openlegacy

AS/400 Solutions: Get What You Need. Keep What You've Got.

"OpenLegacy's API microservices solution was fast to implement and enabled us to expose our AS/400 legacy system to our call center customers and payment system. Using OpenLegacy we've met the car insurance competitive market demand and kept our leading position as a direct insurance company."

—Applications Manager, Major Insurance Company

OpenLegacy delivers standard, secure, fast microservice-based APIs from your AS/400 in minutes.

With OpenLegacy, you can generate new cloud, web and mobile solutions from your legacy IBM i (AS/400) system automatically, easily and quickly. This is especially important in a world where companies are grappling with modernization, migration and transformation. By connecting legacy systems to the modern world through standard APIs, OpenLegacy bypasses complex ESB and SOA layers to connect directly with the IBM i.

Bring your IBM i to the digital world

The long-running IBM i (AS/400) system's popularity is due to its many available packaged applications, as well as the fact it runs fast and reliably without the need for a large development staff. However, the lack of development teams and expertise means that attempts to frequently expose applications and data through new channels become extremely challenging. At that point, many companies bring in expensive consultants -- and still fail to achieve their goals.

The challenge is in fully realizing your digital transformation while making the most of the powerful system that you've already invested in. That's exactly why OpenLegacy has built an approach that has helped companies like yours deliver in-demand modern digital services, with no complexity, no middleware, and seamless access.

> "It was essential for us to have IBM System i data in the hands of our doctors in the field. We looked at many options, and OpenLegacy was the only solution that works equally well with both the legacy environment and the tablet."
>
> —Ofi Reich, CEO, Hahaklait

Your familiar system. And a whole new approach.

The OpenLegacy platform doesn't require IBM i expertise to generate REST APIs in a true microservices architecture. We automate the process and generate the APIs in days or weeks versus months or years like other solutions. The user picks exactly which APIs to expose, and the rest of the process is automated.

Best of all, our microservice-based APIs leave your AS/400 as is, and open up your system to a new world of possibilities, partners, customers, stakeholders – you name it. So with OpenLegacy, you can leverage your existing AS/400 investment AND accelerate virtually any type of innovation:

- Bypass complex middleware and access your AS/400 directly
- Create production-ready APIs in hours or days, not months
- Automate API creation using pre-built connectors
- Deploy anywhere with microservices
- Reduce technical debt and total cost of ownership
- Maintain legacy microservices in the cloud, container or on-prem
- Simplify future legacy migration
- Align with DevOps, CI, CD

Real-life examples of OpenLegacy in action

Our open standards approach has enabled us to help a wide range of organizations address their unique business logic challenges, all while maintaining their existing AS/400 investment. OpenLegacy has given clients:

25% productivity boost per salesperson	An automotive retailer integrated more than 120 AS/400 application screens into the CRM platform in just 3 weeks. By giving sales reps mobile access to their business logic, each member of the sales team gained a new, 360-degree view of their customers.
thousands of hours and dollars saved	A leading insurance company seamlessly connected an innovative new insurance agent portal to their existing core application, without changing their COBOL applications.
new apps in 2.5 days	A leading department store was able to create mobile AS/400 connectivity and productivity without the hefty price tag. They modernized the UI for store management, sales floor tracking, reporting, and finance without the expense and hassle of switching their ERP system and migrating off of the AS/400.
6 APIS in 2 weeks	A bank was able to achieve its goals of rapidly developing new consumer-facing applications and business functionality and responding to changing market and competitive dynamics in an agile fashion with six key global banking APIs and microservices built in just 2 weeks (plus, they lowered development costs).

How it Works

Connectors

A key component of the OpenLegacy platform is called a connector, which provides access to and parses metadata about a legacy system. OpenLegacy has many connectors for different systems, including IBM i. The connector is the component in the OpenLegacy platform that contains all of the IBM i-specific information.

Differentiators

The OpenLegacy IBM i connectors parse metadata in two ways either by capturing screen usage or by parsing metadata from the IBM i applications. These options give users flexibility to provide a solution a robust solution whether a user wants to follow their current screen workflow or design a solution that combines many pieces of functionality together.

OpenLegacy automatically generates self-contained microservices for both the API and the connection to the legacy system. Development of the microservices is extremely fast due to the automation and the microservices provide a modern architecture that is usable in a DevOps environment. The architecture also is secure and offers a wide variety of deployment options.

The connector also creates a direct connection between the microservice and the on-prem system so the overall end user's experience is as fast as possible while connecting to the IBM i from a remote system. This increases end user satisfaction while lowering the company TCO because developers don't need to maintain redundant middleware that only was in place to pass data between the IBM i and the cloud.
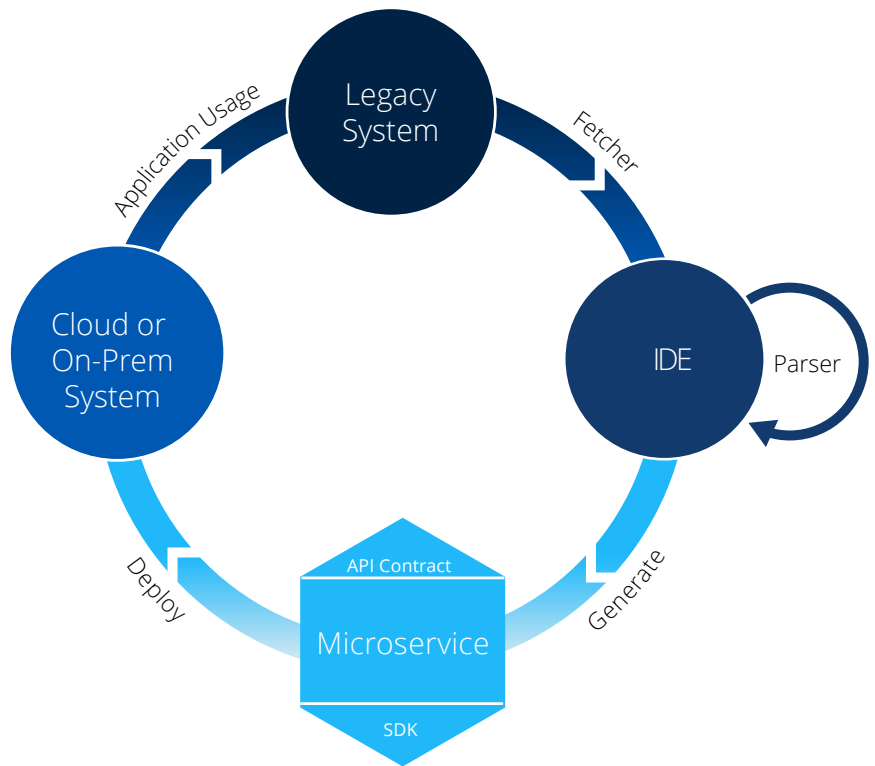
Each connector is used at:

Design time: To retrieve and parse data about the on-prem system
Run-time: To connect to the system as requests are made through the API

The OpenLegacy platform supports two ways to retrieve and parse metadata as well as connect with an IBM i system as shown in the table below:

	RPC Connector	**Screen Connector**
Main Benefits	Flexibility - The OpenLegacy RPC (Remote Procedure Call) connector reads content of source or design files and calls IBM i applications function	Easy to build - The OpenLegacy Screen connector records screen interactions and invokes the IBM i applications through the screens
Design Time Features		
Invoking IBM i system	Via procedure calls	Via TN5250J screens
Metadata retrieval	Fetchers (code, files, structure)	Trail file (record screen usage)
Content to parse	PCML (compiler generated XML), Cobol, Messaging documentation	Recorded screen scenarios
Code generation	Generation of self-contained microservices that include APIs and code for direct calls to the IBM i application procedures	Generation of self-contained microservices that include APIs and code for direct calls to the IBM i screens
Run-time Feature	Uses jt400 library to call IBM i procedures	Uses APIs to invoke screens

No matter which solution is chosen, the OpenLegacy platform reads and parses metadata about the IBM i applications and then automatically generates self-contained Java-based microservices that call the IBM i applications directly. The platform also includes the necessary functionality to load and manage the microservices. This gives easy and efficient access to the IBM i applications through standard REST APIs.

Legacy System

Fetcher

IDE

Parser

Generate

Microservice
API Contract
SDK

Deploy

Cloud or On-Prem System

Application Usage

About OpenLegacy

OpenLegacy helps organizations quickly launch innovative digital services by extending their legacy and on-prem systems to the web, mobile and cloud in days or weeks versus months. Our API software quickly reduces project backlog by automating and accelerating API creation, deployment, testing and management from core applications, mainframes and databases. Together, business and IT teams can quickly, easily and securely meet consumer, partner or employee demands for digital services without modernizing or replacing core systems, and without special programming skills or invasive changes to existing systems and architectures. Learn why leading companies choose OpenLegacy at www.openlegacy.com.

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