

# Andy Welsh

## DevOps and Infrastructure Engineer

andy@tinfoilcipher.co.uk  
www.tinfoilcipher.co.uk

### EXPERIENCE

#### DevOps Engineer, Caspian

Jun 2020 to Present, 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 strategy for new modules.

Deployment of centralised management stacks using cloud native tooling for Secrets Management, IPAM and Helm package management.

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. Management of Production and Staging CI/CD deployments leveraging Terraform, Helm and GitLab CI.

#### DevOps Engineer, Fenwick

Oct 2018 to Jun 2020, Newcastle, United Kingdom

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

Design and implementation of Configuration Management and Automation infrastructure for Azure/VMWare estate leveraging Ansible/Ansible Tower, 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 implementation of Test and Development environments (including decoupling such content from existing production environments) leveraging Azure PaaS, Ansible Tower and Azure DevOps.

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

**LinkedIn:** awelshuk

**GitHub:** tinfoilcipher

#### Expertise

Infrastructure as Code  
Configuration Management  
Systems Automation  
Linux Systems Administration  
PKI Implementation  
Microsoft Technologies

#### Server/Cloud

Amazon Web Services  
Microsoft Azure  
Google Cloud Platform  
Linux (CentOS/Ubuntu)  
Windows Server 16/12/08/03  
Exchange Server 13/10/03  
VMWare ESXi/vCenter (6/7)  
Mac OS X Server 7/6/5

#### Platform/Software

Terraform  
Ansible/Tower  
Kubernetes  
Git  
Vault  
Docker  
Helm  
Netbox  
Active Directory  
Group Policy Management  
Microsoft DNS/DHCP  
BIND DNS  
NGINX

#### Networking

Juniper JUNOS  
Cisco IOS/ASA  
Meraki SDN  
HP/ArubaOS

#### Scripting

PowerShell  
Bash/Sh

## **IT Engineer, RMT Technology**

Apr 2015 to Sept 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).

Support and configuration of Citrix XenApp, encryption technologies (Data at Rest and Data in Use), network management (LAN/WLAN/Client and S2S VPN configuration).

## **Application Support Engineer, Home Group**

Nov 2014 to Apr 2015, Newcastle, United Kingdom

Specialist application support within ITIL framework.

Providing support, data analysis and troubleshooting of enterprise applications; specifically Capita OPENHousing, OPENFinancials, OPENQuery and iTrent, as well as the administration and support of SharePoint 2010/2013 and Citrix XenApp.

Design, implementation and troubleshooting of bespoke solutions using Progress 4GL, Microsoft SQL and PowerShell scripting.

## **Senior IT Analyst, Atos – Dept. of Health**

Feb 2013 to Nov 2014, Durham, United Kingdom

Administration and support of accounts, mailboxes and VDI images/applications for nationwide Department of Health, Care Quality Commission and NHS staff.

Design, test, documentation and management of a bespoke application built around PowerShell and VBScript to automate AD account/Exchange mailbox/Lync record creations and modifications via an HTA front end.

Design and implemented bespoke PowerShell solutions to handle capacity monitoring, load balancing, storage quotas (Active Directory/Exchange/Windows File Servers) and singular/bulk account migrations.

## **User Administration Specialist, Atos – BBC Service Desk**

Nov 2009 to Feb 2013, Durham, United Kingdom

## **EDUCATION**

### **Microsoft Certified Professional:**

70-270 - Installing, Configuring, and Administering Windows XP Pro  
70-290 - Managing and Maintaining Windows Server 2003

### **Apple Certified Support Professional:**

9L0-403 - Mac OS X 10.6 Support Professional  
9L0-410 - Mac OS X 10.7 Support Professional

### **ITIL v3 Foundation Certificate in IT Service Management**

### **NVQ Level 3 for IT Professionals and Practitioners**

### **Advanced Diploma in ICT Systems Support**

**Microsoft**  
**CERTIFIED**  
Professional



Certified  
Support Professional

**ITIL**  
Certified