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Objective

A challenging position designing, implementing, and supporting automated tools and procedures to deploy and maintain scalable installations of systems and software.

Employment History

Upromise Inc ✦ *September 2005 - present*

Senior Systems Administrator   *September 2005 - June 2007*

Hired by Enterprise Operations to provide leadership and architectural direction to a team of five Unix sysadmins. Led the design and implementation of Cfengine and Subversion for system configuration. Layered those on top of Jumpstart to upgrade all Unix systems from Solaris 8 and RHEL 2/3 to Solaris 10. Managed a forklift upgrade of one of Upromise's two core production web sites (www.upromise.com), including several development, QA, and staging environments. Supported various other internal enterprise Unix services, including mail, web, DNS, DHCP, ticket-tracking.

Manager, Systems Administration   *July 2007 - July 2009*

Promoted to manager, supervising four Unix sysadmins in providing day-to-day operational support of production database-driven Java-based web sites with uptime SLAs as high as 99.99%, batch-processing backoffice environments, internal content management systems, a 5 TB data warehouse, and other enterprise Unix services (mail, DNS, DHCP, LDAP, MySQL, et al) in four onshore and offshore data centers. Triaged simple requests and issues, provided architecture and design support for complex projects, advised and assisted others in both types of work, and served as sysadmin of last resort for all Unix-related issues. Served on cross-functional review team that analyzed and provided design guidance for new projects. Coordinated project work and troubleshooting duties with a team of three offshore third-shift sysadmins. Designed and implemented an internal code deployment system to ensure consistent results between Dev, QA, staging, and production environments. Managed a forklift upgrade of Upromise's other core production web site (shop.upromise.com). Managed Unix system aspects of a zero-downtime long-distance data center move.

Manager, Systems Engineering   *August 2009 - present*

Reorganized into a role focusing on engineering and infrastructure projects, working with and supervising another senior systems engineer. Provided escalation and engineering support to onshore and offshore administration/operations teams. Designed and implemented infrastructure to allow applications to use different versions of Java, on a per-app basis. Implemented third-party commercial enterprise monitoring system for all production systems, including Java and Oracle internals (in progress). Designed and implemented disaster recovery plan for all production Unix systems, and executed a successful test run against a simulated disaster (in progress).

California Institute of Technology ✦ *April 1999 - August 2005*

Senior Systems Administrator / Technical Lead   *April 1999 - September 2002*

Hired by Information Technology Services to provide solo Unix support to two departments as part of ITS's System Management Service. Designed and implemented new system architecture, with central servers and dataless clients, for both. Continued to work within ITS SMS to design and implement similar systems for five other departments. Assisted in development and/or management of ITS-wide ticket-tracking system, campus-wide directory services, central software repository, and system configuration management practices. Gradually added technical leadership responsibilities, including advising and assisting fellow sysadmins, promoting consistent standards and practices, and leading group meetings.

Manager, System Management Service   *October 2002 - October 2003*

Promoted to manager, supervising twelve sysadmins in nine groups around campus. Acted as primary contact with faculty and staff liaisons within supported groups to define and review user needs and service level requirements. Continued to advise and assist sysadmins with technical and architectural issues, develop and promote best practices, and lead group meetings; added responsibility for annual performance reviews, biannual technical objective reviews, career guidance, and project management.

Senior Systems Administrator   *November 2003 - August 2005*

Requested a transfer to Center for Advanced Computing Research to return to a more technical role, supporting all departmental infrastructure systems and collaborating with other CACR sysadmins to support Teragrid and Alliance Grid Testbed computing clusters. Managed 25+ servers providing core department services (mail, web, DNS, DHCP, LDAP, NIS, MySQL, PostgreSQL, et al). Configured, installed, and supported desktop workstations and laptops for 50+ staff. Planned and executed zero-downtime transitions of services from old Solaris 2.x Sun hardware to modern x86 and Opteron systems running Fedora Core 3. Standardized server and workstation configurations using cfengine and CVS. Designed and implemented methods to provide flexible redundant backups of critical services. Maintained and configured NetApp file server, Cisco and Linksys network gear, printers, etc.

NetMarket Inc ✦ September *1994 - March 1999*

Systems Administrator   *September 1994 - August 1996*

Hired as solo sysadmin supporting a 7-person Internet startup company, which grew to 50 people with four sysadmins by August 1996. Helped design scalable development network environment, plus staging and production server environments. Provided 24 x 7 x 365 on-call emergency support through January 1996, rotating support within the group thereafter. Installed, configured, and supported SPARC desktops and servers, Mac desktops, laptops, and servers, HP printers, Cisco routers, USR modems, and Ascend ISDN equipment. Designed and implemented Perl-based monitoring software to notify on-call sysadmin of outages. Provided front-line support for all network and computing systems.

Senior Systems Administrator   *September 1996 - August 1997*

Provided technical leadership in four-person sysadmin group. Served as primary administrator of e-mail systems, DNS, logging, naming, system installation, ticket-tracking, for 100+ desktop and 30+ development, staging, and production servers for 100+ employees in three locations including two production data centers. Provided secondary support for networking, telco, web server, and middleware systems. Provided on-call emergency support one week in four. Designed and implemented ticket-tracking schema within Remedy ARS. Provided last-resort support in all technical areas.

Manager, Systems Administration   *September 1997 - March 1999*

Promoted to manager of four-person sysadmin group; responsibilities included hiring, career guidance, performance reviews, etc. Hired seven additional full-time sysadmins in thirteen months, with no attrition, plus two contractors, ten student interns. Coordinated division of the group into one- to three-person teams; identified and nurtured team leads for each. Orchestrated one-day move of large web site (www.match.com) to new facility, including some system replacement, complete renumbering, overall network rearchitecture, etc. Oversaw system, network, and facilities aspects of weekend move of 75-person Cambridge development office. Planned zero-downtime transition of production systems between nearby data centers. Continued work on technical projects as described above, including last-line support in all technical areas.

Harvey Mudd College ✦ *June 1992 - August 1994*

User Support Coordinator, Academic Computing

Responsible for all AC Unix systems (Sun SPARC Solaris, DEC MIPS Ultrix), including mail and general computing system for 600 students, campus-wide information system (FTP, Gopher, Web), campus Majordomo list server, etc. Supervised twenty student employees, including sysadmins, lab consultants, and department computing liaisons. Wrote and edited documentation for students, faculty, and staff. Coordinated freshman computing orientation. Managed three campus computing labs of Mac and PC desktops.

Technical Skills

Systems

- **Solaris**: Hardware specification and configuration, OS and software installation, patch management, tuning
- **Linux**: Hardware specification and configuration, OS and software installation, update management, tuning
- **Jumpstart/Kickstart**: Automated OS installation
- **Cfengine**: Automated class-based configuration of large groups of systems
- **NetApp**: Hardware configuration, volume management
- **Cisco**: IOS configuration, access lists, VLAN management

Services

- **Apache**: Virtual domains, J2EE application interfaces, access control, authentication
- **Postfix**: Mail relaying, spam/virus protection, virtual domains
- **LDAP**: Schema definition, authentication, access control
- **DNS/DHCP**: Domain registration, subdomain delegation, namespace and address space management
- **Majordomo/Mailman**: Virtual domains, private internal servers
- **Oracle/MySQL/PostgreSQL**: Tablespaces, logging, simple troubleshooting

Practices

- **Standardization**: Consistent and repeatable sysadmin practices
- **Configuration management**: Cfengine, Subversion, and change control processes
- **Ticket-tracking**: Workflow design, interface design
- **Project management**: Resource allocation, dependency planning, status reporting
- **User support**: Request handling and tracking, documentation, education
- **Security**: System protection, intrusion detection, firewall setup, incident response
- **Networking**: Fundamentals of TCP/IP, UDP/IP, ICMP

Languages

- **Perl**: References, data structures, text manipulation, parsing, database interfaces
- **Bourne shell**: Automation of sysadmin and user-oriented tasks
- **HTML**: Simple HTML design and authoring, CSS
- **Others**: Read, understand, and modify programs written in Python, PHP, SQL, C shell

Education

Swarthmore College, BA (Computer Science)   *September 1988 - May 1992*

Completed Special Major in Computer Science with a focus on artificial intelligence. Independent projects in compiler design and construction, machine learning, and implementation of non-traditional programming languages.

Personal

I was Joshua Smith for most of my life, until Amy Swift and I were married in July of 2007, when we both changed our last names, merging them together into Smift.

My favorite hobbies include volleyball, ultimate frisbee, English and Scottish country dancing, longbow archery, and board and card games.