



Case Study

About ConservCare

ConservCare is a national service provider specializing in the provision of ancillary products and services for the workers compensation network. They arrange for the provision of care, equipment, medications, medical supplies, and most everything else an injured worker may require. ConservCare uses a “primary care coordination model” for patient management. This ensures the highest-quality customer experience for a patient through the duration of therapy and a lower overall cost.

At a Glance

- ◆ 30% lower time-to-market
- ◆ 90% lower time to deploy
- ◆ 50% lower TCO

Challenge

ConservCare was seeking a software development partner to reimagine and rearchitect an in-house software system that served in the mission-critical path of facilitating care coordination services. The original system was implemented in *Act!*, a CRM and marketing automation product, relying heavily on customizations and custom integrations to align it with ConservCare’s business processes. But the care coordinator’s role was expanding, prompting the need for new workflows and improved visibility of patients’ overall care. Additionally, other roles within the organization needed better insights and visibility around functions like scheduling, billing and reporting. While *Act!* had served its purpose, it was first and foremost a CRM tool and had become a limiting factor in meeting new organization initiatives.

Additionally, ConservCare was administering their current solution in-house, taking responsibility for system availability, performance and overall security of HIPAA-sensitive data. The system client ran on individual machines, exacerbating administration headaches. This offered limited access by remote workers and no access by approved third-parties. By migrating their operations to the cloud, they could meet the same requirements of high availability, performance and security. Simultaneously, they could reduce total cost of ownership and improve overall accessibility to the platform.

Why Gavant

As an AWS Consulting Partner with a strong focus on Serverless, Data Visualization and Workflow Automation solutions, Gavant was uniquely qualified for this endeavor. Through collaborative co-creation, the Gavant team prioritizes continuous discussion to gain a deep understanding of a client’s needs and to bring to life those ideas they create together with the client.

Leveraging a Serverless Infrastructure

The near-term goal would be the delivery of a web application supporting the roles of care coordinators, schedulers and managers. The software application would handle all the daily operations around the care and service of a patient, from initial onboarding and setup of the patient's record to verified delivery of the patient's services. The complexity of workflow activities would be automated, and authorized users would have reports and dashboards drawing awareness to high-priority items. Further out, the system would be expanded upon to encompass coordinated operations like billing.

Gavant knew that a large number of patients would yield very heavy system utilization during business hours and almost no utilization outside of those hours. Leveraging our expertise in AWS cloud services, we established a robust serverless backend infrastructure to support and service the web app.

Amazon API Gateway facilitated communication between the app and the backend infrastructure, with REST APIs servicing the app's general workflow. AWS Lambda contained all of the application logic, serving both the APIs and a variety of asynchronous functions associated with business processes. The automation of follow-up activities, for example, required complex business logic well-suited for Lambda. Amazon Aurora Serverless enabled scalable data storage to align with the other serverless components involved in data flow. Amazon CloudFront provided fast and secure delivery of application assets, including user-uploaded documents and third-party contracts. And, all these assets were stored in Amazon S3. The overall architecture was specifically designed to promote high scalability and high availability during business hours while throttling costs down during periods of inactivity.

Facilitating DevOps

With the serverless infrastructure in place, the final step was application and infrastructure monitoring to support ongoing DevOps. We leveraged Amazon CloudWatch to create dashboards for monitoring API and database utilization. With this, we also had visibility into the usage of those AWS services which have limits, such that we could proactively address service limits before they become a limiting factor. Additionally, AWS X-Ray enabled tracing of individual APIs at each step in the process, improving the optics around general performance optimization.

Results

Leveraging serverless technologies through AWS reduced time-to-market by 30% as compared with traditional server components. And, the flexible on-demand consumption of resources was the perfect match for low utilization during off-hours. Migrating to the cloud, ConservCare's total cost of ownership (TCO) has reduced by over 50% and deployment of new features organization-wide has reduced by over 90%. As a result of lower TCO, ConservCare can focus their ongoing investment toward iterative system enhancement and customer experience.

Learn More

Learn more about serverless at <https://aws.amazon.com/serverless/>.

About Gavant

Gavant Software is a custom software development firm that helps companies modernize and transform their business. We service a broad range of industries, providing software solutions that align with digital strategy and digital transformation. Gavant is an AWS Select Consulting Partner and Solution Provider. Hire the right team for your project.

For more information, contact Gavant through its website at <https://www.gavant.com>.