Automation Logic
Legal Aid Agency Modernisation Platform

Executive Summary

Automation Logic (AL) is engaged by the LAA to build a single platform to allow them to operate non-kubernetes services in a way that is standardised, unified, scalable, and that allows for faster migrations of legacy services onto the cloud. The target is for around 800 applications to migrate over onto the new strategic platform over time. The platform will allow LAA to consolidate disparate platforms and applications across multiple divisions into one centralised platform.

The core platform and automation have been built and AL has started migrating small applications to prove application robustness.

Customer Challenge

The client had no visibility of the complexity or scale of its hosted services and no process in place to identify and prioritise service candidates to migrate on to the new AWS Modernisation Platform. AL needed to design a platform that is flexible and accommodates all applications.

The client goal for the platform is to centralise AWS accounts and governance, provide a centralised security model, centralise costs, and standardise how services are run as much as possible while giving service teams the autonomy to develop applications within their teams.

Partner Solution

AL used experience of working across multiple teams within the Ministry of Justice as a means of gathering data as part of the initial requirement gathering phase.

AL used the "AWS Well Architected Framework" as a blueprint for good platform design. This included AWS whitepapers and frameworks for delivering a modern landing zone.

The team were given full autonomy to organise themselves as they saw best, so they are currently using an Agile methodology, with regular sprints and retrospective sessions after having tested multiple different techniques to find the best fit.

AL successfully implemented DevOps principles by consistently iterating solutions and adapting to challenges to deliver more efficient client results.

AL accomplished a platform design despite having limited service visibility by prioritising and improving collaboration with service teams through knowledge transfer and design feedback sessions. Further, security baselines have been implemented in an automated and standardised way for all accounts and a testing strategy for IaC has been established.

Technologies used

AWS services:
1. Transit Gateway
2. AWS SSO
3. AWS Certificate Manager
4. IAM
5. Resource Access Manager
6. Systems Manager
7. Route 53
8. EC2/ECS
9. Oracle on RDS
10. Cloudwatch
11. Mysql Server on RDS
12. Cloudtrail
13. S3
14. Secrets Manager
15. Guard Duty
16. Security Hub
17. Lambda

Results and Benefits

AL began designing the Modernisation Platform by finding the right balance between cost, centralisation, security, scalability, and autonomy.

The initial phase revolved around designing a robust and scalable networking design. After a few iterations, a design based on a shared VPC model using AWS Resource Access Manager with Transit Gateway as the main network handler was finalised. This model allowed for scalability at a reasonable cost to the client. Original network design had separate VPCs per application with a price tag of $287,000 a year in AWS services alone. The new design reduced costs to $11,000 a year.

The AL team has provided LAA with a modern scalable platform that has seen benefits from improved centralisation, cost of ownership, management overhead while maintaining an organisation-wide standardised security baseline. The platform will help the development teams adopt DevOps ways of working, having CI/CD and automated testing built into the platform as standard.

About Automation Logic
Automation Logic is proud to be an Advanced AWS Consulting Partner and part of the AWS Public Sector Programme.
We hold over 50 AWS certifications. Our team of expert consulting engineers embody our common mission, to share with our clients everything we know about DevOps and build them the new kind of teams and infrastructure they need to thrive in the digital economy.