

Dana M. Diederich

Principal DevOps / Site Reliability Engineer | Ex-Facebook & Ex-Amazon

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Summary

Former Facebook and Amazon Site Reliability Engineer and Staff Principal DevOps with a proven track record of architecting scalable cloud infrastructure, automation pipelines, and high-availability platforms. Demonstrated success spearheading critical cloud migrations and structural improvements at leading tech organizations including Oracle, Facebook, and Amazon. Adept at bridging the gap between legacy systems and modern cloud-native solutions, leveraging Kubernetes, AWS, OCI, and Terraform to drastically reduce operational costs and accelerate developer velocity. Expert in applying advanced system analysis, AI-driven automation, and deep operational experience to resolve complex infrastructure challenges.

Achievements

- **99.99% Production Availability:** Achieved exceptional platform uptime at LiveOps by architecting comprehensive monitoring coverage, implementing innovative release automation, and executing structural reductions of single points of failure across critical paths.
- **World-Class Monitoring Systems:** Designed and built a revolutionary custom monitoring and management system at Walmart Stores, Inc., drawing evaluation teams from major networking vendors like Cisco Systems to explore licensing the technology.
- **Incident & Regulatory Leadership:** Functioned as the definitive 'Go To' incident manager for real-time, critical-path outages across multiple enterprise environments while concurrently serving as the regulatory/compliance lead (PCI/DSS, SOX, HIPAA), balancing agile development with rigorous security standards, allowing a constant state of being fully audit-ready.

Skill Areas

Architecture & Compliance	People & Leadership	OS, Cloud & Automation	Programming & AI	Database & Networking
• Multidisciplinary platform architecture • Deep-dive system analysis • High Availability (HA) & Disaster Recovery • Computer Security Operations • PCI/DSS, SOX & HIPAA Compliance (Audit-Ready)	• Cross-functional Collaboration & Stakeholder Alignment • Strategic management liaison • Federal/US Government operations • Healthcare technology workflows • Mentorship & consensus building	• Linux Engineering (Ubuntu, RedHat, CentOS, UNIX) • AWS, Google Cloud (GCP), OCI • Datadog, Prometheus, Thanos • Kubernetes, Docker, Helm • Terraform, Pulumi, Puppet • CI/CD (Jenkins, GitHub Actions, GitLab CI, ArgoCD) • Virtualization (KVM, VMWare)	• Python, Perl, Golang, C, SQL • Agentic Automation with Gemini/Antigravity • Prompt Engineering / Gemini API • Ruby, Java, PHP • HTML, CSS, JavaScript, Node.js • Shell / Bash scripting	• MySQL, PostgreSQL • MongoDB, Milvus, Redis • Kafka, Apache Flink • Cisco IOS/CatOS • F5 LTM/GTM Load Balancing • DNS, DHCP, TCP/IP, BGP, SSL/TLS

Professional Experience

Oracle - Principal Applications Engineer

2021 - 2025 | Cloud Infrastructure, Load Balancer Migration and Incident Management

- Spearheaded the migration of legacy F5 load balancers to Oracle Cloud (OCI) native solutions, building consensus across numerous teams that initially had other higher internal priorities.
- Served as a critical liaison between disparate teams who were disinclined to interact, facilitating essential communication, engagement and negotiation among junior, senior, and management-level personnel to drive project success.
- Oversaw incident manager on-call rotation, taking ownership to identify root causes and effectively delegating tasks in unfamiliar technical domains, approaching incidents with humility.
- Demonstrated strong emotional intelligence by framing technical directions as suggestions and carefully reading team tonalities to foster collaboration during high-stress incidents.
- Collaborated with cross-functional teams to architect and build an AI Data Ingestion and Preprocessing pipeline using Kafka, Confluent Schema Registry, Apache Flink, Redis, OCI and Milvus Vector database to improve online agent capabilities and unlock actionable insights.
- Some technologies used: BigIP F5 Load Balancer, OCI/Oracle Cloud, Linux, git, Docker, REST, JSON, Kafka, Schema Registry, Flink, Redis, Milvus Vector database, IaC

Lumos Labs - DevOps Engineer

2020 - 2021 | AWS Infrastructure and Automation

- Built Environment Manager for on-demand AWS environments (create, suspend, snapshot, restore).
- Improved developer productivity/system reliability and reduced AWS costs.
- Mediated deeply held technical disputes between groups advocating for different technology stacks, consistently emphasizing consensus and consistency over specific technical choices.
- Successfully calmed teams with strained inter-team dynamics, enabling them to resume collaboration in virtual meetings and smoothing over tensions through effective conflict resolution and interpersonal communication in a fully remote environment.
- Engaged in extensive discussions with managers on larger strategic questions and organizational directions, acting as a key liaison for alignment.
- Some technologies used: Vault/Secret Management, AWS, Kubernetes Architecture/Manifests, EKS, EC2, IAM, RDS, ALB, ElastiCache, Istio, Helm, Python, Prometheus, Terraform, Pulumi, Jenkins, Linux, git, Docker, REST, JSON, YAML, Jira, NGINX, IaC, GitHub Actions

Facebook - Systems Engineer (Enterprise Engineering, Traffic Team)

2018 - 2020

- Developed automated troubleshooting tools to streamline incident response and root-cause analysis (RCA).
- The Traffic Team fully owned and managed all of the BigIP F5 local and global load balancers (LTM, GTM)
- Created a global DNS replication system, collaborating with a geographically distant team by adopting a humble, grateful, and low-key approach to overcome initial communication hurdles.

- Demonstrated emotional intelligence and empathy by effectively managing personal emotions to build rapport and achieve project success, ultimately earning positive professional reviews from the challenging team.
- Communicated frequently with managers regarding strategic questions and organizational directions, serving as an effective liaison.
- Some technologies used: BigIP F5 Load Balancer, LTM, GTM, F5 AS3, LB Session Management, Terraform, Kubernetes, Prometheus, Linux, git, Docker, REST, JSON, YAML, DNS, IaC

Orbital Insight - DevOps Engineer

2017 - 2018 | Startup Environment

- Led Kubernetes proofs of concept and initiated company-wide migration to a from-scratch, newly architected Kubernetes cluster in AWS.
- Modernized monitoring infrastructure from static to dynamic configs.
- Accelerated the Kubernetes adoption timeline by privately demonstrating its power to other developers, addressing their pain points, and effectively influencing management decisions to prioritize the project for substantial cost savings and improved developer deployment velocity.
- Some technologies used: Vault/Secret Management, AWS, Kubernetes, EC2, IAM, RDS, ALB, ElastiCache, Istio, Helm, GPU Management, Python, Golang, MongoDB, Prometheus, Terraform, Jenkins, Linux, git, Docker, REST, JSON, YAML, testing harness, Jira

Twitch Interactive (Amazon) - Video DevOps Engineer

2016 - 2017

- Designed and delivered SafeChange, a service protecting resources from impacting changes by ensuring safety checks (e.g., no traffic, sufficient capacity) are met before modifications, promoting technical bravery and comfort with change.
- Helped design and develop next-generation operational architecture.
- Was instrumental in migrating vulnerable organizational secrets into the new, secure, organizationally approved secrets store.
- Some technologies used: Vault/Secret Management, AWS, Python, Perl, MongoDB, Prometheus, Puppet, Terraform, Jenkins, Linux, git, Docker, REST, JSON, YAML, Jira, NGINX, HAProxy, RabbitMQ

Flux Factory - Software Engineer

2015 - 2016

- Delivered automation, security administration, and tooling for platform reliability.
- Allowed much faster builds and deployments by scaling struggling Jenkins infrastructure to multiple servers and utilizing Docker for automated Selenium testing.
- Some technologies used: Golang, Perl, HTML, JavaScript, CSS, Linux, git, Jenkins, Docker, Selenium, REST, JSON, YAML, MongoDB, Postgres, Google Cloud/GCP, testing harness, Memcached

Ariba (SAP) - Principal Software Engineer (Cloud)

2013 - 2015

- Balanced platform stability while innovating future-proof systems.
- Served as technical leader for the Tools team, successfully balancing support for antiquated, legacy systems with strategic migration to newer, mainstream technologies.
- Fostered team cohesion and morale through unconventional, self-funded team-building exercises, creating shared, immersive experiences (e.g., Halloween Fright Night) to build connectedness among colleagues.
- Assisted other teams tactically and strategically across a wide variety of operational areas and topics, demonstrating broad collaborative support.
- Some technologies used: Perl, Java, HTML, JavaScript, Linux, MySQL, Apache, IRC, git, LDAP, JSON, YAML, REST, OpenVPN, MongoDB, Chef, Node.js, Percona MySQL

LiveOps - Senior Operations Tools Developer

2009 - 2013

- Proactively identified and resolved unexpected database query amplification with a Ruby on Rails developer through an educational, insightful, and empathetic approach, preventing conflict and strengthening inter-team collaboration.
- Acted as a liaison to improve testing accuracy by collaborating with senior application engineers to modify the database export sanitization process, preventing similar issues in the future.
- Enhanced release processes at LiveOps to enable faster and safer deployments, including creating a system to release code updates to thousands of servers in minutes.
- The primary job was to lend technical support to any other areas in Operations that needed it, including Network Engineering, Linux System Administration, Release, DBA and others.
- When there weren't pressing operational issues at hand, the go-to focus areas were monitoring and automation. The existing Nagios infrastructure was aging and very out of date. Over 12 months, I constructed a custom agent-based monitoring system built with many standard technologies that had excellent and flexible configuration, correlation and escalation capabilities.
- Some technologies used: Perl, C, Java, PHP, HTML, JavaScript, Linux, MySQL, Apache, Cisco Routers, Cisco Switches, Routing, BGP, OSPF, BigIP F5 Load Balancers, IRC, git, svn, Ruby on Rails, Nagios, Graphite, JSON, YAML, OpenVPN, LDAP, REST, MongoDB, Puppet

Walmart Stores, Inc. - Advanced Network Engineer

Previous Experience

- Served as the primary liaison between management and the Network Management team, effectively communicating priorities and concerns, and obtaining strategic information from leadership.
- Initiated and championed the adoption of full-time remote work for a team member, years before this became common in the industry, successfully negotiating strict corporate policies and demonstrating the viability of hybrid work models across the division.
- Fostered a strong sense of team ownership and empowered team members by delegating the design of a replacement for a critical, custom-built management system, guiding them through independent prototyping and collaborative design.
- Designed, implemented and won cross-team adoption of an automated daily task list application that simplified reporting, fostered team accountability, and significantly increased individual and team productivity, which was organically picked up by other teams.

- Cultivated empathy and customer focus by instituting mandatory help desk rotations for team members, leading to valuable insights and improvements for internal customers.
- Provided permission and encouragement to team members to fail safely through experimentation, fostering a learning environment and a sense of ownership, as exemplified by encouraging a new engineer to take the lead on a high visibility web project.
- Co-founded the Network Management team and led its efforts to automate management of over 150,000 network devices globally.
- Mentored and trained other new team members on the programming team, delegating day-to-day and project work to manage expanding responsibilities.
- Some technologies used: Perl, C, Java, HTML, JavaScript, Linux, HP-UX, Solaris, AIX, MySQL, Apache, Cisco Routers, Cisco Switches, Cisco Access Points, Routing, BGP, OSPF, Cisco Load Balancers, IRC, git, cvs, MQ Series, DB2, SNMP, ICMP, TCP/IP, DHCP/BOOTP, DNS, Frame Relay, MultiCast, SMBv2, HP Open View, HP ITO IT Operations, NerveCenter, Satellite, NetScout, VNC, Early Machine Learning

U.S. Air Force - Senior Airman, Computer Programmer

Previous Experience

- Grew into additional leadership roles, effectively managing the data center and assisting a civilian network administrator with Unix servers, enabling him to focus on his strengths.
- Trained and delegated tasks to other new team members to manage expanding responsibilities, demonstrating early leadership and delegation abilities.
- Delivered system administration, network security, and programming in high-security environments, functioning as a broad spectrum technical expert.
- Some technologies used: C, Perl, Linux, Solaris, SCO Unix, AOS/VS, Banyan Vines, Cisco Routers, Cisco Hubs, Cisco Switches, Routing, BGP, OSPF, HP Open View, Squid Cache, HTML, JavaScript

Formal Education & Certifications

- Oracle Cloud Infrastructure 2023 Certified Foundations Associate
- Puppet Training & Neo4j Training
- System Management Arts InCharge (SMARTS)
- HP OpenView & HP IT Operations Advanced Training
- Advanced Cisco Configuration
- Computer Science coursework, The California State Polytechnic University
- Military Technical Training, Computer Programming, Keesler Air Force Base