SUMMARY

Our partner 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. They provide system integration, software and hardware expertise to provide reliable and fully integrated products with a guarantee of on-time deployment and long-term support.

CHALLENGE

Our partner provides a Commercial Video Server (CVS) service to multi-national hotel chains. They 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.

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.

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.