

**Equipment Categories of Hardware and Software:**

Desktop & laptops  
Network switches & routers  
Network monitoring tools  
Video conferencing  
Generators & UPS  
Room Scheduling Software  
Document Imaging  
System Redundancy  
Tape Backup

Printers  
Servers  
Wireless connectivity  
Streaming media  
T-1, DS-3, & Opt-E-Man  
Portal Software  
Firewalls  
Smart Classrooms  
Consolidated Server Storage

## **IT Projects and Major Accomplishments as of July 2017:**

### **➤ Award of IBM Enterprise Server Contract to Chouinard and Myhre, Inc. April 2015**

- Upgrade to Enterprise Servers that support district-wide Banner System from Ellucian
- Replaces current equipment that exceeded expected useful life
- Upgrade includes one primary server and second redundant server for disaster recovery
- Two new upgraded servers replace a total of six existing servers which reduces the number of physical servers
- Configuration is virtualized IBM Power 8 servers with 512G memory
- Includes SAN storage system and LT06 Tape Library System
- New servers provide expanded overall capacity and improved performance boost of 2.4 times the current system
- Also provide added benefit of 50% reduction in energy consumption

### **➤ Award of Cisco Switches and Routers Contract to AMS.Net March 2014**

- Fourth contract cycle, District Standards updated
- Prior three contract bids in 2005, 2009, and 2012
- Update Firewalls to 10 GB capability at both colleges
- Continue to Install Switches and Routers in new facilities and renovated facilities at both colleges

### **➤ Expansion of AT&T Opt-E-Man metro Ethernet Wide Area Network (WAN)**

- Increased access speed for existing Opt-E-Man connections for all sites at LPC, Chabot, and District in January 2014
- New addition was completed during April 2014 Spring break for Chabot Nursing program in partnership with Valley Care Medical to accommodate a new skills lab classroom and to replace the previous slower speed T-1 lines
- Added T-1 connection for CLPCCD network access for the One Stop group who relocated from Pleasanton to Dublin in November 2014

## **IT Projects and Major Accomplishments as of July 2017:**

### **➤ Install Wireless access for Instructional areas at both colleges**

- Purchase of Centralized Management System in July 2009
- Installation completed in December 2009 followed by testing and full operation completed in Fall 2010
- Continued installation of wireless access throughout new and renovated buildings at colleges besides general student areas
- Wireless access at both colleges expanded significantly in 2011-2012
- Chabot now has 91%+ coverage with 72 Access Points (AP) throughout 32 buildings with those buildings remaining still being renovated.
- Las Positas has 95%+ coverage with 74 Access Points (AP) throughout 29 buildings, with 13 WAPs installed in the new SSA Building
- Major Cabling installation completed in May 2015 to support WIFI at Chabot for PE and Athletic Fields which includes softball, track, and football press boxes, tennis, and concessions
- Expansion of Centralized Management System licenses in June 2015 for the WIFI at all locations
- Continue to add Access Points at both colleges as needed

### **➤ Desktop/Laptop Computers for Hewlett Packard units in 2015**

- District standards updated for desktops/laptops
- District has 4-year life cycle for PCs
- Use Western States Contracting Alliance (WSCA) Contract with Hewlett Packard Company
- National Association of State Procurement Officials (NASPO) manage this cooperative purchasing program
- Approved by California's State Chief Procurement Official
- Contracts available to authorized governmental entities such as public schools and institutions of higher education
- Piggyback contract uses a previously conducted bidding process and contract award to WSCA members
- Purchases of IPADs and Surface laptops for expanded instructional usage made through Apple and Microsoft vendors as needed

### **➤ Award of Cisco Switches and Routers Contract to AMS.Net July 2012**

- Atacom vendor withdrew bid June 2012
- Third contract cycle, District Standards updated
- Prior two contract bids in 2005 and 2009
- Continue to Install Switches and Routers in new facilities and renovated facilities at both colleges

## **IT Projects and Major Accomplishments as of July 2017:**

### **➤ Implementation of Document Imaging Systems for Colleges**

- Document Imaging System allows us to migrate to a paperless environment replacing manual files with electronic media
- Reduces facility space for file storage/archives and automates manual processes to achieve maximum productivity
- Vendor demonstration performed in February and March 2010
- Admissions & Records and Financial Aid groups unanimously selected Ellucian's Document Management System (BDMS)
- BDMS integrates fully with CLPCCD's Banner Enterprise System and also can be used with other non-Banner Systems
- Many other California Community Colleges utilize BDMS and information was gathered about their experiences with the product
- BDMS product purchased in November 2010 and implementation began in February 2011
- First phase of implementation focuses on student records to allow A&R to replace their old transcript system ATIFiler
- First phase also includes student information related to Financial Aid
- Project kickoff began in January 2011 and gathering of requirements with user groups occurred in February through March 2011
- BDMS software was installed at CLPCCD in April 2011
- BDMS Training was completed in June through July 2011 for the Admissions & Records and Financial Aid groups
- Financial Aid at Las Positas began using the BDMS System live in Fall 2011
- In Spring 2012, Admissions & Records from both colleges focused on the definition of the requirements for the ATIFiler data conversion to BDMS which included consolidation and reconciliation of the various document types utilized
- Utilized BDMS in October 2012 for online retrieval of paycheck stubs for Direct Deposit mailers to reduce paper and postage costs
- The ATIFiler conversion was completed for Chabot in May 2013 and for Las Positas in June 2013 so that Admissions & Records is now migrated to the new BDMS System
- Second phase with Purchasing was completed as of April 2014 and they are now utilizing the BDMS system live
- Finance is in the process of implementing BDMS for their areas
- The final phase will be to include Human Resources, Payroll, and other college departments with scanning needs
- Transition to a Next Generation Storage Solution using SAN which was installed in June 2013 is needed to accommodate the increased storage as BDMS is offered district-wide to more groups

## **IT Projects and Major Accomplishments as of July 2017:**

### **➤ Expand College usage of Luminis Web Portal and Student Email**

- Financial Aid was the first area to transition to electronic email correspondence with students in place of letters/mailers in Summer 2010
- Admissions & Records also began using Zonemail in Fall 2010
- New SMTP server was installed in Fall 2011 to provide expanded and more stable services for student email usage
- Usage of Student Email by the colleges has been expanded to send out Financial Aid correspondence to students at both colleges to replace paper mailings
- Admissions & Records for both colleges has also changed over to email correspondence to replace paper mailings for some key documents and they continue to expand the email usage gradually
- Both Financial Aid and Admissions & Records utilize the SARS-CALL contact system to generate the email messages and send mass emails to the appropriate population of students
- The introduction of the Banner Waitlist in Fall 2011 accelerated the usage of mass student emails for both colleges for the primary mode of correspondence
- Grade mailers were replaced by email online notifications in Fall 2013.
- The replacement of additional mailers with SARS-Call electronic email notification is in process to eliminate postage and printing costs
- The usage of the Luminis Web Portal known as “The Zone” has expanded as well with the increase in student email usage of the “Zonemail” which is the standard email given to all registered students
- Installation of the next Banner release for Luminis 5 started in May 2015 and continues in progress to create a development system for testing CLPCCD personalized features

### **➤ Award of Cisco Switches and Routers Contract to AMS.Net in September 2009**

- Second contract cycle, District Standards updated
- Continue to Install Switches and Routers in new facilities and renovated facilities at both colleges

### **➤ Award of Desktop/Laptop Contract for Hewlett Packard units to Atacom in May 2009**

- Third contract cycle, District standards updated
- District has 4-year life cycle for PCs

## **IT Projects and Major Accomplishments as of July 2017:**

### **➤ Purchase of Enrollment Management suite with Reporting/Analysis tools in March 2009**

- Tracks student recruitment through admission to colleges
- License for Ellucian's Recruiter module was upgraded in June 2015
- Provides improved classroom space management with course projections and enrollment statistics
- Includes an Alumni tracking capability for the colleges
- Installed the Argos Reporting Tool in March 2012 which is being released to users in phases since August 2012
- First group to use the Argos Reporting tool is Finance in Fall 2012
- Human Resources has also used the Argos tool since Fall 2013 for new reporting requirements
- Usage of the Argos tool was expanded in Spring 2014 for all locations to use for the Enrollment Management reporting and data trend analysis/comparisons
- Argos tool will also be used in conjunction with the Counseling Degree Works System for Student Degree Audits and Student Education Plans

### **➤ District Data Center Backup and Recovery Features**

- Verification of successful operation of the Generator and HVAC backup equipment in new IT Building occurred from April – October 2010
- Generators for Data Center have been exercised during campus power outages several times successfully to accommodate construction activity
- Backup units for HVAC for the Computer Rooms have been tested to confirm full operation in case of a failure for multiple scenarios
- Adjustments have been made to the automated processes for the HVAC backup units with successful results
- To support the remote equipment at Chabot, existing UPS was relocated from Chabot Building 300 to 200 in January 2011
- Ordered new upgraded UPS and solicited bids for new Generator to support the Chabot Building 300 remote server room

### **➤ Relocation of District Data Center from Chabot to new IT Building at LPC completed April 3, 2010**

- Spring break was selected for move due to minimum impact on students and faculty
- Installed IBM servers in new environment which support the Banner Enterprise System
- Relocated all other District servers to LPC for general services such as GroupWise email and activated new network infrastructure at LPC
- Email and network services were restored within 1 day and Banner services were restored within 3 days

## **IT Projects and Major Accomplishments as of July 2017:**

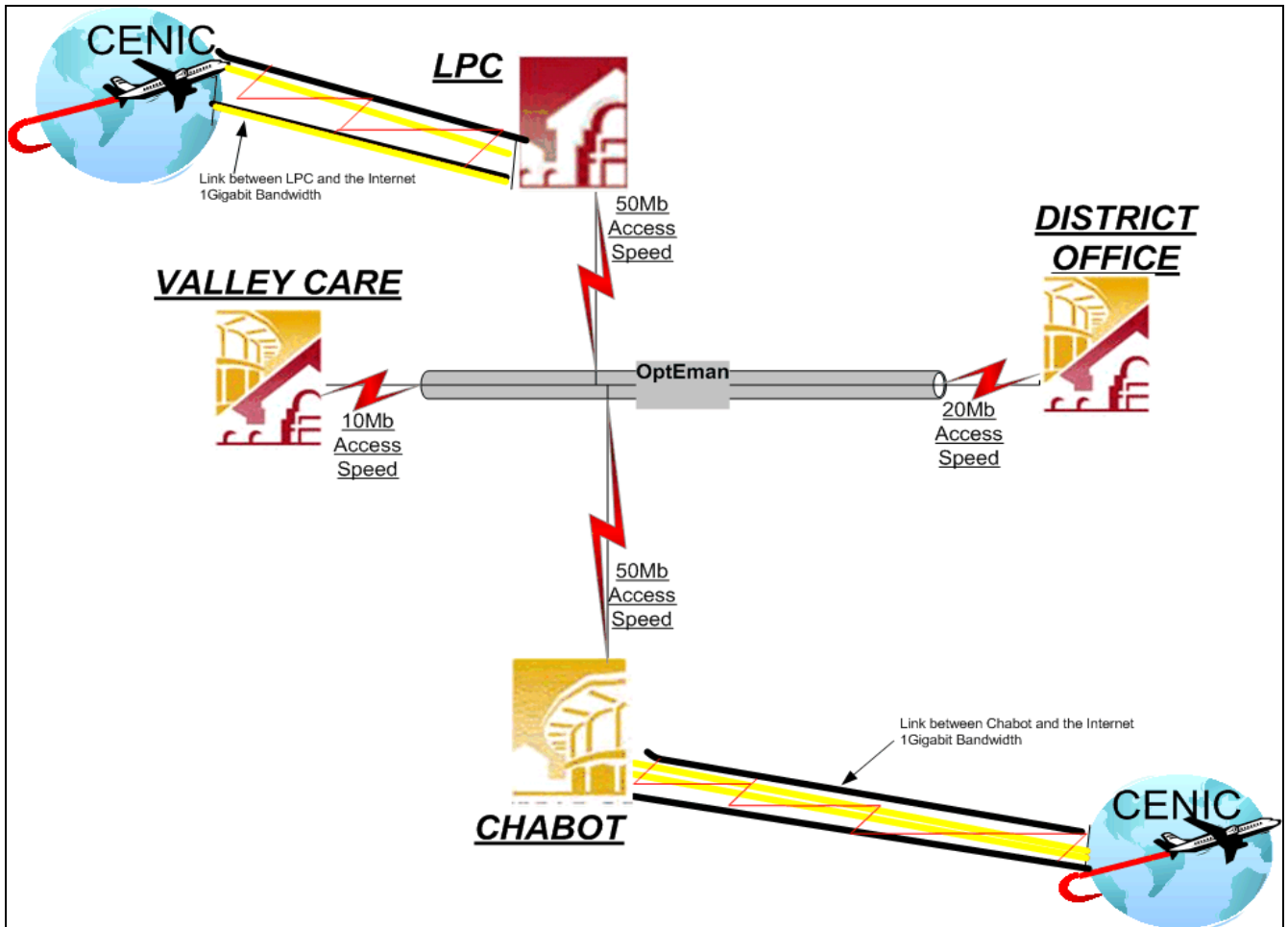
### **➤ Purchase and install Generator and new UPS for Server Room at Chabot in Building 300 after building renovations are completed**

- Chabot Building 300 renovations were completed in December 2011
- District ITS Computer Equipment was relocated back to Building 300 from the temporary Building 100 space in December 2011
- New UPS for Building 300 with added capacity was installed and tested in November 2011 in Building 300
- New permanent Generator was installed and tested in December 2011 to provide the remote Data Center with Disaster Recovery capabilities
- These new UPS and Generator installations complete the full cycle for Disaster Recovery features now available at all District Data Center locations at Las Positas and Chabot colleges to provide for full operation on a 24/7 basis
- The Disaster Recovery plan was prepared in August 2010 as part of the college Accreditation and the UPS and Generators complete a significant milestone for the District Data Center sites

### **➤ Equipment for new IT Building at LPC to house District Data Center**

- Completed installation and testing of full Generator and UPS capabilities for the new IT Building for the District Data Center
- Completed design to configure two new IBM servers that support Banner Enterprise System in September 2009
- Provides expanded capacity and full redundancy with two identical machines synchronized for disaster recovery
- Award of IBM Server Hardware/Software Contract to Chouinard & Myhre, Inc. in December 2009
- Includes Vision Solutions Software for automatic asynchronous interface between the two IBM servers
- Purchased laptops with storage cart for usage in the Training Room with flexible layouts for training classes with PCs or general conference meetings in February 2010
- Purchased other equipment for new building which included network switches, printers, and PCs in March 2010
- Installed Oracle Dataguard on IBM computers in December 2010 followed by several months of testing, and final production release was completed in July 2011

## IT Projects and Major Accomplishments as of July 2017:



### ➤ Expansion of AT&T Opt-E-Man metro Ethernet Wide Area Network (WAN)

- Implemented new Opt-E-Man in 2008
- Installed new satellite site in Dublin in July 2009
- Expansion completed to accommodate the relocation of District Data Center in April 2010 – bandwidth 10 mb increased to 20 mb
- Concurrent upgrade of college Internet lines provided by CENIC (state funded) due to increased traffic caused by expansion of Smart Classrooms
  - o Previous 45 meg lines replaced with 1 gig lines
  - o Completed Chabot in November 2009 and LPC in May 2010
- Opteman configuration supported the District move to Dublin site in March 2013
- Expansion of Opt-E-Man connections completed in January 2014 for faster access speed to accommodate increased bandwidth needs at all locations as noted in the network diagram
- Addition for new connection completed in April 2014 for Chabot Nursing program with Valley Care Medical for new skills lab classroom and to replace previous slower T-1 lines



## **IT Projects and Major Accomplishments as of July 2017:**

- Completed Conduit Rerouting for both colleges as part of Central Utility Plant which continues as new construction necessitates it
- Installed a fully integrated consolidated Syncsort Tape Backup System for Enterprise Systems in 2009
- Implemented CollegeNet Room Scheduling for online facilities management and room inventory capabilities in 2009
- Installed PCs, MACs, printers, and laptops as needed based on renovation or new building completions (includes IPADs and Surface laptops for instructional usage)
- Expanded the number of Smart Classrooms throughout the colleges with new updated equipment
- Installed new servers which included added redundancy where applicable for 24/7 operation (primary servers have been replaced and upgraded at all locations)
- Virtualization of servers at the colleges and district
  - Pilot was successful at Chabot College in Fall 2012 through Spring 2013 to migrate to thin clients in various computer labs and the library
  - Chabot will continue to expand the usage of virtualization where appropriate and Las Positas will do the same
  - Virtualization of servers was implemented in June 2013 at the District Data Center located at Las Positas using the existing Blade server that is utilized for mass email distribution to students and in the future will be used for email services for faculty and staff
  - Expansion of Blade servers with VMware in June 2015 for all locations
- Purchase of a storage area network (SAN) device
  - Completed in Feb 2013 and was installed in June 2013 to be accessible to multiple district wide servers that require consolidated mass storage
  - First of such systems taking advantage of this capability being the BDMS Document Imaging System and the Datacove Email archive system.
  - Expanded SAN storage in June 2015 for all enterprise systems

## **IT Projects and Major Accomplishments as of July 2017:**

- New Video Conferencing equipment for the Chabot Nursing program was purchased and installed in Summer 2013 at both the Chabot and Valley Care Medical locations
  
- Mobile Applications for Banner Enterprise System
  - Mobile functions distributed through “cloud” technology with support for Iphone and Android including automatic updates as new features added
  - Provides inquiry features for primary CLASS-Web functions such as Class Schedules, Grades, Holds, as well as Zonemail and Blackboard
  - Pilot groups with students and Admissions & Records provided feedback and it was released to all students in Fall 2014
  
- Implemented the new Outlook Email System district-wide
  - Outlook Email Cutover was January 12, 2015, which included the automatic migration of the large volume of Groupwise emails for all users at the colleges and district
  - Expanded Virtualization of Servers at the District Data Center to support the new Microsoft Outlook Email system conversion from Novell Groupwise email which includes redundancy for fail over capabilities
  - Incorporated the storage area network (SAN) devices into the Outlook Email system for faculty and staff email post offices
  - Converted to Microsoft Active Directory district-wide to replace the Novell operating system prior to the Outlook Email conversion
  - Purchase and installation of new Unitrends backup system in June 2015 for Outlook email and other district-wide enterprise systems to provide improved performance and expanded features for file recovery

## **IT Major Projects Planned for 2016-2017:**

- Continue to implement Document Imaging Software for Electronic File Storage to other groups at the colleges and district
- Continue to migrate to additional Consolidated Next Generation Storage Solutions such as SAN where appropriate to support extended storage needs for consolidated block level data storage for enterprise servers in place of locally attached devices
- Continue the implementation of Virtualization of Servers for both colleges and district where appropriate, especially in the college computer lab environments where software availability for students is critical
- Design and install centralized Streaming Video Services district-wide which includes Lecture Capture software capabilities
- Install additional Video Conferencing capabilities throughout District
- Expand Mobile Applications capability throughout the campuses as vendors provide more available features
- Continue installation of Computer Equipment (4-year replacement life cycle)
- Continue Server Upgrades & Hardware redundancy as needed
- Continue to Expand Wireless Connectivity at the colleges
- Continue to expand and upgrade the technology enabled “Smart Classroom” at the colleges
- Continue to perform upgrades to edge switches and desktops to take advantage of the emerging technology to migrate from 100 MB fiber to 1 GB fiber then to 10 GB and 100 GB to support additional bandwidth as needed for media convergence
- Continue Network Infrastructure upgrades to support Facilities plan