

LOCATION Basingstoke
Hampshire
RG27, UK

EMAIL mark.wragg@gmail.com

WEBSITE <http://wragg.io>

PHONE 07919 094346

SUMMARY

I am an experienced engineer with a passion for DevOps. I enjoy implementing automation, particularly with PowerShell and have experience with a variety of DevOps tools for implementing automation pipelines. I have a wealth of experience working in production-facing operations roles as well as experience providing support and guidance for development teams. Previously I have also held management / team leadership positions where I have enjoyed helping my team members to grow and succeed.

EXPERTISE / SKILLS

- Windows Server (Networking, IIS)
- Active Directory (DNS, Group Policy)
- Public Cloud (AWS / Azure)
- VMWare / ESX
- Automation / Testing (PowerShell, Pester)
- Configuration Management (Puppet / DSC)
- Infrastructure as Code (Terraform, Packer ARM, CF)
- CI/CD (Jenkins / AppVeyor / Octopus Deploy)
- Source Control (Git / TFS)
- Monitoring (PRTG / Grafana)
- Database (SQL Server / InfluxDB)
- Agile / ITIL

EMPLOYMENT HISTORY

NOV 2018 – PRESENT ELYSIANIT (BASINGSTOKE, HAMPSHIRE)

Windows Cloud Automation Engineer (Contract)

KEY RESPONSIBILITIES

- Implemented an immutable infrastructure deployment solution for a multi-tier application on Windows Server 2016 in AWS.
- Developed an automated process to routinely create Windows 2016 Server Amazon Machine Images (AMIs) via a Jenkins pipeline that are security hardened to CIS Security benchmark standards and fully patched with security updates.
- Created a set of reusable and dynamic Azure (ARM) templates in order to migrate a complex deployment to Infrastructure as Code.

MAJOR ACHIEVEMENTS

- Used Packer and PowerShell to automate the process of creating and customising a hardened Windows 2016 Server image in AWS.
- Authored Desired State Configuration (DSC) and PowerShell scripts to implement and enforce the customers Windows Server 2016 image security and configuration requirements.
- Implemented a set of PowerShell Pester tests to validate during the Jenkins pipeline that the security and configuration requirements were successfully applied during the AMI creation and to ensure a misconfigured image was not added to the library.
- Modified a customers Gradle tasks and CloudFormation scripts in order to implement the new image in their deployment process.
- Authored post-deployment validation Pester tests to automate confirmation that servers were fully deployed and configured.

JUL 2018 – NOV 2018 XE.COM (BRACKNELL, BERKSHIRE)

DevOps Engineer

KEY RESPONSIBILITIES

- Provided support for the UK based development team and development environments as part of the Cloud Engineering team.
- Worked closely with the UK based operations team to implement pipelines and automation for deployment of our internal and externally used Financial Exchange products.

MAJOR ACHIEVEMENTS

- Automated the deployment of static content files via Octopus Deploy, increasing deployment speed and eliminating manual error.
- Developed a PowerShell Module for deploying modified files from source control by using hash calculated values.
- Implemented Pester tests to detect invalid URL string usage, ensuring packages were not published that contained URL errors.
- Created Terraform code to manage Route53 records in AWS and configure failover policies as part of a Disaster Recovery solution.
- Refactored and added Pester unit tests to existing PowerShell code for performing nightly merge requests.
- Created Cloud Engineering Confluence site to promote knowledge sharing across the team.

SEP 2017 – JUL 2018

VERITAS TECHNOLOGIES LLC (READING, BERKSHIRE)

Senior DevOps Engineer, Enterprise Vault.cloud

KEY RESPONSIBILITIES

- Worked as part of a cross-region DevOps functional team within the EV.cloud Agile development teams, providing infrastructure and build support for the development, performance and QA environments.
- DevOps stakeholder for two scrum teams, providing infrastructure and automation insight for new feature development.
- Maintained the legacy on premise VMWare lab environment infrastructure to ensure availability and performance.
- Maintained Puppet and Terraform scripts for the dedicated Dev and QA environments in Azure.

MAJOR ACHIEVEMENTS

- Performed proof-of-concept implementations of a containerised product component on Azure Container Service and VM Scale Sets as part of work to create the first auto-scaled product component in the new cloud environment.
- Investigated options for accessing a VM hosted database from an Azure Function in order to support the development of the first serverless component of our product in Azure.
- As a proactive initiative, I implemented the analytics tool Grafana and time-series database platform InfluxDB (with a StatsD listener) in order to grant the development teams a platform with which to easily track and visualise metrics. I provided training to the DevOps and Development teams on how to use this new infrastructure.
- I authored a [PowerShell module](#) to automate collecting infrastructure metrics from various sources for transmission in to InfluxDB where they are then visualised via dashboards in Grafana. Prior to this there was no infrastructure monitoring for the legacy dev/test environments.
- I implemented an automated solution for migrating SQL Server Reporting Services subscriptions between instances. To meet this requirement, I added new cmdlets and functionality to the existing open source Microsoft Reporting Services module in GitHub. My [contributions](#) have been accepted by Microsoft.
- I built an Office 365 Exchange Hybrid environment that was needed for testing. This involved installing two Active Directory Forests, Exchange and setting up the hybrid connectivity to Office 365.
- I set up a new Confluence space for our team to share knowledge. I have created a large number of new infrastructure and procedure documents where none previously existed. I provided training to the DevOps and Development teams on how to make best use of Confluence.

OCT 2016 – SEP 2017

CENTURYLINK LTD (WOKINGHAM, BERKSHIRE)

Manager, Global Hosting Compute Engineering

KEY RESPONSIBILITIES

- Responsible for a team of 11 Tier 3 and Tier 4 Engineers who worked as part of the 24x7x365 global support team handling incidents, requests and changes for managed hosting customers.
- Worked with the other regional managers to ensure service consistency across our global teams.
- Performed routine reporting of team performance/provided feedback via 121s/team meetings to ensure a high level of service.

MAJOR ACHIEVEMENTS

- Achieved AWS Certified Solutions Architect - Associate status via self-study. You can [view my transcript here](#).
- Implemented Slack for my team and developed a [Slack chat bot via PowerShell](#) to enhance the functionality with features such as pulling server details, ticket/change information and tracking team roles/responsibilities.
- Developed a [PowerShell module](#) for pulling data from our BMC Remedy ticketing system to allow real-time reporting data to be pulled quickly and easily (prior to this most reporting was retrospective).
- Developed a further internal PowerShell module for gathering ticket auditing data as part of the "Consistent Process" initiative. This automation delivered significant time savings to all managers performing audits.
- Planned and delivered a three-day Introduction to PowerShell training course for 14 attendees to encourage the adoption of scripting and scripted solutions within Operations and other associated technical departments.
- Implemented a Package Management solution using Nexus Repository Manager and implemented an automated pipeline between our GitLab Source Control that published PowerShell modules to the repository if they passed automated testing.

SEP 2011 – OCT 2016

SDL PLC (MAIDENHEAD, BERKSHIRE)

Cloud Operations Manager

(DEC 2014 – OCT 2016)

KEY RESPONSIBILITIES

- Responsible for a team of 12 engineers, organized in to 3 functional teams who managed and maintained 500+ servers across public (AWS hosted) and private (managed hosting VMWare) cloud infrastructure.
- Managed team members across the UK, US and India, guiding professional development, appraisals and objectives.
- Provided technical guidance and was a point of escalation for advanced issues. Ensured major incidents were handled correctly.

MAJOR ACHIEVEMENTS

- Created a core capabilities team to ensure ownership of shared infrastructure and to drive DevOps and automation.
- Successfully transitioned operational ownership of an additional suite of products and three additional datacentres to my team, allowing the consolidation of hosting teams which reduced overall cost.
- Contributed to successful expansion of our ISO 27001 certification to cover additional products. Provided evidence for auditors.
- Implemented automated testing via the Pester module for PowerShell to perform application testing before and after changes.
- Created a [PowerShell module](#) to enable notifications to be sent from automation scripts in to the team Hipchat room to increase visibility of changes occurring in the environment while avoiding/reducing email noise.
- Implemented a [Chef cookbook](#) to automatically pull the master branches of our automation script repositories in to the hosted environment, ensuring only code changes committed to source control are authorized for use in production.

Principal Hosting Engineer & Team Lead

(AUG 2012 - DEC 2014)

- Devised a process to transition customers from Windows 2003 Server to 2008 R2 Server to reduce technical debt.
- Implemented a Change Management policy. Worked with the team to document the processes for Standard pre-approved changes. Ran Change Advisory Board meetings to review high risk changes.

Senior Support Engineer

(SEP 2011 – AUG 2012)

- Devised a technical solution to allow my team to successfully migrate several hundred virtual machines to a new hosting provider, minimizing risk and downtime.
- Implemented a script to detect when monitoring had not been resumed for systems after planned changes.

COURSES & CERTIFICATIONS

JULY 2017	AMAZON WEB SERVICES	AWS Certified Solutions Architect - Associate
JUNE 2017	OPSGILITY	Azure Infrastructure & Architecture Course
MAY 2016	AXELOS	ITIL Foundation Certification

EDUCATION

1999 - 2003	UNIVERSITY OF SURREY (GUILDFORD, SURREY)	BSc Computing & Information Technology
1997 - 1999	BROOKLANDS COLLEGE (WEYBRIDGE, SURREY)	BTEC National Diploma in Computing

CONTRIBUTIONS

OCT 2018 PSDAY.UK LONDON CONFERENCE

Presented at the annual PSDay.UK PowerShell Conference in London on [Mastering PowerShell Testing with Pester](#), for unit testing your PowerShell code.

SEPT 2018 SOUTHAMPTON POWERSHELL USERGROUP

Presented to the Southampton PowerShell User group on [How to Develop Cross-Platform Compatible Modules using PowerShell Core](#), as well as how to perform automated testing of compatibility using Pester and AppVeyor.

JULY 2018 THE POWERSHELL CONFERENCE BOOK

Contributed a chapter to [The PowerShell Conference Book](#) on how to master the PowerShell testing framework Pester for unit testing PowerShell code. All proceeds for the book go to the DevOps Collective scholarship.