

DAN MARTINELLI

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Summary

A dynamic skilled Azure focussed DevOps professional from an infrastructure and operations background with a passion for automation, containerisation and virtualization.

I have worked in agile focussed infrastructure and software, architecture and delivery roles for over 13 years. During this time, I've been a scrum master for software delivery and a technical lead for physical & cloud infrastructure design and implementation. I am frequently a coordinator/lead for highly visible projects.

The primary focus of my latest position is the implementation of automated processes to support the development team while migrating services. Re-implementing the existing architecture for CI/CD, creation of ARM templates and changes to design and technology for best practice adherence.

Able to adapt to any project, implementation or technology. Passionate about DevOps Automation & IoT and almost always working on a new project.

PowerShell, Azure ARM & Bicep, Terraform, Azure CLI, Azure IoT, Azure Kubernetes Service, HELM, Desired State Configuration, Kafka, NGINX, Keda, Azure SQL, Azure DevOps, VSTS, Cosmos DB, Microsoft SQL 2005-2019, Docker, git, Confluence, Certificate Management & PKI, WIX Toolset, IIS, Hyper-V + Virtual Machine Manager, Microsoft RDS Clusters, Cluster Management, Windows Virtual Desktop + VDI, Microsoft Exchange, Microsoft Lync 2013, Microsoft OS 2003 – 2019, Server P2V Migrations, AD Forest and Domain management, Scrum Master, Kanban, DataDog, LogicMonitor, OpenXPKI.

Professional Experience

June 2021 – Present

Infrastructure Intelligence - DYWIDAG.

DevOps Lead (Azure)

I joined the business as the DevOps lead for the Infrastructure Intelligence team. My role initially focussed on the migration of classic cloud services and the re-implementation of all application component pipelines transitioning from classic to YAML. While this work was ongoing I was tasked with the creation of all IaC to support an IoT Edge project.

IoT Edge

Retrospective IaC to support all resources created during the development of an Azure IoT Edge project. This also involved several component redesigns and guidance of the development team to make better use of available technologies.

Digital Twin & Data Backup/Recovery Solutions

A fairly unique design was in place to use Azure blob storage as a structure filesystem. As the bulk of all data was stored as blob under GPv1 storage accounts the options for backup were fairly limited. Implemented a backup and restore strategy to cover principal data sources along with a solution for digital twin backup and restore.

September 2020 – May 2021

AVEVA Group Plc.

Application Team - Senior DevOps Engineer (Azure)

Following a period of job-function centralisation within the business, I moved to the position of embedded DevOps engineer for the principal planning and operation software team. My primary focus in this role is support and development of the high-performance compute offering and its further integration with Azure cloud native services.

Azure service and subscription migrations

Working as part of a small cross functional team, migrated all azure hosted customer and business facing services from 9 subscriptions under 5 tenants, consolidating to 2 subscriptions under 2 tenants. With significant penalties imposed for project overrun and extreme time pressure to migrate all services before December 31st. Process automation developed over the last 2 years was adapted to serve this purpose with the major challenge being scheduling of service interruption where necessary with customers.

March 2018 – August 2020

AVEVA Group Plc.

Senior DevOps Engineer (Azure)

Worked in a small multi-disciplined team responsible for the final stages of software packaging and delivery. Building and maintaining the Infrastructure as Code/pipelines for deployment of software, troubleshooting operational issues at the interface of the product and platform.

Ongoing work included the migration of customer facing services from a private datacentre to public cloud. Utilising a combination of Azure ARM template deployments, Azure CLI and Azure Automation State Configuration to achieve this.

RemoteApp Gen 2 for UAT/Production

Designed and implemented a scalable RDS RemoteApp environment to provide a platform for the principal desktop applications. Required to support multiple customers without duplicating common data while providing secure access. This solution utilised a Microsoft RemoteApp platform, built on top of a virtual SAN with tiered data storage to address performance concerns.

High Performance Compute Containerisation

Improved efficiencies and reduced operational costs through workload containerisation into AKS. This combined with time or demand based scaling takes a specialist product with a high financial barrier to entry bringing it to all customers. Basic AKS cluster configuration augmented with HELM for rapid deployment and rollback.

Batch updates converted to serverless workloads

Legacy processes involving conversion of data from a 3rd party on a schedule were redesigned to use Azure Functions and queues for processing. This involved wrapping custom binaries with PowerShell scripting to generate the required output. Access to the SQL resources are handled through managed identity.

January 2014 – February 2018

Schneider Electric Software Ltd.

Senior Cloud Services Engineer (Azure) + Scrum Master

The major focus area during this period was the discovery and automation of existing customer facing business functions including software delivery, support and project management.

As part of a small team, we designed, built and maintained the platform for automated delivery within the business and to the customer. This covered packaging and delivery of client and server components and working towards continuous delivery for some of the products to both internal and external parties.

InstallShield to WIX migration

Redesigned and rebuilt the product installers utilising the WIX framework making them modular and removing the requirement for expensive and unnecessary InstallShield licensing.

MSI building was integrated with the product pipeline allowing for automated installer creation.

Due to the architecture of one product, it was necessary to create an installer per customer as specific data required by the application was required at start-up. Using the WIX framework, we automated build of both the customer specific and generic installers using TFS pipelines, opting for a pipeline-per-customer model.

VMSS based High Performance Compute for Azure

Redesigned the deployment of our HPC offering again utilising Azure based VMSSets based in ARM templates for the PaaS compute resources, and Desired State Configuration for the IaaS server components. This was chosen as the migration path away from classic Azure Cloud Service.

LogicMonitor - monitoring and alerting solution

Selected and implemented a cloud native monitoring solution to assist in our journey from private to public cloud while providing adequate coverage of existing legacy on-premises systems. This inherited the duties of an existing Nagios based system with service availability, monitoring, and alerting.

Scrum Master

As scrum master for a team of 6, I was actively involved in all aspects of planning, execution and presentation of work for the team. This involved daily standups, backlog estimation, iteration reviews and retrospectives.

October 2012 – December 2013

Invensys Systems Ltd. (Spiral Software)

IT Consultant

Working as part of the customer facing services team, I assisted customers in on-site implementations of the company server components providing guidance through best practice. I was also tasked with increasing efficiency for delivery of the software.

Desired State Configuration for application delivery

Moving from manual installations using written instructions to clean, committed, repeatable installations using Desired State Configuration allowed for a declarative approach to IaaS software delivery. This provided an idempotent structure for use on both customer facing and internal development resources thereby significantly reducing the time taken and eliminating errors created through manual configuration.

High Performance Compute for Azure v1

After initial trials of an HPC solution based on bare metal we moved to Azure classic Cloud Services. This was the first attempt at a cloud native distributed calculation service. While functional it lacked many of the desired scalability features taken for granted in AKS.

September 2009 – September 2012

Spiral Software Ltd.

Sr. Information Systems Engineer

As part of a small IT team, I worked on all 1st, 2nd and 3rd line support activities.

A Sysadmin for the internal and client facing systems. My daily activities ranged from typical desktop support and reimaging tasks through to exchange, SharePoint, Active Directory administration, support and hosting infrastructure maintenance.

Ticketing + Monitoring system

Implemented a ticketing system for internal users to track the status of requests. This was also integrated with a Nagios based monitoring solution which was primarily used for health checks of all hosted services for clients but was quickly extended to internal services.

WDS, MDT + Image maintenance

Replaced the existing solution of Norton Ghost with a WDS solution for the Windows 7 rollout. Followed by the introduction of MDT for modular image construction.

Microsoft licensing administrator

Self-designated Microsoft licensing administrator. After auditing the consumed licences for R&D, I brought SPLA to the business allowing us to resell Microsoft products as part of the ISV package we were offering.

RemoteApp v1 for product UAT

Designed and implemented a server 2008R2 based RemoteApp solution to deliver acceptance versions of the products to customers eliminating the requirement for end users to install anything. This significantly reduced cycle time on testing, allowing for rapid prototyping of new features.

Conference Technical Lead

During this time I lead the technical team for the first company conference in Barcelona. This encompassed all technical aspects of required network design supporting interactive demonstrations, specification of conference equipment and set design, liaising with external suppliers and final execution.

Education

2:1 BSc for Internet Computing
University of Hull 2004-2008

Year in Industry - 2007

BskyB - Planning and operations team. Development of a custom project management solution backed by an Oracle database.

Certifications

Certified Scrum Master 2022 – PSM 1 (<https://www.scrum.org/user/1049514>)

Awards

AVEVA 2019 European hackathon winner for my work on containerised efficient and scalable solutions for high performance computing.

Hobbies

IoT, embedded systems and electronics enthusiast. Graphic & parametric design, 3D modelling. Laser and CNC geek, Bass guitar.