NMSU Las Cruces Campus
Student Technology Fee
Annual Report
FY 11/12
## Contents

I. Main Campus Student Technology Fee Background .................................................. 4

II. Introduction .............................................................................................................. 5

III. Connectivity ........................................................................................................... 6

   Expanded Wireless Areas ..................................................................................... 6

   Modem Pool ............................................................................................................ 10

   Student Network Connectivity .............................................................................. 11

IV. Physical Infrastructure ........................................................................................... 11

   Student Lab Improvements .................................................................................. 11

      Pete's Place Computer Lab & Lounge Remodel .................................................. 11

      Jacob's Hall Upgrades ...................................................................................... 12

      ICT Computer Equipment Rental Program ..................................................... 12

   Student Aggie Print Program ............................................................................... 15

   Classroom Technology Improvement .................................................................... 15

V. Virtual Infrastructure ................................................................................................ 17

   myNMSU Student Portal Services ....................................................................... 17

   Learning Management System Support ............................................................... 18

   Student Lab Software .......................................................................................... 19

      Anti-virus Software .......................................................................................... 19

VI. Support Services .................................................................................................... 19

   ASNMSU Elections ............................................................................................... 19

   Help Desk Hours ................................................................................................... 20

   Student Government Computing Support ............................................................ 20

   Student Technology Communication ..................................................................... 21

   Emerging Technology Support ............................................................................. 21

      Digital Signage ................................................................................................... 22

      Cisco WebEx Support Center Software Pilot for Help Desk Services ................ 23

      Virtual Desktop .................................................................................................. 23

      Wordpress (Website Management System) ......................................................... 23

   NMSU Online Course Improvement Program (OCIP) ............................................. 24

   Student Services Support ...................................................................................... 25

      Student Help Desk Support Coordinator .......................................................... 25

      Student Customer Service Assistant ................................................................ 25

      Lab Coordinator ................................................................................................ 25

      Student Computing Support Technician .......................................................... 26
<table>
<thead>
<tr>
<th>Position</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Coordinator for Student Technology</td>
<td>26</td>
</tr>
<tr>
<td>Student Liaison</td>
<td>26</td>
</tr>
<tr>
<td>Project Aide</td>
<td>27</td>
</tr>
<tr>
<td>Appendix A. Help Desk Troubleshooting Tickets</td>
<td>28</td>
</tr>
<tr>
<td>Appendix B. ICT Administration</td>
<td>29</td>
</tr>
</tbody>
</table>
I. Main Campus Student Technology Fee Background

In 2004, the Board of Regents approved the NMSU Las Cruces campus Student Technology Fee as part of fees and tuition. The funds provided by this fee helped to support the ongoing and growing demand for a robust technology infrastructure, while making a variety of technology services for New Mexico State University (NMSU) Las Cruces students affordable. The Student Technology Fee became part of the University fees and tuition at the Las Cruces campus starting in fiscal year 2005.

In its first year of existence, the Student Technology Fee was set at $20 per semester and the funds derived from the fee contributed toward expanding core IT (information technology) services which include: computing labs, help desk hours, free modem pool, wireless zones, e-services, web conferencing, components of banner, software licensing, security and compliance projects, and various networking expenses.

By fiscal year 2010, the fee had increased to $67. In the first year of the Student Technology Fee, a total of $516,000 was allocated to further expand these projects, accelerating growth. At that time, a student committee was formed under the direction of the University's Chief Information Officer to advise on how funds provided by the fee would be allocated to technology projects for students. This committee is known as the Student Technology Advisory Committee (STAC). STAC, which represents the student body on technology related issues, works to ensure students' voices are heard on all issues related to technology that impacts students at NMSU Las Cruces campus. The focus of this group is to help drive initiatives in technology across campus, primarily through projects at the Las Cruces campus through the Student Technology Fee funds. The students on the committee help identify and recommend new technology projects, provide insight on student perspectives on their experiences with the available technology services, and assist in the decision making process as it pertains to information technology at NMSU. NMSU's Information & Communication Technologies (ICT) department relies on STAC to recommend actions on new and existing technology services throughout the academic year and actively involves the committee on crucial IT decisions.
II. Introduction

This report describes the activities and functions supported by the main campus Student Technology Fee funds, which has been instrumental in funding the technological requirements of the University and accounts for expenditures of $1,911,100 for the fiscal year 2011-2012. Each funded project is categorized under one of four main areas: connectivity, physical infrastructure, virtual infrastructure, and support services.

The funds, received as a result of the Student Technology Fee were appropriated for specific projects and services within these areas as approved by STAC and NMSU ICT. Background information on the technology projects benefiting from these funds and the outcomes of these investments are described in this report.
III. Connectivity

Expanded Wireless Areas

Wireless connectivity continues to be a high priority for students at NMSU and finding solutions to provide the best service that supports the overall goal of NMSU ICT. Each year, since the introduction of wireless network connectivity, usage of NMSU’s wireless network has grown past the anticipated predictions. In more recent years, bandwidth usage has grown exponentially over the course of one academic year.

The expansive increases can be attributed to the array of internet enabled devices that by default connect to the NMSU wireless network once they have been registered. On average, since the start of the 2012 fiscal year, devices registered per student equated to 1:3 but now has doubled and at many times tripled to an average of 1:4. The increase in usage has caused NMSU’s central IT to continue to focus on expanding and improving wireless signal and access in existing high student usage areas. Although every year new areas without wireless or out-dated wireless technology are proposed by STAC as areas of needed attention; adding new access points to make wireless available in places where it does not exist occurs in addition with augmenting existing wireless areas or zones.

Student usage trends continue to exceed expectations and are expected to grow at a faster rate than IT personnel and funding can keep up with. By the time these factors allow NMSU to gain ground, newer and more advanced technologies will be made available. See in “Figure 1: CISCO’s Access Point Technology Upgrade History” timeline of the recent wireless technology.

Figure 1: CISCO’s Access Point Technology Upgrade History

- Year 2003 802.11b/g (11Mb)
- Year 2004 802.11 g (54 Mb)
- Now Year 2012 802.11n (300 Mb)
- Wireless Locations 16
- Wireless Locations 5
- Wireless Locations 79+

Student wireless network usage trends continue to exceed expectations and are expected to grow at a faster rate than IT personnel and funding can keep up with. By the time these factors allow NMSU to gain ground, newer and more advanced technologies will be made available.
Consequently, yearly maintenance fees and the cost to improving wireless accessibility across campus continue to pose immediate challenges in supporting the various internet devices being brought to campus. In FY 2012, over 120,000 unique devices accessed NMSU’s network and over 7,000 clients are accessing the wireless network daily.

In FY 2012, as in previous years, wireless access points (WAPs) were added inside and outside of new buildings and areas where existing WAPs are located. Adding more access points (APs) is done in an effort to meet the high traffic demands on the wireless network. There were 288 APs added across campus in the following areas to amplify signal and service those areas where wireless is nonexistent or antiquated. See “Table 1: Wireless Locations Improved FY 2012.”
Table 1: Wireless Locations Improved FY 2012

<table>
<thead>
<tr>
<th>Location</th>
<th>Status*</th>
<th>Proposed By</th>
<th>Work Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy Building</td>
<td>WIP</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Business Complex</td>
<td>WIP</td>
<td>Other</td>
<td>New Install</td>
</tr>
<tr>
<td>Chemistry Complex Classrooms – Lecture Room</td>
<td>WIP</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Conroy Honors</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Corbett Center – Food Court</td>
<td>Complete</td>
<td>STAC</td>
<td>Augment</td>
</tr>
<tr>
<td>English Classrooms – Lecture Room</td>
<td>Complete</td>
<td>STAC</td>
<td>Augment</td>
</tr>
<tr>
<td>Foster Hall</td>
<td>Complete</td>
<td>STAC</td>
<td>New Install</td>
</tr>
<tr>
<td>Freenger Mall Food Court</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Garcia Hall</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Garcia Annex</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Gerald Thomas Lecture Hall – Lecture Room</td>
<td>Complete</td>
<td>STAC</td>
<td>New Install</td>
</tr>
<tr>
<td>Guthrie Annex Classrooms – Lecture Room</td>
<td>Complete</td>
<td>STAC</td>
<td>New Install</td>
</tr>
<tr>
<td>Health and Social Services</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Jett Hall</td>
<td>Complete</td>
<td>STAC</td>
<td>New Install</td>
</tr>
<tr>
<td>Jett Hall Classrooms – Lecture Room</td>
<td>Complete</td>
<td>STAC</td>
<td>Augment</td>
</tr>
<tr>
<td>Knox Hall</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Milton Hall (CMI, Journalism, KRWG Dept.)</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Monagle Hall</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>O'Donnell Hall</td>
<td>WIP</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Piñon Hall (dorm rooms)</td>
<td>WIP</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Piñon Hall (outdoor patio)</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Preciado Park (outdoor park)</td>
<td>WIP</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Regent's Row Hall Courtyard</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Science Hall Classroom Wing – Lecture Room</td>
<td>Complete</td>
<td>Other</td>
<td>New Install</td>
</tr>
<tr>
<td>Science Hall</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Thomas and Brown</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
<tr>
<td>Williams Hall</td>
<td>Complete</td>
<td>Other</td>
<td>Augment</td>
</tr>
</tbody>
</table>

*WIP – Work In Progress
**Other – Suggested locations offered by ICT or other colleges and departments. ICT will recommend locations based on the usage results provided by the Cisco monitoring system.
Each year trends continue to grow in usage of NMSU’s wireless network with number of devices connecting and bandwidth each device connecting requires. Refer to, “Figures 2: Network Usage Growth (megabytes per second)” and “Figure 3: Connected Devices.” These graphs illustrate the upward increasing trends over each fiscal year.

**Figure 2: Network Usage Growth (megabytes per second)**

![Network Usage Growth Graph](image1)

In “Figure 2: Network Usage Growth (megabytes per second),” bandwidth used went from 1,420 in FY 10/11 to 1,700 in FY 11/12, a total of a 16.5% increase in two years. Increasing trends are expected in the upcoming year.

**Figure 3: Connected Devices**

![Connected Devices Graph](image2)
In FY 11/12 devices connected peaked at 127,850 and increased by 30,019 in one year. Although numbers of devices connected are expected to trend upward, the growth is not expected to increase as rapidly as in bandwidth. Fewer devices require more bandwidth due in part to the rich text, video, and other online content being streamed by connected internet devices.

Every year, expanding wireless zones continues to be a high priority for STAC. In 2012, a prioritized budget of $170,517 remained for wireless maintenance of current locations and for the continuation of the six-year wireless overlay plan. Student Technology Fee funds allocated each year contribute approximately 33% of the total cost of expanding the wireless network on campus and around 9% of the Student Technology Fee funds available each year.

A projected campus overlay plan was developed in 2009 based on projected usage of the wireless network and at what rate improvements could be made to address expected growth. In its present year two, the plan will need to be revised for the next four years. The rate at which signal can be improved in existing areas and added to untouched areas will need to be refigured. Demands by students and departments for more reliable wireless in existing areas and in new areas, such as in older housing buildings and within each dorm room, has become a more conspicuous concern over each year. Initially the six-year plan did not account for the cost of wireless and ability to extend signal to the housing areas and within each dorm room. A new and different approach in providing wireless to these areas will need to be developed. The costs, type of technology, and labor hours will not be implemented in the same way as the rest of campus. Providing wireless to these areas pose new problems and require their own solutions, which deviate from the original six-year plan and environmental factors.

In fiscal year 2012, the average number of unique user simultaneous accessing wireless network during a Monday through Friday week ranged at minimum 6,400 or more. Each year, maintenance for existing access points accounts for approximately 10% of the total cost of the wireless network.

To see the most current list of wireless zones available, visit http://ict.nmsu.edu/wireless/.

**Modem Pool**

No cost dial-up access to the NMSU network and internet is available to any student, staff, or faculty member with a modem. Over the years, modem pool costs have steadily dropped due to a declining number of dial-up users. Funds allocated to continue the modem pool service amounted to a fixed rate of $54,660. On average we have approximately 250 student users still accessing the free dial-up internet service. Although the usage trend is stagnant, this service is used at a low rate in comparison to the overall unique users on the entire NMSU wired and wireless network in in one week; averaging over 6,400 unique users. Consequently, the costs associated with this free service have declined while Student Technology Fee funding has been reduced to reflect these usage changes.

The total allocated Student Technology Fee funds for modem pool services amounted to $54,660. Funding for this project was completely exhausted by the close of FY 2012. As modem pool usage continues to be a service not frequently used, proposed plans to completely phase out this service will be considered.

For instructions on how to connect to this service, visit our Help Desk site and documentation: http://ict.nmsu.edu/csc/TechDocs.html.
Student Network Connectivity
At the end of FY 2012, there were more than 127,960 connected devices to the Las Cruces campus network. Connected devices ranged from lab computers, smart phones, gaming consoles, coke machines, and any other internet-enabled devices used on campus. Included in the connected devices were 399 public-student lab computers. The total amount of Student Technology Fee funding allocated to network connectivity totaled $103,008 to cover the public-student lab computers for FY 2012. The allocated funding remained consistent with funding allocated from the year before (FY 2011). The allocation is based on an $18.50 per month connectivity service rate.

For general ICT computer lab information and a campus map, visit the Student Technology site: http://studenttech.nmsu.edu/computer-labs.html

IV. Physical Infrastructure

Student Lab Improvements
Student lab improvements during FY 2012 varied from remodeling computing areas to supporting and expanding existing services. Yearly costs for computer lab maintenance, lab and computer rental equipment repairs and replacements, software updates on lab machines, lab support, training, marketing efforts, security, and other materials and supplies for labs up keeping continues to be marginally supported by the Student Technology funds within the Student Lab Improvements. To see a list of all the available computer labs and for more information, visit: http://ict.nmsu.edu/scs/labs/labs.html

In this year, new projects and much needed technology upgrades occurred in the Pete's Place Computer Lab & Lounge in Corbett Center, Jacob's Hall 204 computer lab, the Wireless Lounge in Jacob's Hall room 128, and the Equipment Rental Program. A description of what makes these projects more noteworthy are as follows.

Pete's Place Computer Lab & Lounge Remodel
Pete's Place operates on a Monday through Sunday schedule and is best known among students as one of NMSU's main computer labs. As of Spring of 2011, the gaming area adjacent to the computing lab holding 50+ computer stations was closed down for construction to separate the once gaming area into three rooms. This hall was divided with walls, turning the South end into a 24X7 gym and the North end into a quiet study lounge. What was left in the center of these two rooms was unused space and a concession stand window to the Pete's Pick-up golf cart services provided after hours by the ASNMSU student government.

At the end of Fall 2011, a revitalization plan was executed to make use of the abandoned space and open up the enclosed, but popular computer lab. The wall separating the lab and the empty room was removed. The empty room filled with laptop workstations, moveable furniture, a whiteboard, worktables, new carpet, new painted walls, new light fixtures in dark corners, a lab assistance desk, and fresh décor. Since the transformation of this space, the computer lab and lounge is in constant use at all hours of the day and continues to attract large crowds of students.
The total Student Technology Fee funds allocated to the revitalization efforts and approved by STAC amounted to $130,633.69. Phase two to the revitalization project is planned for FY 2013 and will include upgrades to the lighting throughout this space.

**Jacob’s Hall Upgrades**

Jacob’s Hall computer lab 204 and 128 underwent experienced new equipment upgrades and other improvements. The 204 computer lab furniture layout was redesigned to accommodate other uses for this lab in a classroom style format. A more energy efficient projector, larger screen, upgraded teaching station, and document camera where added to this space; making this room a fully equipped computer classroom. This computer lab and classroom was once limited to being used as an overflow computer lab and with the changes is now being used to hold trainings, special classes, and other activities requiring a computer classroom setup.

Although, computer classrooms continue to be a popular requested space, there are few that are readily available at NMSU. Student Technology Fee funds used to upgrade this classroom where an appropriation of Student Lab Improvements and the fund reserved for classroom technology. This classroom accommodates 23 occupants and is available free of charge for students and other campus functions. When this room is not scheduled, it is available to any special groups or students by request.

The other computing space STAC students where interested in seeing improvements made to was the computer lab in Jacob’s Hall room 128. As planning for this space continued throughout the year and rather than allow the space to remain unused, STAC was approached with ideas for how this space could be used by the students and the consensus was to convert the space into wireless lounge. As result of limited funds the computer lab was converted into a lounge by bringing in second hand, retro looking mismatched furniture. Currently, the cozy and quiet space is used by students for a place to study, meet within groups, print from the Aggie Print station and just a space to spend time at between classes.

The Wireless Lounge attracts a variety of students and is busiest during the noon hours and mid-afternoons. When it was first opened to students as a lounge, artwork from the students of the Art Department and historical photos of the building's history decorated the walls of this room. STAC being pleased with the use of this room requested to further promote the use of the lounge by voting and approving funds be used to add a coffee machine to this room. Many students took advantage of the free coffee during the Fall 2011 semester. By Spring, a $.25 charge for the coffee was added. The total cost to provide this service was $.75 a cup. The added charge for coffee did not deter students from taking advantage of this added service or spending time in this space. The coffee machine is a pilot and providing this service will be reevaluated during the summer.

**ICT Computer Equipment Rental Program**

The Computer Equipment Rental Program was created to provide a low cost alternative to owning a personal computer. Equipment rentals may be checked out for short term or long term use. Short term rentals range from one day to one month and long term rentals last one semester. The types of equipment available for short term and long term rentals include: desktops, PCs, laptops, digital projectors, a digital camera, and a digital camcorder. Most equipment can be rented for one day free of charge to students. For extended periods of time, rental charges can range from $10 a week to $100 a semester. This program was started as a result of the implementation...
of the Student Technology Fee, which funds this program. The rental program has also been made available to NMSU staff and faculty at a nominal charge. The funds allocated to continue the rental program each year help with equipment replacement cost and other operational expenses related to equipment maintenance. In fiscal year 2012, 10 HP laptops and three projectors were added to the rental pool.

Over time the number of times equipment is rented from the ICT Computer Equipment Rental Program is tracked and helps determine equipment needs each year. In Figure 4: Short Term Equipment Rental Program Summer 2010 – Spring 2012, the trends in number of times each equipment type is rented remains consistent each semester. In the short term graph, laptops continue to be popular by comparing the number of times it is rented in each term (Summer 10, Fall 10, Spring 11, etc.). Equipment that has become more popular in the most recent term (Spring 12) is digital projectors, camcorders, and desktops. Summer rental numbers drop significantly with fewer students renting from the program.

Figure 4: Short Term Equipment Rental Program Summer 2010 – Spring 2012

In Figure 5: Long Term Equipment Rental Program for Summer 2010 – Spring 2012 laptops rentals exceed desktop rentals over the course of the 2010 and 2012 terms depicted. In 2010-2011, prices for equipment rentals were lowered and may explain the significant increase over the Fall ’10 and Spring ’11 terms.
An extension of the ICT Computer Equipment Rental Program is the Library Laptop Checkout Program. This short term equipment checkout program began as a pilot in fiscal year 2011. Due to the number of checkouts, the program has grown from starting with 5 laptops as part of the initial pilot to 10 laptops. In fiscal year 2012, five iPads were added to the pool of equipment. The number of times laptops are checked out tend to be much higher in the Library Equipment Checkout Program as these are reserved for shorter term checkouts of up to three hours long and equipment must remain in the Library throughout the duration of the checkout time. Refer to Figure 6: Number of Laptop Checkouts 2011 and 2012 to see an upward trend of number of times laptops are checked out each month. The ICT Computer Equipment Rental Program and the Library Equipment Checkout Program have proven to be a mainstay service of the Student Technology Fee projects.

To learn more about the ICT Computer Equipment Rental Program visit: http://studenttech.nmsu.edu/rentals.html.
Student Aggie Print Program
In five years of its existence, NMSU's print management program known as the Aggie Print Program continues to be a highly used program. The Aggie Print Program was implemented as part of one of the University's sustainability projects. While reducing printing waste and promoting more conscientious printing habits, other associated costs reduced were ink, paper, and maintenance.

The Aggie Print Program not only has saved overall costs for printing at NMSU it has made it possible for NMSU to offer free allotments of printing each semester to students. Approximately less than 2% of the Student Technology Fee contributes to this effort, which has shown to save students in printing costs each semester. At the start of each semester, students have an allotment of $20.00 if they are full time and $10.00 if they part-time status. The allotment is credited to each student's NMSU account with the printing charge applied through their NMSU ID cards. During the semester, if students deplete the amount allotted to them and need additional printing, they can recharge their NMSU ID card at the station located in Pete's Place or ID Card Services in Corbett Center. The cost for each print job is $.10 for black and white printing, and $.50 for color printing. The costs associated with providing this service includes supplies and maintenance. The Student Technology Fee contributed $36,414, which paid for paper, printer cartridges, maintenance, and promotional activities required for expanding Aggie Print stations throughout campus.

Later in the fiscal year 2012, a proposal was presented and approved by ICT to pilot the WEPA printing solution to address improving printing conveniences for students and reduce costs for yearly maintenance. From the WEPA printer kiosks, printing options include: black/white and colored printing, double sided printing, printing from home to the kiosk, printing from the kiosk by USB plug-in, and pay for printing using NMSU ID or credit card. Each student can login to their account using their NMSU ID and NMSU login information.

The initial cost for this program was $22,661 and later additional funds were approved by STAC to pilot the WEPA stations. The full pilot will be implemented for Fall 2012.

Classroom Technology Improvement
Classroom Technology plays a vital role in the overall quality of the academic experience for students on campus. With support from the Student Technology Fee funds and matching college/department funds, 35 classrooms were built or upgraded with technology and computer equipment. There was a total of 241 technology classrooms built on NMSU's main campus in FY 2012. The Student Technology Fee continued to fund about 75% of the total costs for Classroom Technology projects for the University in FY 2012.

Funding technology enhanced classrooms, referred to as "standard classrooms," helped equip classrooms with a teacher station, laptop connection, document camera, wired and wireless network connections, DVD/VCR combo, and desktop computer. Beginning late FY 2012, classrooms requiring maintenance had new control panels and more energy efficient Casio LED projectors installed. The lamp life of the new projectors is increased by 90%. With the equipment upgrades, maintenance frequency will be reduced for classrooms which will reflect in maintenance cost per classroom. In the few rooms upgraded toward the end of the year cameras with a microphone were added as part of the standard build for classrooms. Mediasite, a proprietary video streaming is being phased out starting
in FY 2013. NMSU currently holds 22 seats, which the University pays $39,000 for and the new contract will increase the costs of continuing to provide Mediasite at NMSU at the same level of services for up to $70,000 a year, not including approximately $75,000 in hardware costs. This year research was conducted and the ICT Classroom Technology unit alone with the Instructional Innovation Technology faculty support unit, will be piloting a new video streaming service called Panopto. With this service, $34,000 will provide 40 seats, instead of 22 Mediasite provides and is software based. Panopto can be easily used in the same way Mediasite can be except in more convenient in low cost way. The minimal equipment required is computer, camera, and microphone and recording can take place anywhere with little to no setup. Rooms with new technology and are currently able to support Panopto include four classrooms in Hardman Hall, one room in Science Hall, and Jacob’s Hall Computer Lab classroom 204.

Below in Figure 4: Increase in Standard Classrooms shows the growth in the number of standard classrooms built starting from the Student Technology Fee was adopted, between fiscal years 2004-2012. Starting in fiscal year 2013, any added classrooms with the “standard build” will be equipped with cameras, microphones, green projectors, and upgraded control panels.

Figure 7: Increase in Standard Classrooms

In Figure 5: Standard Classrooms by College shows the breakdown of technology enhanced classrooms by college. This illustration shows that the College of Arts & Sciences remains to be the most active in enhancing classrooms, which may be correlated with the fact that the Arts and Sciences department offers the most degree program options. The category “Other” in the graph includes smaller rooms and conference rooms which are not funded by Student Technology Fee funds. Classrooms qualifying to benefit from Classroom Technology funds, provided by the Student Technology Fee, are those classrooms where the department/college or any other University resource is combined and matched to address the computer technology needs of a classroom. Those classrooms classified under the “General” category are defined as buildings where general courses are conducted, such as Hardman Hall, Monogale Hall, and Garcia Hall and are associated with a department other than the colleges shown on the graph below. These classrooms are used by multiple colleges and departments and may be scheduled by the Registrar’s Office or by a college/department.
V. Virtual Infrastructure

myNMSU Student Portal Services
The myNMSU portal allows students, faculty, and staff to access their respective student and employee information. It is also the central location for NMSU email. In May 2011, the release of the restructured myNMSU site was implemented to improve the look and feel of the system and to provide additional, convenient services for NMSU through the portal. Some of the immediate benefits that came with the new system, which was changed from Luminis to Campus EAI, included mobility features, single-sign on capability, 25 gigabytes of storage space, and 10 gigabytes of email space. Concurrent with the move to Campus EAI system, NMSU implemented an improved and more manageable cloud-based email system through Microsoft Live, where additional storage space and other capabilities would be held. By moving services to a cloud-based platform, accessible over the internet, NMSU realized an immediate reduction in the cost of local server equipment, space, and maintenance. The move has brought NMSU up-to-date with the current technologies used at its peer institutions.

myNMSU portal services and projects was allocated $164,917 for fiscal year 2012. In its first year of new features added and upgrades, myNMSU funds were dedicated to the Microsoft agreement for providing Office and Email online, training, and support. The myNMSU portal provides the portal interface and banner self-service for students, financial information services, and Human Resources was
improved and prepared for app development for the next phase of improvements and added services to myNMSU. The Student Technology Fee funds contribute marginally to the services provided through myNMSU and funds are matched with University funds to effectively provide the myNMSU portal for all of NMSU to include community college campuses.

myNMSU is primarily used by student to access class registration, email, and personal NMSU student information access technology. Yearly promotional activities occur in an effort to inform students of the services and features of myNMSU that will be beneficial for their college careers at NMSU. Activities have included weekly information tables, special group and department presentations, disbursement of flyers and other marketing materials, and news releases.

Learn more about myNMSU, visit: [http://studenttech.nmsu.edu/-html](http://studenttech.nmsu.edu/-html) or [https://my.nmsu.edu](https://my.nmsu.edu)

**Learning Management System Support**

In May 2012 the new release of the learning management system (LMS) Canvas by Instructure replaced the Blackboard LMS. Student Technology Fee funds were an instrumental funding component in launching the pedagogically designed LMS. Cross departmental collaboration between ICT, faculty support, student support, and community college IT staff contributed to the success of training students and faculty and migrating over 3,000 courses. In Fall of 2012 the number of online course in Canvas reached 4,344. Making NMSU one of Canvas's top LMS users.

Student Technology Fee funds used for the transition from Blackboard to Canvas in Spring 2012 and the first year of implementation amounted to $228,485. The cost to implement Canvas in the first year came in under budget and funds were reallocated to other Student Technology projects such as Wireless and Student Technology Communications (See Student Technology Communications section for more information).

Software and application purchases, system designer and administrator salaries, contracted annual support, marketing efforts, and the remaining funds were reserved for preparation of the new LMS ($82,485). These funds were dedicated to the new LMS, which would be expensed in FY 2012. The Student Technology Fee funds continue to be the main contributor to the existence of the university's LMS.

Even prior to FY 2009 and the days of WebCT, the need for a supported university-wide LMS became more important as many more students, faculty, staff and other NMSU organizations use the LMS to communicate and provide educational online content through Blackboard courses. In the month of September 2011, the number of visits to the learn.nmsu.edu site, where Blackboard is hosted, totaled 1.5-million visits. In spring 2011 the average number of users of the LMS had increased from 2,400-2,700 to 3,020 users.

For more information on NMSU’s learning management system, visit: [http://learn.nmsu.edu](http://learn.nmsu.edu) or [http://studenttech.nmsu.edu/learnnmsuedu.html](http://studenttech.nmsu.edu/learnnmsuedu.html).
Student Lab Software
Each year, software in the computer labs is evaluated by reviewing requests and recommendations from various departments and resources. In fiscal year 2012, the inventory and asset tracking software was acquired to store data regarding where computer lab equipment is stored and used to help track computer equipment rental equipment for reporting. To continue to provide software options for students, faculty, and staff through the computer labs, rental program, and computers maintained and built by ICT, Student Technology Fee funds are allocated to specific software licenses for the ICT Computer Labs. Software provided by the Student Technology Fee funds included: SAS software, SPSS, Rosetta Stone English Language, Redbeam (inventory/asset tracking), Lab Stats (computer lab work order, Adobe Creative Suite, and Sophos anti-virus software.

Student Technology Fee funds allocated to new and ongoing costs for software licenses for student applications totaled $66,532 for FY for 2012. Software costs increased to help with the introductory costs of Rosetta Stone.

**Anti-virus Software**
A noteworthy part of software licenses for student applications is the free anti-virus made available to any NMSU faculty, staff or student and can be downloaded directly from the ICT website: http://help.nmsu.edu. Installing Sophos anti-virus has become one of the primary steps for the help desk when addressing computer problems for students.

For a complete list of software and lab locations, visit: [http://studenttech.nmsu.edu/software.html](http://studenttech.nmsu.edu/software.html).

VI. Support Services

**ASNMSU Elections**
The Associated Students of New Mexico State University (ASNMSU) is a student organization recognized by New Mexico State University. All students on main campus who have paid an activity fee are represented by this student governing body, which promotes and represents the interests of the student community of NMSU. For these reasons ASNMSU leadership is represented on the Student Technology Advisory Committee and involved in decision making for Student Technology Fee funded projects approved through the committee. Therefore, online elections support services and laptop polling stations for elections held by ASNMSU are funded each year at $2,500. This funding is used to build and support the online elections form for each election, help with marketing efforts to promote students to vote, and help with the cost of using laptops for polling stations during the week of elections.

To learn more about ASNMSU and any elections coming up, visit [http://asnmsu.nmsu.edu/](http://asnmsu.nmsu.edu/).
Help Desk Hours
The ICT Help Desk, located in room 141 of the Computer Center, provides technology assistance to students including computer problem diagnosis, anti-virus installation, password resets, and issues with accessing services like myNMSU, learn.nmsu.edu (Canvas), and AggieAir. Although the Help Desk Services are for the Las Cruces campus students, they are a touch point for faculty, staff, and students from other campuses to other NMSU departments. The commonly reported issues the Help Desk encounters are myNMSU username and password resets, software and desktop computer issues, and problems with network connections. This year, the ICT Help Desk recorded 13,721 trouble ticket reports, approximately a 25% fewer issues reported. For details on commonly reported issues, see Appendix A. Help Desk Troubleshooting Tickets.

The ICT Help Desk employee's eight students and three staff members that provide assistance on computer issues students are experiencing. The Student Technology Fee partially funded three student employee positions, in which two student employees would be dedicated to providing technical help assistance and the other student would be dedicated to designing ads and providing technical assistance for the digital signage screens across campus. The funds are also used to support the beginning of the academic semester activities and extended hours for the spring and fall semesters. Activities include the mobile help desks where techs are available at remote locations and during new student events to provide computer help in convenient locations and times. Extended hours for the ICT Help Desk include operating hours beyond the 8:00 am – 5:00 pm business week; the hours consist of M-F, 8:00am-8:00pm and Saturday, 10:00am-3:00pm.

The total funding allocated to helping student through the ICT Help Desk for the 2012 fiscal year amounted to $80,254. For ICT Help Desk services and helpful guides, visit: http://help.nmsu.edu.

Student Government Computing Support
Throughout the year, ICT works with ASNMSU (NMSU student government) in a continuing effort to reach out to students and inform them of the benefits they receive from their investment in Student Technology projects. Student Technology Fee funds assigned to these projects known as Student Government Computing Support totaled $2,644 for fiscal year 2012. These funds were applied to trouble tickets for office computer equipment in the ASNMSU offices.
Student Technology Communication

Student Technology Fee funds every year are allocated to promotional activities and communications projects for existing and new services. These projects are referred to as Student Technology Communications. In fiscal year of 2012, $10,000 reserved for print and online advertising, marketing materials, and other promotional activities to disburse support and technology related information for students of NMSU Las Cruces.

One ongoing form of communication developed through this project that has gained recognition from university departments is the Student Technology Guide and Technology Day. The guide is revised and printed several times throughout the year and requested by departments who assist and help students on a regular basis, from the Libraries, college advising centers, to the community college departments. Included in the guide are helpful technology resources for faculty and staff.

Other marketing materials and activities include weekly ads in the Roundup student news, KRUX radio announcements, give-a-ways, and other technology incentives hand-outs through the information tables held year round where we have a student representative provide information to students and assist with answering questions.

Emerging Technology Support

Emerging Technology Support funds are the most flexible of the Student Technology budget. These funds are used for adopting new and upcoming technologies that students, through STAC, would like introduced to NMSU. In fiscal year 2011, STAC approved a total of $61,982 of emerging technology funds to be allocated to help existing projects and to help pilot new technology endeavors across campus. The amount of emerging technology funds available was reduced by $80,768. These funds were reallocated to other growing projects such as, Wireless projects, Labs and Computing Improvements, Classroom Technology, Aggie Print, and Software Licenses in Student Labs. The primary emerging technology projects that received funding in fiscal year 2012 included: digital signage, WebEx, virtual desktop pilot, and website management system upgrade. Most often the emerging technologies implemented may be piloted first and later become a service provided each year. An example of a growing emerging technology is the use of digitals screens to advertise and provide another channel for disbursing University information across campus. In this section the four emerging technologies for fiscal year 2012 are described.
Digital Signage

Digital signage (TV screens) were added to the list of existing locations for this project known as “The Feed.” There were a total of 24 screens as part of this partnership between ICT and ASNMSU in various lobbies near advising centers and student populated areas. This project has provided a central location where students, colleges, and departments can submit and post advertisements that contain information targeted for the NMSU community. Those departments that have partnered to allow ICT and ASNMSU to install a digital screen in their buildings and lobbies, are able to advertise and post ads for free throughout the academic semester. The partnership agreement consist of departments and colleges agreeing to have screens in their buildings, the expense of the screen being taken on by Student Technology Fee funds and ad space is managed by students. The departments are responsible for ongoing costs such as repairs and ensuring the screens remain turned on during building open hours. Student Technology Fee funds are matched with ASNMSU funds and in many cases, department/college also provides funds to purchase and install the display equipment. New locations added during the year included the Health and Social Service Building and the Student Success Center Hardman. Plans for expanding this project will be carried over into the next fiscal year. Refer to the tables below to view current and future digital signage screen locations.

Table 2: Digital Signage 2011-2012

<table>
<thead>
<tr>
<th>Current Digital Signage Screen Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breland Hall (1)</td>
</tr>
<tr>
<td>Taos, Corbett Center (5)</td>
</tr>
<tr>
<td>Activity Center (2)</td>
</tr>
<tr>
<td>VDM (store area) (1)</td>
</tr>
<tr>
<td>Garcia Hall (1)</td>
</tr>
<tr>
<td>Science Hall (1)</td>
</tr>
<tr>
<td>Milton Hall (1)</td>
</tr>
<tr>
<td>Business Complex (1)</td>
</tr>
<tr>
<td>Guthrie Hall (1)</td>
</tr>
<tr>
<td>Aggie Snack Bar (1)</td>
</tr>
<tr>
<td>O’Donnell Hall (1)</td>
</tr>
<tr>
<td>Corbett Center (4)</td>
</tr>
<tr>
<td>Frenger Food Court (1)</td>
</tr>
<tr>
<td>Student Success Center – Hardman (2)</td>
</tr>
<tr>
<td>Health and Social Services (1)</td>
</tr>
</tbody>
</table>

**Cisco WebEx Support Center Software Pilot for Help Desk Services**

WebEx desktop sharing feature was piloted for one year. This feature was purchased for the Help Desk staff that assists many students by phone and is unable to see the issues the students are experiencing on their computer. This WebEx's desktop sharing feature made it possible for the Help Desk staff to send an invitation by email to students requesting they share their computer desktop and once accepted the Help Desk staff are able to click around and view what the student was experiencing as well as make any repairs or fixes. Unfortunately, after a year of the pilot it was determined the system did not get as much use. It was discovered that many students had to first download Java to their computers before they were able to use the WebEx desktop feature, which was an added troubleshooting step that made helping students online more cumbersome and complicated. Many students preferred to come into the Help Desk for assistance. The need for improved remote help services and promoting self-help services online is recognized by ICT.

The vision for the Help Desk is to accomplish a “solution center” where students can get computing help immediately at the first point of contact, whether by a Help Desk staff member or through routing to another ICT professional within the department. Partial Student Technology funds of $10,000 were approved for the pilot and other funding sources came from the ICT budget.

**Virtual Desktop**

A new way of providing computer lab services through virtual desktop was tested on a few machines in the Computer Center lab throughout the year. Being able to convert traditional computer lab machines into virtual desktops allows these computers to be treated as a peripheral (monitor, keyboard, and mouse) without a local hard drive needed. Computing by connecting to a virtual server would make it possible to store software and applications that could be accessed by students in the labs and each time a student logs into a lab computer, the settings and build would be the same on all lab machines. The goal for successfully implementing virtual desktops would allow ICT to save in purchasing costs of computers. On the opposite end, software licensing costs would be viewed in a different aspect. The cost of software has the potential to increase as more students are logging onto the machines. The main objective for virtualization is to require less machine upgrades and maintenance costs. Testing and finding ways to incorporate virtual computing across all campus computers will continue into future years.

**Wordpress (Website Management System)**

All NMSU websites currently reside on content management system referred to as Mango CS and hosts all nmsu.edu websites for all departments and colleges. Mango CS is a user friendly and simplified way to creating and maintaining a website for the common non-technical user, making it possible for any staff member of NMSU to easily access and post relevant information about NMSU. As technology continues to evolve and more staff expectations for interactive and enhanced ways for designing webpages becomes more complicated, ICT is taking a step forward in implementing the next University-wide website or content management system. After research and testing, Wordpress was the system selected for NMSU. In fiscal year 2012, the initial agreement, preparation and designing starting with a few motivated departments began and emerging technology funds were requested to assist the initial phases of this project. A total of $419 was allocated to assist with added features. Website space is primarily used by NMSU colleges and departments, and by any student who requests a website space.
NMSU Online Course Improvement Program (OCIP)

The College of Extended Learning continues in its third year to offer a training incentive program for faculty, known as the NMSU Online Course Improvement Program. This program was intended to provide professional development opportunities for faculty at NMSU's main campus. Faculties are connecting them with a professional to redesign their online courses and to improve the online learning environment for students. The overall incentive for investment in this startup program, from STAC's perspective, was to promote improved online learning and the use of online learning resources such as e-textbooks, which would reduce costs for students.

The program is provided through the Distance Education College, partnered with the Teaching Academy and Center for Learning & Professional Development. More in-depth training courses have provided an opportunity for a select few faculty members to participate in a year-long fellowship program. The fellowship program for 2012 was made up of 15 faculty members who committed to having one of their online course evaluated against the "Quality Matters" rubric and attend a number of training hours to improving their online course delivery. These faculty who completed the program and committed to acting as a mentor for their department and college, received a stipend of $1,000 at the end of the year. The requirements for completing the program is a rigorous process, and although only a few faculty may be approved each year for the fellowship, the training courses are open to any NMSU staff or faculty free of charge.

As a result of the high volume attendance in these training there were 53 different events offered and a total of 312 attendees who participated, 215 of them were unique attendees.

The Student Technology Fee funds allocated to this program amounted to was $89,250. These funds are used to partially fund two .40 FTE project coordinator positions faculty stipends, and membership to online resources used by faculty. Although the OCIP program is minimally funded by Student Technology funds, the program would not exist without this support.

For more information on professional development for faculty, visit: http://distance.nmsu.edu/faculty/ocip/.
Student Services Support

Student Services Support helps Information Technology provide better customer service for students. It further provides employment opportunities for students where they can gain experience working in an academic technology environment. Allocations to Student Services Support were $215,273 for 2012. The following are the position descriptions for the student jobs supported by the Student Technology Fee funds.

**Student Help Desk Support Coordinator**
- Oversees all aspects of the ICT Help Desk functions.
- Ensures ICT customer issues are resolved.
- Ensures a quality experience for the NMSU community who has IT related problems.
- Manages and hires new ICT Help Desk student employees (ICT Help Desk Technicians).
- Manages electronic mailing lists.
- Administers digital signage project such as: motion graphic designing, networking, and maintenance.
- Trains staff of departments that purchase iCompel digital signage system.
- Performs administrative and general user account maintenance and creation (Banner unlocks, myNMSU password resets).
- Manages the NMSU domain, duties include managing purchases, and transference of URLs for various University departments and organizations.
- Troubleshoots networking issues.
- Develops site designs and layouts for noc.nmsu.edu as well as the branding of other web applications used by NOC such as domain.nmsu.edu and previous versions of video.nmsu.edu.

**Student Customer Service Assistant**
- Provides customer service for Student Technology & Planning.
- Responsible for inventory, maintenance, and contracts of the equipment in the rental pool.
- Responsible for scheduling four computer lab classrooms.

**Lab Coordinator**
- Responsible for the Lab’s technical support program.
- Supervises student lab assistants and monitors.
- Acts as the building supervisor for Jacob’s Hall.
- Performs student employee performance evaluations.
- Establishes business needs and customer requirements for ICT computer labs.
- Responsible for the operations of the in the ICT computer labs.
**Student Computing Support Technician**

- Supports the student computing labs by troubleshooting and resolving computer system software and hardware problems.
- Installs, configures, and maintains network hardware and software.
- Directs, evaluates, trains and supervises the work of assigned personnel.
- Assists in recommendations and purchases of new personal computers, printers and other peripherals.

**Project Coordinator for Student Technology**

The primary role of the Project Coordinator for Student Technology is to facilitate the budgeted activities from the Student Technology Fee funds, and to coordinate the implementation of ideas from students and STAC. This position is the primary contact for the Student Technology projects and handles the initial stages of project management and money allocation among the priorities set by the students and STAC. This position also handles other documentation and promotions of student technology services to prospective and current students of NMSU. This role also provides professional support for students and creates connections between students who need help with IT and service providers.

**Student Liaison**

The Student Liaison cooperative position facilitates communication between students and IT. The Student Liaison is the ICT interface with student organizations and coordinates monthly information tables to inform students of services and availability of resources on campus. This position also creates presentations focused on informing NMSU student groups and organizations about services and resources on campus. In addition, this position assists in organizing and coordinating functions including New Student Orientations, Admissions Orientations, and other documentation and promotional information of student technology services. The liaison also organizes large events to promote technology services including “Tech Day”, which showcases the various technologies offered by NMSU. These technologies include: myNMSU, learn.nmsu.edu, Centra, CMS, and ePortfolio. This position also creates and maintains a student technology website, Facebook, and Twitter page to further improve communications with students. The Student Technology Help website serves the NMSU community by providing “how-to” instructions for various technologies at NMSU. This site can be used as a starting point for new students to get a quick overview of the services and technologies that NMSU has to offer. In addition, the site can be used as a reference for computing-related questions.
Project Aide
The project aid assists the Project Coordinator for Student Technology on researching new and upcoming technologies by students, drafts and edits written reports for the Student Technology projects, and works with other ICT departments on communication releases for other IT projects. This person works in collaboration with the Student Liaison on preparing promotional items, flyers, web page updates, and assists in events which involve the participation of the Student Technology & Planning group.

Michael Alarid, Project Aide, 2011-2012
College of Arts and Sciences, Graduate
Appendix A.  Help Desk Troubleshooting Tickets

The ICT Help Desk reports the most commonly requests for help to myNMSU username and password issues. myNMSU username/passwords are used to access many internal systems and specifically effects many of the systems listed in the Help Desk Issue Reported table below. The table is organized by the troubleshooting tickets recorded by the Help Desk in FY 2012. Total number of issues reported for the year was 13,549, about 6,978 fewer issues reported from the previous year. Although usernames and passwords are the number one issue reported, the number of reports was reduced by approximately 5,500 in the year. The higher number in the previous year may be attributed to the new myNMSU improvements. Canvas the new learning management system is not included as it was implemented over the summer session and will be included in the next fiscal year.

Help Desk Issues Reported

<table>
<thead>
<tr>
<th>Type</th>
<th>Ticket Count</th>
<th>Type</th>
<th>Ticket Count</th>
<th>Type</th>
<th>Ticket Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyNMSU Username/Password</td>
<td>10,082</td>
<td>Gaming (Xbox, PS, Nintendo, and etc.)</td>
<td>63</td>
<td>WebVPN/VPN</td>
<td>9</td>
</tr>
<tr>
<td>Network</td>
<td>557</td>
<td>Blackboard login</td>
<td>55</td>
<td>Lab</td>
<td>8</td>
</tr>
<tr>
<td>Student Network</td>
<td>437</td>
<td>Timesheet Approval</td>
<td>52</td>
<td>Quarantined Email</td>
<td>7</td>
</tr>
<tr>
<td>INB Password</td>
<td>271</td>
<td>Exchange</td>
<td>46</td>
<td>OFS Work Order</td>
<td>6</td>
</tr>
<tr>
<td>Banner Finance</td>
<td>228</td>
<td>Mobile Device (phones, tablets)</td>
<td>45</td>
<td>Work-Flow</td>
<td>6</td>
</tr>
<tr>
<td>E-Hire</td>
<td>197</td>
<td>Forward to FSA</td>
<td>38</td>
<td>Admission</td>
<td>6</td>
</tr>
<tr>
<td>Informational/Transfer</td>
<td>179</td>
<td>Web Page</td>
<td>35</td>
<td>SCS Ventana</td>
<td>6</td>
</tr>
<tr>
<td>PC Maintenance</td>
<td>164</td>
<td>Administrative Security</td>
<td>31</td>
<td>Virus</td>
<td>4</td>
</tr>
<tr>
<td>My.NMSU.Edu Portal</td>
<td>156</td>
<td>Student Banner</td>
<td>26</td>
<td>Payments Cashnet</td>
<td>3</td>
</tr>
<tr>
<td>Email receive/send</td>
<td>126</td>
<td>Purge</td>
<td>21</td>
<td>Cognos - data</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>107</td>
<td>Res-Net</td>
<td>13</td>
<td>WebMail</td>
<td>3</td>
</tr>
<tr>
<td>Email Migration</td>
<td>101</td>
<td>Sophos Antivirus Troubleshooting</td>
<td>12</td>
<td>Cognos - browser - pop ups/firewall</td>
<td>2</td>
</tr>
<tr>
<td>Registration (Non-Technical)</td>
<td>90</td>
<td>Blackboard Courses Unavailable</td>
<td>12</td>
<td>Third Party Software</td>
<td>2</td>
</tr>
<tr>
<td>Email Programs</td>
<td>90</td>
<td>P-Card</td>
<td>11</td>
<td>Departmental Email Account</td>
<td>2</td>
</tr>
<tr>
<td>Blackboard error</td>
<td>80</td>
<td>ListServe</td>
<td>11</td>
<td>Cognos - errors</td>
<td>2</td>
</tr>
<tr>
<td>Banner HR</td>
<td>77</td>
<td>Email Alias</td>
<td>11</td>
<td>PIN</td>
<td>1</td>
</tr>
<tr>
<td>INB Browser Problem</td>
<td>67</td>
<td>E-Print</td>
<td>10</td>
<td>Library Systems</td>
<td>1</td>
</tr>
<tr>
<td>Timesheet</td>
<td>64</td>
<td>Dialup</td>
<td>10</td>
<td>WebVPN Banner</td>
<td>1</td>
</tr>
<tr>
<td>Wireless</td>
<td>64</td>
<td>Cognos - login/access</td>
<td>9</td>
<td>Windows Vista</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>13,721</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28
Appendix B. ICT Administration

Dr. Shaun Cooper
Chief Information Officer & Associate Vice President
scooper@nmsu.edu
575-646-2026

Randey Bamford
Director of Special Projects
rbamford@nmsu.edu

Celeste Bernal
Director or Business Office and PC Support
anthony@nmsu.edu

Norma Grijalva
Director of Telecommunications & Networking | Deputy CIO
norma@nmsu.edu

John Roberts
Director or Computer Systems
sysjcr@nmsu.edu