

IST

WHERE INTEGRATION MEETS INFORMATION

DATA COLLECTION

- CAPI, CAWI, and CATI modules.
- Data collection through Windows desktop application, Web browsers and Android application.
- Automated logical and consistency control mechanisms to ensure data integrity.

DATA PROCESSING

- Data validation and cleaning.
- Metadata entry and tracking for comprehensive data management.

DATA DISSEMINATION PREPARATION

- Report generation and table creation.
- Automated scripts for generating reports.

SUPPORT FOR ALL KEY STATISTICAL PROJECTS

- All major surveys (LFS, HBS, CPI, SILC, Business Surveys, Health, Education ...).
- Censuses: Population, Agriculture and Economic.
- Ad-hoc, Ordered and Follow-up surveys.

QUALITY AND PERFORMANCE INDICATORS (QPI)

- Possibility to define automatic Collection and Processing QPIs (e.g. data completeness rate, over coverage rate, common units proportion, unit non-response rate, item non-response rate, imputation rate).

IST, developed and maintained by the Statistical Office of the Republic of Serbia (SORS), is a modern, scalable platform designed to streamline data collection, processing, and reporting in National Statistical Offices (NSOs). With its robust architecture and compliance with international statistical standards like the Generic Statistical Business Process Model (GSBPM), IST enables statistical organizations to transition seamlessly to digital-first, metadata-driven workflows.

IST Benefits

Proven Solution:

IST is a proven solution that has been successfully implemented in multiple countries, demonstrating its effectiveness in various statistical domains.

IST is specifically suitable for NSOs which are making transition from legacy stow-pipe to centralized metadata driven statistical production aligned with GSBPM.

Customization and Seamless Integration:

The platform is highly customizable and easily connects with existing tools and databases, allowing it to be tailored to the specific needs of different statistical offices.

Cost-Effective:

IST offers a cost-effective solution by reducing the need for multiple software systems and minimizing manual intervention in data processing.

Support and Maintenance:

SORS provides comprehensive support and continuous updates to ensure that IST remains aligned with the latest statistical practices and technologies.

International implementations ensure support for various statistical approaches and methods.

SORS provides specialized trainings for NSOs.

Regional Standardization:

Adopting IST can help drive regional standardization, facilitating better collaboration and data sharing across countries.

International Standardization:

IST promotes the standardization of data processing methods, enabling statistical offices to comply with international standards such as GSBPM

Integration With Other Tools

SPSS, STATA, R: Automates statistical analysis.

QGIS: Integrates with geolocation data, maps, and visualization tools.

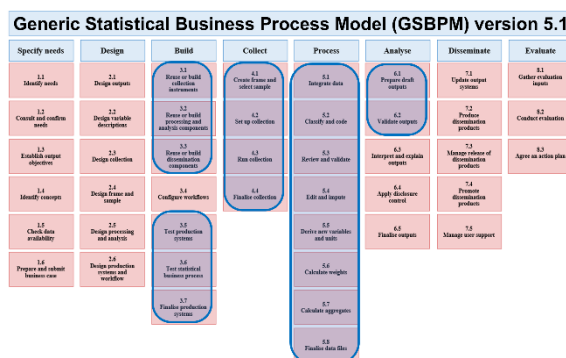
VoIP Softphone / IPT: Enabling seamless CATI operations.

Power BI: Data visualization and dashboard reporting.

Public Cloud Platforms (e.g., Microsoft Azure): Leverages machine learning and AI services to enhance data analysis, predictive modeling, and automated decision-making.

Administrative Databases: Data synchronization for seamless operations.

"We are very satisfied with IST capability to satisfy all major phases in GSBPM framework."
 - IT Manager, RSIS



IST Coverage of GSBPM v5.2 phases

SUPPORTED FORMATS

- XLS
- CSV
- XML
- JSON
- TXT

TECHNICAL SPECIFICATIONS

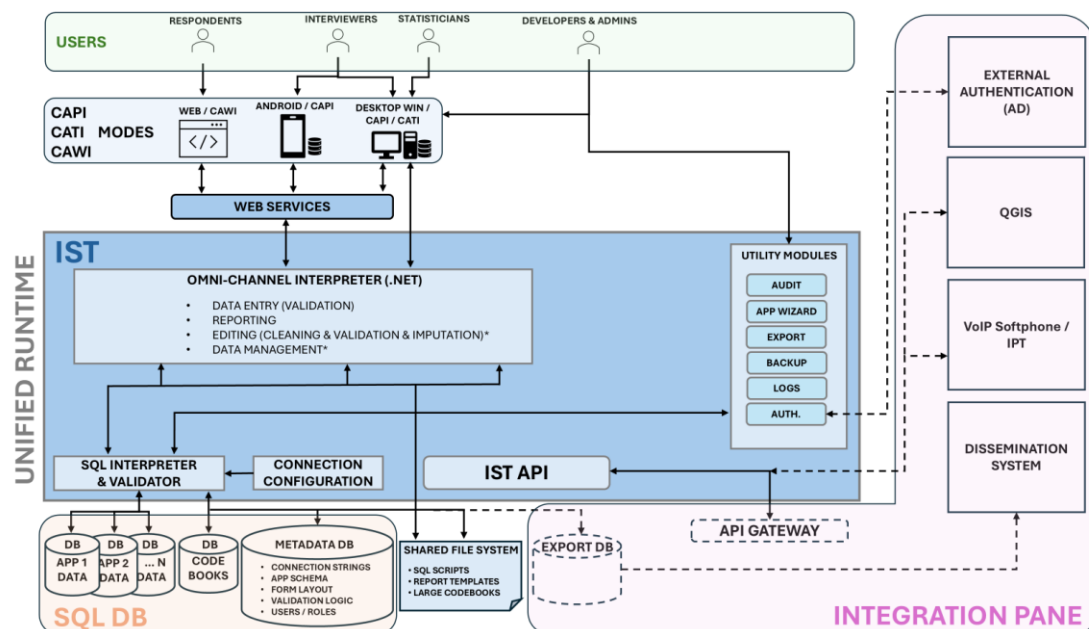
- **Database:** Microsoft SQL Server.
- **Compatibility:** Windows OS for IST Desktop; browser-based Web IST supports all major browsers.
- **Environment compatibility:** Physical, Virtual and Public Cloud
- **Backend:** .NET Framework.
- **Security Specifications:** Encryption, access control, security logs
- **Integration:** RESTful API for seamless connection with external data sources.
- **Languages:** Supports multilingual interfaces for regional adaptability.

PROVIDED TRAININGS

SORS provides essential training to ensure the effective implementation and optimal use of the IST solution. Our programs are tailored for IT professionals (users, developers and administrators) as well as statisticians and methodologists

- **IST Functionalities** - Discover core IST features to optimize user experience.
- **IST Application Design Framework** - Learn IST's design principles for smooth integration.
- **IST SQL Server Administration** - Master essential skills for managing IST SQL Server.
- **IST Output Tables SQL** - Gain techniques to query and analyze output tables.

System Architecture



IST leverages a multi-layered architecture that ensures scalability, security, and high performance.

Key components include:

1. IST Desktop: For central and regional administration tasks, including user account management and process supervision.
2. Web IST: A web-based module for respondents to input data securely and efficiently.
3. IST Android: Module for Android devices (tablets and mobile phones).
4. Centralized Database (MS SQL): Ensures secure storage and seamless integration across modules.
5. IST API: Facilitates secure data exchange with external systems (e.g., administrative data sources).

INFRASTRUCTURE NEEDS

Recommended configuration for Data Center *:

1. MS SQL Server: 4 CPU cores and 64GB RAM
2. Web Services Server: 4 CPU cores and 64GB RAM
3. MS SQL Server Standard License
4. Windows environment
5. Network connectivity with branch offices

Recommended configuration for Desktop Clients:

1. CPU: Intel Pentium, RAM: 4GB
2. Windows OS

* Final configuration depends on the amount of data stored in the system.

IST Implementation Roadmap

