

## **Skills & Qualifications**

- Strong problem solving skills, able to decompose complex problems and match technology to requirements.
- Able to identify and develop methods of integration across heterogeneous technologies.
- Strong interpersonal skills, able to interact in a team environment, as a leader or member.
- Strong advocate for Open Standards and Free/Open/Community Source Software.
- Twelve years experience at the University of Connecticut developing, leading, and providing enterprise scale solutions to 50,000 immediate customers in multiple locations around the state of Connecticut, and to a public community located around the world.
- Four years experience with oversight of teams supporting over three hundred Linux, Windows, Unix, and Mainframe servers and services.
- Co-maintainer of mod\_auth\_cas, the official JA-SIG CAS Apache module, included in Debian, Ubuntu, and Fedora Linux distributions.
- Proficient in numerous technology areas, including (but not limited to):

### **Linux**

- Administration of Debian Linux, Ubuntu Linux, SuSE Linux Enterprise Server, Red Hat Enterprise Linux.
- Administration of Apache, Tomcat, OpenLDAP, MIT Kerberos, Samba, OpenAFS, Subversion, Plone, Trac, Zabbix, and other enterprise services commonly deployed on Linux.

### **Virtualization & "Cloud"**

- Strategy and oversight of VMWare & IBM Blade Center deployments providing "Private Cloud" solution.
- Familiarity with several "Private Cloud" and "Public Cloud" solutions, including Red Hat Enterprise Virtualization, IBM System z, Amazon EC2, Google Apps, Microsoft Azure.

### **Identity & Access Management Middleware**

- Administration of MIT Kerberos, OpenLDAP, JA-SIG CAS, Internet2 Shibboleth.
- Well versed in the functional areas of Identity & Access Management, including Identity Reconciliation and Provisioning, Levels of Assurance, Federated Authorization, Single Sign On, Identity Lifecycles, etc.

### **Microsoft**

- Administration of Active Directory, WINS, DNS, File Services, and business applications on Windows 200x.
- Development in Python, Perl, Java, and C to integrate Microsoft environment with upstream identity and authentication systems.

### **Software Development**

- Experience developing software in C, Java, Perl, PHP, Python, Visual C++.
- Limited experience developing web interfaces in XHTML, CSS, JavaScript.

## **Career**

- **September 2010 - Present: Lead of Linux & Virtualization Team, University of Connecticut ITS, Storrs CT**

Proposed and was given leadership of a newly created Linux team in September 2010, consolidated from the previous Virtualization, Middleware, and R&D teams, plus the Linux members of the previous Unix team. Responsible for oversight and implementation of critical Linux-based strategies. Team is responsible for:

- Physical and virtual hosting on IBM Blade Centers and VMWare VSphere 4.
- Several hundred Debian, Red Hat, SuSE, and Ubuntu Linux installations.

- Web site and application hosting for individuals, departments, and the enterprise using Apache, PHP, Tomcat, Glassfish, and MySQL, serving two million requests/day.
- Authentication, authorization, and user provisioning technologies in support of access into University services, leveraging MIT Kerberos, OpenLDAP, JA-SIG CAS, and several thousand lines of locally developed C, Java, Perl, and Python.
- Mail infrastructure including Cyrus IMAP, Squirrelmail, Sendmail, Postfix, Barracuda Spam appliances, and locally developed alias management application, providing 35,000 mailboxes and filtering/routing one million emails/day.
- Hosting of other University services, such as the Enterprise Learning Management Blackboard solution, CA Unicenter Service Desk, and dozens of academic and administrative services.

Also engaged in several new strategic endeavors, including:

- Expansion of the virtualization solution to a "Private Cloud".
- Improved manageability of Linux installations through consolidation to Red Hat and Debian, deployment of Puppet, Zabbix and Hyperic for management and monitoring, and leveraging of Preseed/Kickstart/PXE for rapid provisioning of new servers.
- Advancement of the current web hosting platform through further deployment of SpringSource tc Server, more effective use of the internal Private Cloud solution, stronger application and site segregation, and better fault-tolerance.
- Expansion of the current Identity and Access Management environment to provide federated authorization with Shibboleth.
- Expansion of the current student email suite to include a third-party hosted option providing greater service to students.

- **July 2009 - August 2010: Interim Architect and Manager of Server Support**

Due to organizational changes, was asked to temporarily fill a functional management position.

Accepted interim position with stipulation that responsibilities would be temporary, with rapid return to strategic/technical role. Provided management leadership to the three existing highly-functional teams and three new teams totaling 25 members.

- Unix Team, hosting the University's PeopleSoft and Oracle solution on AIX, the Blackboard ELM solution on Solaris, and a variety of services such as DNS, web hosting, application hosting, podcasting, and email routing and filtering on Linux.
- Mainframe Team, maintaining IBM T16 and z890 Mainframes, running MVS(zOS)/VM and all Mainframe security, printing, scheduling, backups, and software management, and providing zVM virtual hosting of several dozen Linux guests.
- Windows Team, maintaining over one hundred Windows Server installations, and a variety of services such as Active Directory, Exchange, file services, document management services, and numerous departmental services.
- Virtualization Team, a newly formed team responsible for the new VMWare and IBM Blade Center environment, providing physical and virtual hosting for the Windows and Linux teams.
- Middleware Team, a newly formed team responsible for "Application Middleware" including Tomcat and Glassfish application servers, and "Identity and Access Management Middleware" including OpenLDAP directories, MIT Kerberos, and CAS Web Initial Sign-On solutions.
- R&D Team, a newly formed team responsible for researching future technologies and developing innovative solutions to immediate needs, often integrating third-party software with existing infrastructure.

Also led or oversaw major consolidation initiatives:

- Deployment of two IBM Blade Center H solutions and VMWare VSphere 4.0 hosting over 100 Windows and Linux servers, to replace two legacy VMWare installations and decommission several dozen physical Linux and Windows servers.
- Deployment of SpringSource tc Server solution to consolidate legacy Glassfish servers and several dozen unmanaged Tomcat installations of various versions.
- Development of strategy to consolidate variety of unmanaged Red Hat, SuSE, Ubuntu, and Debian installations to a Red Hat Enterprise Linux and Debian Linux.

- Deployment of an IBM z10 mainframe to consolidate all mainframe workloads from legacy T16 and z890 systems, reducing risk of legacy hardware and reducing heat/power requirements in data center.
- **2001 - Present: Identity & Access Management Architect**  
Responsible for developing strategy for expansion of Identity & Access Management solution and maintaining current solution including MIT Kerberos, OpenLDAP, JA-SIG CAS, and several locally developed provisioning solutions in C, Java, Perl, and Python.
- **2006 - Present: Web Initial Sign-On Administrator**  
Deployed UConn's first Web Initial Sign-On solution, JA-SIG CAS. Contributed the "JAASAuthenticationHandler" to meet local requirement for multiple authentication sources. Co-maintainer of mod\_auth\_cas, the official JA-SIG CAS Apache module.
- **2001 - Present: Directory Services Administrator**  
Designed and deployed the University's first-generation iPlanet LDAP and MIT Kerberos in 2001 and second-generation OpenLDAP services in 2003. Developed provisioning solution in Perl and Java to manage user entries in LDAP and Kerberos.
- **September 2008 - April 2009: Team Lead for Windows Server Team**  
Led team of 7 responsible for all aspects of 100+ Microsoft Windows servers, including maintaining the University's central Active Directory and Exchange services, file services, document management services, and several dozen departmental services.
- **2000 - April 2009: Windows Server Team, Active Directory Administrator**  
Joined Windows Server Support team in 2000, providing support for Windows and Novell servers distributed around campus. Co-designed UConn Active Directory in 2000 and developed provisioning solution in Perl to manage user entries and groups.

### **Other Notable Activities**

- 2011-2012: Co-chair of "State of Connecticut's Joint Labor & Management IT Cost Savings and Transformation Working Group", charged with identifying potential savings and positive change in the use of IT throughout Connecticut State Agencies and Institutions.
- 2010: Success Story published by Mainline Information Systems "The University of Connecticut Virtualizes and Consolidates Storrs Data Center" ([http://mainline.com/\\_web/pdfs/success-stories/SS-UnivConnecticut-Blade.pdf](http://mainline.com/_web/pdfs/success-stories/SS-UnivConnecticut-Blade.pdf)).
- 2010: Member of State of Connecticut "Schedule S6: IT Records Retention" committee, charged with updating state policy on IT records retention.
- 2009-2011: Chair of University of Connecticut Technology Implementers Group and Student Technology Advisory Group.
- 2007-2008: Member of JA-SIG Planning Committee as CAS Liaison for April 2007 conference in St. Paul titled "The Community Source Way".
- 2004-2008: Multiple presentations to the UConn LUG/ACM on a variety of technical topics.
- 2003-Present: Attend Internet2/EDUCAUSE Middleware-related conferences roughly bi-yearly.

### **Education**

#### **Bachelor of Science in Engineering, Computer Science and Engineering, University of Connecticut, 2000**

- Graduated Magna Cum Laude, with a 3.6 final GPA.
- Top graduate in the School of Computer Science and Engineering.
- Course work included Software Engineering, Digital Design, Algorithmic Complexity, Network Theory, Parallel Computing, Compiler Theory, Database Theory, and Artificial Intelligence.