Weathering IoT Storms
Case Study

About ADB Global

ADB offers innovative and high-quality full system solutions for Pay-TV and Telco operators, content distributors and hospitality property owners, who want to deliver best-in-class video and broadband services to their customers. ADB combines innovation, system integration, software and hardware expertise with user expectations to provide reliable and fully integrated products with a guarantee of on-time deployment and long-term support.

The Challenge

ADB provides a Commercial Video Server (CVS) service to multi-national hotel chains. ADB needed to scale CVS for 10X client support. Goals included design & implement a more fault tolerant CVS capable of 1) supporting growing demand 2) operating in the event of a system failure in a geographic region and 3) responding to 1MM+ IoT device "sign-on storms" after regional power blackouts.

The Solution

Addressing low fault tolerance of on-prem VMs serving world-wide IoT clients, we dockerized the components into a CloudFormation stack. Scala/Gatling load testing let us collect performance results for a 1MM IoT sign-on storm & firmware update simulations. Load testing results informed tuning autoscaling, HAProxy, web sockets and Route53 leading to 10X performance gains.

The Benefits

Application Load Balancer (ALB) Alternatives

ALBs did not scale to meet sign-on storm load. Configuring HAProxy nodes into the stack was key.

Aurora Read Replicas for a Performance Win

Using Aurora replicas for read scaling was very effective and provided additional fault tolerance

IoT Load Simulation with Gatling over JMeter

For running a 1MM+ IoT client simulation, the existing JMeter test suite just did not make the cut.

About Source Allies and Amazon Web Services

Source Allies is an Iowa-based technology services company and an APN Advanced Consulting Partner. Our teams bring an ownership mindset when building custom software products to achieve our customers' goals. We work to fully understand the problems our customers want to solve so that we can design the simplest architecture to solve that problem.

Next Steps

To learn more about how AWS and Source Allies teams can help your business, visit https://www.sourceallies.com/