Edward Smith

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Profile

Highly Motivated, determined and accomplished Platform Engineer with a wealth of experience in cloud technologies. Loves improving Developer Experience and helping them deliver software quicker and more safely. Trustworthy, personable and a big team player; equally as resourceful when working autonomously.

Technical Proficiency

- AWS & Azure
- Strong understanding of containers and container orchestration (Including Kubernetes).
- CI/CD tooling – Gitlab, Jenkins, GitHub Actions, CodePipeline, Atlantis.
- Monitoring and logging tools – ELK & Grafana
- Terraform in large environments that span multiple regions and accounts/subscriptions.
- Serverless and event-driven architectures
- Bash, Node.js and Python for automating processes and tasks.
- Config management – Ansible & Puppet
- REST APIs in Go and Node.js (TS)
- React

Qualities

- Quick learner and ready to adapt to any kind of customer requirements.
- Quick thinker, puzzle solver and great trouble-shooter.
- Great communication skills.
- Will automate it, if it can be.

Experience

Platform Engineer (Contract) – October 2021 - Present

City Electrical Factors

Working on a migration project from a legacy on-premises e-Commerce system to AWS using a serverless-first approach. Daily work consisted of working on sprint tasks/issues, largely consisting of continuous improvement to the shared tooling platform, as well as assisting developers with their CI/CD pipelines to deploy their services within their own accounts. This involves quite a lot of hands-on with the serverless framework. Most recent task was to automate the provisioning of Grafana dashboards with a Lambda-backed CloudFormation custom resource, invoked from within Serverless.

AWS DevOps Engineer (Contract) – March 2021 – October 2021

UKFast

Was recruited as an AWS DevOps Engineer to work in the AWS team for UKFast. Day to day role included working through tasks for customer projects. Most projects involved re-platforming from VM based architectures to ECS, as well as some straight up lift-and-shifts. The work would consist of building out a multi-account architecture and CD pipelines for the customers to upload their code/artifacts to, which then take care of rolling out new deployments. All infrastructure was defined in either Terraform or CloudFormation, and the AWS Code* suite was heavily used across all environments.

Platform Engineer (Contract) – January 2020 – Feb 2021

Co-Op Digital

Acting as a Platform Engineer on the Co-Op Digital TechOps team. Providing tooling and support for BAU operations, such as ELK, Grafana, Gitlab, Artifactory and Jenkins. All infrastructure managed with Puppet and Terraform, AMIs built using Packer. Built Atlantis deployment on ECS Fargate to automate and add approval for terraform deployments, used by multiple product teams. Ran a spike to migrate tooling across to EKS using FluxCD and the Helm Operator for deployments. Upgraded terraform codebase from v0.11 to v0.12+. Maintained a number of functions/scripts (Lambdas and scheduled jobs in Jenkins) written in Bash, Python and Go. Created Audit log querying system with S3/Athena. Moved authentication for tooling from LDAP to SAML (AzureAD).

Platform Engineer (Contract) – August 2019 – December 2019

NBrown PLC

Migrated a data integration platform from IBM SoftLayer to AWS, making use of numerous services (EC2, ECS, Fargate, Lambda, DynamoDB and RDS to name a few). Ensuring that the solution was as robust as possible and adding automation to ease the administrative overhead of the system. Other technologies used were Jenkins, Puppet, Terraform, Docker with a healthy dose of Python and Bash scripting.

Cloud Ops Engineer – Jun 2018 – August 2019

ANS Group

As an Ops Engineer my role is to design, implement and manage technical systems, with specific expertise in Cloud Services such as Azure & AWS. I make use of modern tools such as Terraform, Packer, and Ansible, and pretty much anything else that we can make use of to help us go faster. We use CI/CD pipelines (Azure DevOps but in some instances Jenkins) to automate and improve existing workflows, improving the speed at which we can build. I work alongside the App Dev team to deploy new applications into Kubernetes, and manage the ongoing operations of the systems. If something isn't automated, I aim to change that.

Cloud and Infrastructure Consultant – February 2016 – Jun 2018

ANS Group

Providing Technical Consulting services to a large customer base for a range of products and services. High/Low level design documentation, Implementation, and testing all falls under my remit. I Heavily participate in the architecture of large deployments and resolve any technical issues when the project is in-flight. I maintain the working relationship with the customer throughout the project life cycle and act as a Tech Lead and first point of contact for all technical matters.

Infrastructure Engineer – September 2013 – January 2016

ANS Group

Providing support to a rapidly growing customer base on the Managed Services Helpdesk. Supporting and managing customer Flexpod implementations, ensuring business continuity and the highest possible efficiency. Also providing ad hoc support to non-managed customers with P1 environment issues.

Key Project Experience

Data Integration Platform Migration

Was involved in a platform migration from IBM Softlayer to AWS. The platform acted as a data integration service across the digital estate, which communicated with legacy mainframe systems as well as new microservices hosted in the cloud. The tool is in no way cloud ready however we engineered in the functionality to make it behave more ephemerally so it is more suited to running in AWS. I also created an environment for offshore developers to use as a development environment. The migration was a success.

Application Platform Management

Managed a number of Azure Kubernetes clusters to host customer applications. These applications were developed using a microservices pattern and the clusters were managed using FluxCD. Services were deployed using helm packages.

Start-up Re-platforming project

Worked with a small client who had begun development on a new web portal for a customer. This consisted of a React frontend and Go REST API backends. They had gone in with a “microservices-first” approach, and developed all APIs as microapps, deployed onto Kubernetes (via KOps). They soon realised that it was too much management overhead for the few developers they had, and was expensive. They came to me for a solution on how to host a monolithic version of the app and reduce cost as much as possible. The solution I provided was to host the React App using S3/CloudFront, and run the API as a container on an EC2-backed ECS Cluster. In order to reduce cost even further, I migrated the Aurora PostgreSQL DB to a Graviton instance type, and also provisioned the EC2 instances using a graviton instance type. Development workloads were set to scale-down overnight, offering additional savings. Altogether the monthly cost of their AWS account was halved.

Atlantis Deployment

After identifying several issues with how teams across the organisation handled their Terraform deployments. I identified Atlantis as a viable candidate for streamlining and standardising the process. I took the product through an initial PoC all the way through to the production rollout, including presenting the solution to the organisations Technical Design Authority. Integration was configured with Gitlab. Atlantis would automatically perform a plan and then show the output of it on new merge requests, streamlining the process and allowing everyone full visibility of the changes, whilst standardising on the tool used across teams for applying Terraform changes.

Docker-Compose to ECS

Lead the migration of a docker-compose setup, running a production WooCommerce website on a single EC2 instance, to a mature ECS based deployment running on Fargate. Individual containers were split out into their own services which also allowed for easy scaling for the main WooCommerce task. Built out a CD pipeline which allowed the customer to push appropriately tagged container images to ECR,

where the event triggered a new CodePipeline execution to then perform a rolling update of the service. Migration was a total success and they have had a stable service since the migration. This has allowed them to release more frequently, doing several deploys a day.

Professional Development

Relevant certifications are listed below:

Certifications January **2014** – Present

AWS	AWS Certified DevOps Engineer: Professional
	AWS Certified Solutions Architect: Associate
	AWS Certified Developer: Associate
Microsoft	**70-533**: Implementing Microsoft Azure Solutions
	70-534: Architecting Microsoft Azure Solutions
	MCSA: Cloud Platform

References

References are available on request.