Michael MacLeod

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PROFILE

An architect with broad experience and an energetic team player that enjoys finding novel and elegant solutions to problems. I like to understand not just the technical requirements but the underlying business in order to ensure my technical solutions and processes support key business needs while also being performant, cost effective, and supportable.

TECHNICAL SKILLS

Linux and Unix Operating Systems	Debian/Ubuntu, RedHat/CentOS
Network Design and Security	IPv6, Firewalls, Load Balancers
Cloud Deployments and Infrastructure	AWS, Azure, VMWare
Automation and Configuration Management	Puppet, Terraform, Python/Bash
Application Delivery	Docker, Kubernetes

WORK EXPERIENCE

Cloud Architect, Ingram Micro Cloud
Toronto, Ontario - September 2018 - Present

➢ SME for governance and security for all production customer facing or customer supporting systems, including Azure, AWS, GCP, our ecommerce platforms, and the ISVs we distribute. Project and technical lead for several successful initiatives to improve our security posture, including SSO, automated user provisioning, improved account auditing, centralized audit logging, and alerting. Business processes surrounding these activities were also revamped to reduce friction and improve compliance. Ingram Micro's market niche leads to interesting challenges in this space.

➢ SME for cloud cost management. Built a tool that exports raw cost data from cloud providers, normalizes it, and assigns several additional business relevant dimensions for reporting. ETL tool is written in python deployed to Kubernetes as a daily cron job, data is stored in MySQL hosted in same, and reporting is done via Microsoft PowerBI.

➢ Migrated all workloads from four production and two non-production data centres to Azure using Azure Migrate. Amenable workloads have been cloudified, remainder have been right-sized and reserved instances purchased. Project took four months of planning and three months to execute, reduced overall costs, and aligned infrastructure with business initiative to migrate our platform to a microservice architecture in Kubernetes.

➢ Wrote terraform modules for internal teams to automate and enforce correct deployment topologies and security standards for several different recurring workloads. Reduced timelines for deployments by the managed services team from weeks to hours. Modules include enforcement of tenant level security standards, IAM permission and role assignments, network and network security configurations, infrastructure including virtual machines, Kubernetes clusters, PaaS offerings like Azure DB and Azure App Service, as well as templated Ansible for virtual machine hardening to CIS benchmarks.

Cloud/Linux Engineer, Ingram Micro Cloud
Toronto, Ontario - June 2014 – September 2018

- Designed and deployed SAP HANA based Hybris Billing platform in AWS. Design includes multi-region failover/disaster recovery and separation of platform via multiple AWS accounts. Deployment was fully automated, including compute, storage, network, and security configurations. Host configuration enforced via puppet.

- Introduced and drove adoption of puppet and terraform for host and infrastructure configuration management. Puppet uses roles and profiles pattern, while terraform manages resources in Azure, AWS, and previously VMWare.

- As part of an acquisition, designed and deployed new networks and infrastructure including a forklift migration of customer facing production systems to AWS. Wrote a REST API for F5 Load Balancer using iRules (TCL) to enable developers to dynamically manage external access to internal test systems for CI/CD pipeline.

- Deployed new data centres in the Netherlands, Australia, and Singapore to facilitate the global rollout of the Ingram Micro Cloud Marketplace. Redesigned the original network design to improve security through greater segmentation, isolation, and more granular network security policies. Also revamped LDAP design for more granular user access control and deployed an internal virtual desktop platform for secure access to production systems.

- Migrated primary load balancer for direct hosting platform from Cisco ACE to F5 BigIP (yes, again).

Systems Analyst, Infrastructure, Primus Canada
Toronto, Ontario - December 2012 - May 2014

- Deployed new Cisco UCS backed VMWare 5.5 cluster to replace existing HP bladecenter backed VMWare 4 based private cloud. Responsibilities included network design (layers 1 through 3), creating security policies, deployment and configuration of VMWare ESXi and vCenter (including Cisco UCS integration), migration planning and execution.

- Designed and deployed new Point of Presence (POP) to support Broadworks VoIP platform using Cisco UCS with VMWare ESX 5.5 and bare metal installations. Handled network design and deployment of supporting services (DNS, LDAP, etc). Site served as template for deployments of other POPs throughout country.

Linux System Administrator, Hostopia Inc.
Mississauga, Ontario - September 2011 - December 2012

- Planned and executed the migration from Cisco ACE to F5 BigIP load balancers in both primary facilities, affecting every service offered. Used perl to ingest multiple large (~28k line) ACE XML configuration files, manipulate the data in a database to consolidate and simplify the configuration without losing functionality, and then export F5 configuration in order to automate the migration.

- Lead the application portion of the IPv6 deployment across the production network. Worked with the networking team to plan and allocate our IPv6 network, then ensured services could be delivered over it. Utilized a mix of IPv6 termination on the load balancer and full dual-stacked networking to the application servers