

Relevant Technical Knowledge:

- 25 years of experience working with and proposing the use of free and open-source software at organizations ranging from small businesses to enterprise and government customers.
- 25 years of experience with Linux and UNIX systems architecture and administration with a primary focus on Linux and Solaris.
- 25 years of experience with IP networking, IP packet analysis, firewalls, and routing protocols.
- 25 years of experience with multiple frameworks for monitoring systems, applications, and networks. Tools include Nagios, Ionix, Sitscope, Datadog, Grafana, and Prometheus.
- 25 years of experience scripting in languages including Perl, Bourne shell, sed, awk, and Python
- 10 years of experience using IaC/Automation tools such as Puppet, Chef, Ansible and Terraform.
- 10 years of experience working at the leading edge of modern cloud architecture planning and executing the migration of workloads from legacy systems to the cloud in concert with application teams.
- 7 years working with OpenStack in roles including sales engineer, architecture, deployment, and operations.
- 10+ years of experience working with L3 through L7 content switching on F5 and Cisco platforms as well as software-based solutions such as haproxy and LVS.
- 10+ years of experience working with virtualization technologies such as Red Hat Enterprise Virtualization 3.x and VMware ESX 3.x, 4.x, and 5.x
- 10+ years of experience working with Storage Area Networks and enterprise storage devices such as EMC Clariion/CX/VNX, Hitachi Lightning/USP/VSP, and NetApp

Major Career Accomplishments:

- Designed, documented, and authored a tool by which users leverage a GitOps model to create new folders within Jenkins as well as namespace(s) within 1 or more Kubernetes / EKS / OpenShift environment(s) in which to run Jenkins agent containers. This application was fully automated and currently supports well over 1000 projects at a fortune 500 company.
- Designed, documented, and automated the deployment and monitoring of AWS EKS using Bourne shell, CloudFormation, CodeBuilder, the AWS API, Helm, Prometheus Operator, Kuberhealthy, Grafana, and various other tools.
- Designed, deployed, managed, and supported multiple OpenShift 3.x Kubernetes environments to provide Containers as a Service at Comcast. Customers included core X1/Xfinity services such as X1 Sports integration and Channel/Guide search services.
- Deployed Datadog monitoring, alerting, and metrics gathering solution for both OpenStack and OpenShift at Comcast. This allowed for a single pane of glass for SRE and other support staff as well as customers for the purposes of capacity planning, availability management, and issue detection and remediation.
- Worked with customers as a sales architect to implement cloud migration strategies including but not limited to automation of the deployment of infrastructure components using technologies such as Puppet and Chef in concert with appropriate systems baseline management. Target cloud environments included AWS and OpenStack (both hosted and on-premise). Worked directly with application development teams to assist in application architectures more well suited for both high availability and scalability in cloud environments.
- Worked as primary solutions architect/sales engineer involved in the largest sales deal of the year in North America for Red Hat. The total recurring revenue was 18 million USD per year. Provided direct high level customer service from an engineering and product configuration perspective as well as seeking new sales opportunities across the Red Hat portfolio of products.

October 2019 – Current

Lead Software Engineer, EPAM (Newtown, PA)

- Worked with a customer's DevOps Platform team to design, deploy, and administer a Jenkins Cloudbees Core based, master/controller per team approach to providing Jenkins as a Service.
- Developed deployment tools in Ansible Tower to instance new Jenkins controllers, clone existing from prod to a lower dev, and controller backup/restore
- Designed, wrote, deployed, and managed Jenkins process for leveraging implicit IAM roles in EKS to spawn agent containers which inherited the ability to assume the role of a customer deployment IAM Role such that Jenkins jobs did not need to use federated authentication and Jenkins Credentials to deploy projects to EKS accounts
- Designed, wrote, deployed, and managed a tool written in Python called the "Jenkins Folder Clouder" which allowed users to branch the configuration repo and add their own folders to be managed in Jenkins as well as a list of clouds that this folder (and subfolders) would have the rights to access. The tool leverages Terraform, Helm, Artifactory, the Kubernetes API, and the Jenkins API to take in a YAML document committed in a PR and produce a Jenkins folder with test jobs for each cloud which have been run to ensure that the configuration was successful. This tool will be the primary tool to migrate 1000s of projects from GitLab and GitLab Runners to GitHub and Jenkins.
- Taught/Mentored customer team members who would either be contributing to or operating the above tools. Also documented the above solutions both for users and for developers/devops staff.
- Worked with development groups within the customer to onboard both initial/alpha customers and customers who came over after internal GA.

June 2019 – September 2019

Sr. Systems Engineer, American Water (Camden, NJ)

- Primary responsibility is to architect, deploy, and manage Kubernetes platforms including Docker CE and EE for non-cloud workloads and AWS EKS for cloud workloads.
- Work with application teams to migrate applications into the cloud. While doing so, advising teams on best practices regarding source code management, release management, handling pull requests, automation of CI/CD workflows towards the goal of actual CI in production environments.
- Evangelize internally the use of not only Kubernetes and containers, but the cloud as well.
- Work closely with coworkers to transfer knowledge as well as writing documentation for each major task relevant to the platform(s).
- Provide escalation support for systems and application teams at-large. This ranges from issues with PostgreSQL or Mongo to general issues with TLS/SSL, Identity Management (SAML, LDAP, etc...), or random UNIX/Linux performance issues.

October 2017 – June 2019

Cloud SRE, Comcast (Philadelphia, PA)

- Primary responsibility was the architecture, operations, and advocacy of the Containers as a Service platform which was based on OpenShift Origin 3.x/Kubernetes 1.x (currently 3.10.0/1.10).
- Implemented and evangelized Datadog as a mechanism to store metrics and service checks and to provide reporting and alerting based on these metrics and checks. Worked with customers to build custom dashboards as well as working with engineers to build dashboards, alerts, and other primitives programmatically via REST API. Worked with teams to QA data forwarded to and stored in Datadog against existing sources of truth. Worked with the vendor as well as internal teams to fix bugs and to add functionality by way of code review or additional code submissions.
- Worked with OpenStack SREs on escalated issues including obscure performance problems, ansible deployment issues, and Datadog monitoring discrepancies.
- Wrote and reviewed ansible playbooks for the automation of configuration, upgrades, and deployments for OpenShift and OpenStack environments. Leveraged Terraform for the creation of instances in OpenStack
- Wrote Python scripts and Go apps deployed as Pods in Kubernetes to gather complex metrics about the OpenShift environments and exported these metrics via Prometheus integration with

Datadog.

- Assisted customers onboarding into OpenShift. This often included working with customers to better understand the Kubernetes API and the various types of primitives such as Jobs, Deployments, Pods, Roles, RoleBindings, and SCCs. Much time was also spent assisting customers with fitting into the “non root, non-predictive UID” paradigm of OpenShift UID assignment and overall Kubernetes multi-tenancy constraints. This extended into PodSecurityPolicy as Kubernetes versions got into the teens.
- Saved 10’s of 1000’s of dollars a year working with customers to migrate costly AWS workloads into on-premise OpenShift on bare metal or OpenShift on OpenStack instances.

August 2013 – Feb 2016

Solutions Architect, Red Hat (Remote US)

- Primary responsibility was to technically support the efforts of enterprise account representatives in the effort of selling the Red Hat suite of products. These products ranged from the core Red Hat Enterprise Linux offering to the middleware suite of products as well as newer offerings such as Red Hat's Open Stack Platform, Red Hat Storage, Red Hat Cloud Forms, and layered products such as Red Hat Clustering
- Worked with customer teams to become a “trusted advisor” such that we would be referred to any time they were embarking on a new project. This often took the form of meeting with the customer's technical staff frequently, doing lunch and learn events, doing product road maps, and generally keeping my finger on the pulse of my customers' needs.
- Initially supported a single rep with a single large US telecom company. Was instrumental in the sale of \$18m worth of product towards the end of my first fiscal year in the role
- Worked with customers to present POCs for migrating legacy workloads into cloud environments using technologies such as OpenStack, Docker, Puppet, Chef, and Foreman/Satellite.
- Worked with internal resources to increase the body of knowledge in the areas of platform, clustering, and overall systems management.

March 2012 – August 2013

Consultant / Sr. Consultant, Red Hat (Remote US)

- Worked as a dedicated enterprise engineer working on-site with a large retail customer. This engagement included product enablement, systems architecture, senior level technical support, some amount of basic systems administration, and project coordination between customer resources, Red Hat consultants, and additional 3rd party consultants working on a large development effort.
- Worked with the account team (Sales/Solutions Architects) to drive new business opportunities.
- Provided as-needed assistance with infrastructure issues experienced by customers. These issues were often cross-platform and cross-discipline in nature and required expertise in the disciplines as well as ability to coordinate across potentially adversarial infrastructure teams.
- Assisted customer with migration from EMC PowerPath to native DM-MPIO for SAN multipathing.
- Assisted with infrastructure architecture of the platform on which a newly developed electronic parts catalog application and supporting applications will run. Architecture included RHEL, GFS2 & pacemaker/corosync, JBoss, Apache, and Websphere MQ integration.
- Debugged and resolved performance issues of existing Red Hat HA & GFS2 clusters. Worked with GFS2 developers and subject matter experts to tune GFS2 file systems.
- Worked with customers to identify barriers to cloud readiness.
- Worked with customers to optimize use of RHN Satellite server to provide not only core build and baseline, but also to include basic configuration management

July 2006 – February 2012

Sr. Systems Engineer, Corporation Service Company (DE)

- Provided technical and architectural leadership regarding UNIX systems, networks, and Web application deployment and delivery
- Worked with business stakeholders to build project plans, define requirements and deliverable items, and execute the technical implementation for business initiatives ranging from small projects to large multi-team projects.

- Architected, deployed, and managed UNIX systems and middleware
- Architected, deployed, and managed content delivery systems such as the F5 BigIP LTM and GTM load balancers, Apache, and Weblogic.
- Provided Sr. level support and escalations for UNIX systems and SAN/NAS systems problem diagnosis and resolution
- Coordinated with teams both locally and globally to diagnose and remediate system problems and to delegate and complete project tasks
- Evaluated and recommend new technologies and commercial products such as Intel blade and standalone servers, Sun servers, VMware and other virtualization solutions, enterprise storage solutions, and outsourcing opportunities

October 2004 – January 2006

Systems Administrator, IPsoft Managed Services (NYC)

- Deployed and managed content delivery systems such as the F5 BigIP LTM load balancer and Apache HTTP server
- Provided Sr. level escalation for UNIX, SAN, and network problem remediation
- Developed custom monitoring scripts in Perl and various shell scripting languages for internal systems and customer systems
- Developed Solaris and Red Hat packages for deployment to internal systems and customer systems
- Assisted with debugging of internal and customer applications written in languages such as PHP, Java, and Perl
- Worked with sales team to provide pre-sales engineering support

March 2003 – September 2003

Field Engineer, Opsware, Inc. (VA)

- Consultant for US Army Knowledge Online/US Army Intranet
- Deployed and managed the Opsware data center automation product
- Integrated the customer OS baselines into the product via technologies such as kickstart, jumpstart, and other unattended install methodologies
- Created RPM and System V packages from customer application requirements for deployment via the Opsware product
- Developed scripts to automate the configuration and deployment of customer application configurations and code
- Provided general consultative assistance with issues relating to UNIX systems, computer networks, and application integration

August 2001 – March 2003

Sr. Systems Engineer, General Dynamics (Fairfax, VA)

- Consultant for the Partnership for Peace Information Management System
- Architected, deployed, and managed Sun Solaris and Red Hat Linux systems
- Deployed and managed SunOne/Netscape based Web, e-mail, and directory services in 15 countries
- Architected a solution to replace and augment older Sun Solaris systems with Red Hat Linux and the full LAMP stack

August 1999 – August 2001

Vice President/Equity Partner, Dog.com, Inc (DE)

- Developed Web applications such as an online store, shopping cart, and fulfillment system using Perl, MySQL, C, shell scripting, and other CGI-based technologies.
- Architected, deployed, and managed free Webmail offering for users to create e-mail addresses @dog.com
- Architected, deployed, and managed Red Hat Linux servers and Windows NT servers
- Supported managed services for non-profit animal-related 501c3 organizations

May 1997 - August 1999

Sr. Systems Administrator, The Magnetic Page, Inc. (DE)

- Architected, deployed, and managed Sun Solaris, Red Hat Linux, and Windows NT systems to support Internet and intranet services
- Architected, deployed, and managed local and wide area networks consisting of Ethernet, ISDN BRI/PRI, Frame Relay, SMDS, and ATM circuits to support Internet services
- Provided consulting services to business customers ranging from UNIX and Windows-based systems installation, integration, and management to custom application and script development
- Developed, improved, and managed internal applications and scripts to support billing, account management, Web site provisioning, and e-mail management
- Provided telephone and onsite support to business and residential customers

January 1996 - May 1997

Internet Technician, RaveNet Systems. Inc. (Yorklyn, DE)

- Provided telephone and on-site support to business and residential customers
- Provided consulting services to business customers for UNIX and Windows-based systems installation, integration, and management
- Assisted with the management of local and wide area networks consisting of Ethernet, ISDN BRI/PRI, and Frame Relay circuits to support Internet services
- Deployed and managed Linux, BSD, and Windows NT systems to support Internet and intranet services

Education and Certifications:

Strayer University Information Systems, Bachelor of Science, Summa Cum Laude.

Red Hat Certified Engineer, RHEL 5 #805010805047683 / 110-118-544 - expired

Red Hat Certified Virtualization Administrator, RHEV 3.0 - expired

Red Hat Certificate of Expertise: Red Hat Enterprise Security: Network Services issued 03/08/2013

Red Hat Certificate of Expertise: Red Hat Enterprise Deployment and Systems Management issued 05/03/2013

VMware Certified Professional, vSphere 4.1, Reg #240285069 - expired