

Conquering Data Governance Challenges

How enterprises with legacy technology can overcome
regulatory compliance hurdles



Introduction

The increased adoption of digital technology by both consumers and enterprises created a “perfect storm”: a unique set of challenges in bringing software systems into compliance.

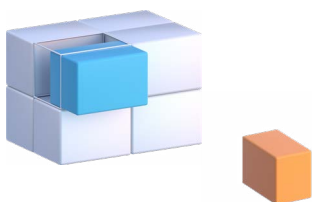
First, the regulatory environment itself is rapidly evolving to keep up with the new reality of consumer behavior. New consumer data and privacy regulations, like the EU’s GDPR and California’s CCPA, give consumers control over the usage of their data in a digital ecosystem. Many more regulatory frameworks will follow suit.

On top of a fast-changing regulatory environment, the digitalization of consumer behavior means data about consumers is scattered across more systems and repositories than ever before: cloud-based data stores, web applications, and monolithic core systems. This presents challenges for enterprises to locate and extract all data applying to a specific customer (e.g., to comply with a “right to be forgotten” request for GDPR compliance).

In fact, *most* data about consumers remains stored in legacy systems, mainframes, applications, and databases. Mainframes hold 80% of the world’s business data—often, this is within complex structures and includes logic with specific access rules.

Today enterprises, particularly in already heavily regulated industries like financial services and insurance, face an unprecedented set of challenges to meet regulatory compliance.

Let’s explore the top three challenges—and how enterprises can overcome them.



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The IVR system is the lifeblood of our organization and must never go down. The APIs generated by the OpenLegacy platform are a key component for supporting our IVR system.

”

Shai Vardi, CIO
Isracard

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Existing systems have fallen out of compliance: Remediation is time-sensitive

Enterprises frequently need to move from one application to a newer modern one. Often this is due to tightening up of regulations where an old application falls out of compliance, and the vendor either goes out of business or no longer supports modifications to their product. This typically happens with on-premise applications built decades ago.

Israeli credit card, electronic payments, and payment service leader Isracard experienced this challenge firsthand. A few years ago, Isracard needed to replace its on-premise Interactive Voice Recognition (IVR) system with a newer cloud-based one. The old IVR system was no longer supported and hence couldn’t be updated to meet new regulations.

The new IVR system needed access to the mainframe. The old system accessed the data through “green screens.” Changing the access method wasn’t worth the expense (both in time and money).

So what is the best way to handle a situation like this?

Many vendors require transferring the data into the cloud and re-writing specific business logic to integrate with the vendor's compliant tool: A new take on the old "rip and replace" model vendors have peddled for years.

These types of solutions almost always go way over budget and—rarely ever work. Frequently companies need the logic embedded with the data, so lifting and shifting data doesn't work without porting the entire system over. This leads to a spaghetti mess with some components still on the mainframe and others off of it.

Instead, IsraCard leveraged its screens and exposed the data on them to the digital side as web services. They also added in some other additional data from their mainframe by leveraging direct access to transactions. The same procedure could be used for mapping to REST APIs, SOAP services, or other mechanisms. It gave IsraCard a quick and easy way to map its mainframe investment to a modern, compliant IVR system without redesigning everything.

For IsraCard, this meant a 5x acceleration in time-to-market and 95% reduction in cost for the integration project. More details on IsraCard's story can be found [here](#).

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New business opportunities demand heightened compliance standards: Time is of the essence

Sometimes companies solve a compliance issue to support a new business opportunity. This was the case with Credicorp, who wanted to bid on the contract for managing all the boats going through the Panama Canal.

Credicorp became the first bank to become compliant with new Interbank Transfer laws. This achievement allowed the bank to win the race for API-based

Panama Canal Transaction Approval by launching new API economy products, e.g., "Blacklist Checkers" The new integrations to its core systems provide flexible access to legacy data stores. The access is critical in keeping the bank ahead of competitors and building out entirely new revenue streams. You can read their story in this [case study](#).

Another bank with a compliance issue that maps to new opportunities was Ecuador's largest, Pichincha. When the bank opened an office in Miami to support transfers between the US and Ecuador and needed support for US account payments standards (FedLink, Swift, ACH). The bank's system is written in RPG and runs on IBM i systems. This legacy infrastructure made compliance hard to get up and running quickly. OpenLegacy exposed the IBM i transactions so Pichinchia could start generating revenue.

Then the group that owns Pichincha Bank acquired InterCredit Bank, a Miami regional bank. InterCredit is building a new compliant BPM process for creating accounts, transfers, and a whole host of other activities. This new process needs to run on top of its legacy Fiserv application. To handle the BPM process, InterCredit Bank chose ProcessMaker but it still needed to connect to Fiserv. For the connection, the bank chose OpenLegacy. Here is a [solution brief](#) that discusses that process in more detail.



The Panama Canal

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Maintaining regulatory compliance requires a new approach to data governance

Historically, all levels of government shape an enterprise's IT environment directly or indirectly through factors like investment incentives, tax rates, and reporting requirements. However, the advent of rights and privacy-related regulation—like the GDPR in the European Union, CCPA in California, and HIPAA—adds a new dimension of complexity.

In particular, “Right to be Forgotten” regulations require companies to have a true 360° view of their customers, including every connection point, no matter how old. Achieving a 360° view requires more than a simple ETL (Extract, Transform, Load), since a static data snapshot is not enough. This situation requires an approach that continues to update as changes are made within the core systems.

For example, a major insurance company found itself with databases buried deep down in its mainframe programs and other legacy systems. Some systems only get accessed through a COBOL application using a VSAM file. Other systems use different datastore mechanisms. All of these legacy data records need to be indexed with modern cloud-based databases found in newer applications spread throughout the organization.

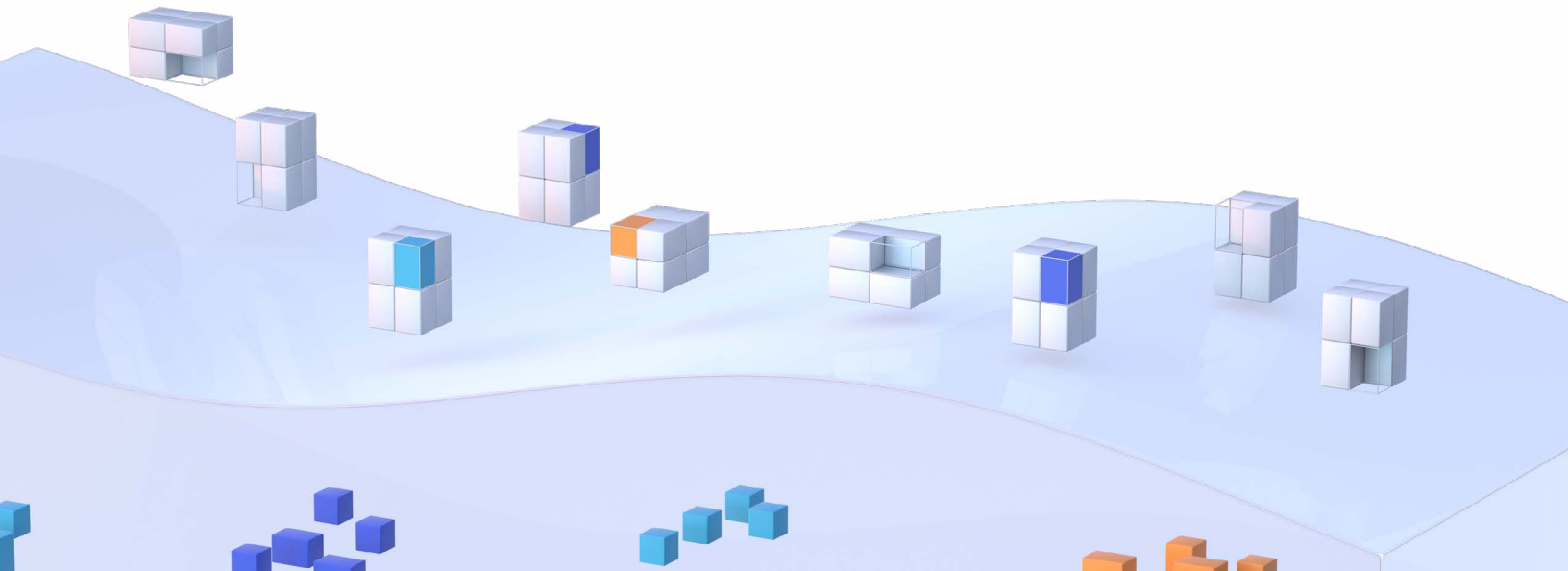
Complying with CCPA “right to be forgotten” statutes required picking through these archaic data stores and archives, as well as modern databases, to find and validate all references to the specific person or group of people. This process was painful, time-consuming and error-prone.

The insurance company chose BigID as its platform for analyzing multiple cloud-based databases in the search for the correct records. The struggle was accessing and updating the legacy data stores.

While assessing its respective data stores and application processes, the company reached the painful realization that over 65% of the relevant customer personal data was stored and maintained within its rather extensive VSAM data repositories. This meant that internal IT teams would have to begin writing query and extract programs not only to the production environment, but also to the company's backups and archival data stores.

This company found a way to “know its data” and “access all its data” by following these steps:

- First, provide a mechanism for their Data Privacy Platform to perform the necessary search of its legacy data stores. The ability to seamlessly interact with the VSAM data stores as part of the interrogation process with standard Restful APIs was critical for consistent assessment and reporting.



- Second, once a relevant record was identified, a set of well-orchestrated APIs validated the record along with the identification of any associated records, including records in backups and archival data stores.
- Finally, instead of writing special, one-off programs to delete the VSAM data stores, the company just changed the API to handle this process substantially reducing technical debt.

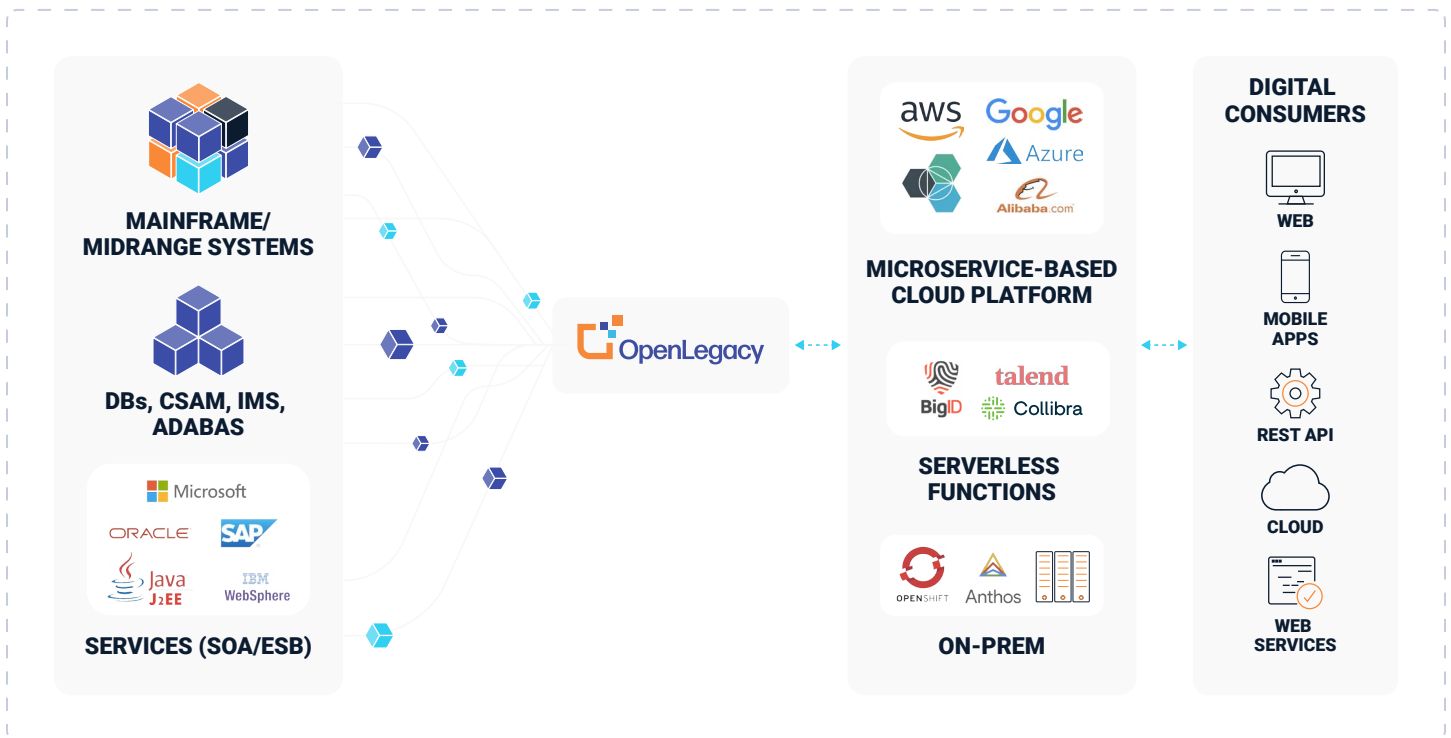
Similar scenarios play out in a number of different clients across the insurance, financial, and other industries. They need access to VSAM, IMS DB, Adabas, DB2, or other legacy-based databases but the problems are similar. The need is to index the data while leaving it in place.

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How do we address these challenges?

Flexibility is key to addressing all of these challenges. Solving the regulatory compliance challenges of enterprise requires direct access to business logic, data, and even “green screens.” Approaches that require custom development or middleware for access to core applications tend to leave companies with incomplete data access, complex architecture, and technical debt.

OpenLegacy’s digital-driven integration platform provides customers and partners with pre-built integration and automated API creation for a wide variety of legacy systems, ensuring no sensitive data is left behind in customers’ quest for regulatory compliance and data protection. Together with our partners, customers get discovery and security features for managing sensitive data across core mainframe systems.



Caption: OpenLegacy's flexibility in working with different legacy assets and deployments

About OpenLegacy

OpenLegacy's Digital-Driven Integration enables organizations with legacy systems to release new digital services faster and more efficiently than ever before. It connects directly to even the most complex legacy systems, bypassing the need for extra layers of technology. It then automatically generates APIs in minutes, rapidly integrating those assets into exciting new innovations. Finally, it deploys them as standard microservices or serverless functions, giving organizations speed and flexibility while drastically cutting costs and resources. With OpenLegacy, industry-leading companies release new apps, features, and updates in days instead of months, enabling them to truly become digital to the core.

