



Enhancing Federal Data Readiness and Decision-Making with IT-CNP's AI Fusion Lab

Challenge

Public sector agencies are increasingly adopting foundation models (FMs) and large language models (LLMs) to improve efficiency, enhance reporting, and support data-driven decision-making. From automating routine approvals to summarizing complex reports, Generative AI (GenAI) is helping agencies turn raw data into actionable insights that directly support mission objectives.

A federal agency sought to enhance its internal knowledge management and analyst support capabilities by improving how it cleaned, organized, and synthesized mission data. The agency aimed to streamline its operations by cleaning and normalizing large volumes of mission data, automating time-consuming reporting workflows, analyzing historical and current information to identify trends or emerging risks, and enhancing overall data organization to improve readiness for decision-making.

The agency needed to modernize its reporting and analytics processes—one capable of automating repetitive, manual data tasks, improving the efficiency of information flow, and accelerating overall data readiness. By strengthening its ability to generate timely, high-quality insights, the agency aimed to support faster, more informed decision-making across its mission operations.

While the agency was committed to using GenAI to improve analyst productivity, it was uncertain which FM best aligned with its mission needs and stringent security requirements. Because many AI models are exclusive to specific cloud platforms, the agency sought a provider who could evaluate multiple models without locking them into a single AI pathway.

The agency selected IT-CNP, a Select Tier AWS Partner, to guide its adoption process and deliver a secure, compliant infrastructure capable of supporting FM evaluation and refinement in AWS GovCloud.

Solution Overview

IT-CNP's AI Fusion Lab provided the agency with a fully managed, Federal Risk and Authorized Management Program (FedRAMP) High and Federal Information Security Management Act (FISMA) compliant sandbox enclave in AWS GovCloud, enabling secure testing and refinement of multiple foundation models prior to deployment. This controlled environment ensured all data interactions remained protected while outputs aligned with the agency's terminology, workflows, and mission requirements, allowing evaluation and fine-tuning of FMs while adhering to federal security requirements.

IT-CNP managed the full AI cloud solution end-to-end, including:

- ▶ Provisioning and securing the cloud enclave
- ▶ Supporting model selection, testing, and refinement
- ▶ Enabling fine-tuning with agency-specific terminology and datasets
- ▶ Ensuring FedRAMP High and FISMA requirements were met
- ▶ Deploying the chosen model with appropriate access controls and monitoring
- ▶ Providing continuous monitoring, audits, and security compliance management

This approach allowed the agency to stay focused on mission outcomes while IT-CNP handled the technical complexity of secure AI deployment.

Impact

By leveraging IT-CNP's AI Fusion Lab and secure AWS GovCloud infrastructure, the agency demonstrated that refined foundation models can improve mission-critical data workflows while maintaining full compliance with federal security requirements. The AI cloud solution accelerated cleaning, normalization, and organization of mission data, reduced manual effort, and improved reporting efficiency. Routine reports were generated faster and more consistently, while trend and risk analyses provided timely, actionable insights.

Overall, the solution enhanced data readiness, strengthened decision-making, and demonstrated the value of foundation models in a secure federal environment.

Key Outcomes

► Secure Testing of Multiple FMs

The agency tested and refined multiple foundation models without risking sensitive data or being locked into a single platform.

► Accelerated Data Cleaning and Organization

ML-driven ingestion, cleansing, and normalization workflows improved data quality and reduced manual analyst effort.

► Automated Routine Reporting

Monthly, quarterly, and program-level reports were generated faster and with greater consistency.

► Improved Trend and Risk Prediction

FMs identified historical patterns and emerging risks that were previously hidden in siloed datasets.

► Continuous Compliance

All experimentation and deployment occurred within a FedRAMP High enclave, with full logging, access control, and security monitoring.

► Faster AI Adoption

The AI Fusion Lab enabled rapid transition from experimentation to production, reducing deployment timelines from months to weeks.

► Plug-and-Play GenAI Testing

Scalable cloud instances allowed the agency to test performance, memory needs, and token-consumption rates across models and use cases.

Conclusion

Through its delivery of the AI Fusion Lab and partnership as a Select Tier AWS Partner, IT-CNP empowers federal agencies to safely adopt and advanced AI capabilities. By providing a FedRAMP High, mission-ready sandbox environment in AWS GovCloud, IT-CNP bridges the gap between AI experimentation and real-world operational use. With continuous security monitoring, model-lifecycle management, and support for multiple AI models, including ChatGPT-4o, Claude 3.5 Sonnet, Amazon Titan (Bedrock), and Gemini. IT-CNP enables agencies to modernize operations, enhance collaboration, and make data-driven decisions with greater speed and confidence.



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About IT-CNP

IT-CNP, Inc., is a leading national provider of the premier government-oriented high availability secure hosting, information management, cyber security and custom helpdesk solutions. Created exclusively to serve the demanding hosting needs of Federal, State and Local government agencies, IT-CNP serves as a unique government oriented hosting solutions provider that delivers proven government past performance, solid value and secure hosting industry's best practices.

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