

Improve the Performance of Decision Intelligence Models in Banking with a Smart Data Fabric



Smart Data Fabric Benefits and Use Cases

- Unify data across silos without duplication
- Enable real-time access to internal and external data sources
- Improve model accuracy and reduce latency
- Support AI-driven decisioning across fraud, credit, payments, and customer intelligence

Gain Better Model Results Across Risk, Payments, Lending, and Customer Intelligence

Digital transformation in banking has unlocked powerful opportunities for AI-driven decision intelligence—but fragmented, stale, and low-quality data remain a major barrier. Banks operate across dozens of systems, from core banking platforms and CRMs to payment processors and third-party data feeds. Traditional data architectures often introduce latency, duplication, and integration challenges, undermining model performance and business outcomes.

According to Celent, a leading research and advisory firm focused on technology for financial institutions, **60% of Tier 1 banks** cite data architecture as a barrier to improving decision intelligence.¹ Without a unified, real-time data layer, banks struggle to deliver accurate, automated insights—especially in high-stakes areas like fraud detection, credit risk, and payments intelligence.

Data fragmentation and latency lead to:

- **Poor model performance:** AI models trained on outdated or inconsistent data suffer from drift and reduced predictive accuracy.
- **Missed revenue opportunities:** Siloed customer data limits personalization and cross-sell potential.
- **Increased fraud risk:** GenAI-enabled fraud schemes are projected to drive losses of up to \$40B by 2027.²
- **Operational inefficiencies:** Manual data integration slows credit decisions and impairs risk management.

¹ Celent, [“It’s All About The Data!”](#)

² Deloitte, [“Generative AI is expected to magnify the risk of deepfakes and other fraud in banking”](#)

A smart data fabric offers a non-disruptive way to connect data across silos in real time

Smart Data Fabrics Eliminate Fragmentation, Latency, and Inconsistencies

Smart data fabric architectures overcome the challenges of traditional data architectures by unifying data across internal and external systems—without requiring data movement. They embed analytics and machine learning directly into the data layer, enabling real-time insights and automation.

A smart data fabric helps banks improve decision quality and business performance by eliminating data duplication, reducing data latency, and unlocking enterprise-wide intelligence. It provides a single source of truth for data that is accurate, complete, and current.

InterSystems Data Studio and InterSystems IRIS: Unified Platforms for Decision Intelligence

InterSystems Data Studio™ is a fully managed, low-code, cloud-based solution that enables firms to easily create and maintain a smart data fabric architecture that connects data across disparate systems. It automates data management workflows such as loading, transforming, normalizing, reconciling, and validating data, performs data quality checks, and offers cataloging and metadata management all in one easy-to-use interface. It also offers native AI capabilities to facilitate retrieval-augmented generation (RAG), and seamlessly connects to downstream systems and applications, such as modeling environments or BI tools, via a bi-directional API.

InterSystems IRIS® is a data platform that delivers high-performance data processing and AI model execution, ideal for use cases requiring low latency and high throughput—such as fraud detection, credit scoring, and real-time payments intelligence. With InterSystems IRIS, banks can run advanced analytics and machine learning directly on the data layer, enabling real-time insights.

Together, these solutions address the key challenges that stymie investments in decision intelligence:

- **Easily add new data sources:** Many banks lack the infrastructure to ingest and normalize these new data types at scale. Data Studio simplifies ingestion and normalization of diverse data types, enabling banks to integrate new sources without custom coding or manual wrangling. Our solution can reduce the weeks or months of effort spent on adding new data sources down to a matter of days.
- **Improve data timeliness:** Traditional approaches to data management, such as data warehouses, data lakes, and lakehouses, often introduce delays in data processing and delivery. This latency undermines use cases like fraud detection, credit scoring, and personalized offers, where timeliness is key. InterSystems solutions improve data timeliness by connecting to data from the source, transforming and harmonizing that data as it is being collected and, delivering it to the point of need without delay.
- **Improve data quality and consistency:** Poor formatting, duplication, and incomplete records degrade model accuracy. Without rigorous data governance and cleansing, AI models struggle to maintain accuracy over time.
- **Overcome fragmented data architectures:** Many banks still operate on fragmented data platforms, with critical information trapped in departmental silos. This limits the ability to create unified customer views, cross-functional analytics, and enterprise-wide decisioning. A smart data fabric architecture—powered by InterSystems IRIS and Data Studio—connects data across silos without duplication. It supports cloud, hybrid, and on-premises deployments, enabling banks to modernize without disrupting operations.

Why Banking Leaders Should Act Now

For CIOs, CDOs, and Heads of Risk, decision intelligence is a strategic enabler. Without high-quality, real-time data, banks cannot fully leverage AI to detect fraud, personalize services, or respond to market shifts. InterSystems smart data fabric and high-performance AI solutions offer a proven path forward.

Choose a solution that delivers:

- **Real-time, unified data access**
- **Embedded analytics and ML**
- **Scalable, high-performance architecture**
- **Proven success in financial services**

To learn how InterSystems can help your organization unlock the full potential of decision intelligence, visit:

[Decision Intelligence for Banking](#)

[InterSystems Data Studio](#)

[InterSystems IRIS](#)

InterSystems, A Creative Data Technology Provider.

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