

Robert Mibus

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Summary

I'm an enthusiastic and experienced Systems Engineer, Technical Lead, and Engineering Manager.

I've looked after large numbers of Linux and Solaris-based systems (including doing software development), I've led the technical design and evolution of multiple services over years. As a manager I've actively worked with the team to mentor and guide people towards improved skills and performance.

Specialties: Learning stuff. Bringing disparate groups together to converge on a solution. Mentoring. Presenting. Also, DNS, Email, IPv6, monitoring, design/architecture, documentation, demystifying complex legacy systems, and finishing jobs the right way the first time.

Skills

- *nix system configuration, optimisation, virtualisation, containers.
- Configuration management (Puppet).
- Tuning and query / index optimisation for databases (MySQL, BDB).
- Core protocols - DNS (authoritative & recursive/caching), SMTP, LDAP, RADIUS.
- IPv6 migration and troubleshooting.
- Monitoring and SLAs/SLOs/SLIs.
- Backup & restore.
- System design.
- Solid written and verbal communication.
- Mentoring & coaching junior and senior employees.

Experience

Engineering Manager (2018 – present)

- Changed to managing the Sydney Google Photos SRE team.
- I work to improve people's effectiveness, efficiency, skills, careers, and anything else that makes life better for my team and for our users.

Site Reliability Engineer / Senior SRE, Google (2013 – 2016)

- On a team responsible for three-nines and four-nines core infrastructure servicing Googlers (DNS, SMTP, Load Balancers, authentication, and more).
- Monitoring “go-to” person for the team.
- Designed and implemented broad sets of improvements to various services and multi-service improvements (e.g. security).
- Made Technical Lead and later promoted to Senior SRE in 2016 in recognition of my contributions.
- Set and assessed team priorities, created initiatives to improve cross-team communication.
- Mentored and coached other members of the team.

Systems Administrator, Internode (2008 – 2013)

- Built, tested, and rolled out new DNS recursive resolver network; later refreshed using automated Puppet builds for greater ease of maintenance.
- Designed and implemented a PCI-compliant backup system on a tight deadline.
- Maintained a IronPort Email cluster dealing with two million non-spam messages per day.
- Rebuilt undocumented legacy systems in-line with current best-practices, ensuring future maintainability; including webmail, email management and routing, backups, and authoritative DNS.
- Performed a wholesale cleanup of RADIUS configuration - removing customer-impacting and business-impacting problems, as well as writing documentation.
- Acted as a Subject Matter Expert for several key systems (backups, DNS, email, authentication), aiding other staff in resolving issues and improving systems documentation.
- Worked towards shutting down various unsupportable services, migrating customers to newer equivalents and reducing the support burden; includes deprecated SMS and backup systems, legacy mail routing configurations, and bespoke RADIUS servers.
- Improved automatic handling of suspected-compromised email accounts, leading to significantly lower ongoing operational work.
- Participated in an internal IPv6 project, adding IPv6 monitoring and enabling IPv6 services using various methods (direct connectivity, load-balancer bypass, v6-v4 proxy).
- Developed (and later released as open-source) custom software for automatically handling or delegating IPv6 reverse DNS for large customer networks.
- Actively worked towards pre-emptive and preventative maintenance plans, reducing on-call support requirements and discovering issues before customers were affected.
- Split backup sets into SLA-matched groups with data-appropriate retention policies, producing a ~75% saving in ongoing tape purchases.
- Consolidated disparate (customer and internal) email routing systems to a central IronPort-based solution, using advanced message filtering options to ensure IP reputation and SPF are segregated between the two groups.

- Presented on a variety of topics (DNS, IPv6, Asterisk, Arduino) to user groups and at national conferences (Linux.Conf.Au 2012 & 2013).

Technical Officer, Ballistic Media (2003 – 2008)

- Created and maintained multiple online stores and other payment-integrated online systems.
- Maintained server infrastructure; planned and implemented changes and upgrades for performance and availability.
- Developed customised reporting tools for management use.
- Developed custom reporting and administration interfaces for OpenAds to better track and manage over 20 million ad impressions per month.
- Developed and refined a custom ad priority engine for OpenAds to improve ad delivery target accuracy for our specific setup, significantly above OpenAds' stock capability.
- Created a series of custom munin graphing plugins to monitor important server statistics and community-driven statistics (news article reads, online users, httpd response times, etc) for tracking and correlation.
- Acted as primary developer for a paid-download video tutorial site, gnomononline.com.

Network Administrator, Sheidow Park Primary School (2000 – 2003)

- Acted as day-to-day local IT support for 50 networked PCs
- Helped plan school-wide infrastructure & platform upgrades.
- Configured and maintained a local domain server for authentication and lockdown of individual desktops.
- Installed custom checkout kiosks for the school library, re-using low-end hardware

Industry

SAGE-AU / ITPA

I volunteered as the President of the South Australian Chapter (2009 – 2012), where I was responsible for managing monthly speaker and venue arrangements, later shifting to a board member for the national organisation (2013-2017)

Public Presentations

I have presented at SAGE-AU / ITPA's SA chapter, at Linux.Conf.Au 2012 & 2013.

Education

- **Bachelor of Information Technology**, Flinders University (2001 – 2003); awarded membership to Golden Key Society based on academic performance.
- Certificate IV in **Project Management**
- Training in **XIV storage**, **Zend PHP Server** software, **IPv6**.
- **On the job!** - I am always active and interested in learning new systems and technologies.

References

Available on request