MOORPARK COLLEGE

Information Technology Operational Plan
2011-2012

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Introduction

Technology support is a consolidated service through District Information Technology. IT maintains a full-time on-site IT department at Moorpark College, comprised of a supervisor, and three technology support specialists. The campus technicians support a collaborative framework, allowing the IT department to leverage skill sets between campuses. The District Administration Center supports administrative computing, core fiscal and operational system, and administers networked services district wide.

OVERVIEW

Through an active collaboration with District IT, Moorpark College has developed a Strategic Technology Plan that encompasses all aspects of technology. The plan is aligned with the Educational Master Plan and the Facilities Master Plan. The plan lays out the strategic goals and objectives for technology at Moorpark College. The plan will be updated during the current academic year.

This Technology Operational Plan will guide the development of tactical business plans, alignment with the District's and College's vision, mission, strategic initiatives, and prioritization criteria.

Resource prioritization and allocation are facilitated by campus technology committees and driven through the college's program review process. Currently, there is one technology committee and one subcommittee at Moorpark College:

- The Technology Committee on Accreditation and Planning (TCAP) which plans, monitors, and evaluates institutional technology including hardware and training needed to support student learning; the Technology Master Plan and Technology Inventory; funding for technology based on an allocation of at least 30% of instructional equipment funding dedicated each year to technology equipment, and hardware needs identified in the Technology Plan and annual program plans.
- A working group of TCAP is the Technology Resource Allocation Committee (TRAC). This subcommittee has been tasked with prioritizing purchase requests of new and replacement computers and related equipment and also working with other committees that need to have information relating to campus use of technology. A standards and criteria document has been established to formalize the ranking of needs. The document is available on MCShare.

Mission

The mission of the Moorpark College Information Technology Services department is to serve the technology needs of the institution. The following objectives must be met to satisfy the growing technology and service support needs of the College:

Objectives

The following are guidelines to meet the growing technology support needs of the College:

- Maintain high level of support services.
- Use resources efficiently to better serve campus.
- Continue use of Track-It work order system to measure service levels and outcomes.
- Enhance and maintain open communication with all users.
- Facilitate innovation and planning in order to meet technology needs.

Support Standards

Service Levels

The campus ITS department will continue to maintain effective service levels through proper use of campus committees, as well as collaborative relationships with other campus groups and/or departments.

Service Level Agreements (SLA) are internal contracts that define the prioritization and timeframe for delivery of services. The agreements set expectation levels for support services. For example, the SLAs might require that classroom computers are repaired within 4 hours and that other systems would be repaired in 24 to 48 hours, depending on predefined classifications.

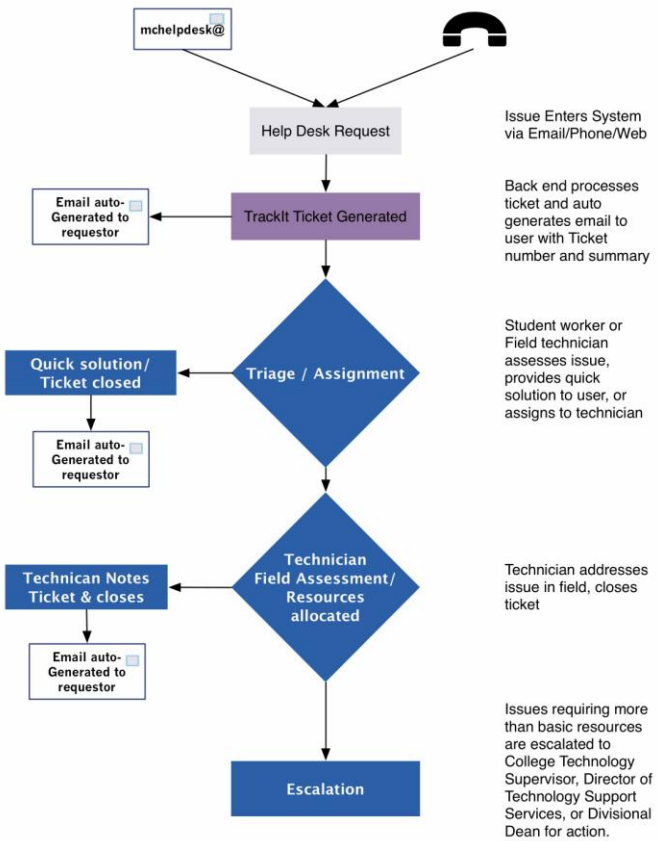
There are no service level agreements (SLAs) currently in place. SLAs will be developed to create a common understanding about services, priorities and responsibilities. Currently in development, it is anticipated that this document will be come part of the annual review cycles for ITS to strentghten collaborative links, and insure support efforts are directed appropriately. The SLAs will be developed by the supervisor in conjunction with the Technology Committee, and monitored for compliance by the Director of Technical Support Services in collaboration with the Business Manager and Vice President of Business Services.

Work Tracking

Technology related work order requests are tracked via the Track-It system and Help Desk which is located in the ITS department. Track-It software was implemented to capture work order requests and provide a mechanism for measuring efficiency and determining staffing level adjustments. Functionality includes call management and tracking, knowledge management, problem resolution, and self-help capabilities.

The Help Desk is currently maintained by student workers Monday through Friday and offers an alternate method for communicating service requests. The day-to-day supervision of the Help Desk falls under the Technology Support Services Supervisor.

The District utilizes the Track-It software program to manage work order requests in union with their Help Desk. The ITS department is committed to working closely with the District in this endeavor, as the Track-It software has become the District's standard for IT support tracking.



Resource Sharing

Resources for technology support (parts, vendors, tools) are centrally shared. The college also depends on the District IT Department for certain levels of repairs and support issues. This alliance creates an environment of shared resources and provides for greater efficiency.

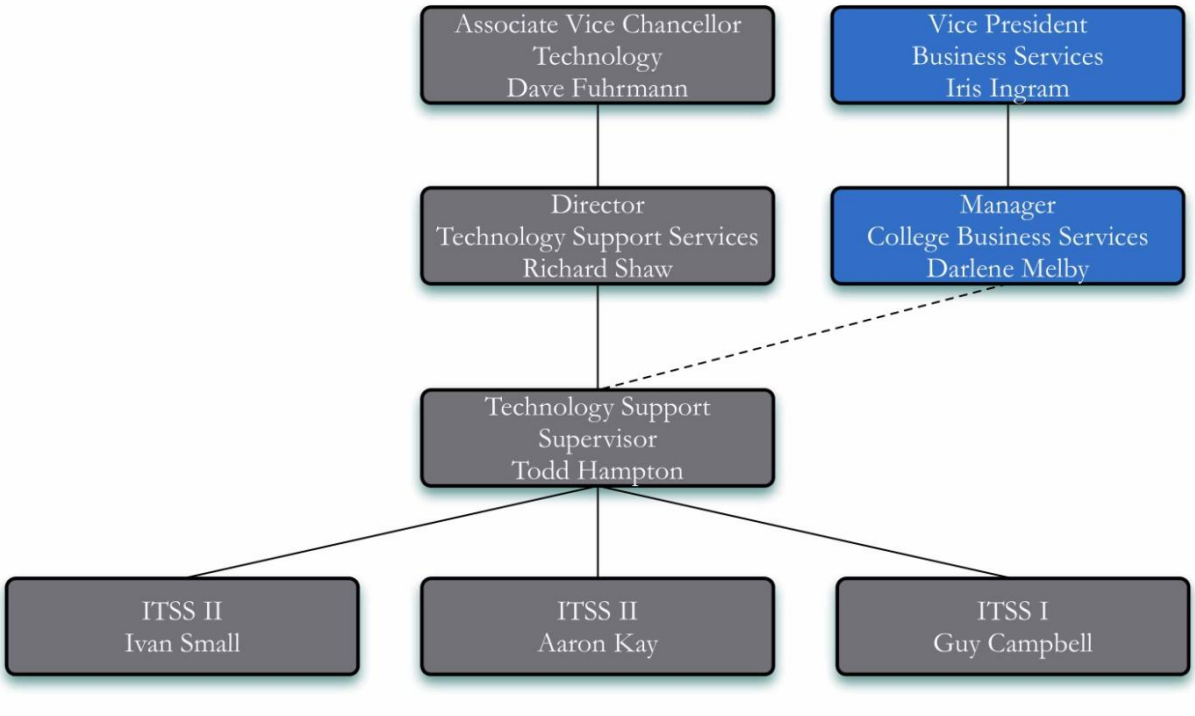
Common Methodologies

Common methodologies and processes for implementing and maintaining technology on each campus will be supported and actively cultivated to maximize efficiencies. This will allow for training of staff and will allow flexibility in allocating staffing resources.

Staffing Levels

The Director of Technology Support Services provides oversight of the ITS at Moorpark College, with the Technology Support Services Supervisor directing day-to-day operations. The department also consists of two Information Technology Support Specialist IIs, and one Information Technology Support Specialist I. Each staff member is dedicated to supporting technology needs across the campus.

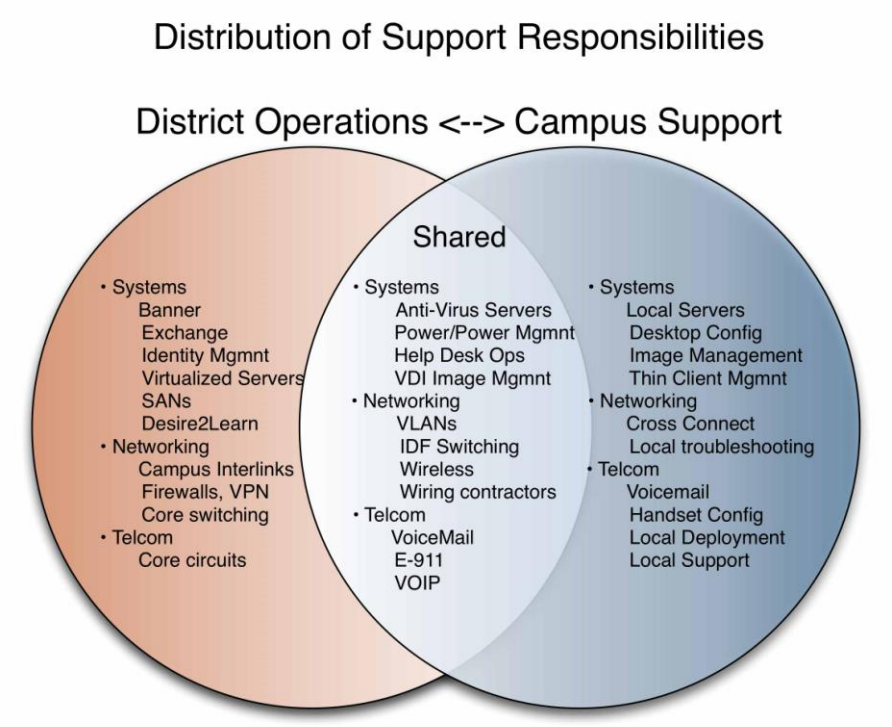
Additional staffing cannot be allocated at this time, due to a lack of funding.



College and District Responsibilities

The District Administration Center has an IT department that provides support in a number of key areas:

- Administrative applications, including Banner and Outlook (email)
- Campus connectivity to other District facilities and the Internet
- Campus cabling infrastructure, to the wiring closet level
- Campus network backbone, including switches and routers



The District's Director of Technical Support Services will coordinate infrastructure or administrative computing work on the campus through the local supervisor in active consultation with the College Business Manager and the Vice President of Business Services.

Staffing Plan

In order for this Operations Plan to be effective, it is critical that the supervisor and college leadership ensure each element of the document is clearly communicated at all appropriate levels within the college environment. The Operations Plan will be the driving document that communicates day-to-day operational structure and long and short term goals as determined by institutional and district needs.

The Director of Technology Support Services will be responsible for working with the campus Technology Committee on Accreditation and Planning (TCAP) to streamline support processes. The Technology Support Services Supervisor will be an active member of (TRAC) and will provide data and feedback to the committee in order to assist in the recommendation of prioritization of technology needs. The supervisor, as a member of the District's IT team, will continue to work to enhance the work order tracking system (Track-It!), development of Service Level Agreements, continued consolidation of resources, as appropriate for central management, and improved communication.

Communications

The Technology Committee on Accreditation and Planning (TCAP) and the Technology Resource Allocation Committee (TRAC) will meet regularly to improve communications and provide recommendations to the ITS department and college. There will also be regular meetings between the College and District Office technical staffs to improve coordination on issues with infrastructure projects and administrative computing.

Campus IT Budget

Staffing Costs

(1) Technology Support Services Supervisor
(1) Information Technology Support Specialist I
(2) Information Technology Support Specialist II

Computer Supplies and Parts

The IT department covers the costs for repairs to campus computers and related equipment. This budget includes money for parts to replace out of warranty equipment.

Equipment purchased with technology refresh money (see below) will include a warranty long enough to cover the useful life of the computer, so that the cost of parts is covered by the manufacturer.

Specialized repairs, such as printers, are outsourced to vendors and paid for by the IT department.

New Hardware

New hardware expenditures are not budgeted by the IT department. The college has a technology refresh budget, with funds set aside to replenish the budget each fiscal year. Programs requesting replacement of older equipment or new equipment submit their requests on their program plans. The program plans are reviewed by TRAC. TRAC develops two prioritization lists of the technology needs, one for refresh funding to replace existing equipment which needs to be replaced and one for new equipment. Programs with outside funding (grants, ACCESS, CTE) may purchase equipment outside of the campus refresh budget, depending on the program's needs. Capital construction projects also include an FFE (furniture, fixtures, and equipment) budget that may cover new technology purchases as part of the overall building costs.

Software Licenses

Centralized applications, such as Banner and email, are budgeted for and licensed by the District IT department. The licenses are paid for by a district-wide budget that prorates the costs of the licenses to the campuses based upon the budget allocation model.

Licenses for campus desktop applications are covered by various agreements with vendors. The campus has a fixed cost that covers all licenses for Microsoft operating systems and Office productivity software. The cost is based upon the number of full time equivalent employees, so the cost will vary from year to year based upon the college staffing levels. Other desktop applications are licensed and paid for by the individual departments. The IT department manages all software licenses on campus.

College programs initially fund classroom server applications. Ongoing maintenance is paid for by various funding sources.

Training and Travel

The IT department has a limited budget for training and travel. The amount will vary depending on budget constraints and identified needs.

Campus or District IT personnel usually provide employee user training on technology. Vendors may be brought in for specialized training, depending on the scope and demonstrated need.

The District IT department will arrange for training for district-wide supported applications. This will usually involve train-the-trainer sessions to transfer knowledge to campus personnel, who can then pass it on to others on campus.

Training for campus faculty on instructional technology is provided by a full-time Instructional Technologist in the division of Mathematics and Extended Learning.

Budget Details

Budget detail is available in Appendix A.

Major Technology Projects for 2011-2012

Overview

The campus has numerous technology initiatives each year that involve upgrades to existing technology and new technology deployments.

There are many major technology projects for the 2011-12 academic year. Some of the projects are district-wide initiatives and others are local projects.

Windows 7 / MS Office 2010

The latest release of the Windows desktop operating system and Office productivity suite will be available from Microsoft. The IT department has begun testing for compatibility with existing applications. Pilot installations will begin in the mid-2010 timeframe in selected areas. Early adopters will be sought for testing and feedback. Large scale rollout will occur over the coming academic year, with Windows 7 becoming the new standard desktop deployment. According to Microsoft, "Windows 7 introduces a number of manageability improvements that can reduce total cost of ownership by helping to increase automation, improve user productivity, and provide flexible administrative control to meet compliance requirements".

MS Exchange 2010 & Lync Unified Messaging

Through the spring semester 2011 District IT migrated to MS Exchange 2010. This was the first major step towards integration of our phone services using Microsoft's Lync Unified Communications system. Over this academic year we will be forming focus groups and work groups to test features and assess their viability for roll out. Widescale deployment and migration of accounts to the new server will occur over the next 24 months. Some of these features include video conferencing to the desktop, voice over ip, and work group instant messaging.

Campus Network Switch Updating

District IT will upgrade the network edge switches to include PoE (Power over Ethernet) to support a long term migration to Voice over IP across the college. Upgrade of switches and migration to a VoIP architecture is anticipated to be a 24 month project.

Banner 8 & Financial Aid

The District has completed an eighteen month development cycle to upgrade our core administrative systems, Banner, and migrate our Financial Aid administration from PowerFaids to Banner. Timed to coincide with the award and assessment cycles of Financial Aid; training, working groups and substantial testing will be done in parallel to our existing services to provide a minimal disruption for our students. Integration of Banner Financial Aid is scheduled to be completed for the fall semester aid disbursements beginning in August 2011.

Virtualization Desktop Infrastucture (VDI)

Desktop Virtualization is a shift in the mechanisms by which applications and operating systems are delivered for desktop and remote users. The 'desktop' device becomes a delivery conduit, and all computing power and applications are hosted and provisioned at a central server on each campus. Academic year 11/12 will see the first wide-scale deployments of VDI at Moorpark, with the refresh cycle of desktops in the LLR and other locations/labs across campus.

When fully deployed and optimized, the benefits of this restructuring of technology delivery should be significant. In the past when a lab had to be re-tasked or re-imaged, all devices in that room had to be touched physically and software installed. In this new paradigm IT maintains one image of the system and one image of the applications, and all computers in a lab are targeted to those images, dramatically reducing the reset time for a facility. This project, coupled with the Identity Management initiative(below) provide mechanisms for better accountability of software licensing, reducing reset times for a lab, and the potential of delivering instructional applications to students regardless of their location.

The intial deployment of the thin clients during the summer 2011 session worked as anticipated. The subsequent larger-scale deployment at the beginning of the fall 2011 semester, with approximately 500 devices, created a number of challenges. The network, server, and storage infrastructure was stressed to its limits, requiring a number of adjustments to provide the necessary resources for operation. This larger implementation also revealed the need for stricter change control processes to be implemented. Also, additional testing of applications will be an ongoing requirement. A process to provide better communications between IT and faculty will also be developed and implemented.

Identity Management (IdM)

Expanding the foundational systems that drive web delivered services, Identity Management is the combination of business process and technology used to manage data on IT systems and applications to deliver services to users. Managed data includes user objects, identity attributes, security entitlements and authentication factors. These attributes could be enrollement status, CRN, major, etc., all are data points that will be criteria behind the provisioning of applications and services.

Federation of Identity Management has become a priority at the State Chancellor's Office. In a Federated Structure, the same authentication, access and attribute structures here with the District could be used to facilitate access to a number of web based services state-wide, e.g., CCCApply.

Capital Projects

The campus IT department is involved with various phases of capital construction projects. This includes working closely with multiple groups on the projects to ensure that the information technology infrastructure in all new facilities meets the current district standards and long-term needs of the campus. These groups include District IT, the Capital Planning, Design and Construction office managed by Heery International, and the building architects. The collaboration focuses on design of low-voltage cabling for voice, data, wireless, and security systems, as well as audio-visual design for smart classrooms.

The active projects in 2011-2012 include:

- Health Sciences, expected occupancy Summer 2011
- Exotic Animal Training and Management, expected occupancy Fall 2011
- Parking Structure – in planning

Beyond the planning phases, the IT department is very involved with the moves of offices and labs from old to new facilities. This includes migration of equipment and phones between facilities, as well as coordinating and assisting with the implementation of core network equipment and smart classroom devices.

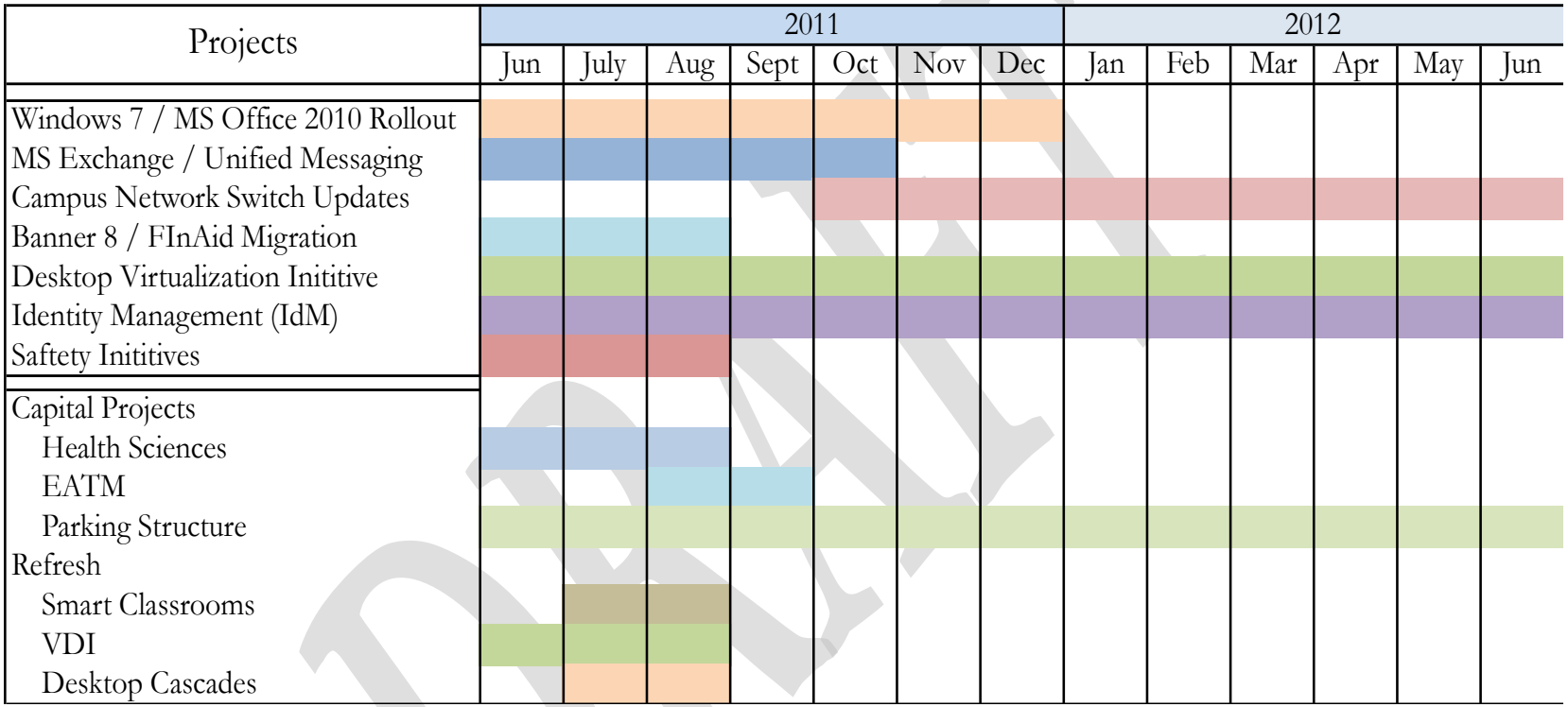
Safety Initiatives

Information Technology has worked closely with the Chief of Police to deploy technology to improve campus safety, per a previously accepted plan. The technologies include on and off campus mass

notification, video surveillance, emergency phones, and radio systems improvements. Also included were plans for systems and storage to be deployed at a second data center for disaster recovery of mission critical software applications.

The final project is in progress. Video surveillance cameras and software have been acquired, with expected project completion during the Fall 2011 semester.

Moorpark College TechOps Timeline
Academic Year 2011-2012



Technology Refresh Plan

Overview

The College currently has a plan in place for replacing aging computer hardware. As technology continually evolves, there is a need to keep the computer equipment reasonably current. New technologies may require additional capacity and computing power that older systems do not have.

The plan was created through the cooperation of the Technology Committee on Accreditation and Planning (TCAP). The plan will guide the campus technology efforts as it relates to campus growth and needs.

With the increase in new technology cycles, the baseline for technology requirements has been raised. New technologies in the areas of information search and streaming video have significant processing requirements.

Existing Refresh Method

The current system for replacing aging equipment is a "trickle-down" process. New equipment has been purchased using various funding sources, including IELM and lottery funds. The equipment being replaced is then redeployed based upon need. Eventually, older equipment is cycled out of the system.

Three- to Four-Year Desktop Refresh Program

Most standards for organizations and white papers recommend a three- to four-year refresh period for technology. The College has been very proactive over the last few years, via the Refresh Program. The ability for the Refresh Program to remain proactive will be greatly influenced by future budgets. While the California Community College Technology II Initiative in 2001 set a goal for state campuses to have a three-year program to refresh equipment, the District currently has adopted a four-year program.

As funding improves, a three-year program may be attainable. Recommendations for the College will be presented from both the TCAP and TRAC committees document located on MCSHARE > Document Center > Documents > Governance and Organizational Groups > Governance Groups > Standing Committees > Technology CAP > TRAC.

Peripherals

Monitors

LCD flat-panel monitors have a theoretical useful life of over ten years. Any systems purchased that are replacing systems with CRT monitors will include an LCD flat panel. A 19 inch LCD will be sufficient for classes that teach one application at a time. Computers that require use of multiple applications simultaneously will require a 22 inch LCD or larger. These areas include certain administrative offices, the staff resource center, and computers in the LLR open access lab set up for general student use. Other exceptions include systems purchased for use by the visually disabled, and programs that require high-end graphics, such as the AutoCAD and Adobe CS programs.

LCD monitors will be replaced on an as-needed basis.

Printers

Printers are purchased on an as needed basis, depending upon use, program needs, and changing technology. For purposes of better energy and consumables management, future purchases will prioritize the use of workgroup printers, de-emphasizing the deployment of individual devices.

Smart Classrooms & Location Summary

Standard Components

Ceiling Mounted LCD Projector

Unit should have XGA or better resolution with high brightness to allow use under classroom lighting conditions; power zoom and lens shift, 2000 hour or better lamp life; dual RGB and video inputs; case should incorporate cover for cable connection panel; 3-year or better overnight replacement warranty. Current standard: Epson 6110i.

Projector Mounting Bracket

Projector-specific mounting bracket, ceiling mounting bracket/plate.

DVD/VCR combo deck

Basic DVD/VCR combo sets for showing video materials.

Self-Amplified Powered Speakers

Ceiling mounted speakers, connected through projector for volume control.

Projector Control System

Smart panel programmable control system, mounted on instructor's station providing power and volume control, source selection, DVD/VCR transport Controls. Current standard: Crestron MPS system. VCR/VHS capacity will be phased out, and not replaced, as equipment fails.

Document Camera

Digital presenters for physical demonstrations.

Projector Installation and Cables

Type of projector and cables vary by installation and classroom use

Instructor's Multimedia Workstation

Teaching station with locking cabinets for audio-visual equipment and internally mounted computer and monitor. Projector control system panel mounted on top surface. Cabling provisions for connecting laptop computer.

PC Workstation w/19" LCD display

Standard Dell or HP CPU mounted in instructor's workstation.

Moorpark College Smart Classroom Location Summary[1]		
Building	Rooms	Total
AA	109, 136, 143, Forum	4
AC	101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310	33
FH	111, 112, 114, 115, 116, 117, 118, 119, 120, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220	19
HSC	101A, 101B, 102A, 102B, 103, 104, 105, 109, 202, 203, 204, 207, 208	13
HSS	100, 101, 104, 111, 121, 129, 140, 202, 203, 204,205, 206, 222, 223, 230, 238, 239	17
LLR	121, 122, 124, 126, 305, 322	6
LMC	121, 122, 123, 124, 125, 126, 137, 138, 139, 216, 217, 218, 219, 220, 227, 228	16
M	106, 109, 114, 138	4
PA	100, 107, 119, 128, 149, 154	6
PS	102, 103, 104, 107, 110, 115, 134, 135, 202, 203, 204, 205, 207, 208, 209, 222, 224	17
Tech	105, 108, 109, 114, 118, 120, 205, 210, 211, 212, 215, 216, 217	13

Current Standards

To maximize purchacing and support resources, the District has established a standard for desktop and laptop systems with Dell systems, for desktop and laptop computers. The configuration outlined below is reviewed and updated as warranted. Alternate platforms can be identified and implemented based upon business or instructional need. The 2010-2011 standard:

Desktop Computer

- Dell OptiPlex 990 Energy Smart Small Form Factor (or current equivalent)
- CPU: Intel® Core™ i5 2500 Processor (3.3Ghz, 6MB)
- Operating System: Ordered with Windows 7 Profesional
- Memory: 4.0GB DDR2 Non-ECC SDRAM, 800MHz, (2DIMM)
- Keyboard: Dell USB Enhanced Multimedia Keyboard
- Monitor: Dell 22 inch UltraSharp™ 2208FPW Widescreen, Adjustable Stand, VGA/DVI
- Video Card: 512MB ATI Radeon 6350 XT, Dual Monitor DVI
- Hard Drive: 160GB High Reliability SATA 3.0Gb/s and 8MB DataBurst Cache™
- Mouse: Dell USB 5-Button Premium Mouse
- Removable Media Storage Device: 24X Slimline CDRW/DVD Combo
- Speakers: Dell AX510 Sound Bar for all UltraSharp Flat Panel Displays
- Hardware Support Services: 4 Year Basic Limited Warranty and 4 Year NBD Onsite Service

[1] Detailed break out of room equipment available in Appendix C

Laptop Computer

- Standard size: Dell Latitude E6520 (or current equivalent)
- CPU: Intel® Core™ i7-2620M (2.70GHz, 4M)
- Operating System: Ordered with Windows 7
- Memory: 4.0GB, DDR3-1333 SDRAM, 2 DIMMS
- Graphics: Mobile Intel® Graphics Media Accelerator 4500MHD With Express Card
- LCD: 14.1" Widescreen WXGA (1280x800) LED Display - Brush Metal Black
- Primary Storage: 80GB Hard Drive, 7200RPM with Free Fall Sensor
- Bluetooth: Dell Wireless® 370 Bluetooth Module
- No Fingerprint Reader
- No Modem
- AC Adapter: 90W A/C Adapter (3-pin)
- Optical Device: 24X CDRW/DVD with Cyberlink PowerDVD™
- Wireless LAN (802.11): Intel® WiFi Link 5300 802.11a/g/n Draft Mini Card
- Primary Battery: 9 Cell Battery
- Carrying Cases: 14.1" Neoprene Sleeve
- Hardware Support Services: 4 Year Basic Limited Warranty and 4 Year NBD Onsite Service

Distance Learning

Overview

Distance Learning course offerings have stabilized over the past year. Over 155 instructors have completed CMS and online pedagogy training to offer Distance Learning courses. In order to support the increasing demand for distance learning courses the District and College provide access and support to the officially adopted Course Management System, synchronous voice tools, training rooms and equipment, and instructor and student support desks. Training is offered continuously, including advanced topics in D2L for ongoing faculty development. Training is offered through the Instructional Technology office in conjunction with the Faculty Development Committee.

The Alternative Delivery subcommittee of EdCAP meets regularly to discuss strategic direction of distance learning and how to support it.

Course Management System - Hosting

The District successfully implemented the Desire 2 Learn (D2L) solution to go live with Spring 10. Success of its adoption has prompted an expansion of its licensing to an unlimited use across the district. With a support partnership from the vendor the District hosts D2L in-house.

Synchronous Meeting Technology

Wimba

Wimba is a live virtual classroom environment, which features audio, video, application sharing, and content display. The College provides the license for Wimba Live Classroom and Wimba Voice tools. These tools are integrated with our current implementation of Desire2Learn, so it can be accessed by faculty who have completed the appropriate training and are using Desire2Learn to web-enhance their courses. The integration is not yet complete, requiring instructors to use a non-integrated method for some features.

Due to the acquisition of Wimba by Blackboard Collaborate, we are investigating other options to Wimba. These options include Adobe Connect and free alternatives such as Big Blue Button, Openmeetings, and BigMarker.

The CCC Confer free service provided by the State Chancellor's Office is also a possible alternative. The service includes Blackboard Collaborate tools, and also provides free captioning. Before adoption it would need to be determined if funding will continue at the state level.

Some instructors have invested a significant amount of time and effort on Wimba content. A decision to change to any of the mentioned alternatives would need to take into consideration the impact on current users of Wimba.

Required Hardware for Wimba

In order to use this synchronous meeting technology to its full capability, the following hardware should be available to demonstrate these features in the training workshops that are offered to faculty. Approximately four workshops are offered each semester. Between workshops, this equipment should be available for use in the Staff Resource Center.

Headset & Boom Mic

These headsets are essential to the Synchronous Meeting Technology training, as the audio sharing capability is the minimum requirement for an effective virtual classroom environment.

USB WebCam

Synchronous Meeting Technology allows the capability for participants to broadcast video via a webcam. (Optional)

USB Tablet with pen and mouse.

These pen tablets allow the presenters/instructors to use the pen-mouse to write just as they would on a whiteboard or chalkboard in a traditional classroom. (Optional.)

CCC Confer

The CCC Confer project is located at Palomar College in San Marcos, California and now uses the Elluminate web conferencing technology, which is supported by CCC Confer Client Services. CCC Confer was designed to allow communication and collaboration, using the latest Web conferencing technology, for all staff, faculty and administrators in the California Community Colleges system. This service is available for free to any faculty member, and can be accessed outside of the Course Management System.

Plagiarism Prevention Services

Turnitin.com

The College provides the license for Turnitin.com Plagiarism Prevention, which allows instructors to check students' work for improper citation or potential plagiarism by comparing it against a continually updated database. GradeMark and Peer Review, instructor and student revision and notation features, have been added with the new district-wide license. Integration with Desire2Learn is scheduled for Fall 2011.

INTELECOM Online Resources Network

The College is a member of the INTELECOM Consortia, a provider of online instructional video clips . INTELECOM offers captioned digital video clips for the social sciences and biology.

Respondus

This is a tool used alongside Desire2Learn to make quizzes and question banks. This will make the assessment feature in Desire2Learn more user friendly and allow for publisher test bank imports.

Training Rooms

The training room is LLR 121. Larger rooms are scheduled as needed.

Camtasia Studio

Camtasia Studio is screen recorder software that allows instructors to "create professional-looking videos that clearly demonstrate a process, a product, or an idea." The College has two licenses available for use in LLR-121 and to be relocated this summer to the Staff Resources Center.

Technology Infrastructure and Network

Overview

The network infrastructure at Moorpark College enables data and voice communications connecting all facilities on campus, plus connections to the other district locations and the Internet.

The District Information Technology Department has primary responsibility over network design, implementation, maintenance, and troubleshooting. The local ITS group is responsible for local connections of desktop or server devices, and works with District IT on resolving network problems.

Cabling Infrastructure

The district has adopted cabling standards that conform to industry standards, including TIA/EIA, ANSI, IEEE, and BICSI. All new facilities conform to these standards. Existing facilities have been retrofitted to the standards, as budget has permitted.

Cabling inside buildings conforms to TIA/EIA standards.

Local Area Network Topology and Infrastructure

The local area network (LAN) is comprised of mostly Hewlett-Packard ProCurve equipment, both at the core and the edge. The current network core is powered by HP 5406 switches, which provide high scalability and performance, and redundancy at the core for greater uptime.

The edge network devices are also Hewlett-Packard ProCurve equipment. During the 2011-2012 Academic Year, the District will continue its replacement cycle for aging HP edge switches with devices that have greater speeds and functionality. The District will also expand deployment of Power-over-Ethernet (PoE) capable switches (see earlier reference with projects for detail). These devices will provide network connectivity and power to newer generation network-enabled devices, including wireless access points, video surveillance cameras, and IP phones.

The network has multiple segments segregated by virtual networks (VLANs). Instructional and administrative network traffic is separated on different network segments, providing security for information systems on the administrative network. Over the next 18 months IT will examine its current IP/VLAN deployment strategies to assess potential of additional segmentation to support the growing population of smart devices and VOIP.

Wide Area Network

The primary wide-area network (WAN) connectivity to the other district sites is via OC-3 (155 Mbps) circuits running through an RF microwave network. The District owns and maintains the network. The connection from Moorpark College to the microwave WAN is via South Mountain in Santa Paula. The County of Ventura owns the South Mountain facility.

The wide area network (WAN) uses Juniper switch/routers for connecting to other sites over the microwave links.

AT&T is the provider of telecommunications circuits, including voice trunks, T1 voice circuits, and Internet circuits (CENIC). The circuits are all provided on the state CalNet 2 contract at substantial discounts over

commercial rates. The District also participates in the California Teleconnect Fund, which reduces some circuit costs by up to 50 percent.

Internet Connectivity

Internet connectivity is provided by the Corporation for Education Network Initiatives in California (CENIC). From their website, "CENIC designs, implements, and operates CalREN, the California Research and Education Network, a high-bandwidth, high-capacity Internet network specially designed to meet the unique requirements of these communities, and to which the vast majority of the state's K-20 educational institutions are connected".

Moorpark College has a gigabit Internet connection.

Wireless

The district uses equipment from Aruba Networks as standard wireless network for all locations. The Aruba solution is easy to manage, is secure, and very scalable. Enhancement and expansion of the wireless network is part of IT's operational standard.

Access to the student wireless networks currently requires a generic id and password for authentication. Authentication for access to the staff wireless went active in the Summer of 2010. Authentication using unique user id and password for the student wireless will be rolled out during the 2011/12 academic year.

Voice Communications

District IT maintains the voice network infrastructure. A Nortel Option 61C PBX is installed with a capacity of a capacity for up to 1,500 phones. This system supports analog, digital, and IP phones on campus. With the planned Avaya's planned obsoleting of the Nortel line, the District will over the next next 24 months begin movement to the next generation of phone services for the colleges. This will involve implementation of Microsoft's Lync Unified Communications platform.

There is currently connectivity to the other campuses and the DAC via dedicated T1/PRI lines for voice traffic. AT&T provides local voice circuits. The long distance carrier is AT&T.

Information Security

Overview

The District makes every effort to comply with all federal, state, and local security rules and regulations, including the Family Educational Rights and Privacy Act (FERPA). Best industry practices are used to secure the information assets at all facilities.

Firewall

District IT provides firewall protection for the administrative and instructional networks. Upgrade of the firewall infrastructure to Juniper devices will continue through the Fall 2011 semester. This upgrade will allow for greater growth and support higher speeds, provide better uptime, support a web driven SSL VPN capacity for secure access to enterprise services.

District IT maintains an anti-virus site license. Sophos remains the District's standard for antivirus protection. The software provides a more comprehensive and easier to manage system, at a lower cost.

Moorpark College hosts the District's Disaster Recovery data center. This site contains backup systems for critical applications such as Banner, the portal, Desire2Learn, and email.

Funding

Funding for network infrastructure projects is currently provided by funds from Bond Measure S. The District set aside $5,000,000 of Bond funds for IT related infrastructure projects. All current scheduled network projects will be paid for with the Bond funds. Those funds will be depleted in early 2012. Future projects will need to be funded by college and district Technology Refresh budgets.

Upgrades to the network not paid for by bond projects are funded by a variety of sources, including the operational budget.

Appendix A. IT Department Budget

Title	Acct	FY 12
Classified Regular	2121	227,923.73
Classified - Overtime	2322	5,000.00
Student Hourly-Non-Instructi	2530	35,000.00
Supervisors	2610	80,622.00
Supervisors - Overtime	2622	2,000.00
Provisional, Ltd Term-NonPos Cntrl	2826	20,000.00
PERS - Classified	3235	24,889.27
PERS - Supervisors	3260	8,803.92
OASDI - Classified	3335	14,441.28
Medicare - Classified	3365	3,377.40
OASDI - Supervisors	3368	5,122.56
Medicare - Supervisors	3369	1,198.02
H/W - Supervisors	3426	14,884.44
H/W - Classified	3435	47,007.49
LCA - Classified	3465	300.80
LCA - Supervisors	3466	94.00
LCA - Managers	3469	23.50
Retiree Health Liab-Classifi	3494	37,151.57
Retiree Health Liab-Supervis	3495	13,141.39
SUI - Classified	3535	3,750.07
SUI - Supervisors	3560	1,330.21
WC - Classified	3635	3,874.69
WC - Students	3650	595.00
WC - Supervisors	3660	1404.57
Computer Software and Suppli	4300	3,000.00
General Supplies & Materials	4800	14,500.00
Training And Instruction	5140	2,500.00
Employee Travel	5211	3,000.00
Rent/Lease-Other	5619	1,000.00
Maint/Repair-Equipment	5622	4,800.00
Software Maintenance & Licen	5641	4,008.00
Hardware Maintenance & Licen	5642	4,000.00
Licenses And Fees	5822	2,000.00
Equip-Instruc Equip-$1000+	6443	5,500.00
Equip-Non Inst Computers-$1000	6451	15,000.00
IT Operations		613,412.41

This budget reflection consolidation of media services into the IT budget, such as projector bulbs….

Figures reflect FY 11/12 adopted budget

Appendix B. Software Inventory

Vendor	**Type**	**Comments**
TechSmith	**Camtasia and Snagit**	**In LLR SRC**
Foundation California Community Colleges	**Fusion Annual Science Fee**	
Campus-wide software	**Annual Renew of SARS GRID Support**	**Counseling Department Software**
Computerland of Silicon Valley	**Microsoft and Adobe License Agreement**	**Campus-wide agreement**
XAP Corporation	**BOG Fee Waiver Application**	**Yearly expense**
Autodesk Design Institute	**ADI Media-Class Pack Licenses**	**Autocad software (drafting)**
Wire One		
Governet	**Software for tracking and developing curriculum MC**	
Intelecom-Intelligent Telecommunications	**08-09 XSP Enrollment Fees/XSP FTAS Assessment Fees**	
Ventura Business Services	**Maintenance-Library release station**	**Student printing (LLR)**
Wimba	Blackboard Collaborate Wimba Live Classroom and Wimba Voice.	**Distance education**
Wimba	**License Fee Dates Needed**	**Distance education**
Sophos	**Antivirus**	**Campus wide**
Departmental software		
Vendor	**Type**	**Comments**
GenevaLogic	**Vision**	**LLR 210 – classroom management**

Plato software	**Writing skills tools**	**LLR building 3rd floor**
Sanico Forum 1000	**Language Lab software**	**LLR building 3rd floor**
Accessafile	**Accessibility software tracking**	**Access building**
CI Solutions	**Tracking software**	**Positive Attendance (various depts.)**
Turnitin	**Plagiarism Detection software**	**Various depts.**
SPSS	**Learning tools**	**Various depts.**
Adobe CS4 and 5	**Graphic tool software**	**Various depts.**
File maker pro	**applications software**	**Various depts.**
MedPro	**Nursing software**	**Health Center**
Track-It!	**Help desk software**	**ITS department**
Voyager Software	**Library database**	**LLR**

Appendix C. Smart Classrooom Status Detail

Install Base and Needed Equipment -- AA

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
AA-109	Needed	Needed	Needed	Needed	Needed	N/A	None
Forum	√	√	√	√	√	N/A	Crestron
AA-136	Needed	Needed	Needed	Needed	Needed	N/A	None
AA-143	√	Needed	√	√	Needed	N/A	Crestron
Total Needed	2	3	2	2	3	0	

Install Base and Needed Equipment -- AC

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
AC-101	√	√	√	√	√	√	Crestron
AC-102	√	√	√	√	√	√	Crestron
AC-103	√	√	√	√	√	√	Crestron
AC-104	√	√	√	√	√	√	Crestron
AC-105	√	√	√	√	√	√	Crestron
AC-106	√	√	√	√	√	√	Crestron
AC-107	√	√	√	√	√	√	Crestron
AC-108	√	√	√	√	√	√	Crestron
AC-109	√	√	√	√	√	√	Crestron
AC-110	√	√	√	√	√	√	Crestron
AC-111	√	√	√	√	√	√	Crestron
AC-112	√	√	√	√	√	√	Crestron
AC-113	√	√	√	√	√	√	Crestron
AC-201	√	√	√	√	√	√	Crestron
AC-202	√	√	√	√	√	√	Crestron
AC-203	√	√	√	√	√	√	Crestron
AC-204	√	√	√	√	√	√	Crestron
AC-205	√	√	√	√	√	√	Crestron
AC-206	√	√	√	√	√	√	Crestron
AC-207	√	√	√	√	√	√	Crestron
AC-208	√	√	√	√	√	√	Crestron
AC-209	√	√	√	√	√	√	Crestron
AC-210	√	√	√	√	√	√	Crestron
AC-301	√	√	√	√	√	√	Crestron
AC-302	√	√	√	√	√	√	Crestron
AC-303	√	√	√	√	√	√	Crestron
AC-304	√	√	√	√	√	√	Crestron
AC-305	√	√	√	√	√	√	Crestron

AC-306	√	√	√	√	√	√	Crestron
AC-307	√	√	√	√	√	√	Crestron
AC-308	√	√	√	√	√	√	Crestron
AC-309	√	√	√	√	√	√	Crestron
AC-310	√	√	√	√	√	√	Crestron
Total Needed	0	0	0	0	0	0	

Install Base and Needed Equipment -- FH

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
FH-111	√	√	√	√	√	N/A	Pixie
FH-112	√	√	√	√	√	N/A	Pixie
FH-114	√	√	√	√	√	N/A	Pixie
FH-115	√	√	√	√	√	N/A	Pixie
FH-116	√	√	√	√	Needed	N/A	Pixie
FH-117	√	√	√	√	√	N/A	Pixie
FH-118	√	√	√	√	√	N/A	Pixie
FH-119	√	√	√	√	√	N/A	Pixie
FH-120	√	√	√	√	√	N/A	Pixie
FH-211	√	√	√	√	√	N/A	Pixie
FH-212	√	√	√	√	√	N/A	Pixie
FH-213	√	√	√	√	√	N/A	Pixie
FH-214	√	√	√	√	√	N/A	Pixie
FH-215	√	√	√	√	√	N/A	Pixie
FH-216	√	√	√	√	√	N/A	Pixie
FH-217	√	√	√	√	√	N/A	Pixie
FH-218	√	√	√	√	√	N/A	Pixie
FH-219	√	√	√	√	√	N/A	Pixie
FH-220	√	√	√	√	√	N/A	Pixie
Total Needed	0	0	0	0	1	0	

Install Base and Needed Equipment -- HSC

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
HSC-101A	√	√	√	√	√	√	Crestron
HSC-101B	√	√	√	√	√	√	Crestron
HSC-102A	√	√	√	√	√	√	Crestron
HSC-102B	√	√	√	√	√	√	Crestron
HSC-103	√	√	√	√	√	√	Crestron
HSC-104	√	√	√	√	√	√	Crestron
HSC-105	√	√	√	√	√	√	Crestron

HSC-109	√	√	√	√	√	√	Crestron
HSC-202	√	√	√	√	√	√	Crestron
HSC-203	√	√	√	√	√	√	Crestron
HSC-204	√	√	√	√	√	√	Crestron
HSC-207	√	√	√	√	√	√	Crestron
HSC-208	√	√	√	√	√	√	Crestron
Total Needed	0	0	0	0	0	0	

Install Base and Needed Equipment -- HSS

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
HSS-100	√	√	√	√	√	√	Remote
HSS-101	√	√	√	√	√	Needed	Crestron
HSS-104	√	√	√	√	Needed	√	Remote
HSS-111	√	√	√	√	√	√	Remote
HSS-121	√	√	√	√	√	√	Crestron
HSS-129	√	√	√	√	Needed	Needed	Remote
HSS-140	√	√	√	√	√	√	Remote
HSS-202	√	Needed	√	√	Needed	√	Pixie
HSS-203	√	√	√	√	√	√	Pixie
HSS-204	√	√	√	√	√	√	Crestron
HSS-205	√	√	√	√	√	Needed	Crestron
HSS-206	√	√	√	√	√	√	Crestron
HSS-222	√	√	√	√	√	Needed	Crestron
HSS-223	√	√	√	√	√	√	Crestron
HSS-230	√	Needed	Needed	Needed	Needed	√	Crestron
HSS-238	√	Needed	√	√	√	√	Pixie
HSS-239	√	Needed	√	√	√	√	Pixie
Total Needed	0	4	1	1	4	4	

Install Base and Needed Equipment -- LLR

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
LLR-121	√	√	Needed	Needed	Needed	N/A	Pixie
LLR-122	Needed	√	Needed	Needed	√	N/A	Pixie
LLR-124	√	√	√	√	√	N/A	Pixie
LLR-126	√	√	√	√	√	N/A	Pixie
LLR-305	√	√	√	√	√	N/A	Pixie
LLR-322	√	√	Needed	Needed	Needed	N/A	Pixie
Total Needed	1	0	3	3	2	0	

Install Base and Needed Equipment -- LMC

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
LMC-121	√	√	Needed	Needed	Needed	Needed	Remote
LMC-122	Needed	Needed	Needed	Needed	Needed	Needed	Remote
LMC-123	Needed	Needed	Needed	Needed	Needed	Needed	Remote
LMC-124	Needed	Needed	Needed	Needed	Needed	Needed	Remote
LMC-125	√	√	Needed	Needed	√	Needed	Remote
LMC-126	Needed	Needed	Needed	Needed	Needed	Needed	Remote
LMC-137	Needed	Needed	Needed	Needed	Needed	Needed	Remote
LMC-138	√	√	Needed	Needed	Needed	Needed	Remote
LMC-139	√	√	Needed	Needed	Needed	Needed	Remote
LMC-216	√	√	√	√	√	√	Remote
LMC-217	√	√	√	√	√	√	Remote
LMC-218	√	√	√	√	Needed	√	Remote
LMC-219	√	√	√	√	√	√	Remote
LMC-220	√	√	√	√	√	√	Remote
LMC-227	√	√	√	√	√	√	Remote
LMC-228	√	√	√	√	√	√	Remote
Total Needed	5	5	9	9	9	9	

Install Base and Needed Equipment -- M

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
M-106	√	√	√	√	Needed	N/A	Crestron
M-109	√	√	√	√	√	N/A	Pixie
M-114	√	√	√	√	√	N/A	Pixie
M-138	Needed	Needed	Needed	Needed	Needed	N/A	None
Total Needed	1	1	1	1	2	0	

Install Base and Needed Equipment -- PA

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
PA-100	Needed	Needed	Needed	Needed	Needed	N/A	None
PA-107	Needed	Needed	Needed	Needed	Needed	N/A	None
PA-119	√	Needed	√	√	Needed	N/A	Remote
PA-128	Needed	Needed	Needed	Needed	Needed	N/A	None
PA-149	Needed	Needed	Needed	Needed	Needed	N/A	None
PA-154	Needed	Needed	Needed	Needed	Needed	N/A	None

Total Needed	5	6	5	5	6	0

Install Base and Needed Equipment -- PS

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
PS-102	Needed	Needed	Needed	Needed	Needed	Needed	None
PS-103	Needed	Needed	Needed	Needed	Needed	Needed	None
PS-104	Needed	Needed	Needed	Needed	Needed	Needed	None
PS-107	Needed	Needed	Needed	Needed	Needed	Needed	None
PS-110	√	√	√	√	√	√	Remote
PS-115	√	Needed	√	√	√	√	Remote
PS-134	√	Needed	Needed	Needed	√	√	Remote
PS-135	√	Needed	√	√	√	√	Crestron
PS-202	√	Needed	√	√	√	√	Remote
PS-203	√	Needed	√	√	√	√	Crestron
PS-204	√	Needed	√	√	√	√	Remote
PS-205	√*	Needed	√	√	√	√	Remote
PS-207	√	Needed	√	√	√	√	Crestron
PS-208	Needed	Needed	Needed	Needed	Needed	√	None
PS-209	Needed	Needed	Needed	Needed	Needed	Needed	None
PS-222	√	√	Needed	Needed	√	√	Remote
PS-224	Needed	Needed	Needed	Needed	Needed	√	None
Total Needed	7	15	9	9	7	5	

Install Base and Needed Equipment -- TECH

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projecter	Interface
T-105	Needed	Needed	Needed	Needed	Needed	Needed	None
T-108	Needed	Needed	Needed	Needed	Needed	Needed	None
T-109	Needed	Needed	Needed	Needed	Needed	Needed	None
T-114	Needed	Needed	Needed	Needed	Needed	Needed	None
T-118	√	√	√	√	Needed	Needed	Remote
T-120	Needed	Needed	Needed	Needed	Needed	Needed	None
T-205	√	√	Needed	Needed	Needed	Needed	Remote
T-210	√	Needed	Needed	Needed	Needed	Needed	Crestron
T-211	√	√	Needed	Needed	Needed	Needed	Remote
T-212	√	√	Needed	Needed	Needed	Needed	Remote
T-215	√	√	√	√	Needed	Needed	Remote
T-216	√	Needed	Needed	Needed	√	√	Pixie
T-217	√	√	√	√	Needed	Needed	Remote
Total	5	7	10	10	12	12	

Needed						