

Andy Welsh

Experienced Cloud and Infrastructure Engineer

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EXPERIENCE

Senior DevOps Engineer, Opencast Software

June 2022 to Present, Newcastle, United Kingdom

Cloud consultancy services for a number of high-profile public and private sector clients throughout the UK. Providing architecture, deployment and implementation strategy for major cloud platforms (AWS, Azure and GCP).

Managing deployments to modern container platforms (Kubernetes, Openshift, AWS ECR, Azure Containers) and monolithic cloud-native platforms (EC2 and Azure VMs) as well as integrations between on-premise Linux systems, network infrastructure and surrounding AWS (VPC, RDS, S3, KMS, IAM, Route53, Cloudwatch, SNS, SQS) and and Azure PaaS (Storage, Virtual Network, AD, DNS).

Providing day to day assistance for developers with troubleshooting of microservice environments and their surrounding network infrastructure (including Istio Service mesh), ensuring secure deployments up to and including production.

Writing and management of common Terraform modules, common CI/CD templates (leveraging bespoke tools and scripting to ensure supply chain integrity) and Ansible/Packer configurations to provide unification between disparate departments.

Management of a number of CI/CD platforms including Gitlab CI, GitHub Actions, Jenkins, ArgoCD, FluxCD and Concourse CI.

As a senior engineer the role also involves mentoring junior staff with technical skills and delivering regular technical talks to teams, covering topics ranging from introductions to technical deep dives.

Senior Platform Engineer, ITV

February 2022 to May 2022, Leeds, United Kingdom

Cloud Platform Engineering for a major UK broadcaster as part of the Online Services team.

Managing several backend components of the common AWS platform serving a community of development teams responsible for nationwide television streaming.

Providing monitoring, support and architectural advice for all teams using the service. Other duties involved performing Terraform and Puppet deployments and upgrades, ensuring that security and deployment patterns are adhered to, configuring and managing CI/CD pipelines (via Jenkins and GitHub Actions), carrying out environment audits and performing code reviews.

DevOps Engineer, Caspian

June 2020 to February 2022, Newcastle, United Kingdom

Cloud DevOps Engineering; management of an industry leading RegTech SaaS platform over multiple public cloud environments (AWS and GCP) in partnership with Nasdaq Tech.

Deployment, configuration and maintenance of Kubernetes clusters (EKS) as well as surrounding AWS PaaS (VPC, RDS, EC2, EFS, S3, ACM, KMS, Route53, CloudWatch, DynamoDB, IAM) and GCP PaaS (GCR, GCE, AppEngine, IAM). Configuration and deployment of additional Kubernetes services (Istio Service Mesh, Prometheus, fluentd, flux-cd among others).

Design and implementation of Terraform Modules to allow for highly available, templatable deployment of all SaaS platform environments, as well as all private development and testing environments. Development of testing and release

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Expertise

Infrastructure as Code
Container Orchestration
PKI Implementation
Linux Systems Administration
Infrastructure Security

Server/Cloud

Amazon Web Services
Microsoft Azure
Linux (Ubuntu/RHEL/CentOS)
VMWare ESXi/vCenter
Windows Server
Exchange Server

Platform/Software

Terraform
Ansible
Kubernetes
Istio
Helm
Docker
Packer
Vault
BIND DNS
NGINX
Active Directory

CI/CD

Gitlab CI
GitHub Actions
BitBucket
Concourse CI
ArgoCD
FluxCD

Scripting

Bash/Sh
Python
PowerShell

Networking

Juniper JUNOS
Cisco IOS/ASA
HP/ArubaOS

strategy for new modules.

Implementation of cloud network security and integrations (Certificate rotation, L7 load balancer deployment, Incapsula WAF configuration, Istio Service Mesh configuration, AWS IAM/S3 policies, AWS KMS).

Design and implementation of Development and Testing Infrastructure as Code/Configuration Management CI/CD strategy, leveraging Terraform, Helm, Ansible and BitBucket.

DevOps Engineer, Fenwick

October 2018 to June 2020, Newcastle, United Kingdom

Cloud/On-Premise Infrastructure engineering for a nationwide retail estate of Windows Server 2003 - 2019, Ubuntu/CentOS Linux and Azure platforms.

Design and implementation of Configuration Management and Automation infrastructure for Azure/VMWare estate leveraging Ansible Automation Platform, Azure DevOps, and PowerShell/Bash scripting. Design and delivery of source control (git) implementation in to a team previously unfamiliar with source control management.

Design and implementation of estate-wide IPAM and Configuration Management for network infrastructure (leveraging Netbox, NAPALM and RANCID) to provide centralised locations for the store of network configuration and logistical data.

Deployment and administration of Azure Active Directory/IAM and PaaS (SQL, Storage, VM, LogicApps, App Services, KeyVault, Backup, Networks). Maintenance and improvement of Windows, Linux and Cisco centric on-premise and hybrid cloud infrastructure (VMWare ESXi/Azure).

Design and deployment of two-tier PKI implementation to an estate previously leveraging no TLS encryption services.

IT Engineer, RMT Technology

April 2015 to September 2018, Newcastle, United Kingdom

An all-encompassing Systems Administration and IT Support role including server maintenance and implementation (Windows/Linux), server/desktop support, backup management, patch management, network configuration and troubleshooting, bespoke scripting and application support.

Covering design, implementation and support of primarily Windows Server 2008-2016 centric environments for companies of varying sizes in the SME sector within both physical and virtual environments (Hyper-V and VMWare ESXi).

Undertaking the configuration and support of standard Microsoft infrastructure and SaaS technologies (ADDS / Azure AD / Exchange / Exchange Online / DNS / DHCP / DFS / SharePoint Online). Network management (LAN/WLAN/Client and S2S VPN configuration).

Application Support Engineer, Home Group

November 2014 to April 2015, Newcastle, United Kingdom

Senior IT Analyst, Atos – Dept. of Health

February 2013 to November 2014, Durham, United Kingdom

EDUCATION

AWS Certified Cloud Practitioner (CLF-C02)

Hashicorp Certified Terraform Associate (003)

ISC2 Certified in Cyber Security

ITIL v4 Foundation Certificate in IT Service Management