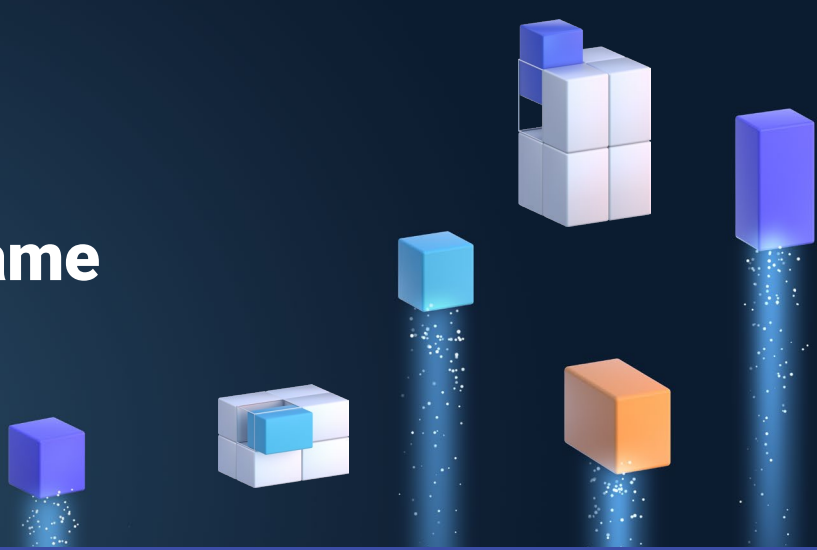![OpenLegacy — Digital to the Core]

Modern APIs for Mainframes: Mainframe to Microservices

Rapidly and Consistently Generate APIs from Mainframe Applications by Using Compuware and OpenLegacy

Mainframe development teams are under pressure to increase productivity. Adopting DevOps with integrated toolsets (Topaz) helps, but time is also spent on their workflows with digital teams. Compuware and OpenLegacy's new collaboration solves this by integrating the automatic generation of microservices–based REST APIs directly into mainframe developer's tooling. This process quickly creates a direct connection between the microservice and the legacy system of record. Together Compuware and OpenLegacy make it easy for mainframe developers to work at the speed of DevOps while exposing their mainframe assets for the rest of the organization to leverage.

For mainframe developers, the focus typically is on internal/system APIs that digital developers can integrate into applications. The digital team needs mainframe developers to help them find and expose these much-needed business functional endpoints buried within the mainframe applications.

DevOps Helps to Make These Integrations Possible

While Mainframe development teams develop and build their systems quickly, often perception is that they are not keeping up with the rest of the development organization. The reason for that is the digital teams only get exposed to the mainframe via an interface, which takes time for the mainframe teams to generate, so the perception is of slow mainframe development. The main development teams are handicapped by needing to solve today's integration requirements with yesterday's technology, namely ESB/SOA.

Integration APIs (internal/system) need to be modern entities, not simply the output of ESB/SOA middleware. Middleware adds to code bloat, monolithic layering, and unnecessary complexity while adding more time and expense to the building and testing process. In contrast to ESB/SOA, Microservices are small, independent buildable and testable entities and fit DevOps development paradigms well. Microservices are easy to build, test, and deploy independently.

"The combination of the two vendors' offerings gives mainframe developers unprecedented control and flexibility into their API implementations. This partnership empowers customers to incorporate mainframe applications into the modern, cloud-native world."
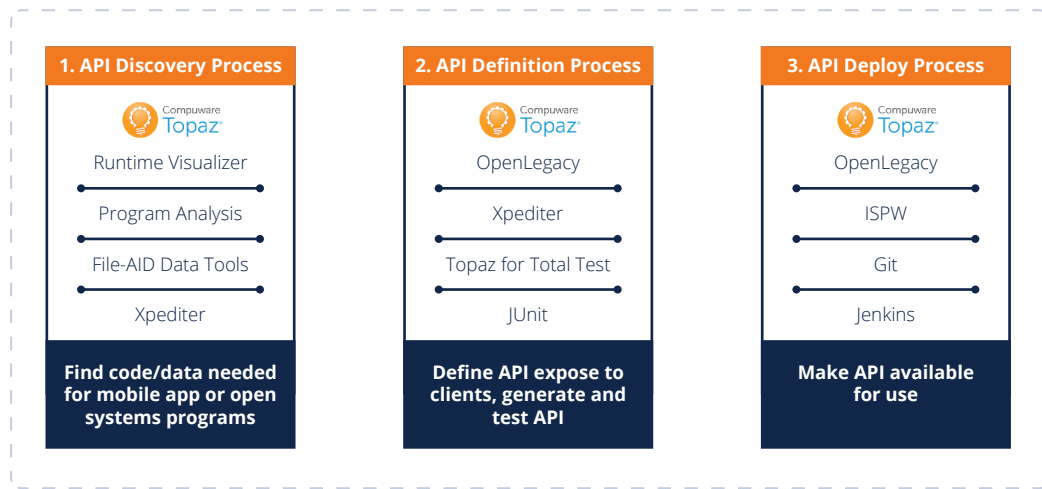
A Paradigm Shift—Mainframes Leveraging APIs to Contact the Digital Economy

Mainframe systems need to stop being thought of strictly as passive information retainers. Mainframes are powerful analysis engines and frequently need to initiate conversations with the outside world to gather data, report results, etc. This is why OpenLegacy recently introduced a new feature in its platform called the CICS API Caller. This is more than just enabling your mainframe to contact an external API; it generates the necessary mainframe code to use external API's and includes a simple proxy for parsing data at run-time.

The beauty of this approach is its simplicity. Everything is automated and then staged to use the powerful DevOps capabilities of the Compuware Topaz tools.

Conclusion

Mainframes aren't going anywhere, so integrating with them is a must. Microservices with a direct connection to the mainframe are the way to go. The key is to automate the generation of microservices so you can focus on the pressing business and market drivers. OpenLegacy's plugin to Compuware's Topaz development platform is the fastest and easiest way to achieve that goal.

1. API Discovery Process	2. API Definition Process	3. API Deploy Process
Compuware Topaz	Compuware Topaz	Compuware Topaz
Runtime Visualizer	OpenLegacy	OpenLegacy
Program Analysis	Xpediter	ISPW
File-AID Data Tools	Topaz for Total Test	Git
Xpediter	JUnit	Jenkins
Find code/data needed for mobile app or open systems programs	**Define API expose to clients, generate and test API**	**Make API available for use**

Integrated Process and Tooling Between OpenLegacy and Compuware

About OpenLegacy

OpenLegacy's Digital-Driven Integration enables organizations with legacy systems to release new digital services faster and easier than ever before. It connects directly to virtually any core system, instantly creating microservice-based APIs that power exciting new digital services. OpenLegacy helps industry-leading companies drastically reduce costs and resources while helping them become digital to the core.