

CASE STUDY

AUTOMOTIVE MANUFACTURER SHIFTS CONSUMER-FACING APPLICATION TO AWS, LOWERING TOTAL COST OF OWNERSHIP

ABOUT OUR CUSTOMER

Established in 1937, this leading automotive manufacturer operates production facilities across Europe, Africa, Asia Pacific, and North America, including 10 plants and 1,500 dealerships in the US alone.

THE CHALLENGE

Our customer was moving one of its US facilities and needed to vacate their existing data center. Among other services, the data center housed a business-critical vehicle configuration service that enables customers to build their car, truck, or SUV to specification online. The service is comprised of a portfolio of 80-90 sub-applications, many of which had been developed using legacy technology, including unsupported versions of JBoss, and had accumulated substantial technical debt over the years.

But moving the service—and the infrastructure required to support it—to a new data center was cost-prohibitive, requiring a massive capital investment in licensing fees and hardware. They needed a solution they could afford—one that could also set them up for future application modernization.



THE SOLUTION

Rather than shifting the vehicle configuration service to another data center, Beyondsoft proposed a more cost-effective approach: moving it to Amazon Web Services (AWS). Moving to AWS would enable them to forego expensive licensing and hardware costs and reap advantages such as high availability as well as greater flexibility and scalability. It would also position the manufacturer to refactor their service in the future to leverage continuous innovation and the full benefits of the cloud.

Beyondsoft practitioners used AWS Virtual Private Cloud (VPC) to create multiple environments including development, testing, staging, and production. To enable high availability and load balancing, these environments were distributed across two regions.

The new architecture uses a host of AWS services. Amazon CloudFront provides the content delivery network. Both the application and web layers run on Amazon Elastic Compute Cloud (EC2). Amazon S3 is used for logging. Logs older than 90 days are backed up to Amazon Glacier for long-term storage. Amazon CloudWatch is used to monitor instances as well as issue alerts. Amazon Elastic File System (EFS) maintains application layer content and logs as well as web layer content and logs.

Finally, because the service must still connect to other on-premise services, AWS Direct Connect provides a dedicated network connection to the Phoenix data center and Amazon Identity and Access Management (IAM) provides permissions management to ensure secure access to all their resources in the cloud.

RESULTS

As a result of the AWS migration, our customer has reaped multiple benefits, while setting themselves up to refactor their vehicle configuration service in the future to leverage the full capabilities of AWS.

- **Reduced migration costs:** By not migrating to another physical data center, the money they saved in licensing fees and hardware costs was enough to pay for their migration to AWS.
- **Lower total cost of ownership:** The cost of maintaining the AWS environment is lower than the cost to support the on-premise infrastructure.
- **Easier to support:** Because the hardware and system is managed by AWS, the company can focus on simply managing the data, saving time, money, and resources. Additionally, the solution leverages a fully managed database service, reducing the strain on existing staff.
- **High availability architecture:** The use of multiple availability zones minimizes downtime when issues arise.
- **Increased flexibility and agility:** Thanks to the dynamic cloud infrastructure, applications can be scaled vertically.

TECHNOLOGIES USED

AWS Virtual Private Cloud (VPC), Amazon CloudFront, Amazon Elastic Compute Cloud (EC2), Amazon S3, Amazon Glacier, Amazon CloudWatch, Amazon Elastic File System (EFS), AWS Direct Connect, Amazon Identity and Access Management (IAM)

ABOUT BEYONDSOFT

Beyondsoft has performed hundreds of data and application migrations for large enterprise customers. Our certified practitioners have hands-on, best-practice knowledge of all the major platforms. As an [AWS Data Migration Competency Partner](#), Beyondsoft has invested in building deep proficiency on the AWS platform.

Beyondsoft has a deep history of empowering companies around the world through high quality IT services. At the heart of our success is a diversely talented team of 14,000+ experts who thrive on innovation. With 32 delivery centers distributed across five continents, our presence in both mature and emerging markets enables us to respond quickly to customers' needs on a local, regional, and global level.