



COMARCH

Changing the Face of Healthcare

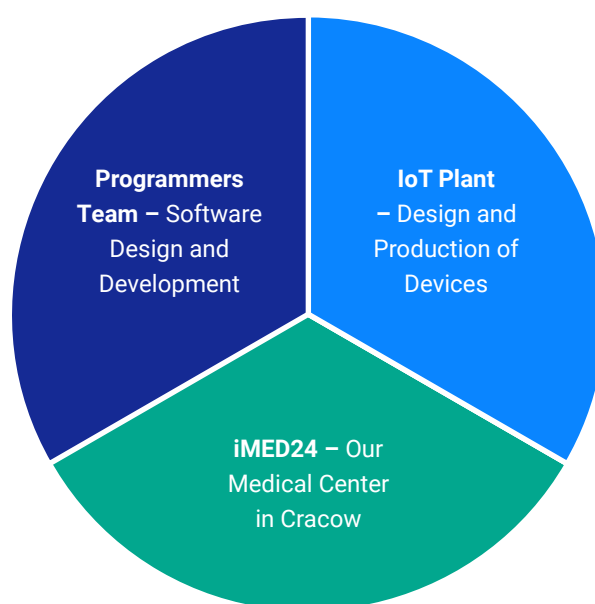
Comarch Software and Hardware Services for the Healthcare Industry

Comarch is a global software house with over **30 years of industry experience** implementing complex and successful IT projects for over **40,000 companies** worldwide. We have a broad knowledge of IT systems and solutions, including cloud services, IoT ecosystems, and embedded software. Our offer extends from business operations for the telecommunication industry to artificial intelligence management.

At Comarch, we realize that health is the most precious value in life – and technology can aid it in a significant way. That's why our vast area of focus encompasses IT solutions for the medical sector. We provide **telemedicine information systems, healthcare management software, supporting electronic devices, remote medical care, and mobile apps** that enhance the quality of medical services and streamline administrative processes for more effective and convenient support of medical patients.

How do we work?

Comarch Healthcare offers a comprehensive range of IT solutions for hospitals, clinics, doctors, local governments, offices, insurance companies and corporations. We have a dedicated unit responsible for implementing projects based on **Bluetooth, hardware, software, cloud programming, and embedded competencies** that are essential for our healthcare operations. We use them to design and build our highly-advanced medical systems and tools. Our end-to-end approach starts with a team of experienced software developers, goes through the IoT experts responsible for developing and producing health-aiding devices, and ends at our medical center, Kraków-based **iMed24**, where end products are implemented and used.



Comarch Infrastructure

Our system is self-sufficient, and we've developed a whole infrastructure for designing, creating, developing, and implementing medical devices. From our IoT plant facility through Comarch Innovation Space to Data Centers in every corner of the world, we have a full scope of platforms and tools to carry out the entire process with our own resources.



Comarch Telemedicine success stories

Our remote medical care has been implemented by many entities and local governments in various countries around the world. We've been collaborating with some of the pioneer institutions in Europe, such as **French TeleDok** and **GAGN**, and Italy-based **Centro Cardiologico Monzino** and **MedicAir**. Comarch helped these facilities enhance medical and inpatient care by providing smart and scalable solutions. Whether through Bluetooth, cloud technology, or EKG modules, these devices are responsible for monitoring patients' health state, helping them in emergencies, and making the work of medical staff easier.



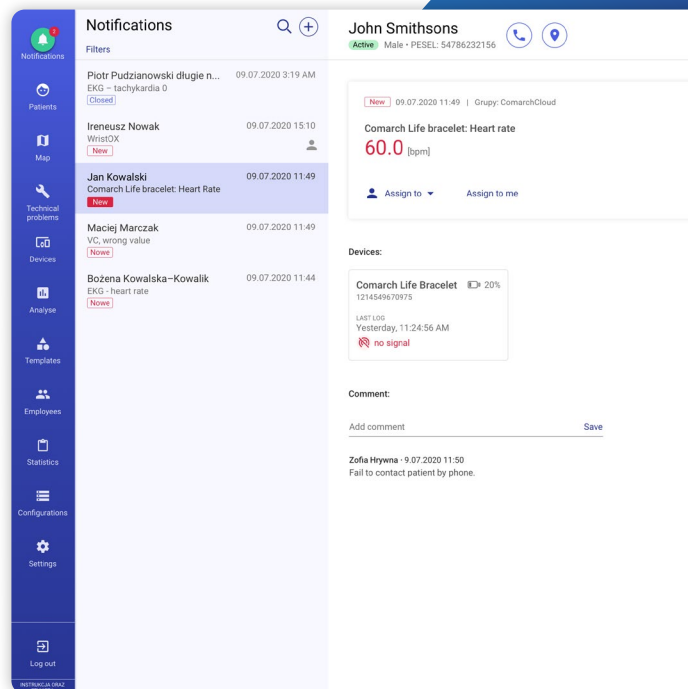
Comarch products that save lives

Comarch e-Care Platform

Comarch e-Care Platform is our flagship telemedicine product. By collecting, processing, and analyzing data from measuring devices (such as glucometers, blood pressure monitors, scales, ear thermometers, pulse oximeters, and spirometers), the platform enables permanent remote medical care.

It's a comprehensive tool that allows users to:

- Generate reports and set up thresholds
- Receives graphic visualization of collected data
- Access medical consultation through the external module (ask for more details)
- Collect health and well-being information from patients through questionnaires
- Integrate the solution with hospital managing systems and compatible devices to expand functionalities



Comarch CardioVest

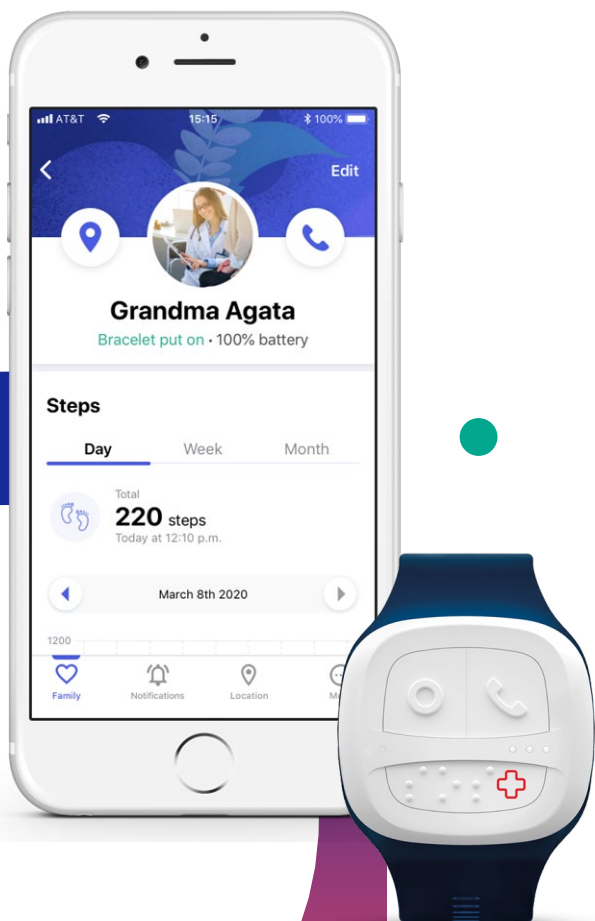
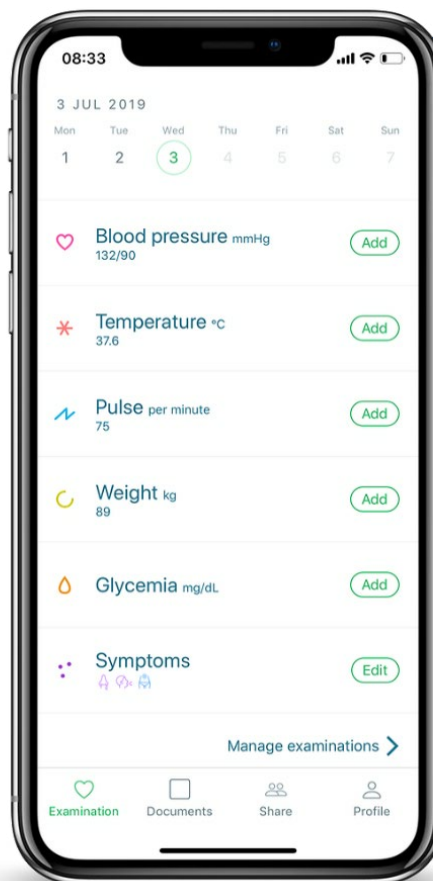
A part of our Remote Cardio Care, Comarch CardioVest is a state-of-the-art device for monitoring cardiac activity using textile electrodes that record ECG signals which are then transmitted to the CMAP algorithm platform for verification, sent to the monitoring center for analysis, and displayed to the patient in the form of a diagnosis. Comarch CardioVest quickly recognizes heart activity anomalies and helps save time during crisis situations.

Comarch HealthNote

Comarch HealthNote is an app that connects patients and medical staff. Designed as an Internet health diary, the device collects complete and current medical data (medical records, vital signs measurements and symptoms), and displays them directly in a mobile app. Patients have constant and very convenient access to their medical information.

Key product features include:

- Input data
- View data
- Transmit data
- Personal medical advisor
- Medical consultation



Comarch Wristband

Comarch Life Wristband is a comprehensive, 24/7 tele-care solution for seniors, disabled people, or those who are chronically ill. With its simple, intuitive design and easy-to-use features, Comarch Wristband consists of only three buttons to make emergency calls, receive calls, and play voice messages (for example, about the battery status, the current time, or the number of steps taken).

The most important functionalities of the device include:

- GPS/AGPS/WiFi location
- Fall detector
- Stillness sensor
- SOS button
- Medication reminder
- Heart rate measurement
- Mobile application for the patient's relatives

Comarch Healthcare for WS Audiology: A new generation of hearing aids

Comarch and WSA: project overview

One of our most important healthcare projects concerns hearing aid devices created in collaboration with WS Audiology. In 2021, WS Audiology started to work on a new generation of hearing aids supported by Bluetooth connectivity. The goal of this project was to create a more convenient and innovative hearing aid for better sound quality and an upgraded listening experience. To achieve that, WSA needed Comarch to provide a testing platform, firmware with C++ and Python, test framework, and Bluetooth module support for the audio stream services. The entire collaboration between WSA and Comarch has been managed in SAFe (scaled agile framework) methodology, with every team working in Scrum.

Bluetooth in hearing aids - benefits

- Easy connectivity across all Bluetooth devices (smartphones, speakers, notebooks, etc.)
- Monitoring the state of the battery inside hearing aids
- Higher sound resolution
- Personalized listening experience
- Remote control of hearing aid internal settings, such as volume, using a dedicated secure mobile app

Comarch's services and contributions to the project

- Significant expertise in the creation of embedded software
- Comprehensive knowledge of Bluetooth technology
- Team of 11 highly-qualified engineers (nine software developers, a product owner and a Scrum master).
- Providing the test framework to ensure usability and support the further implementation of planned features
- Professional HW verification and consulting
- Assistance and flexibility in fixing issues and responding to WSA's needs



COMARCH

Write your own success story with us



About Comarch

Comarch is a global provider, with 30 years of experience, of technologically advanced software designed to help enterprises improve their business efficiency, reduce operational costs, and build strong relationships with all of their partners and clients. Comarch has made its name by working with some of the most renowned brands and organizations in the world, including various airline holding companies, telecoms, financial institutions, retailers, and many others. Comarch's clients include ENOC, Enterprise Holdings Inc, JetBlue Airways, Exxon Mobil, BP, Heineken, Goodyear, and Vodafone.

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