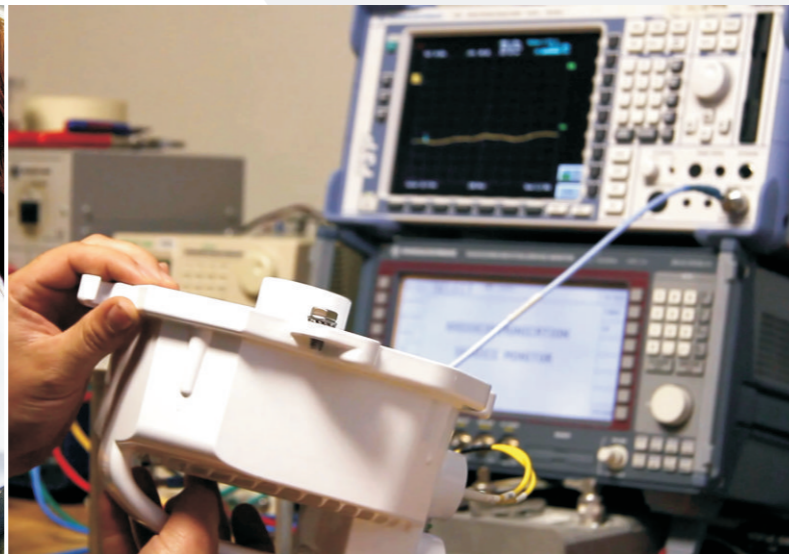


In Brief

- Established in 1989 – still privately owned by founders
 - Installations in over 100 countries
 - Over 10% annual growth
 - No borrowings
 - Trend-setting, best-in-class market leader
- Over 20% resources dedicated to R&D
 - Maximum in-house production, ISO 9001
 - Over 140 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 developing expertise and ongoing R&D 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 this market with a new product line for GSM data transfer. Another landmark year for RACOM was 2009; we entered the growing but very competitive microwave links market.



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 also works 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.

We always place maximum emphasis on quality and reliability: components are only ever sourced directly from manufactures or authorized dealers, QC is applied at each production step and final products are tested in a climatic chamber.

Our maximum-in-house philosophy gives us full control of completion dates for orders and the ability to fully support specific need.

Experienced technical support team provides both pre-sales and after-sales support, globally, around the clock.

Radio modems

Ideal for onerous real-time 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**
=> Third-party dependence

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
- POS & ATM
- Telco
- Water
- Utilities
- ISP
- Electricity
- Weather
- P-t-P link
- Smart grid
- Security
- Backbones
- Windmills
- Fleet management
- 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 maximum-in-house philosophy, company strengths and high levels of customer focused support are key to our continuing success and the reason 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.

