

# 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 and Azure).

Designing and managing infrastructure, security and deployment strategies up to production for 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 a broad range of PaaS and SaaS services.

Providing hands-on technical, security and architectural advice to development teams migrating to container environments. Leading troubleshooting and fault diagnosis for container platforms, surrounding network infrastructure and integrations.

Writing and management of common Terraform modules, common CI/CD templates (in a range of CI and CD tooling) 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.

Rapid development of new proof of concepts for cutting edge applications to test their viability as platform tools.

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. Management of GCP PaaS and 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

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#### Expertise

Infrastructure as Code  
Container Orchestration  
Public Key Infrastructure  
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  
Kubernetes  
Openshift  
Istio  
Helm  
Docker  
Crossplane  
Ansible/AAP  
Packer  
Vault  
BIND DNS  
NGINX  
Active Directory

#### CI/CD

Gitlab CI/CD  
GitHub Actions  
BitBucket  
Concourse CI  
Argo CD  
FluxCD

#### Scripting

Bash/Sh  
Python  
PowerShell

#### Networking

Juniper JUNOS  
Cisco IOS/ASA

development and testing environments. Development of testing and release 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, Ansib

### **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 Red Hat 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).

Configuration and support of core Microsoft infrastructure and SaaS technologies (ADDS / Entra ID / Exchange / Exchange Online / DNS / DHCP / DFS / SharePoint Online). Network management (LAN/WLAN/Client and S2S VPN).

### **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**