Dean Hamstead

Technical Specialist at Optus

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Summary

I've spent my career building and maintaining internet services on Linux and FreeBSD.

My specialty is building superior open source platforms and systems at a low cost, that are highly available. My preference is to build entirely with best of breed open source software, with Perl applied as glue where needed. I want to help business avoid vendor lock-in and ensure long term success by using software you can rely upon.

I am a very strong advocate of Lean methodologies that seek constant measurement and improvement in business processes. Particularly I am supportive of continuous improvement philosophies like the Toyota Production System.

Technically my interests lie in understanding the full stack from the network through to the application. My Linux of choice is Debian, with a very strong background in RedHat and FreeBSD. I have taken opportunities to take hands on experience with most major network manufacturers including Cisco,Juniper Networks, Extreme Networks and Hewlett Packard

Recently, I have been spending much time building fully open-source based virtualised environments using KVM backed with NetApp storage. I'm looking forward to more opportunities to use KVM and NetApp in the future!

Career wise, my interests lie in the emerging developer-operator (devops) model. Where highly competent, multi-disciplined engineers build, run and continuously improve computerized systems that are lean, agile and bullet proof. Providing a cost-savings centre, rather than a cost centre to business.

Specialties

Debian Linux, RedHat Enterprise Linux, Perl, DOCSIS Cable Networks, NetApp NAS/SAN, Juniper Networks, Extreme Networks, FreeBSD, OpenBSD, MySQL, PostreSQL, Nagios monitoring and alarming, Torrus, Datacentre Automation, Workflow Automation, Server Architecture

Experience

Technical Specialist at Optus

July 2009 - Present (2 years 3 months)

- Responsible for RHEL5 and CentOS5 SOE, currently working on RHEL6 SOE. (el5 running on over4000+ servers, physical and virtual)
- Responsible for Optus internal configuration management system called 'Conform' - similar to Puppet,Cfengine. Rewrote large portions of the internals to enhance for RHEL5 and also RHEL6. Addedapplication configuration modules for open source software such as Apache, Vsftpd, Mrepo, Exim.
- Architected and rebuilt kickstart infrastructure for greater flexibility and security.
- Architect new server and application build+install, alarming and configuration management infrastructure,rebuilt and migrated all systems.
- Enhance SOE for Hp bladesystems, c7000 enclosure alarming to nagios, blade server alarms -including HP hardware raid status, known-bad firmware management, bad/old bios management.
- Designed and currently implementing new open source based performance monitoring based on the Torrus open source monitoring software.
- Design and built large scale virtualisation infrastructure using KVM linux virtualisation, Netappstorage, HP BL495 and BL465 blades in HP c7000 using HP Procurve Blade switches. The system peaked at 70 hosts (now less thanks to larger memory) and is now achieving densities of almost 100 vms on some hosts, we have over 700 vms running
- Migrated old VMware virtual machines to KVM

Senior Network Engineer at Optus

March 2008 - June 2009 (1 year 4 months)

- Rewrote large sections of the internals of the open source Cricket monitoring software to considerably improve performance and scalability. Currently monitoring over 20,000 targets.
- Design and built HA email system for Voice-mail to text, using LVS load balancers, and exim MTA software all on RedHat Linux.
- Delivered new provisioning systems for carrier VoIP on DOCSIS cable and also 100megabit (ie Docsis 3) cable.

- Also implemented Zero rated and non-speed limited data solution for cable using docsis standards.
- Design, built, maintain of mirror.optusnet.com.au - a small cluster of servers delivering over 1.7 petabytes of data each month.
- Customized RedHat and CentOS SOE for HP BladeSystems, including SNMP monitoring, RAID alarming etc.

Computer Technician at Penrith City Council

1999 - 2008 (9 years)

- Performed general systems administration and development roles in a small IT department.
- Over 100 sites in the form of Council Offices, Child Care Centres, Libraries, etc.
- Windows and Linux systems, with both staff and public facing systems.

Education

University of Western Sydney

Bachelor of Engineering (Computing) (Hons), Engineering, Physics, Mathematics, Telcommunications, Electronics, Computing (2001 - 2007)

Pacific Sailing School Sydney Harbour

ICC/RYA Sailing Certification, RYA Yacht Training, 2011
Activities and Societies: Keel-boat Crew, Keel-boat Helm, Keel-boat Spinnaker, Offshore Sailing

Interests

- Habour and Open Ocean Sailing
- LANparty Computer Gaming
- RC Boating

Recommendations

"I've known Dean professionally and personally for perhaps two years. At first I met via a recommendation from people who run one of our communications products that is quite mature. These products receive very little incremental funding, so the type of technician they need is someone who can create technical excellence from very little in a short period of time, and understands that there is a far greater risk of impacting the customer base than achieving the sort of gains that get you noticed. Dean was one of the few technical resources thrown at this effort and I have to say his personal attention to technical detail was a major indicator of why this product has been as effective as it has. Dean has a knack for finding the least path to an outcome. This does not imply a requirement for an abundance of planning or interaction on his part. In some people this would be a risk, but his knowledge of the technical standards and adherence to detail allow him to reach a value proposition that few groups of people get to, let alone an individual. One of the things I've most enjoyed in our discussions is that Dean is fine not agreeing with accepted positions. When he doesn't, he has a reason, and even when I think he's wrong I realize he's usually right within his realm. Dean is capable of making things happen because they're right, as well as making things happen because he can. Dean is a person of conviction. Dean has run his own business enabling up to 100 friends at a time in a LAN environment at school halls with a switch he's acquired that is large enough to run a small ISP. He doesn't do this because there's great profit in it, and there's a lot of work. But he is undoubtedly an enabler for his friends learning the technology and contributing to a group effort. And this is the core of why I recommend Dean. In general terms he knows how to bring out the better efforts in the junior technicians around him, and in specific terms he sufficiently versed in his professional abilities to be confident taking almost any task on. I recommend him unreservedly with thanks."

— **Sean McGerty**, *Network Architect, Singtel Optus*, worked with Dean at Optus

"Dean is an incredibly intelligent, focused and talented engineer. I have worked with Dean of several projects and his area of expertise is not just confined to the technical. Dean understands how "the big picture" fits together and how his input and work are related to the business and network strategy as a whole. It is a pleasure to work with Dean."

— **Sherri Stephens**, *Project Manager, Optus*, managed Dean indirectly at Optus

"I have worked with Dean for the past 15 months at Optus. Give Dean a task and it gets done before you know it - time and time again Dean has shown the drive and ability to get the job done without hesitation or delay. Dean's proactive, 'can-do' attitude is an asset to himself, his team, and to Optus. His breadth of knowledge and experience encompasses hardware, operating systems, networks, and application development. Dean is eager and willing to learn and to share his knowledge with others."

— **Bradley Baetz**, *Internet Services Engineer, Optus*, worked with Dean at Optus

"I have worked with Dean in my different capacities for a few years now. He has been a great asset to Optus during that time. His role in hardware infrastructure support has been invaluable to the ISE team. On any knotty hardware problem Dean has been a great resource. Dean has always been prepared to be innovative in his thinking and yet be conservative in his project estimates. Always keen to find a way to solve a problem. He is a passionate advocate for what Open Source systems can do for Optus or any company."

— **Bernard Harrison**, *Enterprise Solution Architect - Singtel Optus*, worked with Dean at Optus

"I met and worked with Dean for Project Engineering at the University of Western Sydney. Dean looked outside the square of the standard project scope and presented a Project Tender in no time (which at the time I did not know about). Our group achieved superlative marks. Not only is Dean an excellent team player, but an excellent mentor and teacher. He single-handedly helped myself obtain a grasp of the Control Systems unit we were both studying at the time. I cannot thank him enough and see him when I can at one of his excellently-run LAN events."

— **David Gutierrez**, *Student, University of Western Sydney*, studied with Dean at University of Western Sydney