

Neil H. Watson

Linux Administrator, Architect, and Developer

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- 20 years of Linux administration experience.
- Experienced in all major Linux flavours.
- Experienced in large physical and virtual environments with 10,000+ hosts.

Experience

Independent IT Contractor

October 2007 - Present

- Contracting and consulting for various companies including some listed below.
- Architect and builder of open source security solutions EFL, Delta Reporting, and Delta Hardening.
- Configuration management with Ansible, Chef, Puppet, and CFEngine.
- AWS provisioning using Terraform.
- Automated testing with Travis-CI and Jenkins.
- IPv6 testing and deployment.
- Train and consult on systems administration, infrastructure, and security.
- Skills: Ruby, Perl, Git, Test Kitchen, Hadoop, Atlassian, Serverspec, Spacewalk, Kickstart

Surfeasy

April 2016 - June 2016

Sr. DevOps

- Helped double Surfeasy's private cloud in just three months.
- Achieved a 4x reduction in monitoring alarms.
- Skills: Ruby, Ansible, Puppet, Logstash, KVM, Jira, Git, Ubuntu, Nagios

Next Pathway

Jan 2016 - April 2016

DevOps Consultant (contract)

- Evaluating and implementing continuous integration tools to deliver Hadoop applications to Next Pathway's banking clients.
- Skills: Ansible, Perl, shell, Atlassian suite, Chef, Test Kitchen

AMD

June 2012 - September 2015

Sr. Linux Consultant (contract)

- Designed, built, and managed automatic provisioning and management tools for 10,000+ servers.
- Designed isolated host environments to meet US export laws.
- Trainer and technical writer.
- Skills: Perl, Shell, Git, Ruby, Serverspec, Nagios, Tomcat Debian, Red Hat Satellite, Ubuntu, RedHat Linux, Kickstart, VMware

CFEngine

June 2011 - April 2012

Implementation Specialist (contract)

- Designed and built a 30,000 host CFEngine service supporting Linux, AIX, and Solaris in a large international bank.
- Trainer and technical writer.

- Skills: Perl, CFEngine Nova, Opsware, Tripwire, Shell

Symcor**May 2009 - May 2011****System Administrator (contract)**

- Reduced ticket and security audit time by designing a configuration management service for 2000+ Linux, Solaris, and AIX servers.
- Deployed a password management service to meet security audit requirements.
- Designed and evaluated private cloud solutions using RedHat, HP, and CISCO technologies.
- Improved overall design by Working closely with local and vendor stake holders.
- Deployed a clustered high volume statement printing service.
- Mentored junior team members.
- Skills: RedHat RHEV, Solaris, AIX, RedHat Satellite, Tivoli Vendor management, Suse Linux, CFEngine, Perl, Shell, Cisco UCS, Lefthand SAN, ITIL, HP Procurve, JIRA

eHealth Ontario**July 2008 - October 2008****UNIX Systems Specialist (contract)**

- Hardened servers to government and security industry best practices.
- Build POC high volume cluster applications serving critical medical information.
- Planned and executed Solaris patching.
- Subject matter expert for Solaris and Linux.
- Skills: SUN Chassis, Solaris Zones, Jumpstart, Patch Check Advanced, Websphere, Oracle RAC

IBM Managed Security Services**October 2007 - July 2008****System Administrator and Security Specialist (contract)**

- Managed encrypted e-mail services for North American telcos in a 24/7, highly available environment
- Executed host, middleware, and database level security audits and remediation.
- Planned and executed service maintenance windows.
- Skills: IBM Chassis, Postfix, Sendmail, Tomcat, Jboss, Pound, LDAP, Oracle, Nagios, OpenNMS, VMware ESX, RedHat Linux

Dundee Securities**January 2006 - October 2007****System Administrator**

- Reduced security issues and audit time by implementing monitoring and automation services.
- Initiated DevOps culture between operations, development, and databased departments.
- Designed and developed a critical database cluster.
- Managed and expanded one of the largest VMware ESX installations in Canada.
- Planned and moved the entire Linux infrastructure, with zero downtime, during a 44 million dollar data centre move.
- Created a disaster recovery plan for the entire Linux environment.
- Consulted on disaster recovery plan for the entire IT infrastructure.
- Mentored junior team members.
- Skills: VMware ESX, Tomcat, Apache, NFS, RedHat Linux and cluster suite, Nagios, Zenoss, Zabbix, HP Openview NMS and OVO, Perl, Commvault, CVS, Subversion, DB2, HP EVA SAN, Qlogic HBA.

Voicegenie Technologies**October 2000 - January 2006****System Administrator**

- Championed intrusion detection, encryption, isolated networks and other security policies and procedures.
- Provided superior services and support to allow VoiceGenie to have continuous growth for 6 consecutive quarters in the highly competitive voice technology industry.
- Continuously did more with less to help this dot-com startup thrive during and after the dot-bomb bubble.
- Provided 24/7 tier 2 customer service to international telecommunication companies.
- Improved marketing department's ability to reach potential customers by designing and building lead generating email and web services.
- Technical writer for internal and customer documentation.
- Created disaster recovery plans and policies.
- Planned, managed, and executed all hardware and software deployments in a mission critical, high availability environment.
- Designed and developed Linux based routers and firewalls.
- Mentored product architects and co-ops.
- Skills: Sendmail, CISCO 2600, IOS, Nortel Baystack, SCO Openserver and UNIXWARE, RedHat Advanced Server, Debian Linux, Gentoo Linux, Solaris, MySQL, Oracle, Request Tracker, vendor management, VMware Workstation and GSX Server, Bind, Snort, Samba, NFS, Perl, PHP, Big Brother, Exchange, Tomcat, VoiceXML, VMware.

F&K Manufacturing

June 1994 - September 2000

System Administrator/CAD Designer

- Designed and built the company's first Ethernet infrastructure.
- Implemented the company's first Internet connection to allow electronic collaboration and data sharing with customers and vendors.
- Authored policies and procedures to ensure initial and continuing ISO 9002 compliance.
- Controlled drawings and documents, company wide, according to ISO 9002 standards.
- Participated in continuous improvement councils.
- Designed progressive stamping dies.
- Project manager for die building in excess of \$100,000.
- Skills: Samba, Iptables, Netware, Windows NT, RedHat and Caldera Linux, SCO UNIX Openserver, vendor and project management, Syspro Encore, AutoCAD, Accpac.

Education

Loyalist College
Belleville, ON

- Electronic Engineering Technician 1994
- Mechanical Engineering Technologist 1993

Open source projects

Delta Hardening: A collection of ready to use, industry standard server hardening policies.

Delta Reporting: A configuration management reporting and auditing engine.

Evolve Free Promise Library (EFL): A production quality, ready to use collection of CFEngine polices to make CFEngine deployment faster and cheaper.

Cfbot: An IRC chat bot to answer CFEngine related support questions.

vim_cf3: A VIM plugin for edit CFEngine policies.

CFEngine: Community Advisory Board member.

Online Papers and publications

- "Learning CFEngine" by O'Reilly, Appendix: "Editing CFEngine 3 Configurations in Vim"
<http://shop.oreilly.com/product/0636920022022.do>
- "Intro to Automating System Administration with CFEngine 3"
<http://www.linux-mag.com/cache/7802/1.html>
- "Make CFEngine Simple with EFL and Delta Reporting" at FSOSS 2014
<https://www.youtube.com/watch?v=dL60uIvBVD8>

Skills

Operating systems

- RedHat
- Ubuntu
- Debian
- Suse
- Solaris 7-11
- AIX 5-7

Configuration Management

- Ansible
- CFEngine
- Chef
- Puppet
- Terraform

Virtualization

- VMware
- KVM
- Vagrant
- RHEV
- AWS
- Solaris Zones

Security

- Iptables
- SELinux
- SSH
- SSL
- Snort
- Tcpdump
- Tripwire
- Wireshark

Clusters

- RedHat cluster
- Sun cluster
- Heartbeat
- Pound
- F5

Server hardware

- HP Proliant
- IBM
- Dell
- Cisco UCS
- SUN
- Oracle

Network hardware

- Cisco
- Fortigate
- HP Procurve

Storage

- HP EVA
- 3PAR
- Promise
- EMC
- QNAP
- NetApp

Testing

- Serverspec
- Test Kitchen
- Travis-CI
- Jenkins

Developer

- Perl
- Ruby
- Shell
- PHP
- Sed
- Awk
- Make
- Git
- SVN
- Javascript

Web and middleware

- Mojolicious
- Tomcat
- Wordpress
- Bootstrap
- Jboss
- Apache
- Websphere

Monitoring

- OpenNMS
- Nagios
- Zabbix
- Zenoss
- Openview
- SNMP
- New Relic

Network services

- IPv6
- DNS
- Bind
- NFS
- LDAP

- SSH
- DHCP
- iSCSI

Databases

- MySQL
- PostgreSQL
- MongoDB
- DB2
- Oracle

Email

- Postfix
- Sendmail
- Exchange

Practices

- ITIL
- Devops
- Continuous delivery and integration

- Agile development

Collaborative tools

- Github
- Redmine
- Atlassian suite
- Slack
- IRC
- Jabber
- Request Tracker

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