

# Oil & Gas and Mining

**PROVEN HYBRID SCADA COMMUNICATION FOR OIL, GAS AND MINING**

The oil, gas and mining sectors demand absolutely reliable communication. Their operations are often located in remote areas and extreme environments – whether due to temperature, terrain, or explosive atmospheres.

In many of these locations, even basic infrastructure is limited or nonexistent. Mobile network coverage is often unavailable. Radio modems therefore provide an ideal solution, both in terms of coverage and operational safety.

## PROVEN IN CRITICAL NETWORKS

- 30 years of experience in critical communications
- Deployed in scale in 140+ countries
- Wide integration options

## MARKET LEADER

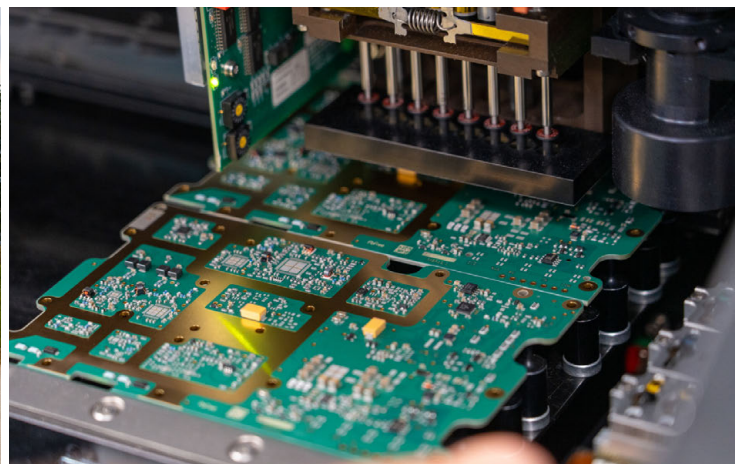
- Dynamic routing, Hybrid networks
- Unlimited number of repeaters
- MTBF > 100 years across all product lines

## 100 % CZECH DESIGN & MANUFACTURING

- Research & Development
- Assembly and testing
- Long-term lifecycle support

## SECURE BY DESIGN

- SW developed in-house
- Radio AES encrypted with auto key rotation
- Full linux networking stack



# APPLICATIONS

RACOM technologies enable secure and resilient communication for critical operations across the oil, gas and mining industries – from telemetry and SCADA systems to IP backbone networks for voice communication. Our systems are designed for long distances, challenging terrain and areas without infrastructure, delivering stable connectivity where outages are not an option.

## Distribution Network Monitoring and Control

- Continuous monitoring of pressure, flow and valve status
- Long-range communication in VHF/UHF bands
- Low latency for alarm and emergency signals
- IP connectivity secured with AES-256 encryption



**RipEX**  
Radio Router



**M!DGE**  
Cellular Router



## SCADA Systems in Oil and Gas Fields

- Remote monitoring and control of extraction wells
- Non-line-of-sight communication in any terrain
- Redundant communication paths enabled by mesh routing
- Integration with existing PLC and SCADA systems



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Cellular Router



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## Mining Operations

- Telemetry networks for both surface and underground
- Vehicle monitoring systems
- Reliable communication even in high-interference
- Rugged hardware designed for dust, vibration and temperatures



**RipEX**  
Radio Router



## Remote Site Connectivity

- Backbone links connecting isolated facilities
- Hybrid networks combining radio and microwave technologies
- Solar-powered stations with low energy consumption
- Rapid deployment without reliance on public networks



**RAy**  
Microwave Link



**RipEX**  
Radio Router

