

Louis Kowolowski

Curriculum Vitae

TECHNOLOGY LEADER

I like to solve large and complex problems through quick iteration and continuous improvement. I identify the goal, choose a step along the way, then improve the solution. I'm a technology leader with over 20 years experience with UNIX, Security, and Networking. I manage globally distributed teams and build relationships which improve productivity and efficiency between teams.

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EDUCATION

2000 – 2004 **BS in Computer Security and Information Assurance**
COMPUTER SCIENCE
Southern Oregon University

WORK EXPERIENCE

Network Engineer at FlightAware, LLC

FEBRUARY 2016 – PRESENT

Manage all aspects of the network from office WiFi to routers, bgp peers, firewalls, and vpn tunnels. Mostly Juniper.

- Served as mentor for new-hires. This typically is a 4-6mo process ranging from side-by-side teaching to more hands-off oversight of project work. At the end, its expected that the new-hire will be a productive member of the team and be ready (or nearly ready) for on-call duty.
- Initiated weekly team meetings to document operations tasks, processes, SLAs (both internal and external), and internal systems to streamline on-boarding of new employees, reducing the long tail on making people productive from 1yr+ to 3mo.
- Provided ongoing knowledge share with coworkers on Juniper and network skills ranging from simple things like firewall policy to more complicated things like a checklist of items to help determine where network failure is occurring between sites connecting over the internet.
- Project lead for increasing site-2-site network performance. Spent several months analyzing traffic patterns between hosts that were deemed to have connections that were slow. Utilizing tools like tcpdump, I could see problems like tcp window scaling, or tcp resends. Making changes to the network stack on the end hosts (like tcp send/receive buffers) lead to significant performance increases in some cases, as much as 300-500%. This allowed database streaming replication to catch up faster from outages, reducing the RPO/RTO.
- Project lead for transitioning datacenter network uplinks to using BGP routing. This took about a month to plan out, test and execute, and required coordination with both internal and external customers, in addition to the service provider. No outage observed.
- Project lead for transitioning data centers to Juniper SRX devices. In addition to setting up new devices, this entailed unwinding a long list of dependancies with both servers and devices having non-redundant connections, making them redundant, and finally adjusting TCAM on routers to hold additional routes for the new path. This allowed us to migrate a single network at a time to the new devices, ensuring correct functionality with out endangering production data or customers. This project took almost a year, but when we finished, performance had increased 3,000% (300Mbit to 10Gbit), all internal network paths were fault tolerant, and all physical hosts network connections were fault tolerant.
- Project lead for ingesting new data feeds for the Aireon space-based ADS-B project. This project took a year to work through setting up dev/test IPsec connections/servers, and once we finished the PoC, setting up multiple redundant IPsec tunnels with a partner, and creation of redundant servers to ingest and process additional data feeds.

VP Technical Operations at Silent Circle, AG

FEBRUARY 2013 – APRIL 2015

Lead the operational company vision of a privacy-friendly information service. Managed 4 globally distributed teams consisting of 12 people:

IT/Operations

- Increased customer privacy by creating new datacenter locations in Switzerland, where they have the strongest privacy laws in the world.

- Facilitated the migration to a modern datacenter architecture which reduced the dependence on any single piece of hardware; making maintenance both less time consuming and less impactful to production systems.
- Primary point of contact for all issues relating to production and engineering systems.

Release Engineering

- Managed Release Engineering on creation and management of infrastructure related to software product builds and releases to mobile app stores for Apple, Google, and Baidu.
- Oversaw source code audits, releases, and binary analysis by 3rd party vendors.
- Created an engineering lab that was physically disconnected from production resources, allowing development to be able to create and test without affecting production.

Quality Assurance

- Part of the decision-making team with the CTO and VP of Engineering, that defined policy which placed QA in a decision making role for software releases.
- Provided daily operational review and quality control for voice and text services.

IT Helpdesk

- Initiated the collection and organization of asset related information.
- Created and implemented procurement process and policy.
- Oversaw the day-to-day activities of supporting headquarters and regional offices.
- Initiated formalization of on and off-boarding for employees and contractors, including equipment and software training.

Architect / Network Engineer at Silent Circle, LLC

JULY 2012 – FEBRUARY 2013

Architected and deployed a secure network spanning multiple continents to facilitate end-to-end encrypted VoIP, text messaging, and email. Utilizing industry standard technologies such as IPSec, IPv6, and BGP. Deployed alerting and trending for metric collection and analysis to facilitate capacity planning and provide approximate per-user costs.

Sr. Lab Systems Engineer at Symantec Corp.

SEPTEMBER 2007 – JUNE 2012

Managed all infrastructure and assets for the Encryption group's engineering and QA labs.

- Supported over 500 RHEL/CentOS for both engineering and QA ranging from development, testing, Release Engineering, and infrastructure such as DHCP/DNS, switches, and routers. Deployed IPv6 to enable Engineering and QA to develop and test products in a dual-stack environment.
- Enabled engineering and QA spread across India and the US to work efficiently with the same resources. Re-architected the lab network and Virtual Lab Manager with 10G ethernet and Juniper Q fabric to better cope with increased scalability demands of both the front end ESXi servers and the backend EMC Clariion SAN. Architected and deployed backups for all critical resources in the lab environment both physical and virtual.
- Integrated 2 engineering teams lab infrastructure, ensuring no loss of data, downtime or functionality. Ensured a successful move to the new HQ building, bringing up all critical services on time.

AWARDS / CERTIFICATIONS / MISC.

2015 **Oregon Notary**
Commission: 944365 Expiration: 2019

2010 **IPv6 Certification – Sage Level**
Hurricane Electric

2008 **PGP Certified Technician**
PGP Corp.

1993 **Eagle Scout**
Troop 27

Please refer to my LinkedIn profile for a more complete list of work experiences along with recommendations.