Boost Technology Builds Better with Lambert Labs by Conducting an AWS Well-Architected Framework Review

In collaboration with

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Executive Summary

Boost Technology is a B2B ecommerce platform that connects retail entrepreneurs in the convenience economy with product distributors using a web app and a WhatsApp chatbot. Boost currently serves more than 10,000 retailers in four of Africa's most important economies: Nigeria, Ghana, South Africa, and Senegal. The company was launched to disrupt the existing model of distribution, making it faster, easier, and cheaper for retailers and distributors to interact. Boost wanted to optimize its operations and enlisted Lambert Labs, an AWS Partner, to conduct an Amazon Web Services (AWS) Well-Architected Framework Review.

Boost Technology Gives Retailers and Distributors a Boost Using AWS

Boost Technology was founded in 2020 by three partners who have extensive experience working in and running businesses serving Africa. "Our chief executive officer (CEO) Mike Quinn, our chief operating officer (COO) Mary Roach, and I saw an opportunity to address a huge gap in technology solutions for retailers across Africa," says Will Croft, co-founder and chief technology officer (CTO) at Boost. "There are huge numbers of small, single-owner stores and restocking is difficult. It's often a slow and manual process. Combine that with a lack of access to credit and it means there's a lot of friction moving goods from distributors and manufacturers to retailers."

Boost
THE POWER TO GROW

About Boost Technology

Founded in 2020, Boost Technology is an ecommerce platform that connects retail entrepreneurs in the convenience economy with product distributors using a web app and a WhatsApp chatbot. Boost currently serves more than 10,000 retailers in four of Africa's most important economies: Nigeria, Ghana, South Africa, and Senegal. The company was launched to disrupt the existing model of distribution, making it faster, easier, and cheaper for both retailers and distributors to interact.

Boost uses technology to overcome these challenges. However, instead of building a sophisticated, high-tech ecommerce gateway, Boost kept it simple. "The front end of our system runs on WhatsApp," says Croft. "That's a tool everyone uses and retailers are often already using it to contact suppliers and place orders." The problem, says Croft, is that this is a time-consuming way of working that doesn't scale well for a distributor beyond tens, perhaps hundreds, of customers. The Boost platform uses WhatsApp on the retailer-facing side, but runs a robust, scalable backend on AWS that provides the necessary glue and automation to run a modern distribution business.

The company had built its infrastructure on AWS using two complementary solutions. To interact quickly with users using WhatsApp, it relies on Amazon Document DB, which can be used to build applications that scale to process millions of user requests per second with millisecond latency. To support the transactional elements of the tech stack, such as processing orders and payments, it uses Amazon RDS for PostgreSQL, which can be used to set up, operate, and scale a relational database in the cloud with just a few clicks. "Because we're dealing with payments, Amazon RDS for PostgreSQL makes complete sense there," says Croft. "It's reliable and scales to the workloads that we need."

Calling on Lambert Labs to Plan for the Future

The company had launched Boost as a software as a service (SaaS) platform to distributors and manufacturers, allowing them to streamline, organize, and scale their order processes. Boost also implemented solutions to process payments through several channels. Many small retailers use non-bank financial services, such as mobile payment services and pay by phone. Boost needed to support these as well as traditional banks. "It's a challenge because you have to support everything from payment via mobile phone to credit cards to electronic funds transfers," says Croft. "Security and reliability are a must. We're also very concerned about data privacy. We use the EU's GDPR principles as a minimum guide."

With an eye toward expansion, Boost wanted to ensure it had a system that would scale and remain reliable. "We wanted fresh eyes to look at what we'd done and give us an assessment before we went forward with expansion," says Croft. "We'd used Lambert Labs to help us with application development before and respected Lambert's expertise. So we started talking with the team there about evaluating what we've built."

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Will Croft

Co-founder and Chief Technology Officer, Boost Technology

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Founder and Chief Executive Officer, Lambert Labs

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Boost engaged AWS Partner Lambert Labs to conduct an AWS Well-Architected Framework Review. AWS Well-Architected helps cloud architects build secure, high-performing, resilient, and efficient infrastructure for a variety of applications and workloads. Built around six pillars—operational excellence, security, reliability, performance efficiency, cost optimization, and sustainability—AWS Well-Architected provides a consistent approach for customers and partners to evaluate AWS workloads and implement scalable designs. "When doing a review, trust and open communication are essential," says George Lambert, founder and chief executive officer (CEO) of Lambert Labs. "We need to understand what the client needs, and what's important to them. Boost helped a lot with this. They have great technical knowledge and know their infrastructure inside out. The company also knew what it wanted to achieve, so we could focus on the pillars that mattered most. This gave the best return for the time and money invested."

AWS Well-Architected Gives Boost Improved Reliability and Confidence

Boost wanted to proactively look for areas that could be improved. It emphasized the pillars it wanted to evaluate: security, reliability, and cost optimization. "We've worked with the Lambert Labs team before and we could see the benefits," says Croft. "We can lean on the expertise that Lambert Labs has from working across many other clients. We get the benefit of that experience. That's why we wanted George and his team to do the review. It'd show us what we'd done right and identify opportunities to improve."

Lambert Labs found Boost's systems to be well-constructed, but identified opportunities for improvement to the application and database layers of Boost's AWS infrastructure. It collaborated with Boost to do the necessary remediation work, and Boost's infrastructure is now resilient to Availability Zone failure. This means that, even if an entire AWS data center fails because of a natural disaster, Boost's applications will not go down. "Boost made it clear that it wanted to expand, and that requires resilience," says Lambert. "They're enjoying much better uptime, which means they can focus on growing the business."

The Well-Architected Framework Review was a good investment in Boost's future. "What Boost offers to our clients—the distributors and manufacturers—and what they offer to their retailers, is a reliable, secure, and affordable way to do business," says Croft. "We were able to make the Boost platform stronger for existing users and ensure we can scale. As a startup, time and money are always precious commodities. Using Lambert Labs and building on AWS means we can perform at a very high level."

About Lambert Labs

Lambert Labs is a software development company and cloud computing consultancy. Founded in 2017, its team of AWS experts consists of mathematicians and scientists who specialize in software engineering and cloud computing. Professional services include application development, database migration, digital transformation, managed hosting, containerization, and microservices architecture and management. The company builds diverse digital solutions for global customers across a range of different industries. Lambert Labs is headquartered in London.