



Information Technology Services Newsletter

It has been another busy year for the ITS Department. In addition to the department's daily operations, IT staff members were engaged in 26 major projects since November 2008. We have also received tremendous support from internal stakeholders and project sponsors in addition to external service providers and expert consultants in bringing new innovative solutions to the SMU community. Many thanks to all of you who contributed!

Campus Safety: Emergency Notification Made Easy

By Blair Simmons



In a world where threats of natural disaster, structural hazards, and violent behavior can jeopardize personal safety in the blink of an eye, it becomes imperative to keep the community informed of such incidents as they unfold. In recent years we

have seen a number of tragic incidents in academic and non-academic environments. In many of these cases, loss of property, injuries, and even loss of life could have been averted through more effective, to-the-minute mass communication.

Samuel Merritt University recognizes that personal safety within the campus community is of utmost importance. In late 2008, SMU established a partnership with Wide Area Rapid Notification (WARN), a provider of communication services specializing in emergency notification. WARN is the only system that can employ interactive delivery of critical information in any form, to students, faculty, university personnel, alumni, volunteers and parents; anytime, anywhere, on any communication device - land line phone, business line, business line with extension, cellular, 1-way pager, 2-way pager, Blackberry or other text device, Internet messaging, e-mail, SMS, TTY or any secure device that requires PIN access.

Today SMU personnel and students are subscribed to receive emergency alerts via SMU e-mail and business telephone. Beginning in fall 2009, all subscribers will have the ability to add or remove devices from their emergency notification lists. If you wish to receive alerts via text or voice message on your personal mobile device, simply log into the SMU WARN web page and enter your phone number. More details on SMU's emergency notification system will be published on the website and formally introduced to the community this fall!

Network Services Team

The Network Services Team is responsible for protecting and defending Samuel Merritt University's data resources by implementing industry-accepted security practices in planning, implementation, management, and operations while ensuring confidentiality, integrity, authenticity, and availability.

The team works to accomplish this through:

- Ensuring compliance with applicable policies, laws and regulations
- Enforcing university policies and standards
- Highlighting sources of risk to university management
- Implementing technologies that increase the visibility of potential risks to our data
- Developing repeatable processes that validate security in IT systems and services
- Contributing to awareness, training, and education programs
- Initiating partnerships with departments to evaluate and improve their computer security practices.

Wireless Network Continues to Get Better and



Faster

By Marcus Walton

In effort to continually improve the quality, reliability, and availability of wireless computing on SMU campuses, the Network Services Team has implemented a number of service improvements during the past 12 months, including: the ability to roam between buildings, easily connect to wireless networks, and increased coverage area. We made several significant enhancements to our wireless network this fall. You can now roam between buildings with your laptop without being prompted to login again to the network. Authentication may still be required if your computer has been turned off for more than 20 minutes.

Many more wireless access points have been installed in the Graziano Library, L-Level computing lab, Anatomy Lab, and the Basic Sciences Lab. The additional access points offer the capability of many more connections, and you will find the service faster and easier to connect to. Please contact the IT Helpdesk to notify us of any campus locations where wireless service is problematic for you.



We have simplified the process for accessing our wireless network. A new network name is now available – just look for SMU-WiFi in your computer's list of available wireless networks. No security key is necessary – once you connect you will be redirected to the wireless authentication page, use your SMU credentials to gain access to the internet.

SMUGuestNet is a new network for guests who visit our campuses. The guest network is a network designed to give immediate access to the internet.

Internet Bandwidth Usage

By Marcus Walton

Is there a day when you don't need the Internet? Probably not. Our demand for the Internet continues to rise at SMU. We recently responded by doubling our Internet capacity to 15 Mbps on the Oakland campus! SMU's connections are provided by two different Internet service providers to minimize the possibility of a campus-wide service interruption. We will closely monitor Internet utilization and further expand capacity as needed.

"Open" Networks at SMU!

By Marcus Walton

Do you know what an "open" network is? Some of SMU's networks are open to the world – meaning any computer on the Internet can initiate contact with many of the computers on our networks. This makes our networked SMU computers VERY attractive to malicious people on the Internet and increases the risk to Samuel Merritt University.

Most universities keep their networks open to easily address the plethora of access requests posed by a diverse computing community. At SMU, the Network Services Team is confident that we can balance availability, privacy, and security needs to provide you with access to the resources you require. Late in 2009 we plan to implement a Cisco NAC (Network Access Control) solution which will change the way users authenticate to the network. This change will help make SMU computers much less attractive targets for hackers and virus writers, allowing for better protection of our data and resources. Implementing the NAC solution will allow us to modify the default deny policy which is currently on our entire network. What does default deny mean? On a default deny network, our network will reject connections initiated from the Internet to your computer, but will still allow you to browse the Web, transfer files, and access your e-mail.

What does this mean to you? The user experience will be faster, more reliable, and much more secure.

Microsoft Office Outlook 2007

By Vene Cahayag








Microsoft Office Outlook 2007 provides you with comprehensive time and information management. Using new features such as Instant Search and the To-Do Bar, you can organize and instantly locate the information that you need.







Manage time and information

To help you better manage your time and information, Office Outlook 2007 offers a number of new and improved features, from Instant Search to integration of tasks on the calendar. These features make it easier for you to locate, manage, prioritize, and act on the volumes of information that you encounter every day.

Quickly find the information you need:

-  Instant Search
-  Color Categories
-  Results-Oriented User Interface
-  Attachment Previewing
-  Minimized Navigation Pane
-  Week View Changed in Calendar
-  Default Detail Level

Easily manage your daily priorities

-  To-Do Bar
-  Flagging Mail for Follow-up
-  Task Integration on the Calendar
-  Improved Scheduling Capabilities

Below are links to more useful tips for entire office suite.

- [Microsoft Office Outlook 2007](#)
- [Microsoft Office PowerPoint 2007](#)
- [Microsoft Office Excel 2007](#)
- [Microsoft Office Word 2007](#)

SMU Network Services Team Reduces Energy Consumption with Virtualization

By Thatcher Wright



The Samuel Merritt University Network Services team has implemented a new “Virtual Environment” to house server systems. Virtualization is a process

where operating systems instances exist in a software environment rather than being directly attached to a single server hardware system. Put simply, this means “Less Servers in the Server Room”. Anyone who has had the opportunity to visit the data center in previous years on a warm summer day would be immediately struck by the sound of dozens upon dozens of cooling fans and air conditioning units, not to mention the heat given off by over thirty servers.

With Virtualization, physical server machines can be “virtualized”. This process is made possible using VMware ESX Server 3.5, advanced networking, shared storage, and a chassis filled with blade servers. VMware enables an administrator to convert existing physical hosts to “virtual hosts”, thus eliminating the need for the server computer hardware the system formerly occupied.

When a host “goes virtual”, it exists in a software environment supported by hardware that is more energy efficient. Shared storage for the virtual machines or “VMs” greatly reduces the need for spinning hard disks for each individual server. Blade servers, which support the VMware ESX cluster, are mounted in a chassis. This highly efficient configuration allows hardware components that would normally be duplicated many times in individual server computers, to be shared. These include power supply, networking, and cooling components. This sharing of hardware components greatly reduces power consumption and in turn keeps the data center cooler. Keeping a room full of servers from reaching into the upper 80’s on a warm day can consume a LOT of electricity.

Statistics gathered by independent research firms have shown that:

- ☞ Every server virtualized saves 7000kWh of electricity annually, or about \$700 in energy costs.
- ☞ 4 tons of CO₂ are eliminated for every server virtualized, the equivalent to taking 1.5 cars off the highway
- ☞ Improve server utilization rates from 5-15% to 60-80%. Running fewer, highly utilized servers frees up space and power.

Source:

http://info.vmware.com/content/GreenIT_LP/?src=WWW_08Q3_VM_W_CSGN_ENERGY_EFFICIENCY_SOLUTIONS_PAGE

IT Projects: Year in Review

Projects Completed

- PA/PT Admission Data Automated Upload Process (11/4/2008)
- BookNow Interface (12/3/2008)
- Institutional Portfolio and Outcomes Assessment System (12/31/2008)
- Blackboard Snapshot & LDAP Integration (1/26/2009)
- Blackboard Test Server Development (3/20/2009)
- MS SQL Server 2005 Enterprise Upgrades (5/18/2009)
- Integrated Library System Replacement (6/26/2009)
- Website Template and Design Enhancements (7/3/2009)
- Internet Circuit Upgrades (7/7/2009)
- Wireless Networking Enhancements (7/9/2009)
- NCS Verification Reporting Application (7/29/2009)

Projects In-Progress

- Campus Displacement/Relocation
- Computer Lab Imaging
- Emergency Notification Subscriber Management
- MS Exchange Server 2007 Upgrade
- MS Office 2007 Upgrade
- PowerCAMPUS/Self-Service 7.2 Implementation
- Service Desk Express Optimization
- User Identity Management Solution
- Web Community Portal

Projects in the Queue

- Business Intelligence for Institutional Dashboards
- Company Directory Redesign
- Document Imaging/Management Solution
- Video Streaming

Projects On-Hold

- Disaster Recovery Implementation
- Mobile Technology in the Classroom
- Network Access Control System

Web and Applications Team

SMU Community Portal

By Michael Tam and Marvin Lee



Samuel Merritt University community members have come to rely on the mySMU portal as a one stop service station for our website. Coming in 2010, prepare to be bowled over as we launch our new and improved mySMU portal site!

With our new mySMU portal, you'll be able to check your e-mail with a single click, communicate in forum discussions with fellow students and faculty, and send instant messages to your classmates through your personal friends list.

The new mySMU portal will allow you to customize your own portal page, letting you see only the information you want to see, and nothing you don't. The new portal supports seamless integration with Google Gadgets as well as custom applets, ensuring that your portal page is uniquely yours.

PowerCampus Self Service

By Jacqueline Peter



The **IQ.Web** online information portal, used mostly by students to view their schedules, view grades, obtain unofficial transcripts, register for courses, and make online payments, will be upgraded to a new product. SMU will call this new product **SMURF**, which stands for Samuel Merritt University Records and Finance. SMURF will have a whole new look and feel which makes it much easier to navigate. The IT Department and the staff are looking forward to releasing the new and improved information portal this October!

Once the transition to **SMURF** is completed, ITS will begin work on making this system available to members of the faculty. This means that instructors will be able to print course schedules, access student advising information, submit grades more through a convenient web interface.

National Student Clearinghouse

By Richard Brown



Samuel Merritt University is responsible for reporting the enrollment status of its students to guaranty agencies, lenders, servicers and the Department of Education multiple times each academic term.

Given the number of agencies, this would normally be a daunting task. To facilitate this reporting, SMU works with the National Student Clearinghouse (NSC).

NSC exists as a single point of contact providing enrollment status for financial aid students attending SMU to the different agencies.

SMU transmits enrollment data to NSC four times per term. Guarantors and lenders transmit student borrower information every month to NSC.

On a weekly basis NSC transmits a secure electronic verification of student's enrollment status to the student's lender or guarantor. Enrollment data is also reported to the National Student Loan Data System (NSLDS) for use by the Department of Education.

AICCU Campus Agreement: Microsoft and Adobe Products

By Mary Grefal



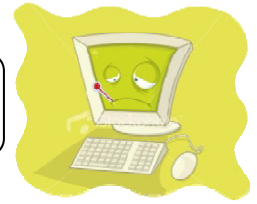
Did you know that as an employee of the university, you can purchase Microsoft, Adobe and other software at discounted rates of up to 50% off store prices? Through an agreement between Association of Independent California Colleges and Universities (AICCU) and ComputerLand Silicon Valley, employees are eligible for substantial discounts on the latest software.

Visit ComputerLand's website for a list of eligible software: www.uscollegebuy.com

Microsoft is offering a Home Use Program which is also part of the AICCU Consortia that can be installed in their own personal computer. The program entitles the faculty and staff to purchase CD media in all their MS products for as low as \$9.99 plus shipping and handling cost.

Go to <http://hup.Microsoft.com/> for Microsoft Office products.

Tips from our Helpdesk



How to Avoid Getting Computer Viruses Through E-mail

By Tal Schrey

E-mail is one of the primary ways to exchange information among Internet users; it is also a common method for spreading viruses. Below are some tips for avoiding viruses or passing them on to others.

Beware of unexpected or unsolicited e-mail attachments

It is the attachment to the e-mail that contains the potential hazard. If the attachment came from an unknown sender either unexpected or unsolicited, the best decision would be to delete the e-mail without opening it. If the e-mail is from a known and trusted source, but did not expect an attached file from that source, you may want to contact the sender to confirm that the attachment is legitimate.

Avoid forwarding e-mail attachments unless you first scan the attachment for viruses

If you have an anti-virus program that scans all incoming e-mail attachments, or if you can scan the attachment after it arrives, then it is probably safe to forward the attachment. Otherwise, do not forward the attachment.

Look for an unexpected file extension on any attachment

If the subject line or the body of an e-mail states that the attachment is a certain type of file or the file icon implies a certain type of file, and the file extension does not match, delete the file.

Back up your data files on a regular basis

In a worst case scenario, a virus may corrupt or destroy data on one or more files. Regular backups will allow you to recover more easily in the event that a virus damages your files.

Data files will not carry viruses

A file that contains only data will not carry a virus. For example, files ending with the extension .txt, .csv, .gif, .jpg, .mp3, .wav are common data files that would not have executable code. Files ending in .doc, .xls, .exe, and even .htm may have executable code and could potentially carry a virus.

Spam

By Steve Hanson

Spam averages 94% of all e-mail sent. E-mail spam, also known as junk e-mail, are identical unsolicited messages sent to numerous recipients by e-mail.



E-mail spam has steadily, even exponentially grown since the early 1990s to several billion messages a day. Spam has frustrated, confused, and annoyed e-mail users. Laws against spam have been sporadically implemented over the years. The total volume of spam (over 100 billion e-mails per day as of July 2008) has leveled off slightly in recent years, and is no longer growing exponentially. The amount received by most e-mail users has decreased, mostly because of better email filtering software. About 80% of all spam is sent by fewer than 200 spammers. Botnets, networks of virus-infected computers, are used to send about 80% of spam.

E-mail addresses are collected from chat rooms, websites, newsgroups, and viruses which harvest users' address books, and are sold to other spammers. Much of spam is sent to invalid e-mail addresses. ISPs have attempted to recover the cost of spam through lawsuits against spammers, although they have been mostly unsuccessful in collecting damages despite winning in court.

Tips to Stop Spam

- ☞ Check to see if your e-mail address is visible to spammers by typing it into a Web search engine; if your e-mail address is posted to any Web sites or newsgroups, remove if it possible to help reduce how much spam you receive.
- ☞ Lots of ISPs provide free e-mail addresses. Set up two e-mail addresses, one for personal e-mail and use the other for subscribing to newsletters or posting on forums and other public locations.
- ☞ When replying to newsgroup postings, do not include your e-mail addresses.
- ☞ When filling in Web forms, check the site's privacy policy to ensure it will not be sold or passed on to other companies. Consider opting out to receive less opt-in e-mail.

- ☞ Never respond to spam. If you reply, even to request removing your e-mail address from the mailing list, you are confirming that your e-mail address is valid and the spam has been successfully delivered to your inbox.
- ☞ Do not open spam message wherever possible. When in doubt, simply delete the e-mail.
- ☞ Do not click on the links in spam messages, including unsubscribe links. These frequently contain a code that identifies the e-mail address of the recipient, and can confirm that spam has been delivered and that you responded.
- ☞ Never buy any goods from spammers. The spammers rely on very small percentages of people responding to spam and buying goods. Would you risk giving your credit card details to an unknown, disreputable source?
- ☞ Do not respond to e-mail requests to validate or confirm any of your account details. Your bank, credit card company, eBay, PayPal, etc., already have your account details, and therefore would not need you to validate them.
- ☞ Do not click on the links in the e-mail, as they may be fake links to phishing websites. Confirm the sender did send the e-mail if it looks suspicious.

Sources:

http://www.mcafee.com/us/threat_center/anti_spam/spam_tips.html

[http://en.wikipedia.org/wiki/Spam_\(electronic\)](http://en.wikipedia.org/wiki/Spam_(electronic))

Everyone is welcome to send in their comments, ideas or contributions via email to Blair Simmons, bsimmons@samuelmerritt.edu.