SoftwareONE Helps Hunter Modernize with AWS Lambda

Consulting Delivers a Scalable Solution to Improve Revenue Growth and Uptime

MODERNIZATION DRIVERS:

- Enhanced user experience
- Vehicle and driver telemetry capture
- Scalability on demand
- Improved assets control
- Automation
- Business flexibility

SUMMARY

The Hunter vehicle tracking application is business critical. However, the application was strained. The system had trouble with speed and scalability. Analytics were unavailable, and downtime was unacceptable. A modernization project was initiated to deliver better services, innovation, automation, and improved uptime. After careful analysis, SoftwareONE recommended that Hunter implement an Amazon Web Services (AWS) Lambda cloud solution. The change substantially lowered operating costs while providing a modern cloud-based application that shifted expenses from Capex to Opex and reduced three-year operating expenses by sixty percent.

ABOUT HUNTER

Hunter is the leading company in technology solutions for the tracking, monitoring, and security of vehicles and cargo. With operations in Ecuador and Peru, the company serves more than 150,000 connected vehicles.

THE CHALLENGE

Their vehicle tracking application is at the core of Hunter's business. The application had been based on .NET using SQL Server and operated in their Guayaquil data center. Vehicle location information was gathered through a web portal that enabled users to monitor their vehicles. However, as the number of clients increased, so did application traffic. The system had trouble responding and could not easily scale up or down as requirements changed. Analytics to support data-driven decisions were non-existent, while licensing and maintenance of outdated hardware was impacting the bottom line. Increased downtime directly impacted service delivery and customer satisfaction in a negative manner. In order to enhance its service delivery, process automation and overall uptime the company launched a modernization project.

THE SOLUTION

The Hunter team created their modernization strategy to support three critical pillars: flexible tracking, analytics, and rapid disaster recovery. The company wanted a new platform that didn't depend on the in-house engineering team to manually restore the system when a problem occurred.

The initial plan was to upgrade the legacy system and continue operating from their Guayaquil data center. New system requirements specified a need for stability, the ability to scale, and improved communications to create a better user experience. However, before proceeding with the on-premises upgrade, Hunter wanted to evaluate cloud options.

SoftwareONE conducted a detailed analysis of existing services and messaging traffic, including per-vehicle costs and cost comparisons between on-premises upgrades and an AWS cloud solution. It was clear that the alternative cloud solution using Amazon Web Services (AWS) Lambda that would substantially lower operating costs while providing a modern cloud-based application. SoftwareONE consultants showed that the cloud option would meet all business demands while shifting expenses from Capex to Opex and avoiding the high initial investment of hardware and licensing required of an on-premises system. The new system would reduce the IT cost per car from $3.00 per month to $1.00 per month. First-year system costs would decline by seventy-five percent, and three-year operating savings were estimated at sixty percent once the cloud solution was fully implemented and operating.

The new solution uses AWS Lambda for backend business logic and the capture of trip associated data. Vehicle data generated in real-time is ingested from the AWS Kinesis streams to Lambda functions. The system is highly scalable and durable, and data can easily be further processed for analytic insights useful both to Hunter and to their end users. Data is available for immediate alerts and on-going review of information such as driver behavior, rough braking, detouring, traffic notifications and safety alerts of high-risk areas.

System testing and detailed technical workshops were conducted for the Hunter technical team to review AWS services as part of the SoftwareONE delivered solution. The websites and static content for the application now reside in Amazon Simple Storage Service (S3), a highly durable storage infrastructure designed for mission-critical and primary data storage. This ensures fault tolerance, redundancy, and effective multi-region deployment.

If a component of the solution fails, CloudWatch detects the failure and invokes Lambda for recovery. Amazon Simple Notification Service (SNS) will then notify the IT team. In the case of a region failure, the solution can recreate automatically in another region.

BENEFITS

- SoftwareONE conducted deep analysis to demonstrate how AWS Lambda provides Hunter with drastic uptime improvements and a redundant, scalable solution
- Cloud implementation provides sixty percent cost savings
- Per car expenses reduced from $3/month to just $1/month
- Engineering is relieved of managing infrastructure to now focus on revenue growth
- AWS analytics give Hunter intelligence for data-driven decision making
- Data backup is automated
- New feature time-to-market drastically reduced
- Users experience new services and upgrades faster

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