MOORPARK COLLEGE

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Information Technology Operational Plan
2016-2017

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Introduction

Technology support is a consolidated service through District Information Technology. Moorpark College maintains a full- time on-site Information Technology Services (ITS) department comprised of one Director and five technology support specialists. The College technicians support a collaborative framework, allowing the IT department to leverage skill sets between campuses. The District Administration Center (DAC) supports administrative computing, core fiscal and operational systems, 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, aligning with the District's and College's vision, mission, strategic initiatives, and prioritization criteria.

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

- The Facilities and Technology Committee on Accreditation and Planning (F/T CAP) 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 work group of F/T CAP is the Technology Resource Allocation Work Group (TRAWG). This group 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 the College's use of technology. A standards and criteria document has been established to formalize the ranking of needs.

Mission

The mission of the Moorpark College Information Technology 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 College
- Use a 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

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Support Standards

Service Levels

The College ITS department will continue to maintain effective service levels through proper use of College committees, as well as collaborative relationships with other College 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, one SLA is that any classroom issue which impacts instruction will be responded to within 15 minutes. A complete list of SLA's can be found on the College website at: Moorpark College Information Technology SLAs

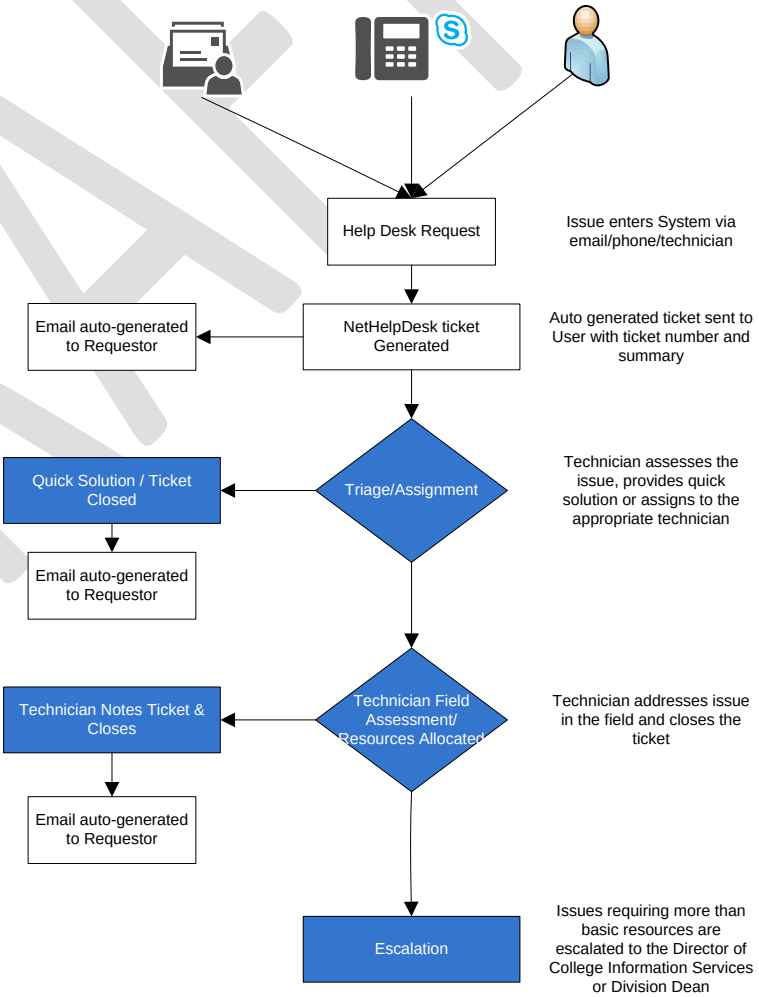
In Spring '12 the first service level document for Moorpark College was approved. This document establishes acceptable first response timelines, escalation paths, and is anticipated to be a living document – revisited once a term, and modified annually as needed. The current approved document can be downloaded at: (http://www.moorparkcollege.edu/sites/default/files/files/departments/administrative/information-technology-services/moorpark_college_sla_approved20120201_b.pdf)

Work Order Tracking

Technology related work order requests are tracked via the NetHelpdesk which is located in the ITS department. NetHelpdesk 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 a combination of student workers and ITS staff Monday through Friday and offers an alternate method for communicating service requests. The day-to-day supervision of the Help Desk falls under the Director of College Information Technology Services.

The College utilizes the NetHelpdesk application 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 NetHelpdesk application becomes crucial for ITS support tracking. Built in reporting quantifies department activities in validation of service level expectations.



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Resource Sharing

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

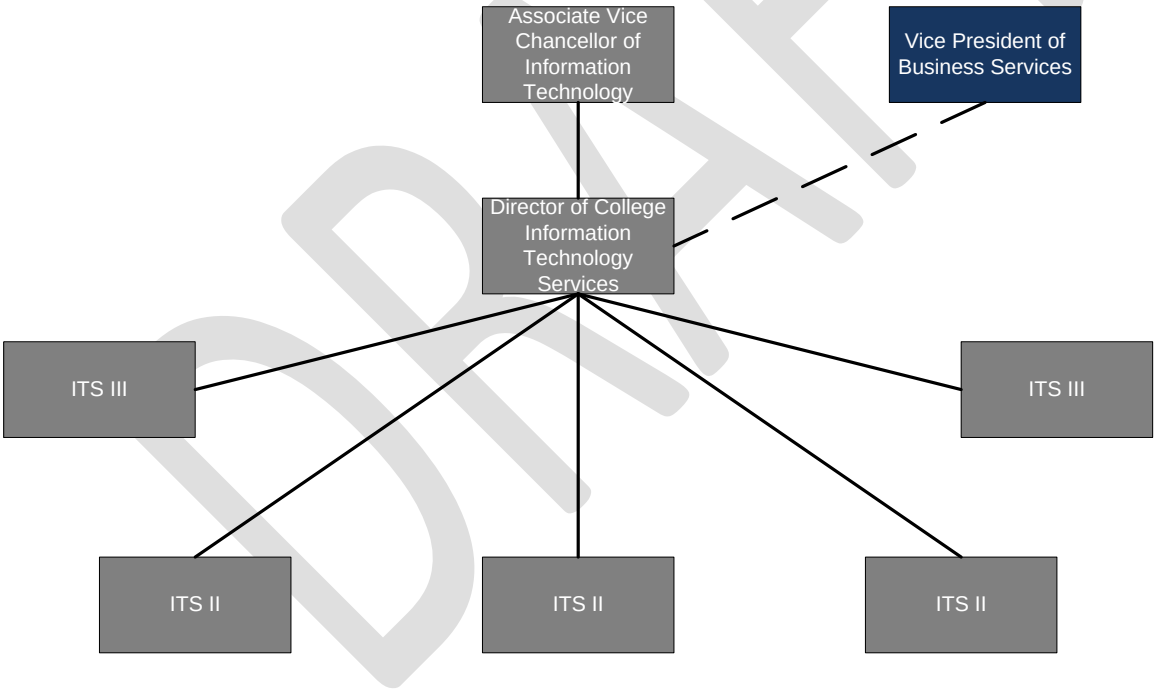
Common Methodologies

Common methodologies and processes for implementing and maintaining technology on each campus within the District 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 Associate Vice Chancellor of Information Technology provides oversight of the IT at Moorpark College, with the Director of College Information Technology Services directing day-to-day operations. The department field support staff consists of three Information Technology Support Specialist IIs and two Information Technology Support Specialists IIIs. Each staff member is dedicated to supporting technology needs across the College.

Additional staffing is desperately needed, but is dependent on hiring prioritization and funding.



College and District Responsibilities

District IT provides support in a number of key areas:

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

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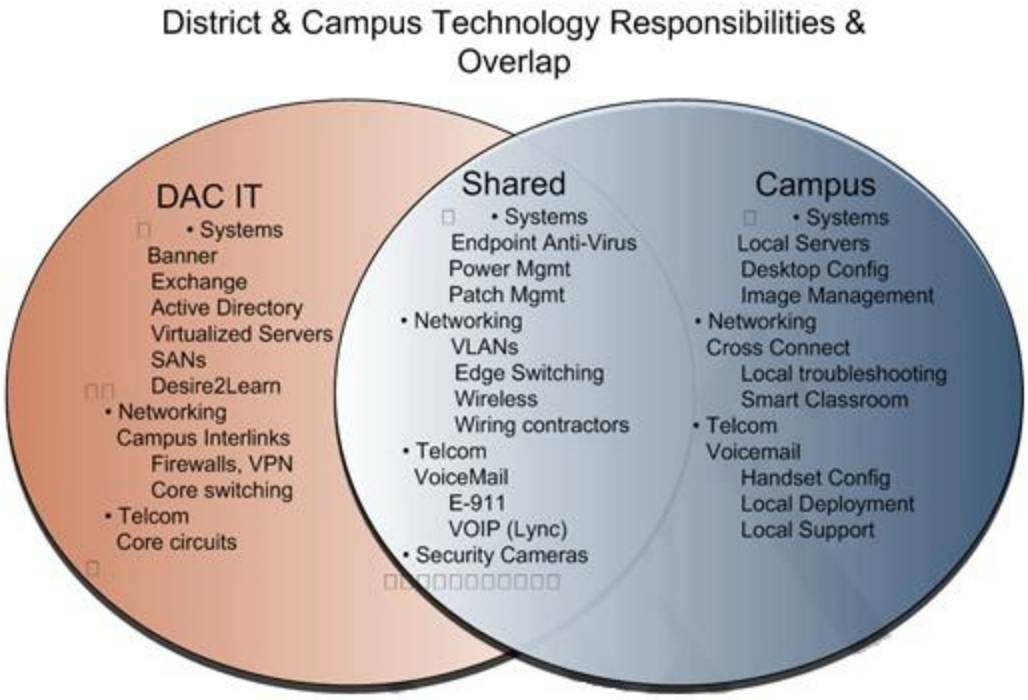

District IT will coordinate infrastructure or administrative computing work at the College through the Director of College Information Technology.

Staffing Plan

In order for this Operations Plan to be effective, it is critical that the Director of ITS and College leadership ensure each element of the document is clearly communicated at all appropriate levels within the College environment. This is accomplished through ongoing dialog with College leadership and participatory governance committee input, as well as the annual Program Review/Planning process. The completion of these avenues will be this Operations Plan -- the driving document that communicates day-to-day operational structure and long and short term goals as determined by institutional and District needs.

The Associate Vice Chancellor of IT and Director of College ITS will be responsible for working with the College F/T CAP to streamline support processes. The Director of College ITS will be an active member of (TRAWG) and will provide data and feedback to the committee to assist in the recommendation of prioritization of technology needs. The director, as a member of the District's IT team, will continue to work to enhance the work order tracking system (NetHelpdesk), development of SLA tracking system, ongoing review of SLAs, continued consolidation of resources, as appropriate for central management, and improved communication.

Communications

The Facilities and Technology Committee on Accreditation and Planning (F/T CAP) and the Technology Resource Allocation Work Group (TRAWG) will meet regularly to improve communications and provide recommendations to the ITS department and to the 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.

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College IT Budget

Staffing Costs

1 Director of College Information Technology Services
2 Information Technology Support Specialist III's
3 Information Technology Support Specialist II's

Computer Supplies and Parts

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

Equipment purchased with technology refresh money 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 ITS department.

New Hardware

New hardware expenditures are not budgeted by the ITS department. The College has a technology refresh budget, with funds set aside to replenish the budget each fiscal year, depending on the College's budget constraints. Programs requesting replacement of older equipment or acquisition of new equipment submit their requests within their program plans. The program plans are reviewed by TRAWG. TRAWG 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, Student Success) may purchase equipment outside of the College 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 ITS budget that covers the ongoing costs of all central systems.

Licenses for College desktop applications are covered by various agreements with vendors. The College has an annual Campus Agreement with Microsoft for operating systems and Office productivity software as well as with Adobe for their Creative Cloud Suite. The costs of these agreements are 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 ITS department manages all software licenses on the College.

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.

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College 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 College personnel, who can then pass it on to others on the College. Training for the faculty on instructional technology is provided by the full-time Instructional Technologist.

The District has a subscription with Lynda.com for online technology training. The service provides all employees with unlimited access to over 1,500 courses and nearly 80,000 tutorials covering a wide variety of technology and disciplines, with new courses added weekly.

Budget Details

Budget detail is available in Appendix A.

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Major Technology Projects for 2016-2017

Overview

The College has numerous technology initiatives each year that involve upgrades to existing technology and new technology deployments. There are many major technology projects for the 2016-17 academic year. Some of the projects are district-wide initiatives and others are local projects.

Windows 10 / MS Office 2016

The latest release of the Windows desktop operating system and Office productivity suite will be available from Microsoft. The ITS department has begun testing for compatibility with existing applications. Pilot installations were conducted over the 2015-16 year. Large scale rollout of Windows 10 with MS Office 2016 for computer labs will start in late Spring 16 and continue through the Spring 2017 semester for many lab environments. To support the OS, deployments may require upgrades to RAM, and may also include an upgrade to a solid state disk. All new device deployments for staff will reflect a Windows 7 / MS Office 2016 standard as Windows 10 is not certified to work with Banner yet.

Upgrading Lync Unified Messaging to Skype for Business

The first successful deployments of the Lync Unified Communication client happened on a small scale during Spring of 2012. Wide-scale deployment and migration of accounts to the new server occurred over the next 12 months. As with any application, periodic updates are required to take advantage of new features and bug fixes. The latest update to the Lync Unified Communication client is now called Skype for Business. Some of the features of Skype for Business include video conferencing to the desktop, voicemail files to your email inbox, Voice over IP, and work group instant messaging. Improvements include an easier to use interface, ability to call Skype consumer accounts (dependent on server upgrade), and improved meeting window controls for greater convenience. Upgrades will be pushed out to users via Microsoft updates.

Virtualization Desktop Infrastructure (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, usually a thin client, becomes a delivery conduit, and all computing power and applications are hosted and provisioned on a central server on each campus. Academic year 16/17 will see an upgrade of the core software suite, vWorkspace, with a revision of desktop images to take advantage of the enhanced performance of the new version.

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, ITS 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 upgrade time for a facility.

Additional testing of applications will be an ongoing requirement. A process to provide better communications between ITS and faculty has been developed and implemented. The upgraded systems have demonstrated greatly improved performance and resiliency. Further upgrades to the systems are planned for late Fall '16 and Spring '17. Expansion into other areas on the College may be planned in the future.

Safety Initiatives

Information Technology continues to work closely with the Chief of Police to update and deploy

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technology to improve safety at the College. The technologies include on and off campus mass notification, video surveillance, emergency phones, and radio systems. Also included are systems and storage that has been deployed in a second data center, located at Ventura College, for disaster recovery of District mission critical software applications.

Capital Projects

Capital projects are needed in order to renovate and improve existing facilities to accommodate larger classrooms and unused space. There are several capital projects in the planning stages that will need to be completed by Fall 2016. Those projects include: creating a space for Student Success personnel, moving CalWorks and EOPS to a different location, combining PS-208 and PS-209 into a single lab space classroom, expanding computer capacity in T-205, creating a new gaming lab in T-217, designing and installing a dual projector smart classroom setup for proposed large classroom creation in T-114, and setting up a new smart classroom in T-105 along with data cabling.

All of these projects are being fast tracked and are needed to be completed by Fall 2016, but are dependent on proper funding. ITS will work closely with the Maintenance and Operations department to complete these capital projects.

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Projects	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Windows 10/ Office 2016	Limited Testing						Wider Deployment					
Skype for Business	Limited Testing						Wider Deployment					
College Network Updates	Ongoing											
Desktop Virtualization	Limited Staff			Potential Wider Deployment								
Safety Initiatives	Ongoing											
Capital Projects												
Gaming Lab												
Combining PS-208, PS-209												
T-105												
T-114												
T-205												
Student Success												
EOPS/CalWorks												
Refresh												
Smart Classrooms	Installs			Ongoing Maintenance								
VDI												
Desktop	Installs											

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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 tend to require additional capacity and computing power that older systems do not have.

The plan was created through the cooperation of the Facilities Technology Committee on Accreditation and Planning (F/T CAP). The plan will guide the College technology efforts as it relates to the College's 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 combination of new equipment and a "trickle-down" process. New equipment has been purchased using various funding sources, including IELM, CTE, Student Success, Equity, and lottery funds. The equipment being replaced can be redeployed based on whether the equipment specifications are adequate. Eventually, older equipment is removed from inventory and cycled out.

Five-Year Computer Refresh Program

Most standards for organizations and white papers recommend a four to five-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 five-year program. With current budget constraints, in-place upgrades of existing systems has now been adopted across the District as a means to extend the life of existing equipment beyond four years.

Recommendations for the College will be presented from both F/T CAP and TRAWG and documented on the Moorpark College website along with committee meeting minutes: http://www.moorparkcollege.edu/sites/default/files/files/ft_cap_minutes_03.02.2016_draft.pdf.

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 19-22 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 Creative Cloud suite programs. LCD monitors will be replaced on an as-needed basis.

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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 WUXGA 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 HDMI and video inputs; case should incorporate cover for cable connection panel; 3-year or better overnight replacement warranty. Current standard: Epson 1985WU.

Projector Mounting Bracket

Projector-specific mounting bracket, ceiling mounting bracket/plate. Projector mounts must have seismic bracing.

DVD/VCR combo deck

Basic DVD/VCR combo sets for showing video materials. As these become more difficult to procure rooms will evolve to a DVD/Blu-ray only.

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 Digital 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 a laptop to the projector.

PC Workstation with minimum 22" LCD display

Standard Dell CPU mounted in instructor's workstation.

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Moorpark College		
Smart Classroom Location Summary[1]		
Building	Rooms	Total
AA	109, 124, 136, 143, Forum	5
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	112, 117, 118, 119, 120, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220	15
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 purchasing and support resources, the District has established a standard for desktop and laptop systems. The configuration matrix outlined below describes the minimum specification for four configurations. Alternate platforms can be identified and implemented based upon business or instructional need. The 2016-2017 standard:[2]

	Enterprise Laptop	**Ultralight Laptop**	**Desktop**	**All in One**	**Thin Client**
Processor	Intel Core i5	Intel Core i5	Intel Core i5	Intel Core i5	Intel Atom N280
Display	15" 1366x768 or better	12-13" 1366x768 or better	22" 1600x900 or better	22" 1600x900 or better	N/A
Video Card	Intel Intergrated GMA	Intel Intergrated GMA	Discreet Graphics Accelerator, 256MB RAM or better, dual head capable	Discreet Graphics Accelerator, 256MB RAM or better, dual head capable	Intel GL40
RAM	4.0GB	4.0GB	4.0GB	4.0GB	2.0GB
Primary Storage	256 GB SSD	128GB SSD	128GB SSD	128GB SSD	4GB Flash RAM
Optical	CDRW/DVDROM	None or external	CDRW/DVDROM	CDRW/DVDROM	N/A
Battery	Standard run time	Standard run time	N/A	N/A	N/A
Ethernet	1000Mbps or better	1000Mbps or better	1000Mbps or better	1000Mbps or better	1000Mbps or better
Wireless LAN	integrated AC	integrated AC	N/A	N/A	N/A
Mobile Broadband	none	none	N/A	N/A	N/A

[1] Detailed break out of room equipment available in Appendix C
[2] Standard Spec is shown. Vendor proposals are currently under review to establish manufacture standard for purchase for FY 16. Section will be updated before final adoption.

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Distance Learning

Overview

Distance Learning course offerings have stabilized over the past year. Over 160 instructors have completed Learning Management System (LMS) - 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 LMS, training rooms and equipment, and instructor and student support desks. Training is offered continuously, including advanced topics in Desire2Learn (D2L) and supporting tools and resources for ongoing faculty development. Training is offered through the Instructional Technology office in conjunction with the Faculty Development Committee.

Course Management System - Hosting

The District successfully implemented the Desire2Learn solution in Spring 2010. 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 at the Moorpark College datacenter. In 2016 through 2017, the District will be migrating to the state-wide Canvas LMS which will be hosted by the state.

Synchronous Meeting Technology

CCC Confer

The CCC Confer project is located at Palomar College in San Marcos, California and currently uses the Blackboard Collaborate 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 or staff member, and can be accessed outside of the Course Management System. Live captioning is available for free with 48 hours' notice, from the presenter.

Required Hardware for Online Conferencing or CCC Confer

In order to use this synchronous meeting technology to its full capability, the 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 Microphone

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.)

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Plagiarism Prevention Services

Turnitin.com

The District 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. Turnitin.com, Originality Check, and GradeMark are integrated into Desire2Learn.

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.

EduStream

The District is becoming a member of EduStream.org. EduStream is a cost-effective, user friendly, centralized resource for providing participating institutions with the video-on-demand capabilities they might not otherwise be prepared to implement or manage.

Respondus 4.1

This is a software program used alongside Desire2Learn to make and manage quizzes and question banks. It includes the Respondus Test Bank Network, a repository of all major publishers and thousands of test banks. This will make the assessment feature in Desire2Learn more user friendly, allow for import and export of tests and question banks from other sources, and reduce user error in test creation and deployment to students. It is also available on the Staff Resource Center Windows computers.

Training Rooms

The College's primary training room is LLR 121. Room T-217 is scheduled for Respondus trainings. Rooms in the new Health Sciences building are scheduled for Eno Board trainings. Crestron System Smart Classroom trainings are scheduled in the room or building an instructor will be using. Larger rooms for Flex week workshops are scheduled as needed.

Camtasia Studio

Camtasia Studio is screen recorder software that allows instructors to create and edit professional videos and audio, with captions. The College has two licenses available for use in LLR-116 (Staff Resource Center) and the LLR-121 Sound booth room.

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Technology Infrastructure and Network

Overview

The network infrastructure at Moorpark College enables data and voice communications connecting all facilities on the College, 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 IT 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 located in each building are also Hewlett-Packard ProCurve equipment. The District will continue its replacement cycle for aging HP edge switches with devices that have greater speeds and functionality, on an as-needed basis.

The network has multiple segments segregated by virtual local area networks (VLANs). Instructional and administrative network traffic is separated on different network segments, providing security for information systems on the administrative network.

Wide Area Network

The primary wide-area network (WAN) connectivity to the other District sites is via AT&T OpteMAN circuits (250Mbps). Secondary and tertiary circuits running at OC-3 speeds (155 Mbps) run through a district-owned RF microwave 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 District is working on an interagency project with the Ventura County Office of Education (VCOE) to bring high speed 10 Gbps WAN connectivity between Moorpark and the other District sites.

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 (via 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

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(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". The College currently has a 1 Gbps 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. The College is currently installing 802.11ac access points and has 98 access points installed across the College.

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 2016/17 academic year.

Voice Communications

District IT maintains the voice network infrastructure. A Nortel Option 61C PBX is installed with a capacity of up to 1,500 phones. This system supports analog, digital, and IP phones on the College. Currently, the Nortel Option 61C is only hosting the remaining analog devices. The majority of the College's users are on the Microsoft Lync Unified Communications platform. Lync uses special VoIP (Voice over Internet Protocol) based telephones and soft client software.

There is currently connectivity to the other campuses with the District and the DAC via a dedicated AT&T OpteMAN circuit for voice traffic with secondary and tertiary circuits running through a district-owned RF microwave network. The local and long distance service is provided by Level 3 via a SIP (Session Initiation Protocol) circuit with failover to Ventura College. AT&T provides local outgoing analog voice circuits used for tertiary outgoing calls.

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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), Health Insurance Portability and Accountability Act (HIPAA), and Payment Card Industry Data Security Standard (PCI DSS). 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. The District uses state-of-the-art next generation firewalls from Palo Alto Networks and Juniper Networks to protect the network from external and internal threats. Additional firewalls are being evaluated to protect the administrative segments on the College.

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

Additional technologies are being evaluated to combat the latest threats, including malware and phishing. Deployment of these newer defenses is ongoing.

Moorpark College hosts the District's primary data center. This site contains all critical systems for critical applications such as Banner, the portal, Desire2Learn, DegreeWorks, and the websites for all campuses within the District.

Funding

Funding for network infrastructure projects will be funded from general funds, College and District Technology Refresh budgets, as well as other sources. The District will fund IT expenditures for District infrastructure projects.

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Appendix A. IT Department Budget

Title	Acct	Approved FY15
Managers – Classified	2010	$104,521
Classified Regular	2121	$328,456
Classified - Overtime	2322	$5,000
Student Hourly-Non-Instructi	2530	$22,500
PERS - Managers	3200	$12,386
PERS - Classified	3235	$38,879
OASDI – Managers	3300	$6,480
Medicare - Managers	3305	$1,515
OASDI - Classified	3335	$20,652
Medicare - Classified	3365	$4,830
H/W - Managers	3400	$16,812
H/W - Classified	3435	$69,101
LCA - Classified	3465	$338
LCA - Managers	3469	$81
Retiree Health Liab-Managers	3491	$17,768
Retiree Health Liab-Classified	3494	$54,175
SUI - Managers	3500	$52
SUI - Classified	3535	$167
WC – Managers	3600	$2,059
WC - Classified	3635	$6,464
WC - Students	3650	$443
Computer Software and Supplies	4300	$3,000
General Supplies & Materials	4800	$9,500
Training And Instruction	5140	$2,000
Employee Travel	5211	$0
Maint/Repair-Equipment	5622	$4,800
Software Maintenance & Licen	5641	$4,500
Hardware Maintenance & Licen	5642	$4,000
Licenses And Fees	5822	$5,000
Equip-Instruc Equip-$1000+	6443	$1,500
Equip-Non Inst Computers-$10	6451	$1,500
Equip-Non Inst HiTech Equipment	6452	$4,300
Information Technology Opera		**$752,781**

Figures reflect FY 16/17 proposed budget

Appendix B. Software Inventory

College Licensing		
Vendor	**Type**	**Comments**
TechSmith	**Camtasia and Snagit**	**In LLR SRC**
Foundation California Community Colleges	**Fusion Annual Science Fee**	
SARS Software Products, Inc.	**Annual Renew of SARS GRID Support**	**Counseling Department Software**
Computerland of Silicon Valley	**Microsoft and Adobe License Agreement**	**College-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**	
Ricoh/EFI	**Maintenance-Library release station**	**Student printing (LLR, FH)**
Kaspersky	**Antivirus**	**College-wide**
Departmental software		
Vendor	**Type**	**Comments**
GenevaLogic (expires April 2013)	**Vision**	**LLR 210 – classroom management**
Plato software	**Writing and Math 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.)**

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Respondus	**Test bank software**	**Instructional Technology Dept.**
Turnitin	**Plagiarism Detection software**	**Various depts.**
SPSS	**Learning tools**	**Various depts.**
Adobe Creative Cloud	**Graphic tool software**	**Various depts.**
File maker pro	**applications software**	**Various depts.**
Microsoft	**Dream Spark Premium – provides operating systems and MS products to students and faculty**	**CNSE/CS Department**
MedPro	**Nursing software**	**Health Center**
NetHelpdesk	**Help desk software**	**IT department**
Ex Libris	**Voyager Software - Library database**	**LLR**

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Appendix C. Smart Classroom Status Detail

Key:

CPU means computer at the instructor workstation.

Doc Cam means document camera which projects opaque materials.

Transparency Projector means an overhead projector.

Interface refers to the software and user panel which allows the instructor to control multiple pieces of equipment. These are indicated by company name such as "Crestron" and "Pixie", or in the case of projectors controlled by a remote control the word "remote".

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
Install Base and Existing Equipment -- AA							
AA-109	None	None	None	None	None	N/A	None
AA-115	√	√	√	√	None	None	Pixie
AA-124	√	√	√	None		None	Crestron
Forum	√	√	√	√	√	N/A	Crestron
AA-132	√	√	√	None	None	None	
AA-136	√	√	√	None	None	N/A	Remote
AA-143	√	None	√	√	None	N/A	Crestron

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
Install Base and Existing Equipment -- AC							
AC-101	√	√	√	√	√	N/A	Crestron
AC-102	√	√	√	√	√	N/A	Crestron
AC-103	√	√	√	√	√	N/A	Crestron
AC-104	√	√	√	√	√	N/A	Crestron
AC-105	√	√	√	√	√	N/A	Crestron
AC-106	√	√	√	√	√	N/A	Crestron
AC-107	√	√	√	√	√	N/A	Crestron
AC-108	√	√	√	√	√	N/A	Crestron
AC-109	√	√	√	√	√	N/A	Crestron
AC-110	√	√	√	√	√	N/A	Crestron
AC-111	√	√	√	√	√	N/A	Crestron
AC-112	√	√	√	√	√	N/A	Crestron
AC-113	√	√	√	√	√	N/A	Crestron
AC-201	√	√	√	√	√	N/A	Crestron
AC-202	√	√	√	√	√	N/A	Crestron
AC-203	√	√	√	√	√	N/A	Crestron

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AC-204	√	√	√	√	√	N/A	Crestron
AC-205	√	√	√	√	√	N/A	Crestron
AC-206	√	√	√	√	√	N/A	Crestron
AC-207	√	√	√	√	√	N/A	Crestron
AC-208	√	√	√	√	√	N/A	Crestron
AC-209	√	√	√	√	√	N/A	Crestron
AC-210	√	√	√	√	√	N/A	Crestron
AC-301	√	√	√	√	√	N/A	Crestron
AC-302	√	√	√	√	√	√	Crestron
AC-303	√	√	√	√	√	N/A	Crestron
AC-304	√	√	√	√	√	√	Crestron
AC-305	√	√	√	√	√	√	Crestron
AC-306	√	√	√	√	√	N/A	Crestron
AC-307	√	√	√	√	√	√	Crestron
AC-308	√	√	√	√	√	N/A	Crestron
AC-309	√	√	√	√	√	√	Crestron
AC-310	√	√	√	√	√	N/A	Crestron

Install Base and Existing Equipment -- EATM

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency y Projector	Interface
EATM 101	√	√	√	√	√	N/A	Crestron
EATM 102	√	√	√	√	√	N/A	Crestron
EATM 103	√	√	√	√	√	N/A	Crestron
EATM 208	√	√	√	√	√	N/A	Crestron

Install Base and Existing Equipment -- FH

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
FH-112	√	√	√	√	√	N/A	Pixie
FH-117	√	√	√	√	√	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

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Install Base and Existing Equipment -- HSC							
Rm	**Projector**	**CPU**	**DVD**	**VCR**	**Doc Cam**	**Transparency Projector**	**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-201	√	√	√	√	√	√	Crestron
HSC-202	√	√	√	√	√	√	Crestron
HSC-203	√	√	√	√	√	√	Crestron
HSC-204	√	√	√	√	√	√	Crestron
HSC-205	√	None	None	None	None	None	Remote
HSC-208	√	√	√	√	√	√	Crestron

Install Base and Existing Equipment -- HSS							
Rm	**Projector**	**CPU**	**DVD**	**VCR**	**Doc Cam**	**Transparency Projector**	**Interface**
HSS-100	√	√	√	√	√	√	Remote
HSS-101	√	√	√	√	√	None	Crestron
HSS-104	√	√	√	√	√	√	Remote
HSS-111	√	√	√	√	√	√	Remote
HSS-121	√	√	√	√	√	√	Crestron
HSS-129	√	√	√	√	√	None	Remote
HSS-140	√	√	√	√	√	√	Remote

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HSS-202	√	√	√	√	√	√	Pixie
HSS-203	√	√	√	√	√	√	Pixie
HSS-204	√	√	√	√	√	√	Crestron
HSS-205	√	√	√	√	√	None	Crestron
HSS-206	√	√	√	√	√	√	Crestron
HSS-222	√	√	√	√	√	None	Crestron
HSS-223	√	√	√	√	√	√	Crestron
HSS-230	√	√	√	√	√	√	Crestron
HSS-238	√	√	√	√	√	√	Remote
HSS-239	√	√	√	√	√	√	Remote

Install Base and Existing Equipment -- LLR

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
LLR-121	√	√	None	None	None	N/A	Pixie
LLR-122	None	√	None	None	√	N/A	Pixie
LLR-124	√	√	√	√	√	N/A	Pixie
LLR-126	√	√	√	√	√	N/A	Pixie
LLR-210	√	√	√	√	√	N/A	Pixie
LLR-305	√	√	√	√	√	N/A	Pixie
LLR-322	√	√	None	None	None	N/A	Pixie
LLR-ILA	√	√	√		None	N/A	

Install Base and Existing Equipment -- LMC

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
LMC-121	√	√	None	None	None	None	Remote
LMC-122	√	√	√	√	√	None	Crestron
LMC-123	√	√	√	√	√	None	Crestron

LMC-124	√	√	√	√	√	None	Crestron
LMC-125	√	√	None	None	√	None	Remote
LMC-126	None	None	None	None	None	None	Remote
LMC-137	None	None	None	None	None	None	Remote
LMC-138	√	√	None	None	None	None	Remote
LMC-139	√	√	None	None	None	None	Remote
LMC-216	√	√	√	√	√	√	Remote
LMC-217	√	√	√	√	√	√	Remote
LMC-218	√	√	√	√	√	√	Remote
LMC-219	√	√	√	√	√	√	Remote
LMC-220	√	√	√	√	√	√	Remote
LMC-227	√	√	√	√	√	√	Remote
LMC-228	√	√	√	√	√	√	Remote

Install Base and Existing Equipment -- M

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
M-106	√	None	None	None	None	√	Crestron
M-105	√	None	None	None	None	N/A	None
M-109	√	√	√	√	√	N/A	Pixie
M-114	√	√	√	√	√	N/A	Pixie
M-138	None	None	None	None	None	N/A	None

Install Base and Existing Equipment -- PA

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

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Install Base and Existing Equipment -- PS							
Rm	**Projector**	**CPU**	**DVD**	**VCR**	**Doc Cam**	**Transparency Projector**	**Interface**
PS-102	√	√	√	None	√	None	Crestron
PS-103	√	√	√	None	√	None	Crestron
PS-104	√	√	√	None	√	None	Crestron
PS-107	√	√	√	None	√	None	Crestron
PS-110	√	√	√	√	√	√	Remote
PS-115	√	None	√	√	√	√	Remote
PS-134	√	None	None	None	√	√	Remote
PS-135	√	None	√	√	√	√	Crestron
PS-202	√	None	√	√	√	√	Remote
PS-203	√	None	√	√	√	√	Crestron
PS-204	√	None	√	√	√	√	Remote
PS-205	√*	None	√	√	√	√	Remote
PS-207	√	None	√	√	√	√	Crestron
PS-208	√	√	√	None	√	√	None
PS-209	√	√	√	None	√	None	None
PS-222	√	√	None	None	√	√	Remote
PS-224	√	√	√	None	√	√	Crestron

Install Base and Existing Equipment -- TECH							
Rm	**Projector**	**CPU**	**DVD**	**VCR**	**Doc Cam**	**Transparency Projector**	**Interface**
T-105	√	None	None	None	None	None	Remote
T-108	√	√	√	√	√	None	Crestron
T-109	√	√	√	√	√	None	Crestron
T-114	None	None	None	None	None	None	None
T-118	√	√	√	√	None	None	Remote
T-119	√	√	√	√	√	None	Crestron
T-120	√	√	√	None	√	None	Crestron
T-205	√	√	None	None	None	None	Remote
T-210	√	√	√	None	√	None	Crestron
T-211	√	√	√	None	None	None	Remote
T-212	√	√	None	None	None	None	Remote
T-215	√	√	√	√	None	None	Remote
T-216	√	None	None	None	√	√	Pixie
T-217	√	√	√	√	None	None	Remote

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