



# ISAC — Integration Share and Communication System

A REGION-WIDE INTEGRATED ENVIRONMENT FOR MEDICAL DOCUMENTATION EXCHANGE

ISAC IS A UNIQUE eHEALTH SOLUTION FOR THE HIGHLY SECURE AND EFFICIENT EXCHANGE OF MEDICAL DATA WITHIN A REGION. THIS IS AN INNOVATIVE PRODUCT IN THE CZECH REPUBLIC, THE FIRST IN THIS COUNTRY TO BE DESIGNED IN COMPLIANCE WITH THE RECOGNIZED INTERNATIONAL INITIATIVE FOR eHEALTH SOLUTIONS - IHE INTERNATIONAL.

# [ AN EFFECTIVE eHEALTH SOLUTION FOR THE CZECH REPUBLIC ]

This comprehensive and robust solution enables the complete and highly secure exchange of medical data, order forms and patient results between healthcare facilities.

**ISAC** was designed with an emphasis on security, legal compatibility, reliability and interoperability.

**ISAC** is an elegant solution for regional and national eHealth systems. A key characteristic is the absence of a need to modify the ICT infrastructures at healthcare facilities, such as the replacement or complicated modification of hospital information systems. The solution is fully compliant with current legislation. The decentralized concept significantly improves security, reliability and legal compatibility, and ensures fast and elegant implementation.

**ISAC** allows different healthcare facilities to communicate, regardless of their size, legal status or ICT infrastructure conditions and complexity.

# Regional eHealth system

ISAC was designed as a basic structural element of a regional eHealth system. Our solution is designed with regard to the best and long-term foreign experience with eHealth solutions for regions, emphasising standardization, easy scalability and national or international interoperability.

# Standardization and interoperability

ISAC is based on the idea of international standardization and respect for proven experience, standards and methodologies.

The solution uses the HL7, WS and SOAP international protocols, yet is simultaneously fully compatible with the specifics of the Czech Republic (DASTA) and local information systems.

ISAC is built as a fully scalable system with an emphasis on future communication between regions or at national level. Its implementation will provide the region with a high level of future interoperability.

# Fully in compliance with legislation

ISAC was designed to be fully compliant with all aspects of legislation in the Czech Republic.

The solution does not store patient personal data outside the information systems of the communicating healthcare facilities, and is therefore fully compliant with the opinion of the Czech Office for Personal Data Protection.



ISAC is a basic building block for the important Vysočina Region eMeDocS project. Five hospitals and the emergency services use it to securely exchange medical information about patients.

# **FEATURES AND BENEFITS**

- A comprehensive solution for the exchange of medical data and results, and for communication through electronic order forms
- ▶ Emphasis on security and reliability
- ► Fully compliant with all legal regulations of the Czech Republic
- Applicability for regional and country-wide eHealth systems
- Support for the HL7, WS and SOAP international protocols, compatibility with specific Czech protocols (DASTA)
- Faster data availability and more efficient work thanks to communication with emergency service units within the region
- Easy scalability, national and international compatibility and interoperability
- ▶ Fast and elegant implementation





[ISAC]

# [THE FIRST REAL SOLUTION DESIGNED AROUND IHE]

ISAC is designed in compliance with the recommendations of the respected organization for healthcare systems interoperability standardization, Integrating the Healthcare Enterprise (IHE), and complies with the Cross-Enterprise Document Reliable Interchange (XDR) profile.

This ensures trustworthiness of the solution from the viewpoint of its architecture based on the best international experience, and also a high level of national and international compatibility, standardization and interoperability.

#### IHE

Integrating the Healthcare Enterprise (IHE) is a respected international non-profit organization bringing together hundreds of ICT solution providers for healthcare, government and non-profit organizations.

IHE methodology is internationally understood to be the best way of designing regional and national eHealth systems. ISAC is the first solution actually implemented in the Czech Republic built according to the IHE selected profiles and recommendations.

### [SOLUTION AREAS]

ISAC is a comprehensive and robust solution for medical data exchange and electronic order form communication at regional and national levels.

# Medical documentation exchange

ISAC provides electronic, highly secure and reliable medical data exchange between heterogeneous hospital information systems. There is no need for their replacement, data consolidation or

complicated interventions in medical facility infrastructure.

ISAC is a fully decentralized solution that does not store data centrally, and therefore complies with all legislative conditions of the Czech Republic.

# Electronic order form communication

ISAC provides fully electronic paperless order form communication between healthcare facilities, in addition to medical documentation exchange. It includes both electronic order form exchange and electronic patient results exchange between healthcare facilities.

# Communication with the emergency services

Communication with emergency service units within a region is a decisive advantage of the ISAC solution.

This significantly improves solution efficiency, fast data availability and solution usefulness for making patients' treatments faster and more efficient.

ISAC implements the so-called Emergency Card – the online accessibility of "emergency" contents of medical documentation from all regional hospitals for use by the emergency services.

Communication is bidirectional. Fully automated transfer of medical documentation from the emergency services to the target hospital is also available. These features significantly increase the efficiency of information handling during emergency operations, where every minute matters, and significantly alleviate the difficult work of the medical staff.

# Financial efficiency

ISAC does not require any replacement of hospital or laboratory systems. It does not require any complicated or costly infrastructure modifications. The solution is elegantly implementable.



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