

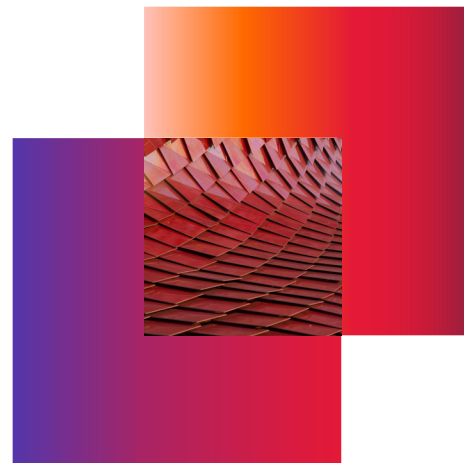
# AI-powered IT modernization



## Modernizing federal IT with clarity and confidence

Federal agencies face complex and risky IT modernization challenges, with many critical applications running on outdated, poorly documented code understood by only a few engineers.

CGI Federal's **AI-Powered IT Modernization** offering transforms legacy complexity and uncertainty into actionable intelligence by converting source code, data flows, content repositories and configurations into a secure, searchable and interactive knowledge graph. This gives agencies unprecedented visibility and control over their application landscape. The offering is fully modular, so that agencies can adopt individual capabilities or combine them into a comprehensive, end-to-end modernization accelerator tailored to their needs.



### Our solution delivers:

- **Automated code intelligence**—analyzes source code, datasets, content repositories and configurations to create a dynamic map of systems, components and dependencies.
- **Plain-language summaries and guided views**—generates easy-to-understand summaries and visualizations to accelerate onboarding and analysis.
- **Impact analysis before you act**—reveals downstream effects of proposed changes to reduce risk and avoid costly surprises.
- **Unified quality, security and architecture signals**—combines critical indicators into one view to support informed modernization decisions.
- **Evidence-based modernization decisions**—measures complexity and technical debt to help prioritize investments with real data.
- **Knowledge graph visualization**—builds interactive maps of components and dependencies for rapid impact analysis and risk reduction.
- **Natural language interaction**—enables users to ask questions and interact with the data in plain English and receive precise, traceable answers.
- **Security and vulnerability management**—automates software bill of materials (SBOM) generation, vulnerability detection and attack surface mapping to strengthen compliance.
- **Intelligent automation data visualization**—delivers AI-powered dashboards for real-time insights into progress, cost, and risk.
- **Reusable workflows and templates**—provides configurable templates to speed proofs of concept and ensure consistent outputs.
- **Interactive workflow builder**—connects analyses, dashboards and processes into tailored end-to-end modernization workflows.

## Mission outcomes clients can expect:

- **Faster time-to-value:** complete code analysis in days, or hours, not months.
- **Lower costs and risk:** automated analysis and documentation.
- **Improved productivity:** eliminate manual reverse-engineering and mundane analysis tasks.
- **Audit-ready security:** SBOMs, attack surface maps, and compliance artifacts.

## Flexible delivery models

- **Flexible delivery options for agency choice**—we offer flexible delivery models to meet the unique needs of each agency.
- **Managed service (code-in):** Agencies simply provide their code, and we deliver comprehensive insights, automated documentation, modernization roadmaps, and access to their tailored interactive knowledge graph user interface—without requiring any changes to existing infrastructure.
- **In-customer deployment model** retains in-house control, operating entirely within the agency’s AWS environment to ensure all data and logs remain inside the agency boundary.
- Our **access and integration approach** enables secure connections to agency repositories to ingest the legacy code and content to generate the tailored interactive knowledge graph user interface. Can be configured with modular services tailored to agency workflows and technical ecosystem, while maintaining compliance and security.

### *Success story: turning a complex legacy system into a secure, living knowledge graph*

Starting with a heavily restricted federal system, CGI Federal helped a large federal agency overcome missing pieces and broken processes to create a working local version of the system.

We also built clear documentation that explains how everything connects—architecture, data, workflows, security, and APIs—making it easier to understand and manage.

- Achieved complete coverage of code and data despite initial gaps.
- Delivered a functional local build for exploring system workflows.
- Created a single source of documentation to speed onboarding and decision-making.
- Enabled modernization planning based on clear, traceable information across systems and integrations.



## Why CGI Federal

CGI Federal combines decades of experience in federal IT with a proven track record of secure, compliant modernization. Our approach pairs embedded AI modernization expertise—including hands-on consulting to run discovery, onboard repositories, perform impact analysis, and build actionable roadmaps and an interactive user interface—with a secure architecture designed for government environments.

## About CGI

CGI Federal Inc. (CGI), a wholly owned U.S. operating subsidiary of CGI Inc., is a leading IT and professional services company that serves federal agencies across defense, civilian, healthcare, justice, intelligence and international affairs. With nearly 8,000 professionals, we work with our clients to modernize government through innovative technology solutions, flexible delivery models and a commitment to achieve mission outcomes. For more information, visit

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