Apexon

SUCCESS STORY **MANUFACTURING**

AUTOPROTECT GROUP MIGRATES TO AWS TO DRIVE MORE EFFICIENT INFRASTRUCTURE

Apexon helps automotive insurer shift its operations into high gear in the cloud

AutoProtect Group provides a suite of solutions to the automotive industry including insurance products and dealer warranties, F&I technology, compliance services and minor damage repairs.

The company protects hundreds of thousands of drivers every year and holds an 'Excellent' rating on Trustpilot, from over 9000 verified reviews.

Since 2018, the company has been part of two M&A activities, adding new insurance and service offerings, as well as advanced technology capabilities and a mobile vehicle repair network.

AutoProtect Group creates customized business development programs designed to help its partners market their comprehensive offerings – from sales training to smooth integration and effective implementation with full FCA-compliance. Ongoing support is delivered by a seamlessly integrated web-based system called AutoProcess which includes incisive real-time reporting, so finance and insurance (F&I) performance can be easily measured and managed.

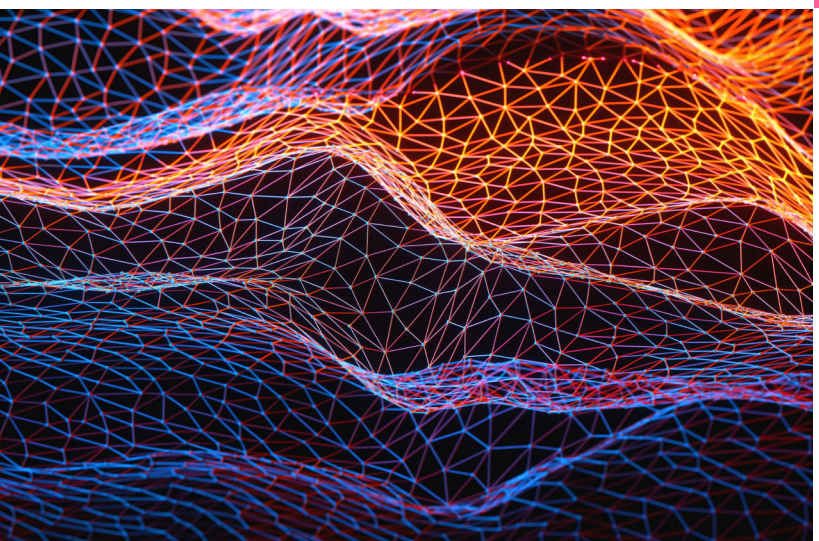
auto protect

Founded in 2004

Supporting hundreds of thousands of vehicle insurance customers

MotorTrader Independent Dealer Award 2022

Insurance Times Tech & Innovation Award 2022



As the company has expanded, it has continually invested in its systems and processes to support its business needs and stay ahead of the competition. The goal was to reduce risk of operation by increasing technical ownership within the application development team and also reduce operational expenditure on hosting environments. Moving the co-located service onto cloud-based platforms gave an opportunity to address both.

This led them to Apexon and its strong track record in cloud strategy and migration.

THE RESULTS

KEY OUTCOMES

REDUCED COST OF SERVER MAINTENANCE

HIGH AVAILABILITY CLOUD SERVICES

ENHANCED DATA & INFRASTRUCTURE SECURITY

THE CHALLENGE

AN OUTDATED & INFLEXIBLE TECHNOLOGY INFRASTRUCTURE

Despite its efforts, AutoProtect Group was investing substantial sums and efforts to manage and maintain its existing datacenter infrastructure which was a combination of on-premise installations, co-located data centres and minimal AWS Services supporting business critical functions and services.

The entire infrastructure landscape was being maintained by a co-location provider at an estimated run-cost of approximately £25,000 per month exclusive of a projected capital investment soon to be required to refresh the hardware to ensure support and parts availability.

Not only were operational support costs high, the infrastructure itself was very inflexible. Resources were oversubscribed and elasticity was poor. Any change in hardware or operating systems was tedious and costly. It created a vicious cycle. AutoProtect Group wanted to modernize, but could not afford the disruption to the business, creating a growing technical and operational gap.

Apexon was engaged initially to help advise AutoProtect Group on its options and plot out a potential migration strategy. This "discovery" phase included an assessment of business applications to determine the migration requirements in terms of source code, platform compatibility, migration complexity, and cloud readiness. Apexon also collected and analyzed application-related data to provide recommendations for target environments, along with each application's affinity to a cloud environment.

There were different aspects which needed to be considered:

AutoProtect Group wanted AWS Infrastructure primarily to leverage its cost and operational efficiencies

An end-to-end AWS Infrastructure was considered as the interim goal till the changes to technical landscape could be made

A "Lift & Shift" of the as-is implementation was required without re-factoring and addressing technical deficiencies. These limitations had to be understood and absorbed initially

The transition to AWS had to be completed within a tight time limit, i.e., before AutoProtect Group's annual data center agreement came up for renewal in a few months

THE SOLUTION

END-TO-END AWS CLOUD INFRASTRUCTURE TO ACCELERATE BUSINESS OPERATIONS

As a result of its work during discovery, the Apexon team had a thorough understanding of the challenge AutoProtect Group faced migrating to a 100% AWS cloud infrastructure. Initial design and planning laid out a path forward and then Apexon provided detailed migration and cutover plans to help the AutoProtect Group team see exactly how its cost, management and uptime requirements could be met within its timeframe.

The key steps in AutoProtect Group's journey to AWS included the following:

AWS IMMERSION DAYS

AutoProtect Group's migration journey with Apexon started with AWS Immersion Days for Security and Containerization. These immersion days allowed AutoProtect Group to upskill their staff in preparation for managing a future infrastructure state on AWS. After successful completion of the Immersion Days, AutoProtect Group were then positioned to begin project planning the migration of one of its core datacenters to AWS.

"When considering migrating our workload to AWS we could see the myriad of benefits but needed to ensure that our path to realising them was addressing any risks effectively throughout. With Apexon we were able to effectively combat each of those risks.

The AWS immersion days, for me, demonstrates the true power of working with a partner with the breadth of capability that Apexon have. For us, running infrastructure on AWS was only one piece of the puzzle, the more critical piece being ensuring that we have the capability to maintain and grow it once our services are there. The trainers rapidly upskilled our staff in key areas, like security and monitoring, to ensure once the project was completed we were best positioned to uphold our high standards for resiliency and security.

This programme of work was not simply a lift and shift, but an entire paradigm shift in our company's approach to managing IT resources, and Apexon have excelled in helping us with every stage of that journey."

Callum Smith

Head Of Development, AutoProtect

CLOUD PLATFORM SELECTION

Apexon conducted two weeks of Blueprinting with AutoProtect Group to understand the high-level requirements and challenges. This included gathering current datacenter costs and the proposed cost improvements based on transitioning its existing on-premise infrastructure to the AWS cloud.

Apexon helped the customer select AWS as a cloud provider based on cloud architecture principles, cloud best practices, design considerations and Apexon's own experience working with AWS.

DISCOVERY & ASSESSMENT - REQUIREMENTS

APAdmin was the major component in AutoProtect Group's technology landscape along with Auto Process, IClaims, Agent Web, WebForms and Dev Express UI all supporting overall business operations and functions. Migration of all of the above to AWS would be required in the long term.

There were several factors from the assessment which helped define the migration strategy.

The best way to connect on-prem architecture to the cloud

Securing network infrastructure for public-facing web applications

Security and restrictions to the environment and application

Authentication process

The need for scalability or load balancing of infrastructure

Prioritizing server migration based on their types

In-transit and at-rest data encryption

Logging and monitoring

Firewall and other routing

MOBILIZATION

The AWS account structure, landing zone architecture, VPC design, on-prem connectivity, and migration blueprint were designed and implemented during this phase.

MIGRATION EXECUTION

The migration waves were planned and executed based on application dependencies. No specific migration tool was used. This was a Blue-Green deployment. First, Apexon launched all the resources and configured the replica environment on AWS. Then detailed cut-over plan was prepared and discussed with all stakeholders for seamless production migration. Then it was executed by cloud experts and migration engineers from Apexon.

POST MIGRATION

Operational readiness and ongoing support were key to a successful migration. The Apexon team provided all required Operations Guide documentation and the migration team provided interactive training sessions on Cloud Operations, different AWS Services used for applications, database and Terraform/Terragrunt (IAC).

The Apexon migration team implemented automation on monitoring, backup, and scheduling start-stop of non-production instances to save cost. The team also implemented the required controls to ensure security posture and cost optimization.

aws SERVICES USED


Amazon EC2


Amazon RDS

FSX for Windows

Amazon Route 53


Amazon CloudWatch


AWS CloudTrail


AWS GuardDuty


AWS Certificate Manager


AWS KMS


AWS Organisations


ELB


AWS SNS


AWS Lambda

OUTCOMES

AutoProtect Group was able to migrate its infrastructure over to AWS without any disruption to its business or its customers. Specific outcomes include:

Cost Optimization

The cost of server maintenance was reduced substantially as the physical infrastructure no longer needed to be maintained. Operational run-rate has reduced by 50% for just one of the core services, with further savings across other areas

High Availability

Cloud-enabled high availability of servers

Enhanced Security

Data and infrastructure protection mechanisms like security group, identity and access management, network access control, and CloudTrail enhanced security posture

Disaster Recovery Provision

Disaster recovery set-up for some servers

Apexon

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FEELING SOCIAL?