

InterSystems EMPI



Next-Generation Enterprise Master Person Index for Identity Management

Seamless patient, member, and beneficiary identification is essential for efficient operations across healthcare organizations and government agencies. Yet, fragmented systems, inconsistent identifiers, and data gaps continue to disrupt workflows, increase costs, and compromise care quality and service delivery. 35% of denied medical claims stem from inaccurate patient identification, while mergers and affiliations further complicate record consolidation. Even within a single information system, duplicate or overlaid records can introduce inefficiencies and risks; by creating costly administrative burdens and compromising the accuracy of AI workflows built on unreliable data. To maintain data integrity and prevent cascading errors, organizations must be able to detect problematic records in real time and trigger corrective actions.

Traditional Enterprise Master Person Indices (EMPI) tackle these challenges by leveraging deterministic and probabilistic algorithms to match records across systems. Next-generation EMPIs take this one step further, incorporating referential matching to cross-reference authoritative external sources such as government databases and credit bureaus to fill in the gaps. Referential matching verifies and resolves discrepancies, ensuring organizations maintain complete, accurate, and up-to-date records.

¹ [Black Book Research](#)



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InterSystems EMPI™ is a next-generation enterprise master person index with referential matching, delivered in partnership with industry leader LexisNexis®, to provide an automated, easily integrated solution for identity resolution. It seamlessly pairs with InterSystems Unified Care Record, merging multi-source data into a single, accurate longitudinal health record. InterSystems EMPI can also function as an enterprise or agency-wide standalone solution, ready for deployment across your organization.

Key Features

Advanced Matching Engine for Accurate Identity Resolution

At the core of InterSystems EMPI is a sophisticated matching engine that leverages deterministic and probabilistic logic, along with a vast referential data. It includes a set of automated tuning tools for adjusting the algorithms to address your unique needs.

Referential Matching²

Seamless integration of LexisNexis® LexID® for referential matching of record pairs between configurable thresholds.

Composite Record and Whole Record Viewer

InterSystems EMPI automatically determines which records refer to the same individual and creates a single composite demographic record for each person. When there are slight differences between data sources, the system uses configurable rules to choose the most trusted source.

To facilitate manual review and validation, the Whole Record Viewer lets you efficiently compare and validate person identity and demographics across all source records on a single screen.

Data Quality Framework and Dashboards

Data Quality Framework (DQF) is an analysis tool that accelerates EMPI creation, enhances accuracy, and simplifies maintenance. It assesses data cleanliness, allowing you to collaborate with system managers to improve data quality at the source, or to establish pre-processing routines before data enters the EMPI. DQF includes dashboards to track data trends over time, helping identify issues early and prevent bad data from compromising your EMPI and downstream clinical or analytics workflows.

InterSystems EMPI includes usage and detail dashboards to maximize record-matching accuracy.

- Overview dashboards display key metrics, such as user logins and imported patient records.
- Linkages Detail dashboards provide insight into how records link across facilities or the entire system.
- Record Summary dashboard track adds, updates, mergers, and usage trends over time.

² LexisNexis® is a trusted leader in data intelligence, maintaining one of the most far-reaching databases in the US, covering virtually every adult- including unbanked populations who may not be represented in traditional financial records. Their vast network enables comprehensive identity resolution while upholding strict privacy and security standards. At InterSystems, we leverage LexisNexis data solely to enhance person identity matching, never for our own enrichment.

Workflow Integration

InterSystems EMPI includes easy-to-use and configurable workflows to manage those cases where manual intervention and approval is required. It also automatically notifies other systems and facilities about important changes to information.

Batch Import

The Batch Import utility enables bulk loading of person data into the system, making it ideal for onboarding a new data source or migrating from existing systems. It provides APIs to ingest demographic data into InterSystems EMPI and export data from registries.

Record Integrity and Configuration Evaluator

The Record Integrity and Configuration Evaluator utilities optimize EMPI settings and operation both before and after go-live. They run on the live system without requiring service interruptions to diagnose and repair system configuration or data integrity issues.

Standards-Based APIs for Connectivity

Built-in secure and robust support for standards, including HL7 FHIR®, HL7® v2, IHE (PIX, PDQ, PDQm, XCPD), and Web Services, enables you to easily integrate InterSystems EMPI with the other applications in your enterprise.

Customized Rules

A built-in rules engine allows you to create and implement site-specific logic, such as customized person matching and alerting. Our advanced algorithms simplify the tuning process by analyzing your data and providing recommendations for linkage weights.

Auditing and Security

A secure, role-based portal manages access to data and utilities.

All record updates are auditable, as are all decisions to link or unlink person records.

Flexible Deployment Options

InterSystems EMPI can be deployed on premises or as a fully managed service.

When you subscribe to InterSystems EMPI Managed Services, InterSystems designs, hosts, and delivers the integration platform so you do not need to purchase, operate, secure, or maintain the infrastructure yourself. InterSystems EMPI Managed Services include:

- All data center resources, including hosting, hardware, and network capacity needed to run the solution
- Ongoing maintenance of all solution components
- Customer-specific configuration and implementation services to bring the solution live, including building connections
- 24/7 support for the solution including real-time monitoring
- Seamless upgrades
- Sophisticated security and data protection programs



World-Class Customer Support and Educational Services Boost Success

InterSystems EMPI is backed by InterSystems acclaimed customer support and educational services. For more information visit [Support.Intersystems.com](https://support.intersystems.com) or [Learning.Intersystems.com](https://learning.intersystems.com).

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