



CASE STUDY

Improving the Performance and User-Experience of Controlled Substance Management

CURES

(Controlled Substance Utilization Review And Evalution System)



The CURES Controlled Substance Prescription Database is a vital tool for protecting public health, and regulatory compliance. Its main objective is to assist healthcare professionals in responsibly managing the prescription, ordering, administration, furnishing, and dispensing of controlled substances. California Department of Justice is responsible for maintaining and operating the CURES database.

Through grant funding, significant enhancements and upgrades have been made to the CURES system. These improvements have furthered its security and performance while also enhancing its efficiency and integration with electronic health record systems.



Challenges

- The existing architecture was unable to accommodate the increased load resulting from the inclusion of Schedule II, III, and IV drugs.
- Given the escalating security threats, emphasis must be placed on fortifying the architecture and application to ensure high levels of security.
- The application exhibited a suboptimal response time.
- The outdated web application failed to deliver an optimal user experience.

Solution

- WATI established standardized software release practices seamlessly integrated with advanced build automation tools. This streamlined approach has improved efficiency, ensuring consistent and reliable software releases while minimizing errors or inconsistencies.
- WATI collaborated with Department of Justice (DOJ) Solution Architects to formulate the overarching technical vision for multiple solutions.
- Reviewed business requirements and devised efficient solutions that seamlessly integrated with the DOJ ecosystem.
- Conducted thorough evaluation and quality assurance of architecture framework, components, and implemented services.
- Implemented an API Gateway Solution to fortify security measures between CURES Web Services and Electronic Health Record Systems (EHRs), resulting in enhanced data protection and streamlined integration for seamless collaboration.
- Integrated with identity management solution to effectively mitigate the risk of breaches caused by stolen credentials. The implementation has significantly reduced support call volumes and bolstered the overall security infrastructure of the program.
- Introduced an advanced Continuous Application Performance Monitoring system to provide valuable insights into the performance of the CURES system's applications and infrastructure. This proactive approach enables timely assessment, optimization, and resolution of potential issues.
- Performed architecture reviews for significant features or application development, offering valuable guidance, direction, and mentorship to project staff.
- Developed an advanced data model and implemented industry-standard methods to ensure structural stability and optimal performance of the application.



Outcome

CURES users successfully completed their tasks quickly and without difficulty. Participants found it easy and efficient to complete the assigned tasks in CURES. They primarily used the Dashboard as their starting point and relied on the main navigation as a secondary pathway. The redesigned Dashboard received highly positive feedback. Users appreciated the displayed content on the home page, which anticipated a relevant experience. CURES offered a visually engaging interface that encourages users to explore functionality beyond their primary workflow.

The redesigned application provided a faster response time and no downtime since production go-live





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