

# Auxis Increases Flexibility and Builds Scalability in DevOps for Tech Start-Up



## Client Profile

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Our client is a San Francisco-based, start-up software company with a platform for retailing smartphones, tablets, and other connected products. Its goal is to streamline the complex transactional process for connected commerce - boosting retailer margins, reducing their IT spend, and creating a great shopping experience for consumers. Its Software-as-a-Service (SaaS) platform performs activations with the largest cellular vendors, as well as ancillary services like insurance, fraud protection, payment programs, and warranties.

## BUSINESS CHALLENGE

The client purchased its cellular activation software from another company with an eye toward becoming a SaaS provider. The client goals were to increase demand for this platform across phone providers and major retailers in the U.S. so they can take advantage of the improved customer experience and fraud reduction it offered.

But **as a startup enterprise, the client realized it was over its head, lacking the IT processes, experience, and basic building blocks to scale its fast-growing business.** It had no documented procedures for running IT operations and was unfamiliar with best practices like Agile Software Development that create faster, more successful outcomes.

Efforts to fix IT-related problems weren't centralized, with departments working in silos that didn't communicate effectively. There was also no system for vetting issues, so every ticket was a high priority. As a result, engineering resources were often distracted by low-value tasks, forcing the business to choose between high-value strategic improvements and mission-critical daily operations.

With 1.5 million lines of code, the software was also too complex to provide as a service at scale. A lack of coding standards led to badly coded changes, hindering the application's resiliency, scalability, and maintainability.



The client knew it needed to invest in code development to make the platform scalable, as well as IT operations governance and best practices processes and tools to support the new, modernized application. The client **sought an experienced DevOps partner to quickly create the operational maturity that would allow it to scale and better serve its customers.**

Top priorities included:



**Scalable, resilient infrastructure.** The client wanted to re-architect and re-platform its software to a cloud environment that could be easily scaled up and down to handle changes in volume. The client also needed redundancies that made the platform fault-tolerant, guaranteeing stable, reliable service for customers.



**Repeatable processes for managing IT operations at scale.** Without formal processes and procedures, technical teams operated in firefighting mode. This caused errors, confusion, rework, and delays that negatively impacted the business.



**Faster deployments with consistent results.** More timely and frequent product deployments were needed to meet customer expectations and fuel the platform's growth. However, environmental complexities and cumbersome or non-existent documentation requirements caused unacceptable delays. It wasn't unusual for deployments to take all night. Error-prone manual processes, documentation errors, and miscommunication between siloed teams consistently led to post-implementation issues as well, requiring more time to fix.

## THE SOLUTION

While the client focused on improving its software, Auxis was brought in to perform the infrastructure transformation, create standard operating procedures using an SRE (Site Reliability Engineer) and DevOps model, and provide overall technical and network expertise.

After carefully assessing data centers and cloud providers, **Auxis selected the AWS (Amazon Web Services) Cloud Computing environment** as the best option for running the improved activation platform. **Auxis was responsible for the architecture, building, and migration tasks associated with moving to the cloud environment.**

Auxis also provided **DevOps engineering support** to the client's development teams, managing code migrations, infrastructure improvements, war room support, and more. Auxis further supported IT with **24x7 NOC (Network Operations Center) services**, handling alerts, escalations, and onboarding/offboarding of resources.

Auxis' expertise quickly made it the go-to engineering group for in-house IT teams. This made it easy for Auxis to **establish a more methodical SRE and DevOps mindset** across the organization, leading to information sharing, collaboration, and an overall better architectural design for meeting business and customer expectations.

It also helped resolve the constant power struggle between digital transformations efforts and operational tasks, **allowing developers to stay focused on strategic development work** while SRE and **DevOps assumed the time-consuming, complex task of managing environments.**

Other key transformations included:



**Defining, documenting, and implementing best practices for IT processes.** Using ITIL (IT Infrastructure Library) and solid SRE principles, Auxis created standard operating procedures for managing incidents, changes, problems, on-call rotations, and NOC support. It established protocols for system and network documentation, engineering guidelines, and best practices. It also implemented guidelines for enhanced monitoring and post-change verifications. A formal CAB (Change Advisory Board) was created as well to ensure changes were reviewed, scheduled, and approved by key stakeholders.





**Implementing DevOps principles.** With the activation platform being rewritten, it was critical that development and operations became better aligned to ensure releases could occur more frequently with high success rates.



**Establishing a dedicated Project Team.** With key resources dedicated to transformational work, strategic priorities could coincide with daily operational demands.



**Implementing an active directory solution.** User/system accounts became properly audited and created, consolidated, and controlled with proper permissions.

## RESULTS

Using best practices for SRE and DevOps models, Auxis helped the client quickly evolve from a startup into a mature, scalable operation – ready to handle the demands of its explosive growth.



### Increased flexibility & scalability

The AWS cloud environment Auxis selected **allows the client to quickly tailor its infrastructure to meet changing requirements caused by growth or seasonal demands.**



### Flawless performance during peak holiday seasons

With flexible cloud infrastructure and SRE and DevOps engineering support in place, Auxis helped the client achieve successful execution through peak periods like Black Friday.



### Accelerated time to market for

Adopting efficient processes for managing deployments and the environment **significantly reduced mistakes that led to post-implementation issues.** DevOps principles fostered better collaboration and daily interactions between teams as well, further reducing errors by ensuring closer alignment. **With faster, more successful deployments, productivity increased** – accelerating applications' time to market.



### Faster incident response times

Implementing **better monitoring tools improved visibility** into the performance of all systems on the host and across the environment. **Immediate alerts for critical infrastructure issues** hastened response times, often enabling technical teams to **remediate system issues before customers ever experienced problems.**



### 30-40%+ reduction in labor costs

Outsourcing SRE and DevOps resources to Auxis' nearshore location in Costa Rica allowed the client to pay **30-40% lower rates than hiring the same skillsets in the U.S.** The client also achieved cost savings by choosing a shared services model, **avoiding the cost of dedicated resources** it didn't need.



### Faster, more efficient ticket resolutions

By creating a formal process for assigning issues to proper groups with proper prioritization, Auxis **significantly reduced the backlog of open tickets and increased the accuracy of ticket workflow.** Not only did this result in **greater ticket throughput**, but the **solution was easily scalable** as technical teams grew.



### Better repository management

Previously, it was nearly impossible for technical teams to manage application/property configuration changes in the repository. As a result, they often omitted required changes - triggering major issues. With **better organization and new technology tools like GIT**, Auxis made it **easy for staff to find, comment, and make changes to the codebase.**

By implementing scalable AWS infrastructure, DevOps engineering support, and best practices for repeatable processes and tools to support IT operations at scale, Auxis was able to help the client successfully overcome its startup challenges and emerge as a heavyweight contender in the connected commerce market and get acquired by a large corporation.

