Company presentation
Atende Software innovation factory

Years on the market

10

Software engineers

>110

Technology users

>10 000 000
Mission

Atende Software is addressing the ongoing technological shift, creating systems that are ahead of market trends. The company focuses on topics like artificial intelligence, big data, Smart Grids, IoT and develops its own technology.
Our companies

ATENDE SOFTWARE
- Multimedia
- Smart Grid
- Security

Phoenix Systems
- Phoenix-RTOS

OmniChip
- A semiconductor company
Our brands

redGalaxy
redGuardian
redGrid
Phoenix-RTOS
besmart.energy
ActiveBlocker

Effective protection for NFC cards
Our clients
redGalaxy

- A comprehensive OTT / internet TV platform
- Supports full chain of content acquisition and processing (ingest, transcoding, distribution, playback)
- Consists of multiple, loosely coupled components, available in both on premise and cloud models
- Available since 2008 and fully based on in-house developed software (formerly called redCDN)
redGalaxy logical architecture
redGalaxy CDN traffic
redGalaxy (OTT) - implementations
redGuardian

- Software-defined DDoS (Distributed Denial of Service) mitigation platform
- On-premise deployment, suitable for the largest carriers and data centers – 100+G / 100 Mpps capacity per each node
- BGP scrubbing service with global network of 100G PoPs
- Utilized by the largest Polish DCs and carriers, Polish Parliament, largest Polish insurance company
redGrid (MDM + HES)

- Developed for the largest smart metering implementation in Central and Eastern Europe (Energa-Operator)
- 0.82M smart meters (PLC PRIME)
- 32K industrial customers (GSM)
- 1M regular meters
- Central Database for DSO Operations
- Over 95% daily data completeness (profiles and billing)
- Used for Grid management and evaluation (UPGRID)
Solution supporting energy market transition - a platform dedicated for microgrids & energy clusters

**AI prediction models** - prediction of consumption and production in small decentralised systems

High-resolution **weather forecasting** model

**Energy storage** modeling and management

Measurement data collection - advanced solution dedicated to handling large amounts of time-series meter data

Module supporting decision-making in **power exchange** and trading

Anomaly detection and **predictive maintenance**
Wykres zużycia i produkcji energii

- Zużycie: suma: 145.37 MWh; średnia: 1.58 MWh
- Produkcja: suma: 51.58 MWh; średnia: 541.56 kWh
- Przybycie: suma: 202.93 MWh; średnia: 1.76 MWh

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Phoenix-RTOS

An open source, real-time operating system designed for IoT devices

- It facilitates the designing of advanced appliances by its efficient architecture, scalability, and complex functionality
Market landscape

**Features**
- Compliance with IoT devices
- Modularity
- Scalability
- Security
- Reliability
- Connectivity (IoT communication stacks)
- Broad ecosystem support
- Device drivers
- Foundation for software defined solutions
- Possibility of retrofitting and updates
- Advanced execution environment
- Advanced API
- Frameworks and libraries

**Addressing Market Demands**

Limited complexity with sufficient computing power allows to fill the gap in the OS market landscape

- Windows, macOS X
- iOS
- FreeRTOS, ThreadX, Zephyr, Nucleus RTOS, Contiki, Arm Mbed OS, WindRiver Rocket, etc.
- Windows
- macOS X
- Fuchsia
- Linux

Complexity vs. Computing Power

1. FreeRTOS, ThreadX, Zephyr, Nucleus RTOS, Contiki, Arm Mbed OS, WindRiver Rocket, etc.
2. Windows, macOS X
3. iOS
4. Fuchsia
5. Linux
Phoenix-RTOS implementations

1. Andra comander amiDC-3 (Poland)
   - PRIME DCU and balancing meter
   - PRIME Alliance certified BN
   - Energa-Operator network implementation
   - Quantity: 30K
   - Implemented 20K, 20K in production

2. Incotex DCU (Russia)
   - DCU and balancing meter (PLC PRIME, G3-PLC)
   - Fulfilling requirements for Russian market
   - Quantity: 60K
   - Targeted also for other markets in Asia and Middle East

3. Apator-Metrix iSMART1 (Italy)
   - Software defined smart gas meter (certified)
   - W-Mbus, ZigBee interfaces
   - Quantity: 2M
   - Targeted also for other markets due to high modularity

4. Saiman SDM 1, SDM 3 (Kazakhstan)
   - Software defined smart energy meter (PLC PRIME), class 0.5
   - USB interface
   - Implementation in Almaty power grid network
   - Quantity: 200K
   - Short manufacturing series tests in progress (150 meters)

Phoenix-RTOS functionalities have been proven in numerous smart metering devices