

Joshua Tobin

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SUMMARY

Senior Site Reliability Engineer with over 20 years of experience in cloud-native infrastructure and distributed systems for startups and Fortune 500 companies. Skilled in designing automated deployment pipelines and managing large-scale, mission-critical environments, driving performance, scalability and cost efficiency.

- Developed and maintained a Terraform framework to automate CI/CD pipeline deployment in AWS EKS, reducing manual deployment times by 60% and ensuring compliance with infrastructure-as-code best practices.
- Collaborated with development teams to optimize resource usage in Kubernetes clusters, resulting in a 20% reduction in cloud spending without compromising performance.
- Organized and led on-call rotations for production systems, handling incident response, root cause analysis, and mean time to recovery (MTTR).
- Oversaw the deployment of a multi-region Kubernetes infrastructure on AWS, enhancing application reliability and supporting 99.99% availability for critical services.
- Drove MuleSoft's expansion on Hyperforce to Japan and Canada, achieving SOC, ISO, and PCI compliance, enabling \$173M in ACV opportunities across regulated markets.
- Introduced a security automation framework for IAM policy enforcement within a Zero-Trust architecture, enhancing internal application security and simplifying compliance audits for AWS environments.

PROFESSIONAL EXPERIENCE

MuleSoft

Remote

Production Engineer / SRE Gov Cloud

Feb 2021 - Present

The world's #1 integration and API platform company, providing integration software for connecting applications, data, and devices to enterprises globally across financial services, healthcare, and retail industries with annual revenue of \$5B and ~10,000 employees.

- **Cost Optimization:** Developed a customized Okta SSO testing framework for Gov-Cloud, optimizing internal security unit tests and reducing costs by 10%, allowing developers to accelerate workflows and reduce time spent on manual authentication tasks.
- **Migration Strategy & Leadership:** Led a team of 2 engineers in architecting and executing a phased migration using the Strangler Facade pattern, achieving a 99.9% SLA to support an internally hosted compliance solution.

- **Full Lifecycle Incident Management:** Supported production systems through on-call rotations, enhancing incident management processes with root cause analysis and fostering a culture of blameless postmortems.
- **Cross-functional Collaboration:** Led cross-functional teams in redesigning a Golang-based deployment pipeline using Kubernetes and Argo Workflows, significantly improving release artifact delivery processes.
- **Infrastructure Automation:** Developed a Terraform pipeline that cut Amazon EKS cluster deployment time by 30%, enabling rapid scaling of high-availability systems through automation.
- **Testing and Quality Assurance:** Developed integration and unit test suites in Golang and Python to validate complex, previously untestable code, reducing deployment failure rates and ensuring system reliability.

Heroku

Senior Site Reliability Engineer

Remote

Feb 2014 – Mar 2021

A leading PaaS provider that simplifies app development, supports multiple programming languages, and boosts productivity for agile development teams, contributing significantly to Salesforce's multi-billion-dollar revenue stream.

- **Monitoring & Observability:** Orchestrated and maintained a comprehensive monitoring infrastructure (Nagios, bespoke synthetic monitoring application in Rails), achieving 100% adoption across all service teams and enhancing observability (Splunk).
- **Incident Management:** Established the Site Reliability Engineering (SRE) group as the first external hire, focusing on incident response strategies, conducting in-depth root cause analysis, and implementing proactive improvements to reduce downtime and enhance system reliability across critical services.
- **Compliance & Security Optimization:** Developed a Ruby web framework for internal compliance data management, reducing security access risk by more than 90% and strengthening audit readiness for external reviews.
- **Full-Stack Redesign & Development:** Rebuilt status.heroku.com from the ground up using Ruby on Rails, enhancing both customer visibility and internal incident response efficiency. Developed an internal situation report (sitrep) system to provide structured updates during incidents, improving communication, coordination, and decision-making across engineering and support teams.

Audax Health (Optum)

Cloud Systems Engineer

Remote

Jul 2012 – Feb 2014

A pioneering digital health company, engaged consumers with innovative health management solutions and gamification through its Zensay platform, leading to investment and acquisition by Optum, a leading health services company under UnitedHealth Group.

- **Remote Work Leadership:** Recognized as the first fully remote Cloud Systems Engineer among a team of six, maintaining seamless communication and productivity while reporting directly to the Director of Operations.

- **Infrastructure Automation:** Engineered automated deployment solutions on AWS using Puppet and Chef, reducing setup times and manual interventions by over 20% and standardizing configuration management.
- **Configuration Management:** Migrated infrastructure bootstrapping services from Puppet to Chef, streamlining deployment processes and improving configuration consistency.
- **Monitoring and Alerting Enhancements:** Optimized alerting and monitoring systems with Nagios, improving incident detection times (TTD) and reducing system downtime by over 20% through proactive issue resolution.
- **Logging and Data Visualization:** Deployed and maintained a robust ELK stack (Elasticsearch, Logstash, Kibana), enhancing logging capabilities and enabling real-time data visualization to increase operational insights and debugging efficiency.
- **Application Performance:** Collaborated with development teams to troubleshoot and optimize the Zensey Java application, leading to improved performance and user experience.

Canonical

Services Engineer

Remote

Jan 2012 – Jul 2012

A privately held computer software company, marketing commercial support and related services for Ubuntu and related projects with annual revenue of \$150+ and employee count of 1,000+.

- **Technical Training:** Delivered comprehensive technical training and deployment support through Canonical's Jumpstart program, leveraging tools like JuJu to implement Ubuntu and OpenStack, reducing client deployment time by 15%.
- **Client Integration:** Provided on-site guidance as a Services Engineer, facilitating the integration of Ubuntu's cloud ecosystem to improve client infrastructure efficiency. This role required approximately 50% travel to client locations to ensure effective adoption.
- **Customized Cloud Solutions:** Tailored cloud infrastructure solutions to client-specific needs, driving adoption of Ubuntu-based technologies and improving client satisfaction through hands-on training.

Linden Lab

Systems Engineer

San Francisco/Remote

Feb 2007 – Jan 2012

Linden Lab, creator of Second Life, pioneers immersive digital experiences and user-generated content in the metaverse, leading innovation in virtual reality and supporting a vibrant global community.

- **Global Infrastructure Oversight:** Oversaw colocation infrastructure to support Second Life's virtual platform, striving for 99.9% uptime for over 50 million users while managing critical services like DHCP/DNS, server imaging, and email.
- **Monitoring System Optimization:** Implemented and optimized Nagios monitoring systems, enhancing proactive issue detection and reducing downtime, significantly improving the overall user experience.
- **Large-Scale Linux Server Administration:** Administered a fleet of over 1,000 Linux servers (30,000+ simulators), effectively coordinating remote and colocation smart hands across the U.S. to improve infrastructure reliability and response times.
- **Seamless Remote Adaptation:** Successfully transitioned from an on-site to a fully remote Systems Engineer role, maintaining seamless operational continuity and system reliability while reporting directly to the Director of Operations at the San Francisco headquarters.

Destination Hotels and Resorts
Director of IT

Lake Tahoe, CA
Jul 2006 - Feb 2007

Destination Hotels and Resorts brand, a leading collection of independent hotels with over 40 properties and significant market presence, the Lake Tahoe location combines luxury accommodations and comprehensive services, contributing to the company's \$500 million annual revenue.

- **IT Operations Management:** Led all day-to-day IT operations for the Lake Tahoe resort, overseeing the management and maintenance of all Windows desktops and servers, ensuring smooth and reliable performance across the property.
- **Procurement:** Managed the procurement process for all hardware and software, negotiating with vendors to optimize costs and ensure up-to-date technology solutions to support both front and back-office functions.
- **Network Infrastructure:** Designed, implemented, and maintained a point-to-point Wi-Fi network between the hotel and service buildings, ensuring secure and efficient connectivity to support operational needs.
- **Relationship Management:** Maintained strong relationships with outsourced guest Wi-Fi service providers, coordinating efforts to deliver reliable and high-quality internet services to guests, enhancing overall guest satisfaction.

Porter Novelli
Systems Administrator

San Francisco, CA
Aug 2005 - Aug 2006

Porter Novelli is a global public relations and communications agency specializing in purpose-driven strategies that help brands navigate complex reputational challenges and drive positive societal impact. As a subsidiary of the Omnicom Group, the company employs between 1,000 to 5,000 people and generates an estimated annual revenue of \$100 million to \$500 million.

- **Network Management & User Support:** Managed network operations for four offices, (San Francisco, Sacramento, LA, San Diego) providing IT support to over 150 users across remote sites while reporting directly to the Chief Information Officer.
- **Budget Logistics:** Responsible for managing budget logistics and planning, conducting server and infrastructure updates to maintain optimal network performance and security.
- **Compliance:** Familiar with Sarbanes-Oxley requirements, leading initiatives to implement compliant policies and procedures across the organization.
- **Product Testing & Lab Management:** Directed an experimental lab for testing IT products such as Microsoft Systems Management Server, Citrix Presentation Server, and various software packages, assessing their viability for company-wide deployment.

Whiteman Osterman & Hanna LLP
Systems Administrator

Albany, NY
Jul 2003 - Aug 2005

Whiteman Osterman & Hanna LLP is a leading law firm in Albany, NY, providing comprehensive legal services across various practice areas, known for its expertise in government relations, business law, and litigation, serving clients throughout New York State and beyond.

- **Network Administration:** Managed LAN/WAN infrastructure and daily network operations, ensuring seamless connectivity and performance across the firm.
- **Project Management:** Led IT projects and coordinated the maintenance of a complex thin client network and a SQL-based billing system to support business operations.
- **Remote Operations:** Oversaw remote operations management for satellite offices, implemented a Linux-based spam solution, and trained and managed the help desk staff to improve service delivery.

EDUCATION

State University of NY @ Cobleskill, Bachelors of Technology (BT) in CIS

2003

SKILLS

- **Infrastructure as Code (IaC):** Terraform, CloudFormation, Puppet, Chef
- **Container Orchestration:** Kubernetes, Docker, ECS
- **CI/CD Pipelines:** ArgoCD, Argo Workflow, CircleCI, Jenkins
- **Monitoring and Observability:** Prometheus, Grafana, ELK Stack, Splunk
- **Programming Languages:** Python, Golang, Ruby, Bash, Nodejs
- **Cloud Platforms:** AWS (EKS, S3, Lambda, RDS), GCP
- **Security and Compliance:** SOX, FedRAMP, IAM, Zero Trust Models, Audit & Risk Assessment