Communications and Network Services

Overview

ETS Communications and Network Services (CNS) is responsible for the College's voice, video and data networks. Areas of operation include desktop computers, the local area network (LAN), the wide area network (WAN), related network infrastructure, telecommunications and mail services. CNS supports the design, development, installation and maintenance of computerized classrooms, smart classrooms, labs, learning centers, telephones and office equipment such as printers, scanners, PDAs and smart phones for all MCC locations.

CNS plays a leadership role in the development of the College's networking infrastructure and desktop computer purchases and installations. CNS is responsible for student and employee network storage, wireless access and email systems.

Comprehensive telecommunication services are provided to the College by CNS. These services include local and long distance, voice mailbox and messaging, telephone service and repairs, internal and external directories, enhanced call processing applications, integrated voice response applications, telephone cost accounting, switchboard, cellular phones and pagers. Training in the use of Voice over Internet Protocol (VoIP) phones and other telecommunications services is provided by CNS staff.

Mail services are provided to the College at each campus location. These services include processing and distribution of inbound, outbound and interoffice mail, as well as general FAX services. The implementation of leading-edge technology--such as the Arrival and AccuTrac software systems--have enhanced the handling of increasing volumes of mail and packages at each campus location.

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Facts

- Stopped over 29 million junk email messages from coming into MCC mailboxes (this represents about 90% of all MCC email delivery attempts).
- Sorted and processed over 2,190,000 items of mail.
- Managed over 20 Terabytes of storage space (one terabyte of storage equals: 50,000 trees made into paper and printed; one-half of the information in the University of Rochester library; enough words that it would take every adult in America speaking at the same time for five minutes to say them all).
- Managed over 170 servers at MCC campuses and sites.
- Handled over 8,200 packages in the Mail Center.
- Created over 53,000 student email accounts.

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Projects

- **Security for Portable Devices**

  Piloted an encryption solution for ten laptops. Worked with the MCC Controller's Office to develop a laptop policy for inventory control and laptop security.

- **Lifecycle Management Solution**

  Researched several products for an Information Lifecycle Management solution for MCC. Developed a recommendation that will allow MCC to comply with the Information Technology audit; this information has been shared with the MCC administration. The recommendation involves management of the lifecycle of data on the MCC M:Drive and in the email archive.

- **OCP and CNS Partnership**

  Provided students with hands-on experience that linked classroom education with industry applications through a project funded by a Perkins Grant. In cooperation with the Computer Systems Technology program (Office and Computer Programs, OCP), students were hired as interns and provided "hands-on" experience to apply skills they learned in lecture and laboratory instruction toward practical functions. Students and faculty learned about recent trends in computer technology from industry certified, practicing professionals. The curriculum for a new course, coupled with new technology installations in the laboratory, were developed to enhance the integration of academic information and industry training.

- **Damon City Campus VoIP**

  Completed the transition to VoIP at the Damon City Campus. MCC is now completely cutover to the Cisco Communications System at the Brighton, ATC and Damon City Campus locations. The legacy PBX and voicemail systems were removed from service.

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Accomplishments

1 Promoting Excellence in Teaching and Learning

CNS1-1 Strengthen the CNS-OCP (Office and Computer Programs) partnership, with an emphasis on current technologies to be brought into the classroom

100% Student Interns were hired to work closely with network specialists in the Communications and Network Services Department (CNS) on major technical initiatives. These interns acquired over 600 hours of on-the-job experience. The student interns were able to apply what they learned in the classroom on real-world college projects.

CNS staff provided class instruction and tours of the college's infrastructure. Additionally, they provided lectures on the roles of key positions in the computer field and the importance of cross training between networking and systems environments.

Collaboration between CNS and the Office of Computer Programming (OCP) faculty occurred on the design of a new course, CPT281 Emerging Technologies. CNS staff worked with several OCP faculty on the set-up and configuration of Server 2008, VMWare, Raid Aray Storage ESX software and Wireless phones, for professional development and for material to be used in their courses. Equipment purchased through the grant was installed in the networking lab and used for class instruction.

Cisco Software bundles were purchased for the networking lab to aid instructors with a course component--the Cisco Certified Networking Associate (CCNA)--in CPT 115.

CNS2-1 Pilot test MCC's new classroom imaging system

60% Detailed the academic and technical goals and objectives of a new imaging system. Met with vendors to discuss MCC needs and requirements in an imaging system (Intel, Microsoft, VMware, Symantec, Alteris, IBM). Hired a consultant to review the College's infrastructure readiness to support the next generation imaging system. It is expected that MCC's next imaging system will be a hybrid solution and will be piloted in the Fall 2009 and Spring 2010 semesters.

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Accomplishments

3 Responding to Enrollment, Community and Workforce Needs

CNS3-3 In cooperation with Academic Services and Workforce Development, equip three computer labs to provide Cisco Academy training (two labs at the Brighton campus and one lab at the Damon City Campus)

100% Cisco delivered hardware that equipped two networking labs with 6509 model routers, as well as 3550 and 2950 model switches.

4 Building Upon Human Capital

CNS4-4 Implement end user computer awareness training system/standards for staff and students

100% Implemented the student logon policy in classrooms campus-wide. Security tips were sent via Tribune articles to college employees.

5 Enhancing Our Physical Environment

CNS5-5 Deploy the MCC Green IT server virtualization initiative

100% MCC consolidated 53 production servers and virtualized them on 9 blade servers. This consolidation saved the college approximately $198,000 in hardware expenses and reduced utility costs due to fewer servers and less cooling needs.

CNS6-5 Implement the MCC storage upgrade project

100% All services have been moved from the older SAN storage to the newest storage solution with the exception of student storage. With the completion of the mail migration to Exchange 2007, the older SAN storage units were re-purposed to provide a disk-to-disk backup solution. This solution allows for faster back-up and restore processes. It also will allow for data encryption as the data is moved to tape for off-site storage. Disk-to-disk back-ups are needed to accomplish this task due to the amount of data that is backed up on a weekly basis and the time frame needed to complete the job.

6 Responding to Fiscal Challenges

CNS7-6 Research and identify funding for an Information Lifecycle Management system for the MCC M:drive, Outlook, etc.

50% Researched several products for an Information Lifecycle Management solution for MCC. Developed and shared a recommendation with the MCC administration that will allow MCC to comply with the IT audit. This recommendation includes the management of data on the MCC M:drive and in the email archive.

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Accomplishments

CNS8-6 Research and identify funding for a replacement solution for aging blade servers

100% Secured funding to replace all aging servers in 2008-09.

CNS9-6 Research and obtain funding for server (virtual layer) Intrusion Prevention Systems (IPS)

100% Performed research with several vendors on a potential virtual layer Intrusion Prevention System, but didn't find a cost effective solution. CNS will continue to research potential products in the next fiscal year.

7 Enhancing the Learning Environment Through Technology

CNS10-7 Implement VoIP (Voice over Internet Protocol) features at the Damon City Campus

100% The transition to VoIP at the Damon City Campus has been completed. MCC is now completely cutover to the Cisco Communications System at the Brighton, ATC, and Damon City campus locations. The legacy PBX and voicemail systems were removed from service.

Caller ID services were extended to the Damon City Campus to match features available at the Brighton Campus. Using Cisco Video Advantage, users with USB cameras (web cams) attached to their desktop computers can now use the campus VoIP system to video conference.

CNS11-7 Develop the second draft of the comprehensive MCC Cyber Security Plan

100% Implemented the suggested recommendations from the Bonadio final IT audit report. These recommendations were added to the MCC Cyber Security Document.

CNS12-7 Implement a new VPN (Virtual Private Network) for MCC@Home

100% Implemented a new SSL-based VPN using Cisco ASA5520 platforms to replace the MCC@Home VPN. CNS pilot-tested the new VPN with an internal group, and the VPN will be ready for wide scale deployment after September 1, 2009. The SSL-based VPN solution allows for enhanced security for users, and provides more options for technical administrators.

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Accomplishments

CNS13-7 Develop Call Processing and VoIP reports as requested by departments

100% Automatic Call Distribution (ACD) reporting was automated, and reports are available on the M:Drive for review by end user departments.

CNS14-7 Assist, at minimum, four departments or offices with the development of a business continuity plan

10% CNS identified four offices with whom they will work on a business continuity plan--Bursars, Records and Registration, Controllers and the President's Office.

CNS15-7 Implement Year Two of MCC's response to the SUNY Chancellor's report on critical incident management to include full operation of NY-Alert

100% Along with the ETS AVP staff and Computing staff, CNS set-up, tested and implemented a NY-Alert system for MCC faculty, staff and students.

CNS16-7 Implement Phase II of ETS's Information Security Plan to include data security for portable devices

100% Held meetings and presentations with vendors to select a final candidate for portable security systems. Deployment of a solution for portable devices will occur over the Fall 2009 semester.

CNS17-7 Implement all recommendations from the 2008 IT Audit by the Bonadio Group

75% A report and recommendations on the IT Audit were submitted and approved by the Board of Trustees. Solutions for the recommendations are in progress. The largest and most important solution (the new VPN) was addressed. Other procedural issues will continue to be defined (personnel) and refined (process) in 2009-2010.

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Staff Listing

Battles, Carol
Brooks, Kia
Brown, Jr, Henry
Christian, Marilyn
Clapper, Elizabeth
Clement, James
Colley, James
Cowie, Lynda
DellaPorta, Ronald
Dolan, Moira
Flesch, Sean
Gerardi, Joseph
Josey, Carman
Lane, David
Latta, Andrew
Maiolo, David
Mead, Andrew
Miles, Roger
Montagliano, Christine
Noblett, Daniel
Pogroszewski, Donna
Polk, James
Smith, Debbie
Sutton, Henry
Truman, David
Upson, Brad
Williams, Timothy
Zarcone, Peter