

## Case Study: Sagitec's Application Performance Monitoring Unleashes System Efficiencies



### About the Client

The client is an agency that promotes long-term self-sufficiency and provides a safety net for vulnerable citizens. It supervises cash and food assistance programs, child and adult protective services, adoption, workforce development, childcare and child support programs, and employment services, including unemployment insurance. The client uses an unemployment insurance software system designed and implemented by Sagitec.

### Problem Statement

Over 290,000 employers and payroll processing agencies utilize the client's system to file quarterly wage reports and make unemployment insurance payroll tax payments.



The client also has nearly 1,000 staff using the system to process this work and support its citizens and programs.



The complexity of activity within the system (across the application, infrastructure, database, and interface integration layers) presented challenges in isolating root causes when users reported system performance issues or potential security incidents.

Sagitec needed a tool to provide more granular details quickly to expedite software issue remediation.

### Solution

Sagitec's **Application Performance Monitoring (APM)** tool provides end-to-end transaction awareness across multiple layers, such as web, applications, databases, and business rule levels. This holistic view enables Sagitec to isolate performance issues and resolve them quickly, with minimum downtime and performance degradation of its applications for the benefit of the client.

In short, it enables Sagitec's system administrators to identify the root cause of the problem, identify solutions, resolve challenges, and enhance performance. Here's a deeper dive into how APM works.



Monitor Performance



Troubleshoot Problems



Enhance Productivity



## Monitor Performance

APM provides real-time insights into the performance of essential applications and services by capturing and analyzing data across multiple application stack layers. It ensures a proactive stance in identifying and addressing performance issues. Furthermore, APM facilitates a holistic understanding of system performance. It provides a comprehensive view of the entire ecosystem by monitoring database queries, server health, network latency, and third-party integrations.



## Troubleshoot Problems

Disruptions are bound to occur, but Sagitec helps mitigate the client's impacts. APM empowers Sagitec's system administrators to promptly detect and address issues that could disrupt applications' operations. APM facilitates a granular understanding of the issue, whether it's a sudden spike in application errors, a bottleneck in data processing, or a slowdown in user interactions. This deep visibility streamlines the troubleshooting process, allowing for targeted actions for swift resolution.



## Enhance Productivity

APM provides the means to optimize and streamline the performance of crucial applications. By closely tracking response times, transaction rates, and resource utilization, APM enables the proactive addressing of performance issues. This ensures that the applications supporting labor and unemployment services operate efficiently, enabling the client's workforce to focus on delivering high-quality services rather than grappling with performance-related challenges.

## Performance Improvements

### Improvements recorded after implementation:



The average response time for targeted modules within the application in tested scenarios was rated as "good."



Central Processing Unit (CPU) utilization on all application servers remained healthy during our peak performance testing.



The response times tested across various scenarios were considered satisfactory, and this ultimately contributes to a positive user experience.

### Sagitec's APM provides additional benefits, including:



**Action tracking** – APM tracks all the actions/clicks users perform on the application. It also enables administrators to find possible issues in the action.



**High-level exception details** – APM provides details of frequently occurring exceptions, enabling administrators to categorize, filter, and provide fixes.



**Query optimization** – APM provides insights on top expensive queries in the application. Expensive queries can be identified for query optimizations.

## Conclusion

Sagitec's Application Performance Monitoring (APM) solution has revolutionized the client's software system, enhancing its efficiency and reliability. With APM's real-time insights and troubleshooting capabilities, disruptions are swiftly addressed, allowing the client's workforce to focus on delivering high-quality services. These features and benefits to the client make it an indispensable tool for maintaining excellence in system performance.

## About Sagitec

Sagitec is a leading low-code/no-code application development platform provider for private and public sector organizations, specializing in serving customers focused on solving complex, business-rule-driven problems. Sagitec provides evolutionary enterprise-grade solutions for pension, labor and employment, health insurance, disability insurance, paid family medical leave, managed care providers, and other benefits providers that want to accelerate excellence by placing a platform at the center of their enterprise universe.

