EY Criminal Justice Information Exchange Solution supported by the EY-IBM Alliance with Red Hat

Enabling interoperability in county government criminal justice information systems

EY

Building a better working world

Red Hat

The need for seamless data flow in criminal justice systems

Across the country, local agencies (e.g., sheriff, district attorney and courts) must share information with each other, as well as regional and federal partners, to reliably shepherd their constituents through the criminal justice continuum. Because these agencies typically use different case management systems, an integrated justice system (IJS) serves as the data and interoperability backbone that facilitates data exchange and workflow orchestration between agencies.

Without it, jurisdictions struggle with tasks such as identifying persons of interest across multiple systems and connecting relevant case information. The lack of an adequately connected data system also impedes decision-making for officials, jeopardizing local governments' ability to serve their constituents.

However, because of technology obsolescence, data silos and security vulnerabilities, many IJSs cannot easily be modernized to most effectively and safely serve their missions.

The EY Criminal Justice Information Exchange Solution powered by the EY-IBM Alliance with Red Hat was designed to help agencies address these challenges.

Connecting the justice ecosystem

Our solution enables a connected justice ecosystem through National Information Exchange Model (NIEM) standard-based interoperability and can help agencies modernize their IJS while addressing four major needs.

Our run-anywhere platform, with pre-baked Criminal Justice Information System (CJIS) security controls, empowers agencies to achieve day one value and realize a sustainable path toward authority to operate production workloads in the cloud. Using generative artificial intelligence (GenAI) capabilities, our solution helps users quickly analyze and understand enterprise data through a person-centric, standards-oriented graph data model and efficient integration platform, leading to accelerated insights.

The solution provides a unified, broad view of data and comprehensive systems integration, helping foster consistency, integrity and trust in data across the justice continuum. This visibility empowers stakeholders to answer complex questions by creating a versatile, interconnected layer for data integration.

Four major needs

Conformance with standards for case processing timelines and security

Timely, agile and high-quality decision-making

Resolution of technical debt and codifying institutional knowledge

Reduction of administrative burden

- Security risks as systems move away from data centers and into the cloud
- The imperative for smooth system operations such that Justice partners can meet their KPIs and timelines

- The need for adaptability as statutory data-sharing requirements rapidly change
- The need to inform on-duty officers so they can make decisions regarding their safety in the field

- A lack of support with and knowledge of systems management as staff retire
- Inability to support legacy technologies
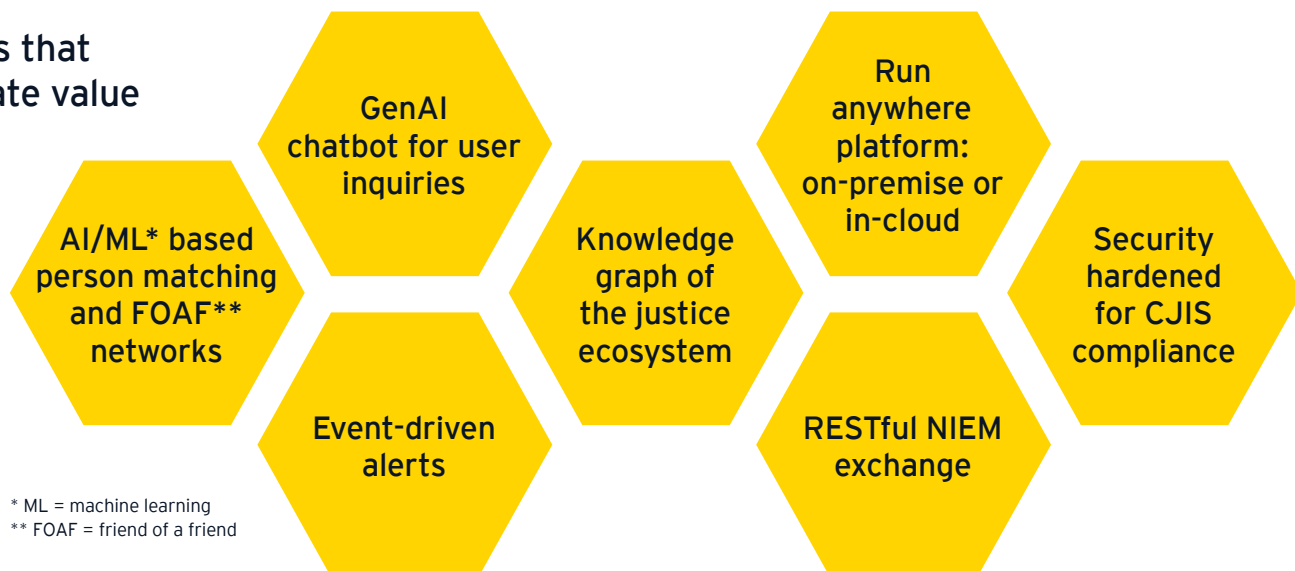- Future-proofing to avoid bottlenecks from the growing volumes of data and caseloads

- Internal demand for an enhanced user experience with readily accessible data
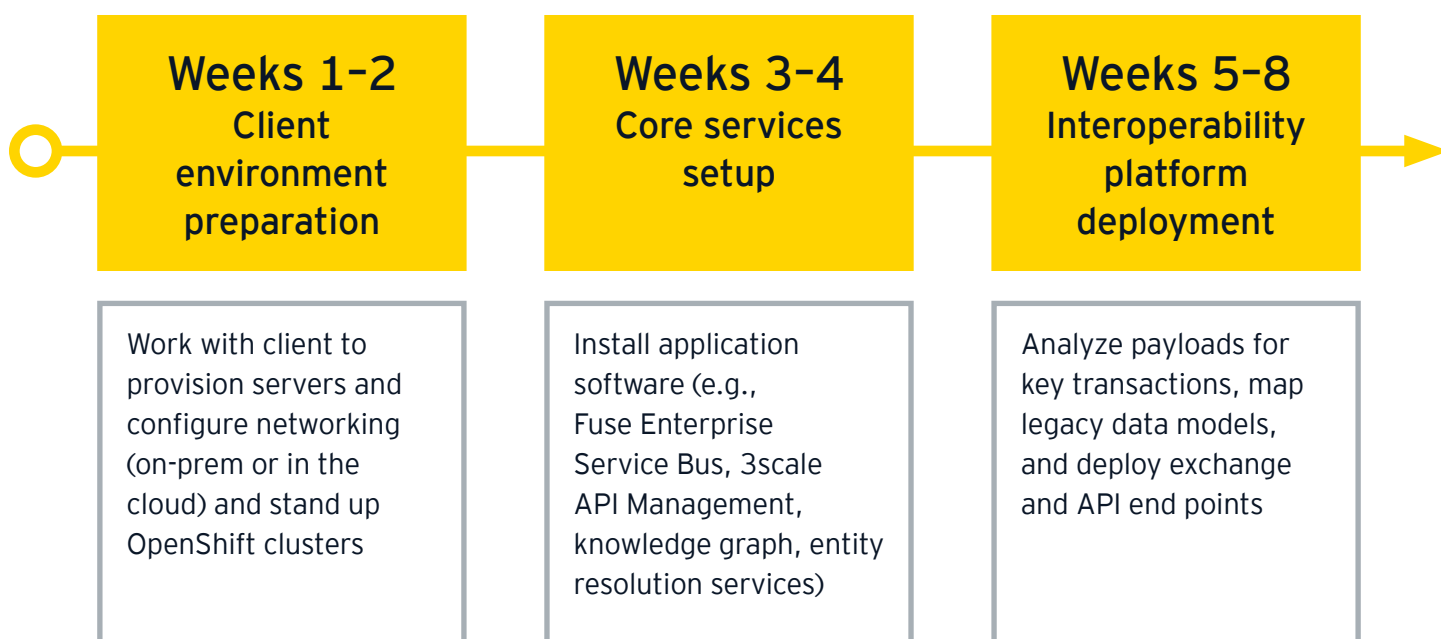- Data and AI-driven automation to reduce the pressure on operating budgets

Tangible benefits

Enhanced user experience	A knowledge graph gives users access to the data they need, when they need it. Configurable, proactive alerts further enhance the user experience.
Reduced cost of ownership	Commodity technologies, cloud deployment and DevOps automation reduce the cost of ownership and dependence on niche skill sets.
Phased transition	Our approach enables the gradual migration of workloads onto the new platform, with minimal business disruption.
Increased flexibility	The versatile integration backplane shields the enterprise from flux in the surrounding case management systems.
Cross-agency collaboration	The use of NIEM facilitates collaboration with other jurisdictions and federal agencies, which have already embraced the standard.

Features that accelerate value

- GenAI chatbot for user inquiries
- Run anywhere platform: on-premise or in-cloud
- AI/ML* based person matching and FOAF** networks
- Knowledge graph of the justice ecosystem
- Security hardened for CJIS compliance
- Event-driven alerts
- RESTful NIEM exchange

* ML = machine learning
** FOAF = friend of a friend

Implementation timeline

Weeks 1-2
Client environment preparation

Work with client to provision servers and configure networking (on-prem or in the cloud) and stand up OpenShift clusters

Weeks 3-4
Core services setup

Install application software (e.g., Fuse Enterprise Service Bus, 3scale API Management, knowledge graph, entity resolution services)

Weeks 5-8
Interoperability platform deployment

Analyze payloads for key transactions, map legacy data models, and deploy exchange and API end points

Case study

A client needed to modernize its IJS to address the maintenance and enhancement challenges that arose because the core of the organization's information was a mainframe-based system that was over 35 years old.

The client had multiple apps and extensions built on diverse technologies, which created a complex environment that was difficult to sustain.

Critically, the organization's modernization roadmap needed to enable co-existence of the old technologies with the new technologies and facilitate a phased transition to maintain operational readiness.

EY teams performed an assessment of the client's existing environment and workflows, concluding that the EY Criminal Justice Information Exchange Solution supported by Red Hat could help the organization achieve its goals and accelerate the time to modernization, compared to that of legacy approaches.

In the first phase of this modernization journey, the EY teams built core IJS services on legacy on-prem infrastructure, mapped legacy payload data models to the normative and helped the client migrate key workflows to production.

Why EY

As the EY teams are helping shape how governments address complex challenges, the EY Criminal Justice Information Exchange Solution supported by Red Hat is one of the first approaches of its kind in the US. The EY organization brings over 100 years of global commercial and public sector experience to clients, combining private sector leading practices with an understanding of the public sector's diverse needs. We focus on building organizations' capabilities to help deliver improved public services. With a breadth of capabilities that span system integration, data analytics and more, we provide technology-enabled solutions that can drive transformations at the federal, state and local levels.

About the EY-IBM Alliance with Red Hat

Red Hat is the world's leading provider of enterprise open-source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted advisor to the Fortune 500, Red Hat provides award-winning support, training and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners and communities, helping organizations grow, transform and prepare for the digital future.

Contact us

To explore what the EY Criminal Justice Information Exchange Solution supported by the EY-IBM Alliance with Red Hat can do for you, contact our team today.

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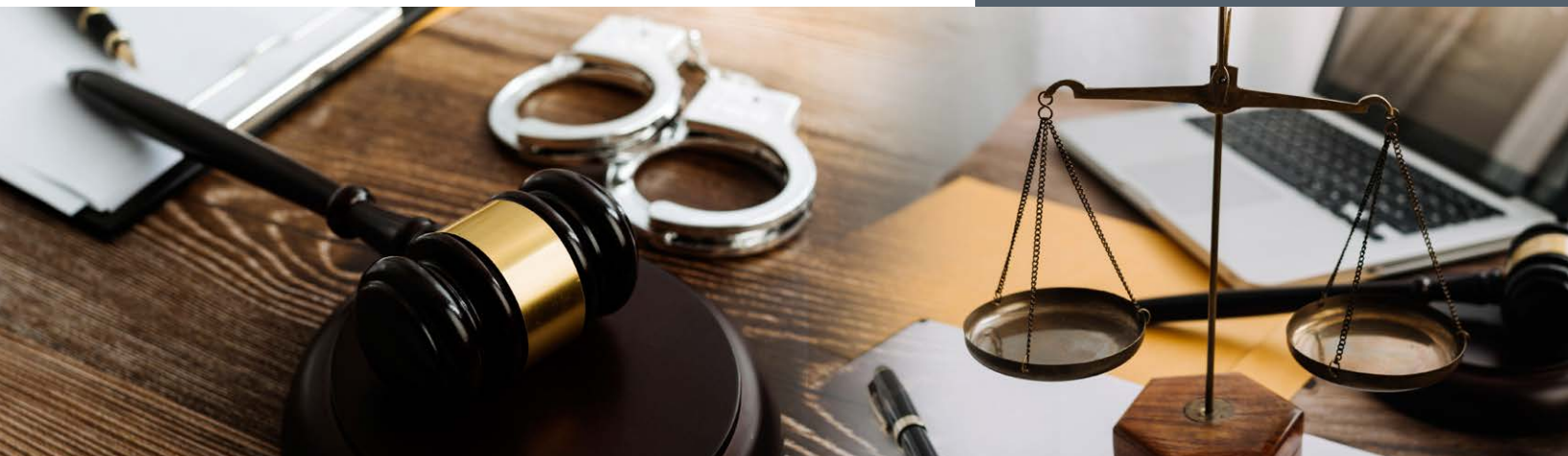
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