

Administered, tuned PostgreSQL database. Migrated to new master and read slave with Slony-I. Added pgbouncer connection pooling.

Packaged primary Django application, custom Python modules, and scripts. Seamlessly integrated as native APT/dpkg.

Installed HAproxy load balancing as an improvement to nginx's functionality. Implemented Linux-HA's Heartbeat for automated failover of front-end load balancers. Squid proxy as reverse-cache for static media served by nginx, subsequently served to a CDN.

Brought DNS in-house, with external, redundant, high-performance, low-cost secondary servers.

Moved inbound and outbound mail to separate, dedicated server, running postfix. Improved mail deliverability, including implementing reverse DNS, SPF and DKIM.

Provided documentation of changes and "state" of servers using Trac-based wiki and ticket system. Added minor plugins and customizations to Trac system.

Centralized logging, including web server logs, using syslog-ng

Set up Nagios monitoring, including non-standard plugins. Maintained Munin (RRDTool-based) trending graphing.

June 2009

Consultant

Taos, Redwood City CA

Consulting/Contracting system administration role.

Feb 2009–Apr 2009

Systems Administrator & Build Manager

Nixle, San Francisco CA

Sole system administrator for Internet-based government relations startup company.

Racked, cabled, configured new servers at out-of-town datacenter facility. Installed console server, configured servers for serial console, IPMI-over-LAN, allowing full remote control. Automated network boot/install, with local software mirror, using kickstart management tool "cobbler," resulting in 8 minutes from "bare metal" to an operational CentOS 5.2 server.

Built custom RPM packages for Django environment, including python 2.5, libraries, mod_python. Automated deployment, including database (MySQL) schema upgrades and JBoss installation.

Leveraged F5 Big-IP LTM 9.5 failover pair to provide SSL offload, for both inbound and outbound traffic. Installed BIND DNS servers. Managed ASA firewall failover pair, including IPsec VPN, Cisco stacked switch infrastructure.

Dec 2007–Dec 2008

Systems/Network Architect

Anchor Intelligence, Mountain View CA

Started as sole system administrator, performing all SA tasks from handling hardware to architecture and design.

Moved research infrastructure to new office space, including setup of physical infrastructure and redundant Internet.

Maintained all server infrastructure on Ubuntu and CentOS Linux, including upgrades. Maintained development servers, including storage attached to PERC 5 (LSI MegaSAS) for RAID. Maintained CentOS 5.2, database servers, Veritas, MySQL, MySQL-enterprise, primarily using MyISAM storage engine for production and research databases.

Added DNS, DHCP, Ganglia, central NFS, software mirrors for Ubuntu, CentOS, MySQL, and other open source software. Upgraded and maintained Subversion/SVN, Bugzilla, MediaWiki, and Nagios. Added dependencies to Nagios.

Installed high-performance (1GiB/s), reliable (RAID5), low-cost (\$5k/21TiB usable space) storage. Grew to 100+TB.

Performed hardware and performance tuning, including kernel/sysfs, MySQL, and disk settings. Evaluated server and storage hardware options for performance and price, including power utilization, extrapolating empirical measurements on existing hardware. Planned future capacity and scalability. Documented process, decisions, and install procedure and progress using Bugzilla and MediaWiki.

Provisioned new production infrastructure in new datacenter colocation cabinets.

Automated installation of servers, using Kickstart for CentOS, and Debian-installer "preseed" mechanism for Ubuntu. Compiled and customized local and open-source software, repackaging into RPM and Debian packages.

Played active role in hiring, and mentoring junior and intermediate members of operations team, using structured lessons, internal documentation, and informal guidance.

Jun 2007–Dec 2007

Sr Systems Administrator

adap.tv, San Mateo CA

Sole system administrator and network engineer for online video advertising startup. Supported live revenue-generating production site as well as back-end software development environment.

Supported environments based on servers running CentOS and Ubuntu. Configured network based on Cisco switches and router, and Netscreen security appliance.

Automated Java based and Mongrel (Rails) based application deployment.

Analyzed performance of software components and database, observationally and experimentally.

Designed and specified commodity hardware to meet several growth curve scenarios. Sized, priced, ordered datacenter services for planned growth.

DBA of production MySQL with MyISAM, InnoDB, replication. Evaluation of PostgreSQL.

Moved office server/network infrastructure to new space.

Sep 2006–Mar 2007

Network Architect

Navio Systems, Cupertino CA

Lead Linux system administrator and network engineer.

Install, configure, maintain F5 BigIP (version 9), including iRules (Tcl variant), Netscreen ScreenOS, with IPsec VPN, RedHat Enterprise Linux (RHEL, version 4.4), CentOS on Dell PowerEdge, IBM X-series, Cisco IOS 12 and CatOS 8, with link aggregation, VLAN trunking with and w/o VTP, Avocent Cyclades AlterPath ACS and PM appliances.

Install, configure KickStart services, including DHCP, NFS, TFTP, PXE, DNS. Automate install of internal product, primarily tomcat5.5-based Java WebApps. Modify open-source DNS/DHCP/VMPS management package (Sauron) to more fully utilize database features of PostgreSQL 8.2, lessening reliance on Web/CGI frontend and Perl 5.8 backends.

Configured squid 2.6 for use as reverse-proxy and cache, including ACLs, and connection to Java-based rewrite back end and ACLs. Configured Apache web server, including URL rewriting support.

Specified, ordered, installed, and configured low-cost FibreChannel/SATA disk arrays using Veritas Volume Manager (VxVM) and Veritas Filesystem (VxFS), a.k.a. Veritas Storage Foundation.

Interfaced log4j to syslog-ng for reliable, centralized logging of both application and system messages.

Assist IT, including administration of 3com IP telephony system and AlarmLock (HID-based) card key door locks. Mentored junior staff, including junior DBA, network engineers, and system administrators.

Apr 2006–Sep 2006

Sr Network Engineer

Casabi, Campbell CA

Sole Linux system administration, network engineering for VoIP-related ASP start-up. Supported production operations, SW development, including repackaging in RPM, Apache/Jakarta Tomcat and related webapps deployment. Platforms were Dell PowerEdge servers running SuSE, RedHat enterprise Linux. Assist QA and troubleshooting of ASP product, embedded SW in 3rd-party handset, with packet traces, protocol analyses, primarily of SIP traffic, with tcpdump and Ethereal. Set up IPsec VPN from Fortigate firewall at corporate office to Cyclades ACS console server at datacenter.

Nov 2005–Apr 2006

Consultant

Remtech Services Inc., Livermore CA

Contract system administration and network engineering for Lawrence Livermore National Laboratories central computer services group. Spearheaded project improving reliability of distributed administration, previously done via cfengine, including a trial of OpsWare. Converted server and application authentication to LDAP.

Sep 2004–Nov 2005

Consultant

Elcaro Technologies, Palo Alto CA

Provided system administration consulting in support of Oracle DBAs, primarily in the areas of operating system and storage setup, troubleshoot, and tuning. Supported platforms included Solaris, HP-UX, and RedHat Linux.

Mar 2003–Aug 2004

System Administrator

Google, Mountain View CA

Maintain, upgrade "home-grown" monitoring system in Python including email, paging infrastructure and MySQL database. System monitored hundreds of services on dozens of monitor servers.

Plan capacity, set up, support, maintain HW and OS for Sun-based Oracle Financials, including VeritasVM, Sun 4800 hardware. Provide daily support to Oracle DBA, including network troubleshooting related to replication and printing.

Manage, upgrade, move OpenLDAP servers, including standard replication and replication for purpose of testing external systems for read-write interoperability.

Pager/on-call, escalation for troubleshooting, user support 100s of programmers: e-mail, Linux, backup/restore, NFS.

Apr 2001–Aug 2002

Sr Systems Administrator

E L & Associates, Pleasanton CA

Administer production servers, network in ASIC test design environment with FlexLM, Veritas Volume Manager, Solaris, Red Hat Linux. Also support Panasonic phone, voicemail system and card key security system.

Upgrade of disk, including migrate DiskSuite to Veritas, add Internet connection, installed rack mount Linux servers, Sun UE4500, continuous updates of EDA tools, implement IMAP server and clients replacing POP-based mail, implement LSF batch system, support internal Apache web server.

Nov 1999–Mar 2001

Principal MoTS (Operations)

Beyond.COM, Santa Clara CA

System Admin and Network Engineer for production operations and software groups.

Implement cisco-based VPN. Upgrade routers, switches, cisco LocalDirector load balancers, PIX firewalls in failover configuration. Assisted moving production machines between datacenters.

Support Veritas Volume Manager, FileSystem, Sun SENA A5x00, A3500/A1000, serial consoles using cisco hardware. Maintain, update JumpStart. Implement, consolidate WAN connections. 24x7 on-call, for web services and DBAs.

1988–1999

Available upon request

HARDWARE PLATFORMS

cisco routers and switches (Catalyst 6500/65xx/4500/4xxx, cisco 26xx/28xx), PIX/ASA firewalls, F5 load balancer, Avocent Cyclades ACS serial console & PM remote power, HP Proliant, Dell PowerEdge, IBM x-series servers

SOFTWARE TECHNOLOGIES

cisco IOS and CatOS, OSF/Linux LVM, MRTG, sendmail, postfix, OpenLDAP, PostgreSQL, MySQL, C-shell (csh/tcsh), Bourne Shell (sh, bash, dash), Perl, Tcl, expect, FlexLM, SuSE Linux, Ubuntu Linux, RedHat/RHEL/CentOS Linux, Veritas Volume Manager (VxVM), Veritas File System (VxFS), Apache HTTPd web server, HAproxy load balancer, Apache/Jakarta Tomcat, Squid cache, sysstat/sar, Subversion (SVN), (RedHat) KickStart, (Ubuntu) Debian-installer and packaging (dpkg, debhelper), OpenVPN, JBoss

PROTOCOLS

Gigabit Ethernet, IP, bridging/switching, SNMP, POP, IMAP, DNS/BIND, SSH, DHCP, SMTP, LPD/LPR, IPsec, SIP, VMPS, LDAP, NFS

REFERENCES

Available upon contingent offer

WORK AUTHORIZATION & TRAVEL

Passport

United States of America

Trusted Traveler

NEXUS