



SEMTECH®

# Czech Radiocommunications (CRA)



## Expanding LoRaWAN® Network Covers 75% of the Czech Republic

Czech Radiocommunications (CRA) is transforming the utility and energy sectors across the Czech Republic with a nationwide LoRaWAN® network that now covers 75% of the population. Building on decades of broadcast infrastructure, CRA now delivers advanced IoT services to enable smart metering for water, gas and electricity, helping customers reduce consumption and optimize operations. Through partnerships and innovation, CRA continues to expand digital infrastructure and drive real-world impact in smart utilities.

## QUICKFACTS

### Company

Czech Radiocommunications (CRA)

[www.cra.cz](http://www.cra.cz)

### Customer Profile

Czech Radiocommunications (CRA) is a major technology and infrastructure provider based in Prague, with a legacy of delivering nationwide television and radio broadcasting services since the 1970s. Over the past decade, CRA has evolved into a modern digital services company, offering cloud infrastructure, data center capabilities and high-speed fiber-optic networks. With a strong focus on innovation, CRA has expanded into the Internet of Things (IoT), launching one of the most extensive LoRaWAN® networks in Central Europe. The company now supports a wide range of smart solutions in sectors such as energy, utilities, smart cities and agriculture—empowering its customers with real-time data, remote monitoring and cost-saving automation technologies.

### Objectives

- Replace manual water, electricity and gas metering.
- Reduce utility consumption and waste.
- Pilot new technology to resolve industry issues.

### Results

- Real-time water management end-to-end solution.
- Reduce household energy consumption by 30%.
- IoT communication at a fraction of the cost of other wireless technologies.

### Products and Services

- LoRa® devices deliver low power wireless technology.
- CRA's LoRaWAN® network provides coverage to 75% of country.
- Wirelessly connected sensors communicate data to the Cloud.



“ Martin Gebauer, CRA’s CEO, has a vision to build a Cloud infrastructure for the Czech Republic. This achievement, combined with our existing broadcast towers, led us to believe IoT services makes perfect sense as our next business evolution.

”

**Jan Skabrada,**  
IoT Partnership Manager,  
Czech Radiocommunications

## INTRODUCTION

### Connecting a Country with Television, Radio and Internet

The Czech Republic in Central Europe has 10.6 million inhabitants over an area of 78,866 square kilometers (30,450 sq. miles). Since the 1970s, Czech Radiocommunications (CRA), based in Prague, has been the sole provider for broadcasting television and radio to citizens across the country.

In the past decade, CRA broadened its company focus to develop a national digital infrastructure. It built its own data repository center with superior computing power and a fiber-optic backbone network. The company successfully transitioned into a provider of IT business infrastructure and Internet services while maintaining its broadcasting heritage.

## CHALLENGE

CRA is also committed to innovation in alternative ways with IoT. For the past three years, CRA has sponsored an annual software competition for students, start-ups and tech companies within the Czech Republic. Winning projects, such as smart benches and smart waste bins, have the opportunity to implement their ideas and receive a financial award.

## SOLUTION

### IoT Brings New Era of Infrastructure Services

Semtech’s LoRa® devices and the LoRaWAN® open protocol is a proven long range, low power platform for Internet of Things (IoT) that gives system integrators the necessary features to deploy interoperable IoT solutions.

CRA has been providing commercial IoT services to businesses since 2016.

Its LoRaWAN network currently covers 75% of the population across the Czech Republic, with plans for continued deployments in low density areas.

“ The aim of this competition is to discover ideas, applications and future alternatives using the CRA LoRaWAN network. When designing their applications, participants can take advantage of data from existing sensors operated by CRA and our partners. ”

**Milos Mastnik**, Sales Director, Czech Radiocommunications



“We chose LoRa devices and the LoRaWAN protocol for many reasons. Our IoT business is growing based on this technology and our partners love it.” —Jan Skabrada, IoT Partnership Manager, Czech Radiocommunications

CRA offers complete, end-to-end solutions for collecting, measuring and visualizing data. Customer data is securely stored in the CRA IoT Cloud and is accessible through a desktop, tablet or mobile device. Within the application, analytics, reports and charts can be exported, emailed or texted.

IoT projects are underway in various segments including smart industry, smart city, agriculture, environment and CRA's most adopted sectors: energy and utilities. CRA not only provides the connectivity infrastructure, but also plays the role of integrator by orchestrating its ecosystem of hardware and software application partners.

CRA has partnered with visionQ, a technology start-up, to develop a unique energy control system that saves users up to 30% on utilities. The end device, called Eliot, connects to household or business electricity meters and makes them “smart” by collecting accurate, real-time electrical consumption information and evaluating this data through an application. Trend reports, projected expenses and cost-saving advice are provided to help end users reduce energy costs.

For gas metering, CRA is working with one of the country's leading gas service providers. A pilot project has been initiated to monitor gas usage of the company's industrial customers. Hundreds of LoRa-based sensors are currently being rolled out into industrial and smart building infrastructures.

## BENEFITS

### Smart Metering for Water, Electricity, Gas and More with 30% savings

IoT.Water, CRA's largest customer, develops and delivers comprehensive remote water meter-reading systems for public utility companies to automatically monitor its customers. The state-of-the-art solution comes with an integrated server, database, software and devices. IoT.Water's existing pilot project has over 8,000 active devices with plans to more than double its deployments in the coming years.





**-20 dB**

Communication below  
white noise limits



**10 years**

Battery life in equipment



**1,000**

Target number of CRA LoRa  
broadcasting points for the  
IoT network

#### HOW IT WORKS: CRA



*The step-by-step process of CRA's LoRa-enabled solution*

#### About Semtech

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

To learn more about Semtech technology, visit us at [Semtech.com](https://www.semtech.com) or follow us on [LinkedIn](#) or [X](#).

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