MOORPARK COLLEGE

Information Technology Operational Plan
2017-2018

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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 Strategic Technology Plan lays out the strategic goals and objectives for technology at Moorpark College and will be updated again during the 2018-2019 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 Facilities and Technology Committee on Accreditation and Planning (F/T CAP) committee 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

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

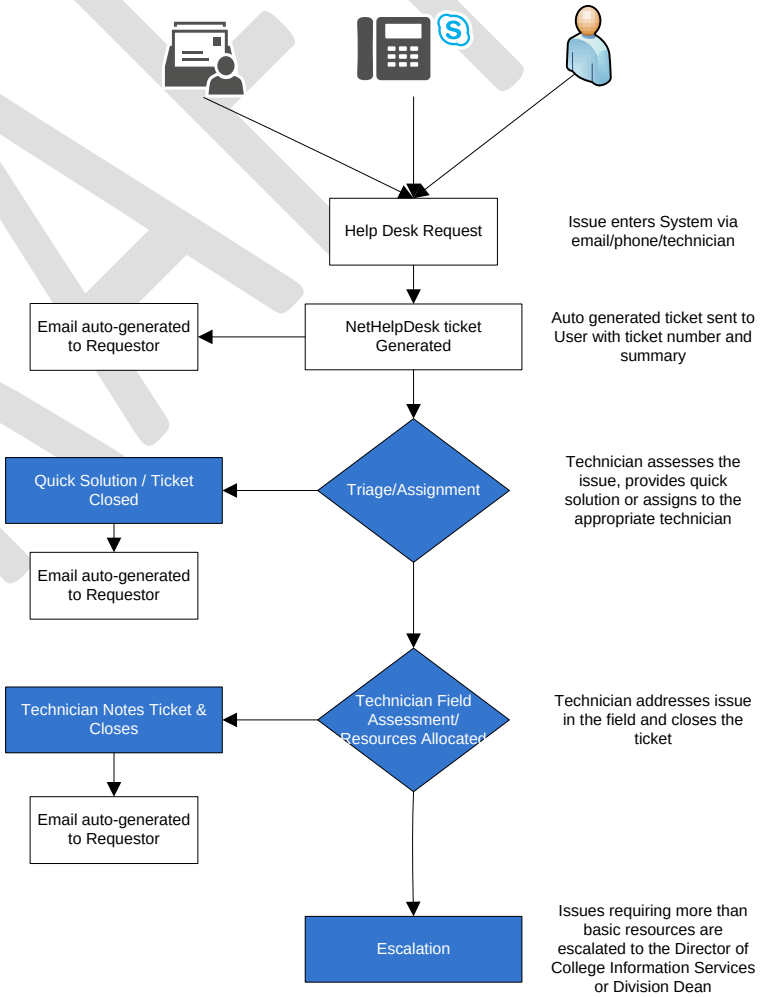
In Spring '12 the first service level document for Moorpark College was approved. This document establishes acceptable first response timelines, escalation paths, and is anticipated to be a living document – revisited and modified as needed by the F/T CAP committee. The current approved SLA document 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 work order system which is hosted by the ITS department. The NetHelpdesk system 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 the District's TrackIT help desk system. 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.



Resource Sharing

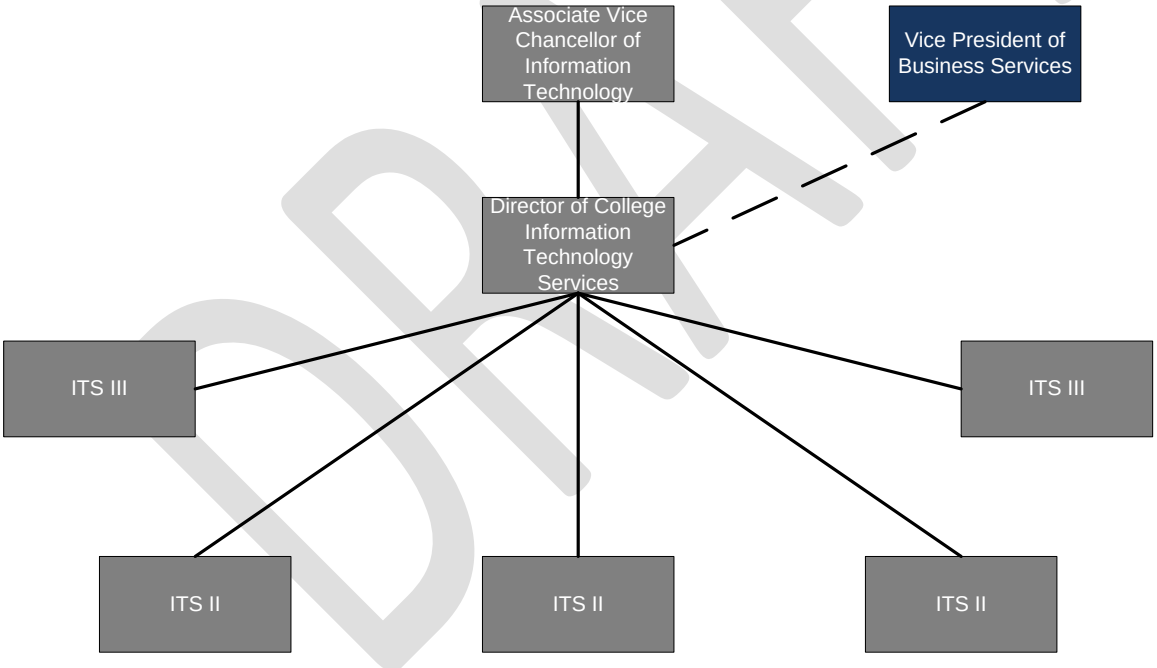
Resources for technology support (parts, vendors, tools) are centrally shared by College ITS staff. The College also depends on District IT for certain levels of repairs and support issues. This alliance creates an environment of shared resources and provides for greater efficiency.

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

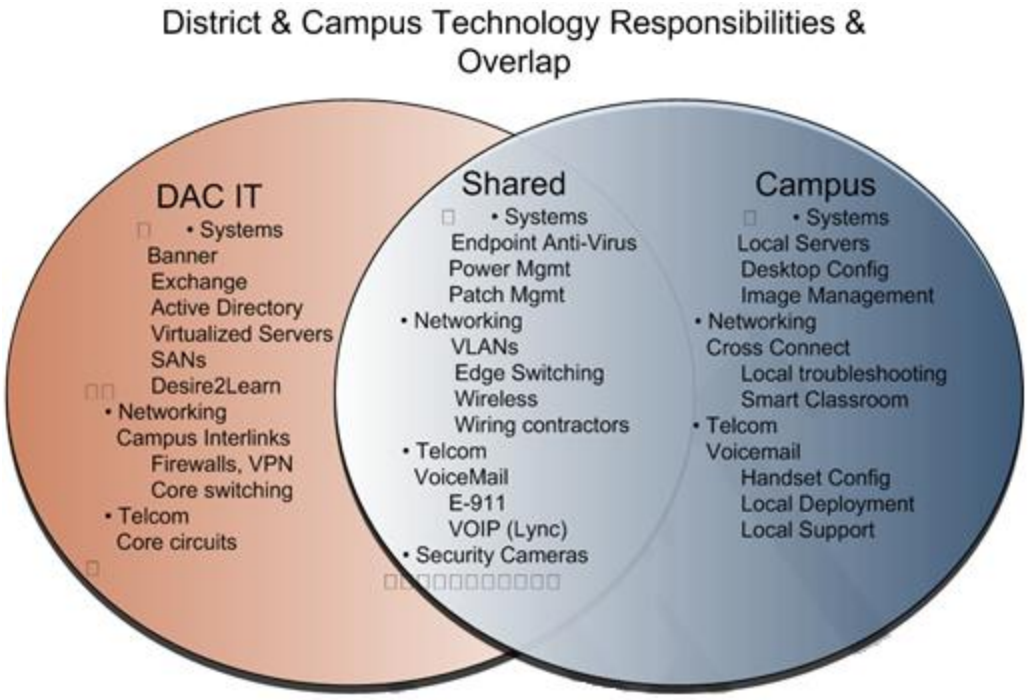
The Associate Vice Chancellor of Information Technology provides oversight of the IT at Moorpark College, with the Director of College Information Technology Services directing day-to-day operations. The department field support staff consists of three Information Technology Support Specialist IIs and 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. As a comparison, Ventura College has 7 full-time ITS staff members and one Director compared to the 5 full-time ITS staff members and one Director at Moorpark College.



College and District Responsibilities

District IT provides support in a number of key areas:

- Administrative applications, including Banner, GradesFirst, OnBase, 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, firewalls, and routers
- Server and data storage management



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 proper technical staffing levels are maintained. As more technology is added to the College, more staff will be needed to maintain the added technology. Some examples of new technology that have been added include smart classrooms, new computer labs, and portable laptop labs purchased with grant or one-time money. Additional information technology staff (ITS II position) has been requested via the Program Planning process. Please see Staffing Levels for additional information.

Communications

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 and Planning process. 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. 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. 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.

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 Division or ITS department depending on the use and the original funding of the device.

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, and Student Success) may purchase equipment outside of the College refresh budget, depending on the program's needs and appropriate approvals. Capital construction projects also include a furniture, fixtures, and equipment (FFE) 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 and lab 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. Travel is typically relegated to attending IT related conferences and intra-district travel. 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.

Major Technology Projects for 2017-2018

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.

The District will be working with College IT to provide greater redundancy for the Skype for Business phone system. This includes upgrading the backend servers from Lync 2013 to Skype for Business as well as building a secondary cluster of servers at Moorpark College.

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 17/18 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 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. Those projects include: potentially combining COM 150 and 151, the GYM renovation, and smart classroom installations.

All of these projects are being planned, but are dependent on proper funding. ITS will work closely with the Maintenance and Operations department to complete these capital projects as quickly as possible.

PCI Compliance

The College is currently working with the District office to complete the Payment Card Industry (PCI) compliance project. This project will help keep credit card information safe during transactions. Many components of the project have already been installed and implemented. The project is expected to be completed in the Fall of 2017.

UPS (Uninterruptable Power Supply) Replacement and Installation

The College is in need of having UPS units installed in every wiring closet that contains network infrastructure. A UPS will keep infrastructure up and running in the event of a power outage. IT intends to install a UPS in the primary wiring closet of a building first and then secondary and tertiary closets next. This will help ensure that PoE (Power over Ethernet) phones are functional during a power outage. The UPS replacement project will be a long and ongoing process that will need to take place during off hours to prevent downtime for users.

Infrastructure

The network infrastructure on campus is aging and will need to be replaced. IT plans on replacing the existing 10/100Mbps network switches with switches that provide 1Gbps to each interface. The project to replace all aging switches will be a long and ongoing project. Infrastructure upgrades also include installing additional wireless access points. We will replace these devices during off hours as to prevent any downtime for users.

Tech Refresh

The College will be refreshing 75 computers located in COM-109, HSS-101, HSS-104, and T-210 computer labs. The College will also refresh a total of 21 faculty and staff computers. The aging printers located in the Student Business Office and Admissions & Records Office will be replaced with new printers.

Projects	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Windows 10/ Office 2016	Ongoing											
Skype for Business	Ongoing											
College Network Updates	Ongoing											
Desktop Virtualization	Ongoing with Potential for Wider Deployment											
Safety Initiatives	Ongoing											
PCI Compliance	Finalize			Ongoing Adjustments								
UPS Replacement	Ongoing											
Infrastructure Replacement	Ongoing											
Capital Projects												
COM 150/151												
GYM Renovation Planning												
Refresh												
Printers	Installs			Ongoing Maintenance								
Smart Classrooms	Installs			Ongoing Maintenance								
Desktops	Installs			Ongoing Maintenance								
VDI	Installs			Ongoing Maintenance								
Laptops	Installs			Ongoing Maintenance								

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 compared to older systems.

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 (hard drives and RAM) 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 impaired, 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.

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 to prevent the unit from falling.

DVD/Blu-ray player

Each smart classroom will contain a DVD or Blu-ray player.

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. The College is currently looking at alternatives to the Crestron control system.

DVD/VCR Combo Drive

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 can include VGA, HDMI, and Display port depending on the room capabilities.

PC Workstation with minimum 22" LCD display

Standard Dell CPU mounted in instructor's workstation.

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 2017-2016 standards:[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	8.0GB	8.0GB	8.0GB	8.0GB	2.0GB
Primary Storage	256 GB SSD	128GB SSD	128GB SSD	128GB SSD	4GB Flash RAM
Optical	DVD+/-RW	None or external	DVD+/-RW	DVD+/-RW	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.

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 continuously offered including advanced topics in the Canvas LMS and supporting tools and resources for ongoing faculty development. Training is offered through the Instructional Technology office in conjunction with the Faculty Development Committee.

Learning Management System

The District successfully implemented the Desire2Learn (D2L) solution in Spring 2010. With a support partnership from the vendor, the District hosts D2L in-house at the Moorpark College datacenter. In 2016, the District began to migrate to the state-wide Canvas LMS which will be hosted by the state. The District will complete the migration to Canvas by the start of Fall 2017 and all online and hybrid courses will be taught through Canvas.

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.)

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 the College LMS.

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 the College LMS 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 the College LMS 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.

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 a high speed 10 Gbps WAN circuit between Moorpark College and the other District sites. 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 connected via South Mountain in Santa Paula. The County of Ventura owns the South Mountain facility and the District rents space there.

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, T1 voice circuits, and Internet circuits (via CENIC). Level 3 provides the SIP (Session Initiation Protocol) circuit used for the College VoIP (Voice over Internet Protocol) unified communication system. 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". 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 currently has over 100 802.11ac access points installed across the College with plans to install more to provide greater coverage.

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.

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 on campus. The majority of the College's users are on the Microsoft Skype for Business platform. Skype for Business uses special VoIP (Voice over Internet Protocol) based telephones and soft client software on computers.

There is currently connectivity to the other campuses with the District and the DAC via a dedicated AT&T 10Gbps 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 circuit with failover to Ventura College. AT&T provides local outgoing analog voice circuits used for tertiary outgoing calls.

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, Checkpoint, 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. Trend Micro remains the District's standard for antivirus protection. The software provides a more comprehensive and easier to manage system, at a lower cost. The District also uses Cylance 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, 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 including the WAN, core, and datacenter infrastructure needed to provide connectivity to the campus and District services.

Appendix A. IT Department Budget

Title	Acct	Approved FY16
Managers – Classified	2010	$126,438
Classified Regular	2121	$348,347
Classified - Overtime	2322	$5,000
Student Hourly-Non-Instructi	2530	$22,500
PERS – Managers	3200	$17,562
PERS – Classified	3235	$48,561
OASDI – Managers	3300	$7,254
Medicare – Managers	3305	$1,833
OASDI – Classified	3335	$21,907
Medicare – Classified	3365	$5,123
H/W – Managers	3400	$18,004
H/W – Classified	3435	$73,872
LCA – Classified	3465	$344
LCA - Managers	3469	$81
Retiree Health Liab-Managers	3491	$0
Retiree Health Liab-Classified	3494	$56,563
SUI – Managers	3500	$63.22
SUI – Classified	3535	$177
WC - Managers	3600	$2,352
WC – Classified	3635	$6,479
WC – Student	3650	$419
Computer Software and Supplies	4300	$5,000
General Supplies & Materials	4800	$15,000
Small Tools & Equipment	4825	$2,000
Training And Instruction	5140	$1,500
Employee Travel	5211	$1,500
Maint/Repair-Equipment	5622	$3,000
Software Maintenance & Licen	5641	$3,500
Hardware Maintenance & Licen	5642	$2,000
Equip-Instruc Equip-$1000+	6443	$1,500
Equip-Non Inst Computers-$10	6451	$1,500
Information Technology Opera		**$799,381**

Figures reflect FY 16/17 approved 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	
Computerland of Silicon Valley	Microsoft and Adobe License Agreement	College-wide agreement
Cylance	Antimalware	Administrative systems
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)
TrendMicro	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.)

Respondus	**Test bank software**	**Instructional Technology Dept.**
Turnitin	**Plagiarism Detection software**	**Various depts.**
SPSS	**Learning tools**	**Institutional Research**
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**
Quickbooks	**Accounting software**	**BIS, Foundation, SBO**
Ex Libris	**Voyager Software - Library database**	**LLR**

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".

Install Base and Existing Equipment -- AA							
Rm	**Projector**	**CPU**	**DVD**	**VCR**	**Doc Cam**	**Transparency Projector**	**Interface**
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

Install Base and Existing Equipment -- AC							
Rm	**Projector**	**CPU**	**DVD**	**VCR**	**Doc Cam**	**Transparency Projector**	**Interface**
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

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

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

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

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
			Install Base and Existing Equipment -- M				
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

Rm	Projector	CPU	DVD	VCR	Doc Cam	Transparency Projector	Interface
			Install Base and Existing Equipment -- PA				
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

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	√	√	√	√	√	√	Crestron
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	Crestron
T-108	√	√	√	√	√	None	Crestron
T-109	√	√	√	√	√	None	Crestron
T-114	√√	√	√	None	√	None	Crestron
T-118	√	√	√	√	None	None	Remote
T-119	√	√	√	√	√	None	Crestron
T-120	√	√	√	None	√	None	Crestron
T-205	√	√	√	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	Crestron