CHABOT-LAS POSITAS

COMMUNITY COLLEGE DISTRICT

TECHNOLOGY PLAN UPDATE

BOND ACTIVITIES AND ENTERPRISE SYSTEMS
2014 - 2015.

Date: September 2015

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INTRODUCTION

This document "*Technology Plan Update – Bond Activities and Enterprise Systems 2014-2015*", which includes all the technology projects being completed by the College IT staffs and the District ITS staff, is the latest Technology Plan update that covers the period from June 2014 since the last annual update through the current period August 2015. It includes the Bond Measure B projects and all the district-wide Enterprise Systems such as Banner, third party vendor systems, and common email services. This September 2015 document will be the final update to this current Technology Plan for both Bond and Enterprise Systems. Currently, the Bond Measure B projects are nearing completion this year with the exception of the new Biology building at Chabot, the new Academic building at Las Positas and several other smaller construction projects. In addition, both colleges are developing a new Education Master Plan scheduled for completion in Fall 2015. In conjunction with the Education Master Plans, the District is developing a new District Strategic Plan to support the colleges' Education Master Plans which will also be completed by the end of Fall 2015.

Technology goals and objectives are specified in the new District Strategic Plan and this information will be utilized to develop a new 5-year Technology Plan for 2016-2020. The projects within this current Technology Plan that have not been implemented as of yet will be re-evaluated and included in the new 5-year Technology Plan as is appropriate. The new district-wide Technology Coordinating Committee (TCC) will be responsible for working collaboratively with the Chabot Technology Committee and the Las Positas Technology Committee to develop the new Technology Plan based on inputs from the colleges' Education Master Plans and the District Strategic Plan goals and objectives. Each of the technology goals and objectives will be evaluated in order to drill down further and identify future automated system solutions to implement at the colleges and district.

1.0 HISTORY OF TECHNOLOGY PLANS

Chronology of Technology Plans for Bond Measure B and Banner Enterprise Systems

Since 2005, there have been Technology Plans that have been developed and executed to address both the colleges and district technology needs. All the Technology Plans from 2005 through 2015 are posted on the district website at the "Technology Services" tab and under the link for "Technology Plans" at URL: http://www.clpccd.org/tech/TechnologyPlans.php.

At the start of the Bond Measure B program, the Technology Plans for Bond projects were retained separately from the Banner Enterprise Systems and other common district-wide systems. The Bond projects were identified in the Information Technology Plan (ITMP) which pertained to both the College IT and District ITS staff projects. The Banner Enterprise Systems were identified in the "District ITS Strategic Plan" which pertained to the District ITS staff. During the period up to 2012, the District ITS staff and the College IT staffs reported to different organizations. At the end of 2012, the College IT were changed to report directly to the District's Chief Technology Officer just at the District ITS did. Therefore, in 2013, the separate Technology Plans were combined into a single consolidated plan since both the Bond and Enterprise System Technology Plans pertained to technology projects that were supported by all the IT organizations for both colleges and the district.

A list of the various Technology Plans with their annual updates is provided below in chronological order from the most recent to the earliest.

(1) "*Technology Plan Update – Bond Activities and Enterprise Systems 2014-2015*". This document is the most recent update and the final update to the current Technology Plan which was posted in September 2015. This document contains project status for both the Bond Measure B projects and the Enterprise Systems utilized district-wide.

(2) "*Bond Activities IT Update for June 2013 to June 2015*" – This document is the revised Bond IT project allocation that was approved in 2014 for an accelerated 2-year period for IT project completions for both colleges and district. The IT Bond budget was reduced at this time to $8.7M to be utilized for the critical Bond projects remaining that were evaluated and re-prioritized based on the funding changes. A portion of the remaining IT budget of $4.46M was reallocated to other college new building construction projects.

(3) "*Bond Activities Accomplishments & Future Plans 2005-2017*" – This document is the Bond project plans along with the Enterprise Systems which was developed in 2013 to identify projects to be completed with the remaining IT Bond technology funds. At that time, the IT Bond budget remaining totaled $13.2M to

be utilized prudently over a few years more; however, that IT Bond budget was reduced to $8.7M in 2014 to be utilized over a 2-year period.

(4) "*District Strategic Plan ITS Updates Only (2009)*" – This document is the 2009 update to the initial 2007 District ITS Strategic Plan. This document focused on the Banner Enterprise System projects that were in the Technology Plan based on college and district priorities.

(5) "*District Strategic Plan ITS Updates Only (2007)*" – This document is the initial District ITS Strategic Plan developed in 2007 for all district departments which includes the excerpt for ITS projects only.

(6) "*Information Technology Master Plan (ITMP) 2004*" – This document is the initial Bond Measure B plan describing what network infrastructure and equipment requirements must be satisfied at both colleges and the district. The Bond project activity started in 2005.

(7) Annual "*ITMP Supplements from 2006 through 2012*" (6 annual updates). These documents were yearly updates to the ITMP to identify the accomplishments to-date and the remaining projects to be completed for Bond Measure B. Following the 2012 annual update, the Bond Measure B projects were combined into a single Technology Plan document along with the Banner Enterprise System projects.

(8) "*ITS Disaster Recovery Plan 2010*" – This document is the initial Disaster Recovery Plan for the District Data Center which was relocated from Chabot to Las Positas in April 2010 when the new Information Technology building was completed. The plan addressed the centralized District Data Center as well as the remote server rooms at both of the colleges and at the district office. An update to the Disaster Recovery was completed in 2014 and an additional supplement was completed in 2015 to cover the Exchange and Outlook Email conversion done in January 2015.

2.0 REALLOCATION OF BOND TECHNOLOGY BUDGETS IN 2014

2.1 Revised Technology Plan for Bond Projects - Reallocation of Bond IT Budgets

In June of 2013, CLPCCD ITS published the comprehensive document "*Information Technology Measure B Bond Activities, Accomplishments and Future Plans 2005-2017"*. This document provided a summary of Measure B Bond accomplishments to date, and projects planned for completion by 2017. Several project areas were identified as critical completion items in the Measure B Bond initiative. These projects were selected from a list of priorities that were documented in the original bond scope.

In October 2013, the Chancellor's Senior Leadership Team (SLT), which consisted of the Chancellor, College Presidents, Vice Chancellors, and Chief Technology Officer, reviewed all the remaining Measure B funding to determine what critical projects could be accomplished within a two-year period from 2013 through 2015, including a new Academic building at Las Positas and a new or renovated Biology building at Chabot and funding for some smaller projects to be identified. All SLT members submitted their proposals for projects along with possible reductions in their areas that would free up funding for the new college buildings. The Chancellor reviewed the SLT recommendations for the new funding allocation and finalized the Measure B plans for the remaining projects to be completed. In January 2014, the Board of Trustees approved the proposed budgets for completion of Measure B projects at both colleges. For the Information Technology groups at the colleges and the district, the critical network infrastructure and computer equipment requirements were identified and the remaining 34% of the IT fund balances were reallocated to the new building funds. This accelerated two-year plan for Bond IT completion reduced our Bond Measure B funds for technology from $13.2M to $8.7M to be spent over the next two years, in order that the $4.46M savings could be utilized by the colleges for other critical construction. The District ITS and College IT staffs completed remaining projects to comply with the district's computer equipment life cycle and to furnish new or renovated facilities. With this IT Bond budget reprioritization, the IT project list became more focused on key areas of upgrade or replacement to be completed over an accelerated two-year period from June 2013 through June 2015. This resulted in the revised Technology Plan "*Bond Activities IT Update for June 2013 to June 2015*".

This previous year's 2014 document is a supplement to the previous 2013 report, summarizing the project progress and describing the subset of Bond projects reprioritized for completion by June of 2015. CLPCCD Information Technology Services (ITS), in conjunction with Chabot Computer Support (CS) and LPC Technology have continued the bond project work for enhancement and growth of the Information Technology Computer Systems and Network Infrastructure. This work was executed both as discrete projects managed and funded by CLPCCD ITS and College Computer Support/Technology staff, and in conjunction with Facilities construction/modernization projects for building renovations at the campuses. The work has included specific improvements in network connectivity and infrastructure, servers, wireless and wired networking, desktops/laptops and audio-visual technologies.

The goal of the project work in the last two years, and the remaining work forecasted for the coming year, is to provide equipment at the CLPCCD sites with technology that would have the highest performance and most far-reaching impact for future years of CLPCCD technology use.

The projects selected for prioritization were those that focused on several factors:

(1) Increase the network bandwidth and switch/router connectivity to accommodate future automation needs, through continued expansion of the cabled networks in modernized buildings, and new equipment procurement.
(2) Provide desktop cycle replenishment within the four-year model to maximize the equipment's life cycle until a new Bond measure or other funding source becomes available.
(3) Upgrade or replace enterprise servers to provide capacity for new or expanded application systems, and to guarantee system redundancy for critical failover conditions.
(4) Maintain state-of-the-art Smart Classrooms with audio-visual and/or video conferencing equipment that services the faculty and student needs.
(5) Continue to expand the wireless environment to support the increased usage of Smart phones and tablets as a key method for system access.

The intent is to upgrade network and computer equipment through 2015 so that the equipment's useful life spans a few years beyond 2015 when the bond funds are used up. Additional information on the IT Bond funding as of October 2013 is provided in Section 16.0 "Bond Technology Cost Summary".

2.2 Technology Funding Alternatives when Measure B Funds End 2016-2017

The current Information Technology budget of $8.7M will continue to cover Bond equipment through fiscal year 2015-2016. Starting in fiscal year 2016-2017, technology equipment funding will be addressed through General funds as it was prior to the Bond Measure B. Information Technology Services in conjunction with Business Services and the colleges has already addressed what the funding needs will be starting in 2016-2017 and what the funding sources will be in this first year and into the future. A summary is provided below with the anticipated timeline for new equipment purchases and the various funding sources for the technology equipment. The colleges and district will continue to analyze funding sources that will allow the technology equipment and infrastructure to be upgraded or replaced after the Measure B Bond expires.

For Information Technology Services, most of the technology upgrades and additions to the college campuses over the past several years have been funded by the Bond Measure B. The first type of technology improvements related to the new or renovated facility structures and included fiber optic and copper wiring and conduit between buildings for the District network infrastructure. For all building construction under Measure B, these

network infrastructure changes have addressed the majority of the campus areas, but Chabot specifically still has a portion of its backbone cabling and some old buildings that require wiring upgrades whenever any future building updates are done. In addition there are few buildings at LPC which need cabling upgrades.

The second type of technology improvements made under the Bond Measure B includes classroom equipment, network devices, communication equipment to support data, video, or voice, and all technology advancements that support the instructional environment. The IT strategy with the Bond Measure B funding was to upgrade network and computer equipment so that the equipment's useful life spans a few years beyond 2015 when the bond equipment funds are depleted. The most recent equipment procurements have been forward-looking so as to maximize the life span of the equipment and performance of the infrastructure. The anticipated lifetime of the technology equipment is as follows:

- Network equipment: 7-10 years
- Desktop/laptop computers: 4 years
- Servers: 5-7 years
- Printers: 5 years
- Audio-Visual equipment: 7 years

As such, equipment procured in the last one to two years from 2013 to 2015, will continue to provide a robust platform for CLPCCD users for several years in the future. Once the Bond Technology funding is spent, and the performance of the technology infrastructure begins to gradually degrade, the College and District operational funds for technology will need to be increased over the next few years accordingly to cover these future technology replacement costs. The District's Budget Allocation Model (BAM) provides for the funding of district and college expenses for technology. However, the primary equipment for network switches and routers, servers, and audio-visual equipment are adequate for at least 7 years out. The desktop computers and laptops were updated on a 4-year life cycle so there are adequate units available throughout the campus for a few years out.

Besides the useful life span of the computer equipment, the state will begin funding Instructional equipment in the same manner that they handle deferred maintenance for facilities and buildings. In 2014, the state requested that the colleges submit a 5-year budget plan similar to the scheduled maintenance plan. The colleges prepared a 5-year plan for Instructional equipment projections which includes computers and audio visual equipment for the classrooms as well as wiring upgrades in older buildings. This is an alternate source of funding that will be used to provide technology upgrades for aging equipment at the colleges. Another source of funding that the district and colleges will pursue is applying for technology grants where applicable.

In fiscal year 2016-2017, for new hardware and software purchases, the district will go back to the funding method used under General funds prior to the Bond Measure B. The technology for new hardware and software will be budgeted on a yearly basis, based on the priority needs for the college and district as identified through the Integrated Planning

& Budget Model (IPBM) district-wide committees. For high dollar purchases for major enterprise systems, the budgets will be accumulated over a multi-year period to purchase in year 3 or 4 as needed. The Enterprise system maintenance that was previously funded for multi-year contracts under the bond will become part of the BAM 3A expenses starting in fiscal year 2016-2017. One time funding reserved for "innovation" projects will also be available for technology improvements.

3.0 TECHNOLOGY ORGANIZATION AND COMMITTEE CHANGES

Technology Organizational Changes from 2012 to 2015

The Information Technology goals and objectives are driven by the future college requirements and changing needs to achieve the educational goals of the colleges. The IT departments' responsibilities include system design and applications programming, network infrastructure (WAN and LAN), desktop support, Web support (Internet and Intranet), hardware and software support, centralized Help Desk, user training, "common" instructional or administrative delivery systems, phone system support, and technology initiatives supporting Measure B Facilities projects.

District ITS and the College IT staffs have worked collaboratively since 2005 to establish district-wide standards for computer equipment, network infrastructure devices, and cabling to support Measure B improvements. The existing standards are reviewed on an annual basis and modified appropriately when new bids are issued for equipment. Central Purchase agreements continue to be utilized and expanded in the number of vendors participating and types of equipment that is included. District ITS and District Purchasing have instituted an effective "check and balance" procedure for the purchase of all computer hardware and software district-wide which is approved by the CTO. This procedure ensures that computer purchases adhere to the current equipment standard, that new hardware and software is compatible, and that there is no duplication at the colleges for common services.

In December 2012, the College IT organizations were moved under the District Chief Technology Officer as their new reporting structure which resulted in benefits to the colleges, district and the IT staff. The centralization of responsibility for technology eliminated any confusion on the user's part on who to contact for assistance and the consolidation of the IT resources made common project implementations much more efficient and consistently applied across all locations. In addition, the collaboration with the colleges to define the technology requirements for new initiatives has improved, so all locations have equal input into the planning process. With the single point of responsibility, IT is able to share resources as needed to provide improved customer service levels to the colleges.

IT works closely with the college Technology Committees and their Planning Committees to identify new technology requirements that are needed and then find ways to provide both short term and long term automated solutions to service these needs to

make staff more productive and efficient. In addition, the establishment of the new district-wide Technology Committee as part of the IPBM in 2014 has become instrumental in expanding the communication regarding technology initiatives and allowing user groups to become more actively engaged in the process of technology reviews, product selections, and the project implementation phases.

For the new IPBM, the new District Technology Coordinating Committee (TCC) is expected to unify the colleges and district efforts using technology and will foster common goals, wider participation in the selection of technology options, and better communication on new and existing automated systems that are implemented, along with the necessary training and ongoing support needs. To date, the TCC has very good college representation on the committee and since Fall 2014, it appears to be achieving the goals of unification, widespread communication on technology initiatives, and improvements in training methods. This current year's focus for the TCC committee was to address projects related to the Outlook email, training using Lynda.com Online Tutorial, the state's Online Education Initiative (OEI), new standards for Smart Classrooms using new technology, and future Forms generation tools with workflow for routing and approvals.

In support of the Education Master Plans, a charrette was held in February 2015 including technology discussions. The primary points for technology initiatives that were identified at the charrette were in sync with the projects that the TCC were already pursuing. Also, in 2014 surveys for training needs were conducted for the classified staff and the administrator staff, and the subscription to Lynda.com did address many of the software training needs identified. For technology related to the enterprise systems, software purchases were made several years ago when funds were available and ITS is currently implementing many of the systems that have already been purchased. With the staff turnover at the colleges, there is an incorrect perception that the colleges are not participants in the selection of enterprise software since those users are no longer with the district. However, the new TCC with improved communication on the technology activities gives us the opportunity to make the software evaluation process and the final decision more transparent.

4.0 SUMMARY OF TECHNOLOGY ACCOMPLISHMENTS

Summary of Technology Accomplishments from 2013 to 2015

This supplemental document provides updates from 2013 to 2015 on the accomplishments for the technology projects that were completed or are in progress within our District ITS Strategic Plan and our Bond Measure B Network Infrastructure and Equipment projects.

The Technology Plans from 2005 through 2015 that address both the colleges and district needs are posted on the district website under "Technology Services". The status of ITS Projects which include Banner projects, third party products, and bond projects, has been

updated annually showing completed projects and in progress projects. The District ITS Strategic Plan delineates the project priorities for the district and colleges for both the Banner projects and the Bond Measure B projects. The District ITS Strategic Plan was initially developed in 2007 and then updated in 2009 for the new district-wide initiatives for our enterprise systems and services. Annual updates have been posted on the district website since 2013 through 2015. For Bond Measure B projects, the technology plan for the Bond technology initiatives "Bond Activities IT Update June 2013 to June 2015" was updated in June 2014 which enumerated Bond accomplishments since 2005 and future accelerated plans for the next 2-year period through 2015. Previously, ITS developed the "Information Technology Measure B Bond Activities – Accomplishments and Future Plans 2005-2017" and the initial Bond technology plan "Information Technology Master Plan (ITMP)" in 2005 with annual supplements to update the projects completed to-date.

For the District's comprehensive ITS projects list within the District ITS Strategic Plan, effective August 2015 for Banner projects, third party projects, and Bond Measure B projects, 95% of the projects are either fully completed or in progress nearing completion, and 5% still need to be scheduled. The District ITS Strategic Plan, which has been updated annually for the past 3 years, has been effective in achieving the project goals. Currently, both colleges are in the process of creating their Education Master Plans with the MIG, Inc. vendor. Therefore, once their Education Master Plans are completed, then the district will develop their new District Strategic Plan in Fall 2015 to support the individual colleges' Education Master Plans for all district areas including technology. The district wide Technology Coordinating Committee (TCC) will then work with the College Technology Committees to develop a new 5-year Technology Plan for both colleges and district to reflect the new technology requirements identified in the new Education Master Plans for the colleges. The District Strategic Plan identifies the technology goals and objectives and the Technology Plan will provide the detail projects required to achieve those specified goals.

A few of the more noteworthy Enterprise System projects include the Student Success Support Program (SSSP), the Banner Document Management System (BDMS), Argos reporting for several user areas, progress on the expansion of the Curricunet Curriculum module to include the Program Review and SLO Assessment modules for future adoption at CLPCCD, eTranscripts to automatically send and receive transcripts, Banner Mobile apps, and the Novell conversion which includes migration to the DataCove email archive system, Microsoft active directory, Windows 7 with Office 2010, and migration from Groupwise email to Exchange server and Outlook email.

All Bond construction projects were completed as planned with the IT staffs being involved in all aspects of the construction affecting the Communication Systems and Network Infrastructure, beginning with the schematic design phase. This includes connectivity for data, voice, video, multimedia, building management systems, and security systems. IT participates with the Architects and Engineers in all phases of the construction projects from design, bid through submittals, RFI reviews, cabling installations, construction, inspection, testing, and acceptance. IT is involved in all decisions related to initial technology requirements as well as any change orders that

impact the technology infrastructure. Besides the Construction activity, IT is involved in the purchase and installation of all computer equipment at the college and district sites. All of the Building projects needed IT support for both new buildings as well as renovations. Some of the key buildings at Las Positas that required extensive IT support include the Student Services Center SSA, Building 700 Remodel and library swing space, Library Remodel, Vineyard Cabling, Classrooms in Building 700, Remodel of Building 1310/1320 for the Veterans area, , Building 1700 Remodel for Ricoh/Print shop, and Parking Lot Security. Some of the key buildings at Chabot that required extensive IT support include the PE complex, Science and Math Building 1800, Automotive facility Building 3400, Math and Physics Building 1700, Library Building 100 Remodel, Distance Learning Classrooms, Chabot Athletic Fields, and Parking Lot security.

One project that continues to have high visibility and is constantly expanding is the Wireless capability at all the district locations, for both colleges and district. As of August 2015, Chabot has 90%+ coverage with 97 Access Points (AP) throughout 35 buildings with those buildings remaining still being renovated. Las Positas also has 95%+ wireless coverage in all major buildings with 80 Access Points (AP) throughout 28 buildings. The district office has multiple access points as well for full coverage in the Dublin site. ITS installed a centralized Wireless Management System in 2010 to allow college and district IT staff to monitor the traffic to identify and repair any problems, which has been upgraded as WiFi needs have increased.

Another significant project was the dramatic changes in the data connections between the colleges and district. Since 2009, we have transitioned from the old T-1 data lines which had a maximum bandwidth of 1.5 Mb, to the DS-3 lines, to the OPT-E-MAN Ethernet connections with a bandwidth between campus locations up to 20 Mb (almost 20 times the bandwidth). Subsequent OPT-E-MAN expansions increased bandwidths to 50Mb and then 100Mb to support increases in network traffic. The new OPT-E-MAN connections have the added advantage of providing flexible bandwidth options so that as site traffic changes, the bandwidth can be increased accordingly, which occurred when we relocated the District Data Center from Chabot to Las Positas. This flexibility was also an advantage when we relocated the District office from Pleasanton to Dublin so that the traffic flow could be redirected without any major new installation. The OPT-E-MAN data lines were also expanded to increase the speed from Chabot and LPC colleges and to add on a new data line to support the Chabot Nursing program and the Valley Care Medical facility by replacing the previously used T-1 lines. Currently, the OPT-E-MAN lines are scheduled to be expanded at the end of 2015, for increased connectivity across all sites to cover the future online activity that is anticipated based on the colleges' new Education Master Plan requirements. For the primary Las Positas connection where the District Data Center resides, the OPT-E-MAN Ethernet connection will be increased to 250 Mb. For Chabot College, the connection will be increased to 100 Mb and for the District office in Dublin it will be increased to 50 Mb.

Besides the OPT-E-MAN connections, ITS also expanded the CENIC Internet connections in the last few years from 45 Mb to 1Gb speed which provides substantial room for growth and reduced our previous 95% Internet saturation to less than 25%

utilization, relieving all bottlenecks. Within the next year, the CENIC connection is anticipated to be expanded to 10G and CLPCCD is currently positioned to take advantage of that Internet increase in speed as soon as it becomes available through the State Chancellor's Office implementation schedule. Besides these expansions, several other key network infrastructure and equipment improvements were completed. These include replacement of switches and routers, new servers with redundancy for backup capabilities and virtualization of servers in appropriate locations, new ASA firewalls for network security, upgrade of network monitoring tools, upgrade of Audio Visual equipment, and installation of desktops, laptops, and printers. District's Disaster Recovery plan was completed in August 2010 and updated in 2014 to protect the District Data Center in the IT Building at LPC as well as the remote server rooms at the colleges in the event of the occurrence of a disaster.

One of the key objectives for the new district-wide Technology Coordinating Committee (TCC) is to identify technology needs including training for faculty and staff on the common enterprise systems utilized by the colleges and district. In response to this objective, this year the TCC recommended using online tutorials as a first step in making training materials more accessible to staff from any location for their convenience. In 2014, District ITS subscribed to the Lynda.com Online Tutorial which provides to all college and district staff training materials on topics such as Microsoft and Adobe software, which was used for training on the recent Outlook email implementation. This service is available to all full time employees and access is granted through their email addresses either on campus or from remote locations. For the Banner System modules for Student, Finance, Financial Aid, Human Resources/Payroll, and Degree Works, District ITS also subscribed in 2014 to the Ellucian Banner Online Tutorial for both users and the IT staff, but due to costs the licensing is more limited and distributed by department instead of individual user.

CLPCCD continues to use vendor consultants to provide initial training on major new development systems for both users and IT staff via both onsite and Webinar methods. This model using vendor experts has been utilized on major projects such as the Banner Document Management System, Banner Degree Works System, College Net Room Scheduling, Luminis Portal "The Zone", Argos Report Tool, Oracle database Dataguard software for disaster recovery, and the installation of hardware and software for Virtualized servers and Enterprise servers. In addition, District ITS staff continues to provide the ongoing training to user groups on a part time basis as time permits since they are also responsible for all system maintenance and new development projects. The "Train the Trainer" model has not been followed by the user groups as anticipated which would assist in sharing the training role, so ITS is not the only local source for hands-on training. In the next year, District ITS will be hiring full time staff to do user training as needed onsite.

A comprehensive list of all the Technology projects for all systems within the Technology Plans is provided in Section 15.0 "Banner and Third Party Projects". Below is a brief summary of the more significant Technology project accomplishments within

the last two years for all systems for Banner, third party products, and Bond Measure B projects:

1. Developed new Banner exception reporting in February 2015 to monitor the 67% Rule compliance for the faculty at the colleges and identify those faculty who have reached their maximum limit and may exceed the 67% rule.
2. Banner Implementation of the Athletic stipends converted over to FCAH along with additional tracking reports in January 2015.
3. Completion of the major Banner upgrade for Database Extended Utility (DBEU) which affected all the Banner modules in February 2015.
4. Submitted RFP and Award made in May 2015 for the new IBM primary and secondary servers to support the Banner System which consolidated six servers into 2 servers, added capacity, and reduced power consumption. Completed installation of these IBM servers into a development environment in August 2015.
5. Expended extensive effort from Fall 2014 through Spring 2015 with Admissions & Records from both colleges to clean up major codes and degree code combinations in Banner for submission to the National Clearinghouse since this information is now the basis for Financial Aid loan processing.
6. eTranscripts through CCCApply was implemented in June 2013 to be able to send and receive automatic transcripts to other colleges without any Admissions & Records manual processes.
7. Data Cove Archive System for Groupwise Email was installed in August 2013 to have automatic archive features without user intervention required, which was the first step in Novell conversion from Groupwise email to Outlook email.
8. Novell conversion from Novell operating system to Microsoft Active directory operating system was completed. The Conversion and connection for 3 forests in configuration is completed for Chabot in April 2014 and for District in June 2014 and for LPC in July 2014. The Novell conversion to MS Active Directory was completed for all locations during the Summer 2014 as planned.
9. Groupwise Email conversion to centralized Exchange servers and Outlook email was completed on January 12, 2015. The Groupwise Email conversion to Outlook was requested by faculty to be postponed until after December finals and before the Spring 2015 term began.
10. Conversion from Windows XP to Windows 7 and Office 2010 was completed. For District this was completed concurrent with the Active Directory operating system conversion in June 2014 and for the colleges was completed in Fall 2014 for Administrators and previously completed for college instructional areas. The Windows XP conversion to Windows 7 and Office 2010 was completed for all locations concurrent with the Active Directory conversion during the Summer 2014 as planned.
11. Evaluation of Program Review options for colleges was done. Completed review and technical specification requirements to potentially adopt the College of Canyons in-house Program Review System in November 2013 and SLO Curricunet module. Worked with the Governet vendor to demo Curricunet Program Review and SLO Assessment to the colleges in March 2014 since the colleges already use the catalog module and have the other modules. Chabot

voted to move forward with Curricunet SLO in Fall 2015 and Curricunet Program Review the following Spring. LPC will continue to use the current Elumen local version for SLOs through Fall 2015. Then they will review the potential migration to the new cloud SaaS version for Spring 2016 and they plan to demo the Curricunet Program Review module in the future. Curricunet Demos for both the SLO Assessment and Program Review modules for Chabot were completed by Summer 2014. Chabot decided to proceed with converting their Elumen system to the Curricunet SLO Assessment which began in Fall 2014 and was completed in March 2015. Training for Chabot faculty began during April 2015 with the SLOAC Committee for the SLO module with expectation for full usage in the Fall 2015 term. The Curricunet Program Review module will be setup by the vendor with a prototype to demo to the Chabot faculty in Fall 2015.

12. Chabot Nursing program with Valley Care was completed. ITS developed a customized online Nursing application system for students and the final phase where students themselves provide points for the selection process was completed in Fall 2013. A major upgrade to the Video-Conferencing equipment that is used for course instruction between Chabot and Valley Care was completed in the Summer 2013 for 4 classrooms and a Skills Lab was added in April 2014 during spring break.
13. AT&T OPT-E-MAN WAN data lines for connections between all the district locations was expanded to double the speed of the Chabot and LPC lines where traffic was heaviest and to replace the existing T-1 lines used for Valley Care and the Chabot Nursing program with a new OPT-E-MAN connection in 2013. A new Internet and WAN connection was added to our configuration to accommodate the relocation of the Tri-Valley One Stop group to Dublin in Spring 2015.
14. Installation of a consolidated next generation storage system SANS was completed in Fall 2013 for large volume storage for images from the expansion of the Banner Document Management System and the DataCove archive email system as well as future inbox email storage for the future Outlook email. The SANS storage system was expanded in Spring 2015 to accommodate the large volume of converted emails from the Groupwise inbox and archives to the new Outlook email.
15. Usage of the new Argos Report tool to replace or add to current reporting for the following areas: the current Enrollment Management reporting previously in Access in Spring 2014, added graphing capabilities in Spring 2014, developed new reporting for high/low enrollment watch lists for Fall 2014, provided Human Resources tracking and reporting for the Affordable Care Act ACA in Spring 2014 and ongoing, to provide reporting for Business Services for ledgers, budgets, expenses, and fixed assets in Fall 2012 through Fall 2013. The next areas to be addressed include Student Services groups for Degree Works and SSSP reporting and the Institutional Research groups to replace their older Brio reporting tool. The Institutional Research groups currently are using the Argos reporting tool. For Enrollment management, besides the standard Argos reports that replicate the old Access reports, ITS added the High/Low Enrollment reports for tracking course fill rates from the start of the term through the census date.

16. Implementation of the Banner Document Management System which is fully integrated with the Banner screens for all the primary modules and was completed in the following areas: Admissions & Records for Chabot in Summer 2013 and LPC in Fall 2013, Financial Aid in the previous year Fall 2012, Payroll pay stubs in Fall 2012, Purchasing for General Fund and Bond Fund documents in March 2014, and Business Services for invoicing and payments is currently in progress for Fall 2015. The next areas to be addressed are Human Resources/Payroll in Spring 2016. Human Resources/Payroll does use BDMS for the storage of check auto deposit information which is displayed on the Banner Employee Web page. Human Resources has not begun to convert data to BDMS as of yet due to a lack of personnel resources available to dedicate to this effort. In the meantime, Human Resources does have DVDs of archived information which ITS is consolidating on the network for easier access.
17. Completed Banner System changes for state requirements on course repeatability in Spring 2013 and additional course equivalencies and family groups in Fall 2013.
18. Implemented online chat capabilities using e-Advising for Counseling through the SARS system for Chabot in March 2014 and followed with implementation for LPC in Spring 2015.
19. For the Student Success Support Program (SSSP), ITS completed major Banner changes to student priority registration in April 2014. Also included the tracking and loading of history for student orientations, assessments, and SEPs which impacted priority registration. The changes to the MIS state reporting was completed in June 2014 to provide a preliminary Spring term reporting followed by the mandatory state reporting for the Summer 2014 term that was submitted in August 2014. All Banner changes and MIS state reporting to support the new SSSP requirement were completed by ITS as planned. ITS support for the SSSP tracking activity is ongoing to provide additional reports as needed to track student progress. ITS representatives are active members of the colleges' SSSP task force which meet regularly.
20. Implemented the BOGW System from XAP for Chabot Financial Aid in Fall 2013.
21. Conversion from the current XAP CCCApply System for student applications and BOGW was replaced with the state Open CCCApply system for student applications and for BOGW for Financial Aid. Implemented the new Open CCCApply system in June 2014 and BOGW for Financial Aid following that base system implementation as planned in September 2014.
22. Banner Degree Works System – Chabot updated their scribing for the latest catalog and then used Degree Works to create Student Ed Plans (SEP) for their MESA program in Spring 2013. District ITS installed the Degree Works software upgrade to release 4.1.3 in August 2014. ITS has completed all the technical tasks associated with the Degree Works System which has been installed for several years ready for use. However, the Degree Works implementation continues to be delayed by the colleges. ITS got consultant assistance for LPC to complete the college catalog scribing updates in both Fall 2014 and Spring 2015. Degree Works Training for LPC Counselors was

completed May through June 2015 with a Fall 2015 target to go live with the counselors. Chabot completed their college catalog scribing up until the new 2015-2016 term which is still pending. Chabot counselors have been encouraged to join LPC in their Counselor training.

23. Banner Mobile Application – Implemented the new Cloud offering for student use for access to grades, course schedules, and account holds in Banner and other college web information that is most frequently used. Demos were provided in Fall 2013 to college Technology Committees, Admissions & Records, and Student associations and a pilot was performed in Spring 2014. Following the Mobile pilot, the live system was released for students and staff in the Fall term 2014 as planned. Included additional CLPCCD unique sites on the Mobile app such as the Bookstore and Blackboard. As Ellucian provides new Mobile functionality, ITS will implement those new features into our environment as needed.
24. Development of a new system for Human Resource tracking and reporting for the Affordable Care Act (ACA) was completed in Fall 2014 with updates being done as new federal changes are announced. Completed Reporting through December 2014 to identify requirements of those employees working less than 30 hours for the Affordable Care Act (ACA) for Human Resources.
25. Major Banner upgrades were completed throughout the year to comply with Financial Aid regulatory mandates which occur 3-4 times per year and to apply the required annual updates to the Human Resources, Payroll, Finance, and Accounts Receivables modules. Additional Banner upgrades were completed in Fall 2014 and Spring 2015 as needed for Financial Aid, Student, Human Resources/Payroll, and Finance.
26. Upgrades were done to Cisco switches, routers, and firewalls at the colleges to replace end of life equipment and updates were completed to network monitoring tools in Spring 2014 and again for new upgrades in Summer 2015.
27. Installation of enterprise servers and virtualization of servers at the District Data Center and colleges where appropriate were done throughout the year. Additional Blade servers and SANS storage systems were installed to support the implementation of the new Outlook email system in Spring 2015.
28. Upgrades for PCs, MACs, laptops, and printers at all locations were completed in compliance with the district equipment life cycle throughout the year. Continued installations to support Bond Measure B projects throughout the year.
29. Replacement of Audio Visual equipment at the colleges was done as needed based on life cycles. Continued installations to support Bond Measure B projects were completed throughout the year.

5.0 BUILDING CONSTRUCTION AND MODERNIZATION PROJECTS

The Facilities Modernization department maintains responsibility for the overall building construction and modernization projects. CLPCCD ITS participates in the design, construction and acceptance, to ensure that the cabling infrastructure conforms to the CLPCCD Network Infrastructure standards.

During the past year, CLPCCD ITS has participated in the following projects:

- **Chabot College Math and Physics Building 1700** – As the second building in the B1700-1800 project, CLPCCD ITS has performed construction walkthroughs, and provided contractor onsite clarifications and design alternatives. The B1700 project is under construction with an expected completion in the summer of 2014.

- **Las Positas Library Remodel** – The B2000/Library building on the Las Positas campus went into construction in June of 2014. CLPCCD ITS participated in the weekly construction meetings for this project to provide input on numerous issues. Since the B2100 building was connected to the copper/fiber backbone cabling infrastructure that was being rerouted in the B2000 project, detailed scheduling and cutover coordination with the telecommunications contractor was needed to minimize downtime to the B2100 users. Additionally, the open ceiling structure of the building presented unique pathway issues which required many field walkthroughs and verifications with the contractor team. Issues were addressed and the telecommunications and power infrastructure were successfully constructed. The project concluded with the successful reopening of the Library in April of 2015.

- **Las Positas Small Projects** –Las Positas Small Projects included the remodel of the B1310/1320 areas to support the Veterans Program, and the remodel of the B1700 (former cafeteria) area to enable the relocation of the Ricoh/Print Shop services. CLPCCD ITS participated in project meetings to address issues of integration to existing infrastructure, cable routing, and general contractor questions/issues. The B1310/1320 building was completed in November of 2014 so that the Veterans Program could host its November event in the new facilities. The B1700/Print Shop building was completed in December of 2014.

- **Chabot Library/B100 remodel** – Construction of the Chabot B100/Library building commenced in October/November of 2014. Since this construction included an area where “live” cabling routed, CLPCCD ITS coordinated a project to tag and label all cabling in ceiling, IDF and wall spaces that was to be protected from demolition activities. When the contractor commenced the demolition part of the Chabot B100/Library project, they could clearly see what areas they needed to protect. During the actual construction, CLPCCD ITS participated numerous walkthroughs and contractor/designer discussions addressing issues of materials availability, cable routing, temporary connectivity and IDF redesign. This project

was phased, with completion of the Library (second floor) contract work in December of 2014, and the first floor remodel in July of 2015.

- **Chabot Distance Learning Classrooms** – The B1800 and B1700 building included the provisioning of Distance Learning classrooms. After design discussions, this project was bid out to the AV contractor for the 1700 project. As part of the final connection and commissioning of the system, the Distance Learning classrooms in B1800 and B1700 were interconnected using discrete pairs of the single mode fiber, which allowed the distribution of lectures between the rooms. This project was completed in August of 2015.

- **Chabot Athletic Fields** - CLPCCD ITS participated in the design, construction management and commissioning of the new voice/data wiring to the Chabot Track, Softball and Tennis Facilities. This provided much-needed wired and wireless data connectivity to the key athletic areas on campus. The cabling work was completed as one of the Chabot Small Bond Projects in May of 2015. Network connectivity was in place for August 2015 start of fall semester.

- **LPC Building 100 New Academic Building** – As a large design-build project for the remaining Measure B bond funding at LPC, CLPCCD ITS participated in the building design meetings that led to the bid creation, evaluation and selection of the Design-Build team. This included the documentation of standards for voice/data, AV and security systems. Existing telecommunication pathway/cabling locations were key in determining the building size and shape. Additionally, CLPCCD ITS provided as-built documentation for Fire Alarm and Talk-a-phone devices, so secondary projects could be scoped when the existing 100/200/300 buildings are demolished. Following selection of the DB team, CLPCCD ITS has attended design meetings for the detailed classroom design, and will continue to participate in meetings through design and construction.

- **LPC Building 700 remodel** – The VCOM and Graphics communication departments will be relocated to Building 700. CLPCCD ITS has reviewed design drawings and provided edits for outlet locations and quantities. Since this is under the scope of the Building 100 Design-Build team, CLPCCD ITS also provided walkthroughs to show existing IDF and backbone infrastructure to be maintained during the remodel. CLPCCD ITS will continue to participate in meetings through detailed design and construction.

- **LPC Temp Classrooms** – Six temporary portables were constructed as swing space for the LPC B100 building. CLPCCD ITS provided design review/input and construction inspection for the installation of these portables. This project completed in August of 2015.

- **Chabot Library/B100 remodel Phase 2 –** Funding for additional revisions to the Library will include a Maker Space, elevator upgrades and rewiring of the mezzanine computer area. CLPCCD ITS has participated in early scoping

meetings and design review. This project is expected to begin construction at the end of 2015.

CLPCCD ITS and College Computer Support/Technology staff continue to participate in user requirement, design review and construction inspection as needed. The following projects have been identified: Chabot B1600 modernization and Chabot New Biology building. Additional projects are being prioritized at each campus, as funding will permit.

6.0 SUPPLEMENTAL CABLING PROJECTS

Building construction and renovation is determined through user input and designed under the purview of the Facilities Modernization and Program Management Team. There may be additional needs for limited scope cabling requirements are identified that are not associated with a larger building remodel project. These, and other projects, are now transferred for inclusion and prioritization in the "Small Projects" planning, decided by the Campus Committee at each of the campuses. Where available, Deferred Maintenance funding may cover the cost of critical infrastructure upgrades. Recently, replacement telephone backbone cable to Chabot M&O building 3000 was funded through the Deferred Maintenance approvals, and coordinated by Chabot CS.

7.0 NETWORK EQUIPMENT

New Cisco network equipment arrived in July of 2015. The new equipment provides a state-of-the-art platform for network connectivity addressing current needs and providing growth for several years.

The equipment has been rolled out in a step-wise fashion, prioritizing the 4506 switch upgrades first, so that obsolete and unsupported equipment could be removed from production use. Deployment of additional 3560X stackable switches and access points have been performed to augment connectivity with the new hardware.

Remaining migrations of the ASA firewalls and other network components will be scheduled as user downtime is permitted.

8.0 WIRELESS NETWORKING

Continued expansion in the campus wireless 802.11a/b/g/n networking has been implemented this year. Each access point connection requires data cabling so the wireless can connect to the campus network. Most increases in the wireless network are installed with the start-up of new buildings, because new and modernized building designs include wired locations for access point (AP) connectivity. The following APs are installed at each of the college campuses:

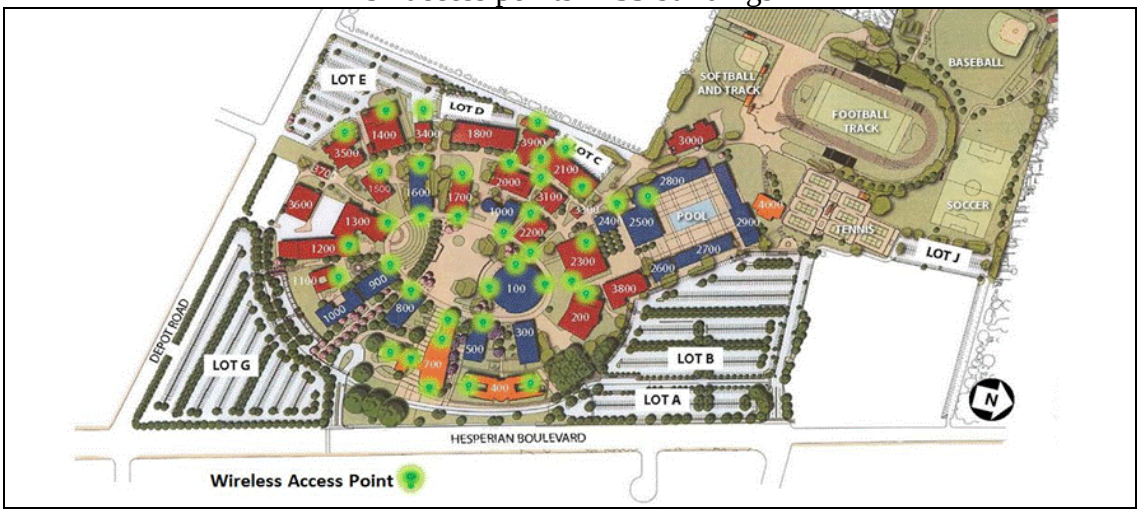
Las Positas Campus: Wireless service areas
80 APs in 28 buildings

LPC 100 WAP 01	LPC 1600 WAP 08	LPC 1919 WAP 01	**LPC-2410-WAP-01**
LPC 200 WAP 01	LPC 1600 WAP 09	**LPC-2000-WAP-01**	LPC 2411 WAP 01
LPC 300 WAP 01	LPC 1600 WAP 10	**LPC-2000-WAP-02**	LPC 2411 WAP 02
LPC 400 WAP 01	LPC 1600 WAP 11	**LPC-2000-WAP-03**	LPC 2412 WAP 01
LPC 500 WAP 01	LPC 1600 WAP 12	**LPC-2000-WAP-04**	LPC 2416 WAP 01
LPC 600 WAP 01	LPC 1600 WAP 13	LPC 2100 WAP 01	LPC 2420 WAP 01
LPC 700 WAP 01	LPC 1700 WAP 01	LPC 2100 WAP 02	LPC 2420 WAP 02
LPC 800 WAP 01	LPC 1700 WAP 02	LPC 2100 WAP 03	LPC 2420 WAP 03
LPC 800 WAP 02	**1700p-farther**	LPC 2202 WAP 01	LPC 2500 WAP 01
LPC 800 WAP 03	**1700p-closer**	LPC 2205 WAP 01	LPC 2500 WAP 02
LPC 800 WAP 04	LPC 1805-WAP-01	**LPC-2206-WAP-01**	LPC 2600 WAP 01
LPC 900 WAP 01	LPC 1814-WAP-01	LPC 2300 WAP 01	LPC 3000 WAP 01
LPC-1310-WAP-01	LPC 1822 WAP 01	LPC 2306 WAP 01	LPC 3100 WAP 01
LPC 1600 WAP 01	LPC 1828 WAP 01	LPC 2345 WAP 01	LPC 4110B WAP 01
LPC 1600 WAP 02	LPC 1854 WAP 01	LPC 2348 WAP 01	LPC 4119 WAP 01
LPC 1600 WAP 03	LPC 1859 WAP 01	LPC 2362 WAP 01	LPC 4119 WAP 02
LPC 1600 WAP 04	LPC 1873 WAP 01	LPC 2366 WAP 01	LPC 4119 WAP 03
LPC 1600 WAP 05	LPC 1900 Hallway1	LPC 2401 WAP 01	LPC 4119 WAP 04
LPC 1600 WAP 06	LPC 1900 Training Room	LPC 2401 WAP 02	LPC 4210A WAP 01
LPC 1600 WAP 07	LPC 1900A WAP 01	LPC 2401 WAP 03	LPC 4210A WAP 02

Bold indicates APs recently added within the last year.

Chabot Campus Wireless Service Areas

97 access points in 35 buildings



CC LRC POLE1	CC CSSC – 767H(outside)	***CC-1760***
CC LRC POLE2	CC 801	CC 1801
CC-LRC-119	CC 802	CC 1803
CC-LRC-2	CC-800-DN-IDF	CC 1808
CC-LRC 107B	CC-800-UP-IDF	CC 1813
CC-112	CC 900-IDF	CC 1926
CC-142-IDF	CC 904A	CC-2000(Janitorial)
CC-144-Conf	CC-1100	CC 2124
CC-198-Video	CC-1100-IDF	CC- 2110
CC-170-Tutorial	CC 1115	CC 2102 Biology Lab
CC-126-IDF	CC-1200 Lobby	CC 2104
CC-TV-Studio	CC 1220-IDF	CC 2208
CC-Boardroom	CC-1239	CC 2251
CC-303	CC-PAC CNTRL RM	CC 2271
CC 304	CC PACSTGLFT	CC-Bookstr
CC IOC-401-WAP	CC PAC-bxoff	CC 2302
CC IOB-402-WAP	CC 1400 –IDF	CC 2300 PATH
CC IOB-403-WAP	***CC-1400-AutoBay***	CC 2400 DSRC1
CC IOB-404-WAP	CC 1500	CC 2500 Gym
CC IOB-451-WAP	CC-1600-1	CC 2607
CC IOB-452-WAP	CC-1613	CC-2800-IDF
CC IOB-453-WAP	***CC-1614***	CC-2819
CC IOB-454-WAP	***CC-1708***	CC-2901
CC IOB Upstairs-Conf	***CC-1703***	CC-M&O Office
CC-IOB-Downstairs-Conf	***CC-1705***	CC 3100
CC 500(Downstairs)	***CC-1701***	CC-3407
CC-FinAid	***CC-1702***	CC 3500
CC-CSSC-IDF-700.3	***CC-1706***	CC 3912
CC CSSC – 712	***CC-1752***	***CC-3921***
CC-722A-Projector	***CC-1756***	CC 4000 Upstrs
CC 754B	***CC-1751***	CC 4000 Dnstrs
CC CSSC – 760	***CC-1753***	***CC-FBPressbox***
		CC-Softball

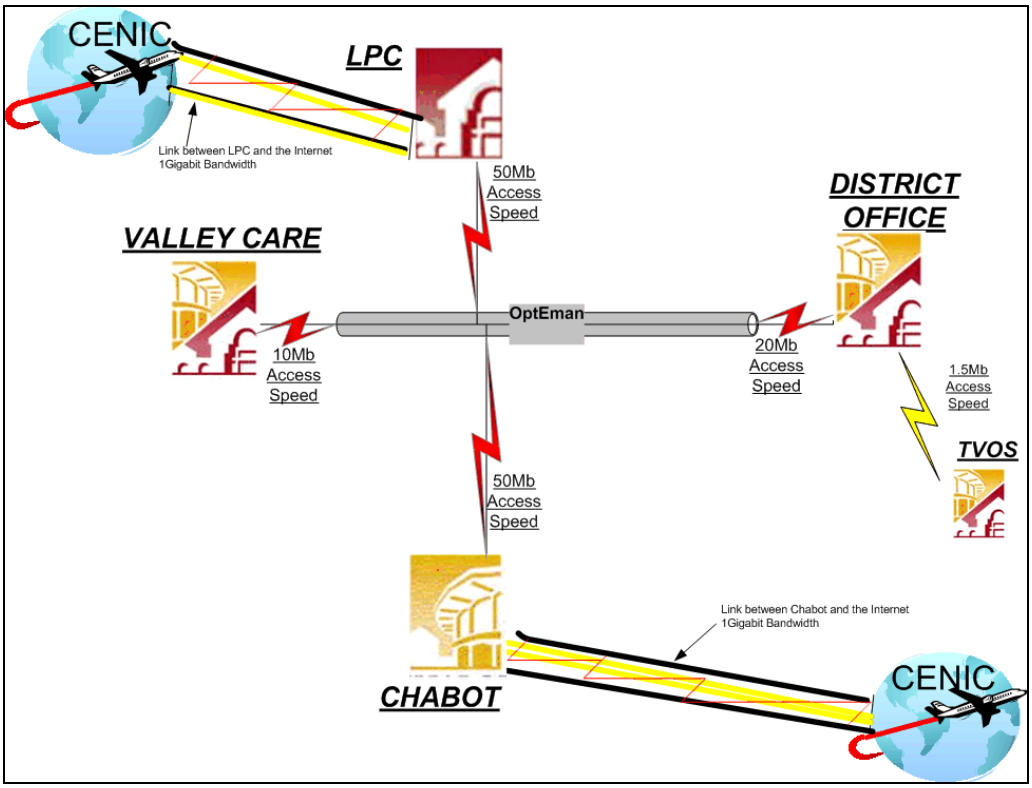
Bold indicates APs recently added within the last year.

With recent license expansion, the wireless controller at each campus has the ability to support 200 access points per site. This allows for substantial growth in the new buildings and as needs exist, external antenna for enhanced connectivity outside of the building. External antennae are being piloted for the Chabot pool and track areas. Additional locations at Chabot and LPC can be addressed in the future.

9.0 WIDE AREA NETWORK AND INTERNET CONNECTIVITY

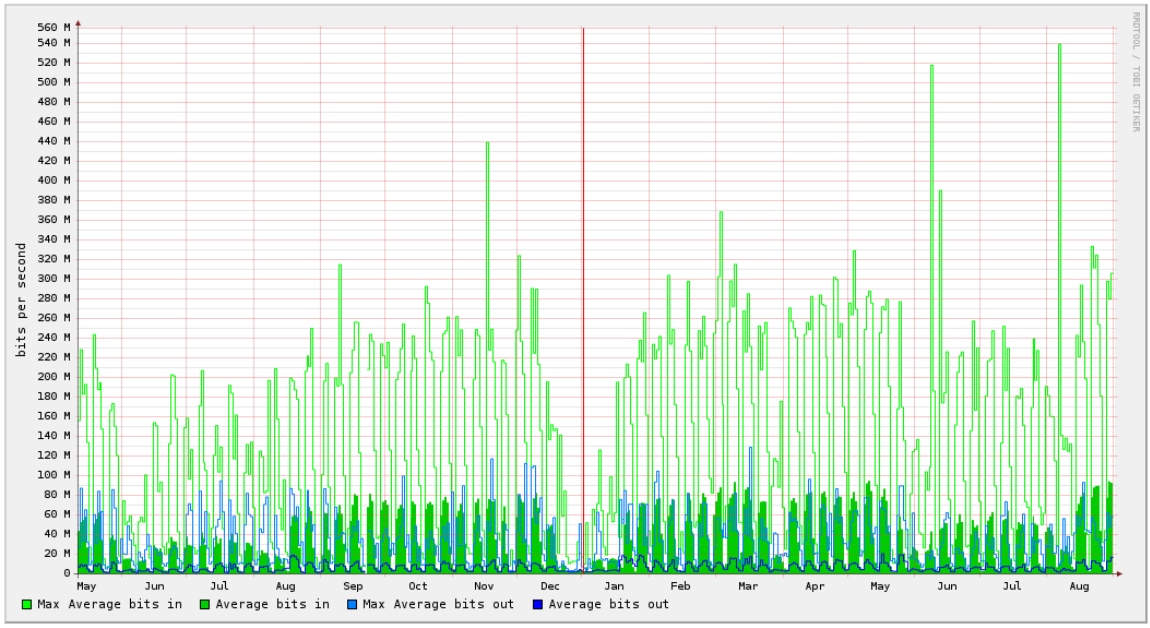
As part of the Network Equipment bid of 2014, CLPCCD ITS purchased higher performance routers for the internal OPT-E-MAN WAN links. To keep ahead of the bandwidth demand for site-to-site network communication, CLPCCD ITS is investigating the upgrade of port speeds at each of the Las Positas and Chabot campuses to 100+ Mbps. The ASR routers can fully support the current speeds and are rated for speed increases up to Gigabit levels in future years.

In November of 2014, a remote office for the Tri-Valley One Stop program was added to the network. This site connects with a dedicated T1 to the Dublin District Office. The CLPCCD WAN topology is depicted below:



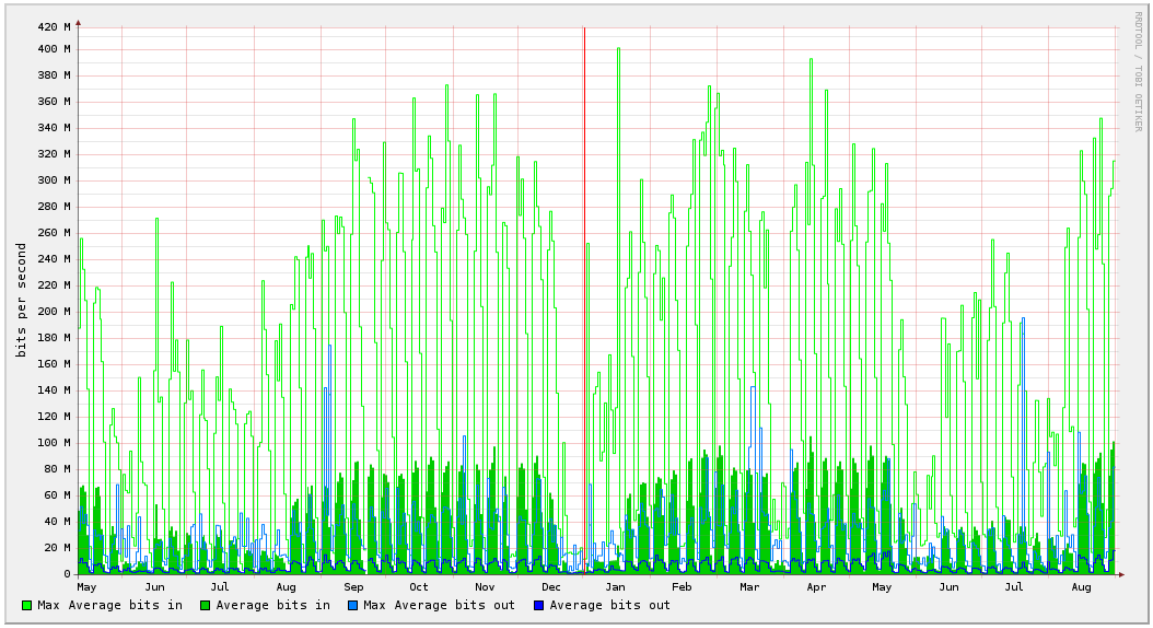
Internet connectivity is currently provisioned by CENIC at 1Gbps speeds at each campus. Existing bandwidth usage show ample capacity for current application systems, with adequate room for growth.

Chabot Internet Usage (May2014 to Sept 2015)



Average Daily usage: 250Mbps, with peaks up to 500Mbps

Las Positas (May 2014 to Sept 2015)



Average Daily usage: 300Mbps

The current utilization shows ample bandwidth for growth at each college site. However, the trend towards increased usage of Internet resources will further consume the available bandwidth.

The Internet Service Provider for California educational institutions is CENIC. It is expected that mainstream adoption of 10Gbps connections to CLPCCD campuses will occur next year or so. Further enhancements are planned to allow CLPCCD to fully participate in this bandwidth increase, as described in Section 7.0 "Network Firewall, Security and Management".

10.0 DESKTOP AND SERVER STANDARDIZATION

As application and user demands continue to increase, the computer infrastructure must increase accordingly. Upgrades are required at both the server and desktop level to take advantage of the increased bandwidth for more capacity. CLPCCD ITS and College Computer Support/Technology bases the purchase of server and desktop systems on "best in class" hardware at the time of the purchase. This provides for the greatest longevity of the equipment. CLPCCD has established district-wide standards, which are updated periodically as new technology is introduced. These standards are based on Hewlett-Packard desktops, laptops and servers, with specific distribution of tablets/iPads/MS Surface where required for instructional and/or administrative purposes.

Server Upgrades

With the life cycle conclusion of hardware, many of the servers procured in 2007 and earlier were migrated to new hardware, software and operating systems. The following server upgrades have occurred at all locations:

Location	Server Upgrades
Chabot	• Upgraded SARS and replaced servers. • Upgraded Ricoh Followme Software and replaced server. • Upgraded GoPrint Software and replaced server. • Began migration of Dentrix server
Las Positas	One (1) server upgrade: • Upgrade of Ricoh Follow-Me server • Three (3) new servers systems scheduled for upgrade soon
District	CLPCCD District ITS has continued the expansion of the blade/SANS infrastructure for the following server migration. This includes: • Added a second ESX chassis system with (16) blade servers for pooled and/or allocated CPU resources • Added new SANS storage with 20 TB of disk • Implemented MS Exchange 2013 with load balancers across 7 servers • Procured an additional 20 DL380/360P Gen8

	servers for migration from old server hardware running Banner-related applications. • Procured an additional 40 TB of disk to distribute across standalone servers • Modified Tape Backup system to UniTrends • Purchased and began implementation of new IBM s822 Power8 servers using the virtualized LPAR environment for Banner applications

The CLPCCD District ITS continued deployment of blade servers, SANS and virtualized environments has successfully optimized hardware resources and provided flexibility for server deployment. All new equipment is connected to the CLPCCD network with 10Gb fiber uplinks, so as to provide high bandwidth access to district-wide administrative computer platforms. College Computer Support/Technology teams continue to investigate blade/SANS/virtualized solutions for their specific application environments.

Desktop Upgrades

In the past year, the third cycle of desktop deployments was continued at an accelerated pace. The following deployments took place in the past year:

Location	**Desktop Upgrades**
Chabot	• Finished migration of XP desktops to Win7 environment. • Replaced of 432 computers with next generation desktop technology in normal cycle • Deployed 125 new computers for the B100 project • Deployed 30 new laptops • Deployed 60 new Microsoft surfaces • Deployed 15 iMac computers • Deployed 120 iPad tablets.
Las Positas	• In building 2400, 130 systems were installed in labs 2012 2014 and 2016. • In building 800 lab, 105 systems are installed. • In building 500, 35 new systems were installed in the 502 lab. • In building 2000, 55 laptops were configured for the LRC, 43 in room 2033 and 12 for the reference area. 120 desktop systems were added in classrooms and for general access. • In building 700, a new CIS computer lab was brought online consisting of 45 new systems. • In the new portables, 6 systems were installed for classrooms. • In preparation for fall semester an additional 185

	computer systems were imaged in labs 804 and 805, building 1800, and the express lab in building 2400.
District	• New iPads for the Board Members

A summary of the desktop deployments at the campuses for all cycles follows:

Campus	Cycle #1	Quantity	Cycle #2	Quantity	Cycle #3	Quantity
Chabot	2005-6	400	2009-10	420	2013-2014	230
	2006-7	400	2010-11	450	2014-2015	447
	2007-8	400	2011-12	495	Library Phase 1 Project	125
	2008-9	400	2012-13	580	Library Phase 2 Project	200 est. *
					New Biology Bldg.	TBD *
					B1600 remodel	100 est. *
Total		**1600**	**Total**	**1945**	**Total**	**1002**
LPC	2005-6	300	2009-10	450	2013-2014	310
	2006-7	325	2010-11	400	2014-2015	495
	2007-8	300	2011-12	325		
	2008-9	250	2012-13	275	VCOM	TBD *
					New Academic Bldg.	TBD *
Total		**1175**	**Total**	**1450**	**Total**	**805**

* Funded through Measure B Construction budget.

This past year, procurement of the computers was done through a WSCA contract for HP desktops, laptops and tablets. This preserved the competitive pricing that had been offered in the previous contract.

Laptops and Tablets

CLPCCD ITS and College Computer Support/Technology has continued to move forward with limited procurement of laptop and tabled devices as requests were received and funding allowed.

At the Chabot campus, the following deployments have occurred:

- Deployed 30 new laptops
- Deployed 60 new Microsoft surfaces
- Deployed 120 iPad tablets.

As reliance on portable devices increases, Chabot has procured these devices for permanent assignment to individual staff, rather than as the limited time loaner program that was used in previous years.

At the LPC campus, 40 laptops have been procured and are in the process of distribution to faculty.

11.0 NETWORK FIREWALL, SECURITY AND MANAGEMENT

CLPCCD ITS monitors and operates Cisco ASA firewalls for daily security protection from network intrusions. Each campus has two firewalls in the failover configuration, and this functionally has been successful in maintaining constant Internet access/presence during the infrequent outages that have occurred in the past year.

Firewall logs are exported and stored to the Manage Engine Log Management server for analysis and trending.

As part of the Network Equipment bid completed as described above in Section 7.0 "Network Equipment", CLPCCD ITS has received new ASA 5585 firewalls for the CENIC Internet links at Chabot and LPC campuses. These will be provisioned as a primary/failover pair for each campus. These firewalls have the capacity to accommodate the current Internet speeds, and the projected increases to 10Gb that will occur in the next few years.

12.0 SMART CLASSROOM AND TECHNOLOGY ENHANCED LEARNING ENVIRONMENTS

Smart Classroom Technology has been built as part of the building modernization projects. As technology ages, the campuses have seen equipment failures and responded to those needs. Typical of AV infrastructure, the replacement technology has superior capability, life cycle and improved maintenance. As funds permit, CLPCCD ITS and College Technology departments will continue to respond to service and equipment replacement requests.

LPC Campus

In support of the new B100 Academic building, a group of six portables were added as temporary classroom space. LPC Technology provided a total turn-key installation of screens, projectors, document cameras, speakers and interconnect wiring for these classrooms. Although this is normally a contractor's function, LPC Technology was able to do this work in a more cost effective and efficient manner.

With the video streaming system purchased last year, LPC Technology was able to stream, graduation to 800 remote viewers. The LPC Technology department also assisted in the cabling of the AmphiTheater for AV in shows and productions run by the Theater staff. LPC Technology also provided AV support to the Chancellor's budget workshop, College Day, and other campus events.

Through the California Career Pathways Trust grants, LPC was able to secure funding for a Distance Learning environment between LPC and the Tri-Valley Schools. This is an

initiative to develop and integrate standards-based academics with a career-relevant, sequenced curriculum following industry-themed pathways that are aligned to high-need, high-growth, or emerging regional economic sectors. This project is just beginning and early requirements, goals and deliverables are being established, with the intent that the connectivity will be available on or before June of 2016.

Chabot Campus

At Chabot campus, two AV project areas were addressed:

- Projector upgrades – As equipment ages, more frequent failures occur. In particular, the projectors installed in early Measure B projects required replacement in 12 classrooms. Chabot CS was able to install new LED projectors which provide for better quality projection, and longer life bulbs with less maintenance.
- B1700/1800 Distance Learning – The B1700 and B1800 buildings were provisioned with AV equipment to allow the transmission of classroom lectures between specific rooms in the buildings. The video uses Extron equipment which transmits its AV signals over unused strands of single mode fiber installed for the data network. At this stage the AV distribution is limited to the specific classrooms and lecture-capture. However, plans for expansion will be considered in conjunction with other Distance Learning initiatives at CLPCCD.

13.0 DISASTER PREVENTION AND RECOVERY -

CLPCCD ITS has provided a supplement to the Disaster Recovery plan from June of 2014 to include the new server environment, backup tools and other changes related to the CLPCCD ITS and College computing environments. This supplement is available on the CLPCCD District website, under the Technology Services tab.

14.0 SOFTWARE APPLICATION SYSTEMS

Although much of the Measure B Bond funding was utilized for a variety of hardware devices with device specific software, there were specific software Application Systems that were planned and purchased under Measure B funding to improve the instructional environment for faculty and students as well as to benefit the administrative resources. These software systems were installed as part of facilities construction activity and/or as part of the network infrastructure innovations. A brief description of these software implementations with the current status follows.

14.1 Banner Document Management System (BDMS)

A centralized Banner Document Management System (BDMS) was installed for storage and retrieval of electronic documents for all departments throughout the colleges and district in order to migrate to a paperless environment where appropriate. This type of

Document Imaging system will reduce facility space for file storage and archives and will automate the manual processes in all the business areas of the college and district. Some of the areas that will benefit most from the Document Imaging software are those that handle transcripts, admissions materials and checklist items, financial aid documents and tracking, finance invoices, purchase orders, human resource applications, and employee files.

The Banner Document Management System was selected due to the extensive functionality and flexibility as well as its integration with our existing Banner Student Information System. The BDMS System replaces the outdated and limited ATIFiler System that was utilized previously for many years by Admissions & Records at both colleges for the scanning of the transcripts received from other institutions. This BDMS system is not a standalone system like ATIFiler, but the BDMS module is an integral part of the Banner system and contains automatic links within the Banner System to view or modify the documents directly. BDMS has automatic links established within Banner for Admissions &Records, Financial Aid, Finance, Purchasing, Human Resources, and Payroll. However, the software requirement is not limited to the Banner system functions only, but has the capability to be extended to any area of the college or district where storage of digital media is required.

As of August 2015, Admissions & Records for both colleges, LPC Financial Aid, and District Purchasing and Business Services are using the BDMS System to store their departmental documents for students and staff. As of May 2013, Chabot College Admissions & Records completed their conversion from the ATIFiler System to the new BDMS, and Las Positas Admissions & Records completed their conversion in July 2013. In addition, Las Positas Financial Aid has been live on the BDMS System over the past two years and District Purchasing and Business Services implemented the BDMS System in April 2014 to archive their paper documents. Other departments such as Chabot Financial Aid and Human Resources will continue to be added to the BDMS System as users are prepared for this transition to electronic documents.

14.2 Banner Mobile Applications

An addition to the Banner Enterprise Suite of products, which migrates CLPCCD to the new mobile infrastructure capabilities, is the Mobile Applications module which provides inquiry features for primary CLASS-Web functions such as Courses and Grades. The Banner vendor has provided these base Mobile functions through a “cloud” technology, which facilitates the implementation of any new upgrades to the module for more inquiry features or future update functions. District ITS was able to negotiate with the vendor to waive the license fee for this Mobile product and be charged only for the standard maintenance fee similar to other Banner products.

The Mobile Applications have been reviewed by pilot groups and were modified based on the inputs from the College Technology Committees, the college student governance bodies and the Admissions & Records/Financial Aid departments. The mobile application was released live to all students, faculty, and staff in the Fall 2014 term. This

mobile application is primarily targeted at students for the Banner features, but other applications beside Banner that have been added to the mobile app can be used by staff, if desired. End users simply select the Ellucian Mobile app from the app store of their choice, confirm the institution they want, and download a solution that is personalized to that institution. This initial release of the Mobile Applications included the following menu options on the Smart phones, both for iPhones and Androids: Contact Us, Class Schedules, Grades, Holds, Zonemail, Faculty Directory, Blackboard, Campus Map, Event Calendar, Facebook, News, Twitter, Bart, and Wheels. As the Ellucian vendor expands the available functions on the Mobile Applications, District ITS will roll out these new changes.

14.3 College Net Room Scheduling System (R25)

An automated Room Scheduling System was installed at CLPCCD that also interfaces with our Banner Student Information System to provide class schedules and room assignments along with events activities. The College Net R25 System is an automated academic and events scheduling software that provides online real-time management of the facility utilization throughout the campuses. In addition to the facility benefits, the Room Scheduling will enable the colleges to increase enrollments by maximizing the space on campus. The inventory capabilities for the rooms will also ensure that the right equipment is available for all the disciplines. The automated system optimizes campus facility use by comparing section/classroom scenarios, assigning classes to rooms, producing detail reports of the results, and providing "what if" simulations for planning purposes.

The Academic Services staffs at both colleges have used the class schedules for the instructional courses with automatic interface to the Banner System for the past several years. In order to have a comprehensive view of the entire campus room utilization, Academic Services is waiting for the college groups who schedule events at both colleges to fully utilize the system for events as well as courses. Since the College Net Room Scheduling system is fully operational and available for live usage, the colleges will determine the timeline to work with the various groups that handle events for the campus to transition from their paper based system to the automated events features provided by the College Net System. With both Academics and Events online, users can then fully utilize the R25 module for Resource changes and the S25 module for recommended Schedule changes.

14.4 Luminis Web Portal – The Zone

As part of the infrastructure improvements, a Luminis portal that is a part of the Banner Enterprise System was implemented several years ago to provide centralized access to the district-wide enterprise systems with single sign-on capabilities for Banner and other systems such as Blackboard. The Luminis portal product contains the automatic links to all the Banner modules as well as provides the tools to setup links to any other Web based applications, thus creating a unified digital campus. In general, portals make information, services, communication, and collaboration easily accessible to constituents

anytime and anywhere, which in turn improves the institution's efficiency and staff productivity.

For CLPCCD, the Luminis portal is called "The Zone" and provides custom views for students, faculty, and staff to view information that is pertinent to their roles within the colleges. The system provides student email to all students using Gmail as the backend, which is called Zonemail at CLPCCD. The Zonemail is utilized to send electronic correspondence to students in place of hard copy mailers. Students use Zonemail for their online Waitlist for courses that they want to register for. The College Admissions & Records and Financial Aid departments use Zonemail to notify students of important deadlines or information requiring their action. The Zone portal has other features available such as targeted announcements and Group Studio that provides shared communication for clubs and committees. Currently, the Luminis 4 release of the Banner module is in the process of being upgraded to the newer Luminis 5, which is targeted for a live implementation district-wide in the Spring 2016 term.

14.5 Banner Enrollment Management Suite and Advancement Module (for Alumni)

For the instructional and student services improvements, the Banner Enrollment Management Suite was selected to give better visibility on the enrollment trends, student course needs, and alumni tracking. These integrated Banner modules provide a comprehensive web-based Enrollment management solution for prospective students, admitted/matriculated students, and alumni. These software modules will track marketing contacts, recruitment efforts, enrollment projections, and retention with the objective to support outreach, advertising, and marketing efforts district-wide. In 2014, the Banner module was re-engineered to include more features and was renamed "Recruiter". CLPCCD was able to acquire from the Banner vendor the new updated Recruiter license without additional costs. Additional modules have been added to the suite in 2015 to focus on "student success". These new modules include "Pilot" for student retention and "Platform" for data analytics and CLPCCD will be evaluating these modules in 2016 for future applicability for their environment.

This software suite also contains Argos reporting and analytic tools that include data views, data warehouse, and analytic capabilities for usage with the Enrollment management modules. The Argos reporting tool is also used for the other standard Banner modules already installed at CLPCCD such as Student, Finance, Financial Aid, Human Resources, and Payroll. The areas that have implemented the Argos tool to-date include Finance, Human Resources, and the College/District Enrollment Management reporting. Those areas that are in the process of implementing Argos include the Student Degree Works System to support Student Ed Plans as part of the Student Success Support Program (SSSP) and the College Institutional Researchers.

An Advancement module was also purchased with this suite and addresses the Foundation business used by the colleges in coordination with the alumni information. This Banner Advancement module will address the alumni association, parent, trustee,

and friends to procure funding for programs and projects. It records contacts, fund raising goals, information on the foundation and organizational donors, campaigns, and gifts.

The Enrollment Management suite of products is not installed as of yet due to the magnitude of the college resources required across both campuses to implement the system since it impacts all departments across the district. The colleges are currently involved with other higher priority projects for new automation in their environment such as the Student Success Support Program (SSSP), Degree Works, and Document Management System. It is anticipated that activity will begin on this Enrollment Management suite in late 2016 following the full implementation of these other projects.

14.6 Web for Faculty Self Service (Class-Web)

For more on-line features for students and faculty, the Web for Faculty Self Service system was installed which allowed faculty to use the Web for key functions on the Banner System. These included student grade rosters, student grades, and grade posting. The Web for Faculty module provides online services to faculty for entering grades, viewing course rosters, managing course enrollments, viewing course loads and schedules, customized “drop” sheets, and Mid-term Progress report. Query functions and Web for Employee features were also included when the Web for Faculty was implemented several years ago.

14.7 Hardware and Software Multi-Year Maintenance Agreements

The District Data Center resides in the Information Technology (IT) Building at Las Positas College which was Measure B funded and all hardware and software supporting the District Enterprise Systems is an integral part of that IT Building. All the Enterprise servers used to support the enterprise software is maintained under a centralized network infrastructure within the IT Building, all of which was Bond funded.

As the District researched new alternatives for cost savings in light of the current State budget situation, all software and hardware maintenance contracts that were funded by the District were evaluated and vendors were contacted to determine what multi-year options were available. Hardware and software products that meet the Bond criteria were purchased with Measure B funds. Included with the initial hardware and software purchases is maintenance for a specified period which varies depending on the vendor. With the current economic situation, vendors were more open to extending longer term maintenance agreements to their customers, which lock in the maintenance costs at pricing that provides significant savings to the customer by avoiding the yearly increases which can vary year to year. Therefore, all equipment within the District Data Center and software residing on that equipment was reviewed for multi-year maintenance contracts. As part of the facility project for the Information Technology (IT) Building at the Las Positas campus that houses the District Data Center, hardware and software upgrades for the district-wide enterprise systems were done and extended maintenance contracts were negotiated with vendors for 4 to 5 years. These extended contracts provided significant

discounts to the district as well as transferred costs from the operational budgets to the Bond budgets, which was critical during our restricted budget situations.

The estimated savings for these extended vendor agreements was $720K per year or $4.2M total for the five year period from 2010 through 2015, which ends in fiscal year 2015-2016. These extended maintenance agreements are included in the Bond Technology Cost Summary charts in Section 16.0 under two funds for 551010 for the District IT Hardware/Software and 551017 for the specific college enterprise systems like Blackboard and the Library Systems. In the following fiscal year 2016-2017, these multi-year maintenance agreements will be budgeted under General funds as was done prior to the Bond Measure B and will be part of the Budget Allocation Model (BAM) 3A expenses.

14.8 Other Software Application Systems (Not Bond Funded)

There are numerous other software application systems that have been implemented at CLPCCD district-wide for the colleges and district which are not part of the Measure B Bond. The application systems mentioned above are just the short list of products that qualified for Bond funding. The District ITS Strategic Plan, which is posted on the district website under "Technology Services", contains the comprehensive list with descriptions of the CLPCCD Application Systems implemented during the period since 2007 that were being done concurrent with the Bond Measure B activity. In spite of the state budget situation over the past few years, CLPCCD is strategically in a very good position since we already purchased new software needed for the current priority development projects so that implementations can proceed as planned. A brief list of all the Banner and Third Party System projects that the District ITS staff has completed or is currently implementing is provided in the following Section 15.0.

15.0 BANNER AND THIRD PARTY PROJECTS

The District Strategic Plan for ITS Projects was approved by the Chancellor's Cabinet members who reviewed new college and district requirements for enhanced or improved system features. The District Strategic Plan for ITS Projects is developed in collaboration with the Chancellor's Cabinet, College Deans, Directors of Banner User Groups, and College Technology Committees. The ITS Plan includes only major development projects, not routine operational tasks, system maintenance, and service requests for minor changes. Additions for new critical projects are made as the need arises and includes state and regulatory mandates as well as changes to accommodate contract negotiations. Besides consideration of the state and regulatory directives, the Cabinet prioritization of Banner projects considers 3 factors: the impact to students, improved productivity, and reduction of costs. All Technology Plans including the Bond are posted on the District Website under "Technology Services". The Bond projects are described in the "Bond Activities – IT Update for June 2013 to June 2015" and "Measure B Bond Activities – Accomplishments and Future Plans 2005-2017". The Banner and other Third Party projects are described in the "District ITS Strategic

Plan". Status of the ITS Projects is provided below in three categories - "**Completed" Category A1**, "**In Progress" Category A2**, and "**To Be Scheduled" Category A3.**

A1. <u>"Completed" Projects (Completion Dates provided by Year)</u>

1. Major changes made to the Gainful Employment Reporting system using either CLPCCD Custom Code and/or Ellucian new software patch released June 2015 (Summer 2015)
2. Update of Major Codes for Colleges to support new Financial Aid Loan requirements for data submission to National Clearinghouse and NSLDS (Spring 2015/Summer 2015)
3. Provide IPAD equipment and training to achieve paperless Board meetings (Summer 2015)
4. Upgrade of Heartland Credit Card System for student online payments through Banner (Summer 2015)
5. Student Success Support Program (SSSP) – Major Banner changes to student priority registration & MIS State reporting as well as tracking/loading history of student orientations, assessments, & SEPs data (Fall 2013/Spring 2014/Fall 2014)
6. Banner (Ellucian) Degree Works for Student Degree Audit and Student Ed Plan – Chabot SEP for MESA Program (Spring 2013) – College Catalog Scribing Updates (Fall 2014/Spring 2015) – Training for Counseling (Ongoing from Spring 2013)
7. Degree Works major Software upgrade to 4.1.3 (Summer 2014)
8. Banner Document Management System (BDMS) to replace ATIFiler System – Phase 1 A&R(Chabot Summer 2013 and LPC Fall 2013) and LPC Financial Aid (Fall 2012), Phase 2 Payroll Checks (Fall 2012), Purchasing (Spring 2014), and partial Business Services (Fall 2014)
9. Banner Document Management Software upgrade (Fall 2014)
10. Argos Reporting for Enrollment Management (Spring 2014) and High/Low Enrollment Reports (Fall 2014)
11. ARGOS Report Tool for Finance Ledgers/Expenses/Budgets (Fall 2012/2013) followed by other areas Enrollment Management (Spring 2014), Human Resources (Spring 2014), and Institutional Research (Spring 2015)
12. Banner Mobile Applications – New Cloud offering with release upgrades for students grades, course schedules, and account holds (Pilot Spring 2014, Live Fall 2014)
13. Online Chat capabilities e-Advising for Counseling using new feature in SARS products (Chabot Counseling Spring 2014, LPC Counseling Spring 2015)
14. Convert to OpenCCCApply System through State Chancellor's office to replace XAP CCCApply System for student registration (Summer 2014)
15. Convert to BOGW Open CCCApply from XAP System for Financial Aid (Fall 2014)
16. Conversion Novell Operating System to Microsoft Active Directory with college integration (Chabot Spring 2014, District Summer 2014, LPC Summer 2014)
17. Email Archive DataCove System with conversion of Groupwise archives to be followed by Email migration to Outlook (Summer 2013 Email Archive, Summer 2014/Fall 2014 Email)

18. Conversion from Windows XP to Windows 7 with Office 2010 following testing of critical systems for compatibility – (System testing Fall 2013/Spring 2014, District Summer 2014, LPC Fall 2014, Chabot Fall 2014)
19. New exception reporting to track adjunct faculty who may exceed 67% rule (Fall 2014/Spring 2015)
20. Banner modifications for new negotiated handling of Athletic stipends (Fall 2014/Spring 2015)
21. New system for Human Resource tracking & reporting employees who work less than 30 hours for Affordable Care Act (ACA) (Fall 2014)
22. Installation of the Banner upgrade for Database Extended Utility (DBEU) which affected all the Banner modules for forms updates (Spring 2015)
23. Completion of Faculty Obligation Number (FON) Reporting Improvements and Analysis of Previous Years for Avoidance of Penalties (Fall 2014)
24. Regulatory Upgrades for Financial Aid 3-4 times annually (Ongoing)
25. Regulatory Title V Changes – ongoing as new features are finalized (Ongoing)
26. Human Resources/Payroll and Finance Banner Upgrades (Fall 2014)
27. Replacement of Grade mailers and other notifications through post office with electronic correspondence with option to request hard copy by exception – working with college A&R (Summer 2013 Grade Mailers, Summer 2014 Other Mailers for appointments, confirmations, mid-term, & prerequisites)
28. Completion of many of the Bond Measure B projects enumerated on January 2014 two-year bond plan for technology expenses (Fall 2013/Summer 2015)
29. Completion of Technology design and installation to support the College building renovations and new construction under Bond Measure B (Fall 2013/Summer 2015)
30. Expansion of Online submission of Help Desk Tickets to District & LPC like did for Chabot (Fall 2013 Chabot & District, LPC Fall 2014)
31. Sharing of Documents using Luminis Group Studio feature through The ZONE (Available/Procedural)
32. Release of Gmail for faculty using Zonemail like students do to share Google Docs (Available/Procedural)
33. Grant Accounting – (Deleted) Evaluated potential usage for Bond accounting & not applicable
34. Conversion of new Library System OCLC "Worldshare" from the current "Sirsi" System for improved functionality (Fall 2013/Spring 2014)
35. Replacement of Chabot Video-Conferencing Equipment for Nursing Program & Valley Care Medical (4 classrooms Summer 2013 & Skills lab Spring 2014)
36. Expansion of AT&T OPT-E-MAN WAN data lines for increased speed for all locations and addition new data lines for Chabot Nursing to Valley Care (Spring 2014)
37. Fourth cycle for upgrade of Cisco switches, routers, and firewalls for all locations (Spring 2014)
38. Student Tracking/Notifications of 1098T for IRS reporting of SSN & TIN (Spring 2014)
39. Chabot Mentor Teaching Program – Automatic invoicing and payments with interface to the Banner System (Fall 2013)

40. Argos Reporting for Business Services for Ledgers, Budgets, Expenses, & Fixed Assets (Fall 2012/Fall 2013) and Human Resources for Affordable Care Act (Spring 2014)
41. New system for data analysis & reporting for the Chabot "Hayward Promise Neighborhood" program with CSUEB (Fall 2012/Summer 2013/Ongoing)
42. Consolidated Next Generation Storage SANS for large volume storage for Banner Document Management System and Email (Fall 2013)
43. BOGW XAP System through CCCApply for Chabot Financial Aid (Fall 2013)
44. New data collection & reporting system for Gainful Employment (Fall 2013)
45. Chabot Online Nursing Application Phase3 Student provides points for selection process (Fall 2013/Spring 2014)
46. Banner System changes for new state mandated Course Repeatability Policy and for handling of course equivalencies and new "family" course groups (new rules for course repeats and curriculum equivalencies Spring 2013, Families Fall 2013).
47. Grade Mailers replaced with SARS-Call email (Fall 2013)
48. Rewrite Budget processing for furloughs and reduced workload for tracking (Fall 2013)
49. Annual Banner upgrades for Human Resources/Payroll and Finance (Fall 2013)
50. Multi-year Banner upgrades for Financial Aid for regulatory mandates (all terms 2013)
51. Automatic Upload of Journals for Business Services (Fall 2013)
52. Review & Evaluation of College of Canyons in-house Program Review System – COC going to Curricunet SLO Assessment and Chabot made the same decision (Fall 2013)
53. Implemented DataCove Archive System for Groupwise Email which is transportable to future Outlook email (Summer 2013)
54. Virtualization of Servers for District Data Center with Blade servers (Summer 2013)
55. Implemented capability for automatic recurring accounts payable payments for Business Services (Summer 2013)
56. Fully automated the Federal ISIR load of Financial Aid student information to Banner which also included the new regulations for the California Dream Act (Fall 2013)
57. Implemented additional Financial Aid features on Banner for students to view Financial Aid awards with pending actions noted and the Financial Aid "shopping sheet" capability for statistical and pricing information on Title IV aid. (Fall 2013)
58. eTranscipts (through CCCApply) for Automatic Transcripts to Send and Receive (Summer 2013)
59. Financial Aid Upgrade for 2013-2014 Aid Year (Summer 2013)
60. Faculty Contract modification to implement new "load sheet" (2013)
61. Faculty Contract modification to create consistent tracking system for "workload banking" (2013)
62. Student Credit Card Payments – Convert from Official Payments to Heartland Payment System for annual savings (2013)
63. Banner Infrastructure Upgrade to all Banner modules and addition of Fusion Middleware component required as a follow on to Oracle 11G Database upgrade (2013)

64. Changes for new State Mandated Course Repeatability Policy for course repeats, equivalencies, and new "family" course concept still being defined. (2013)
65. New Financial Aid features in Banner and enhanced automation for routine processes – Transfer Monitoring and process for new year setup and roll (2013)
66. Evaluation of new Banner CALB Financial Aid module as separate install for BOGW – Evaluation completed and no need to do CALB at this time. (2013)
67. Banner Upgrade for HR/Payroll for new STRS/PERS reporting (2012, 2013)
68. Finance & Human Resources Regulatory release with Position Control and CALB HR (2012,2013)
69. Priority Registration changes based on units (2012)
70. Faculty Contract modification for "Pay by CAH" (2012)
71. Faculty Contract change to provide online forms routed to A&R for "Add" and "Drop" actions after census dates (2012)
72. Faculty Contract modification for handling of Summer 2012 Autopay (2012)
73. Oracle 11G Database Upgrade - Phase 1 prior to Fusion Phase 2 (2012)
74. Updates to Banner Financial Aid to handle the future Dream Act requirements (2012)
75. Banner Automatic Email ROREmail for Financial Aid Award Letters (2012)
76. New Financial Aid features in Banner and enhanced automation for routine processes – Email Correspondence, ISIR Load (2012)
77. Student Eligibility Form for Athletics initially for Chabot and then LPC (2012)
78. Online Technology Request Form for Chabot Technology Committee to satisfy Accreditation (2012)
79. Chabot Online Nursing Application Phase 2 for automating the selection process (2012)
80. Priority Registration for Veterans, Foster Care, and other changes (2012)
81. Regulatory Finance, HR, and Accounts Receivables release upgrades for calendar year end (2012)
82. Addition of summary statistics for student majors on the CLASS-Web faculty Roster screen to show the count of students by major for a specific course (2012)
83. SARS-TRAK for LPC for Financial Aid tracking of students (future replacement for STARS) (2012)
84. Additions to Institutional Research data repository for Veterans data back to 2004 (2012)
85. Audit for Hybrid Courses included new reporting and calculation modifications (2012)
86. Evisions Update to Form Fusion for BDMS, AP, Payroll, PO, and Mailers (2012)
87. Online Submission of Help Desk Ticket in addition to phone and email for Chabot (2012)
88. New Accounts Payable & Payroll Checks (2012)
89. ASCC/ASLPC checks at college sites (2012)
90. Change to online Payroll data to allow access to prior periods during Payroll processing (2012)
91. Online Payroll Paycheck stub using BDMS to replace mailed copies of auto deposits (2012)

92. Title V changes – various changes with the latest being Repeat Checking changes (2010,2011,2012)
93. State MIS Reporting changes from State Chancellor's Office (2010,2011,2012)
94. Banner Waitlist for students and faculty (2010,2011)
95. Expansion for Waitlist of Banner (Ellucian) Luminis Web Portal The ZONE and Student Gmail (2011)
96. CurricUNET Course Curriculum Phase 1 (2010,2011)
97. SMTP Blade Server for SARS-CALL to handle large volume of student emails for all systems SARS-CALL and Banner emails (2011)
98. Faculty Contract modification for additional "load factor" for selected classes (2011)
99. Online Nursing Application Phase 1 for online application (2011)
100. Surplus System for purchase by students and staff (2011)
101. Inventory Bar Code Scanning System (2011)
102. ePAF Personnel Action Form Phase 1 for Recurring hires (2011)
103. Banner (Ellucian) SAAS Cloud Technology for Financial Aid (2011)
104. "Gainful Employment" reporting for State Chancellor's office Phase 1 (2011)
105. Evisions upgrade for Higher One automation of file transfer for Financial Aid (2011)
106. New tracking system for FTES state reporting requirements to support audit findings (2011)
107. Additional phases for new "Gainful Employment" reporting for State Chancellor's office (2011)
108. State Reporting for BOGW students included modifications based on withdrawal date (2011)
109. New MIS Reporting data elements for special projects and EOPS (2011)
110. Tutoring addition for Chabot using SARS-GRID (2010)
111. Faculty Obligation Reporting new features for release time and tracking of regular and overload assignments (2010)
112. Oracle Dataguard Installation for Database recovery (2010)
113. Vision Solutions Installation for Operating System recovery (2010)
114. Banner (Ellucian) Upgrade from release 7 to 8 (2009)
115. Oracle 10G Database Upgrade (2009)
116. PeopleAdmin Applicant Tracking for Hiring (2009)
117. Banner (Ellucian) Luminis Web Portal The ZONE (2008,2009)
118. Fixed Assets Depreciation (2008,2009)
119. Higher One Debit Card for Financial Aid (2008)
120. Student Email with Gmail through The ZONE (2008)
121. Dedicated Help Line for student ZONE and GMAIL calls (2008)
122. Single Sign On for Blackboard and Gmail through The ZONE (2008)
123. Crystal Reports (WebI) Ad hoc Reporting (2007,2008)
124. College Net Room Scheduling for Academics (2007,2008)
125. Third Party Products - SARS-Trak, SARS-Grid & SARS-CALL, eSARS, PC-Trak, STARS LPC only, PE Chabot only (2007,2008)
126. Web for Faculty for Online Grades and Drops (2007)
127. BossCars Parking Permits (2007)

128. Web for Finance for Expenses and Budgets (2006,2007)
129. Elumens Student Learning Outcome (2006,2007)
130. Credit Card Payments & Installments – Official Payments & FACTS (2006)

A2. <u>"In Progress" Projects (Partially "Completed" or Assigned/Scheduled – Target Dates provided by Term)</u>

1. Banner (Ellucian) Degree Works for Student Degree Audit and Student Ed Plan – Training for Counseling at Colleges (Ongoing Spring 2013 to Fall 2015) – Go Live for Counseling (Fall 2015) and Release to Students (Spring 2016)
2. Business Process Analysis to evaluate the Banner Transfer/Articulation Features to Address Tracking Other College Course Requirements and Equivalencies for the Student Degree Audit (Fall 2015/Fall 2016)
3. Banner Document Management System (BDMS) Expansion to Other Groups - Business Services (Fall 2015), Phase 3 Chabot Financial Aid (Spring 2016) and Human Resources & Other Groups (Fall 2015/Spring 2016)
4. ARGOS Report Tool Expansion to Other Groups - Degree Works (Fall 2015) and other User Areas (Fall 2015/Spring 2016)
5. Selection and installation of new Banner IBM Enterprise Servers to consolidate 6 production servers for Banner, Class-Web, and INB into 2 servers for primary and secondary redundancy (Spring 2015/Spring 2016)
6. CurricUNET Addition to current catalog system - Phase 2 for Program Review & SLO Assessment modules to follow after the October accreditation review (Chabot SLO Fall 2015, Program Review Spring 2016)
7. Implementation of new SARS product offering for "text" capability in addition to current email features (Summer/Fall 2015)
8. Expansion of Connectivity speeds for OPT-E-MAN data lines for all locations for Chabot, Las Positas, District, and Tri-Valley One Stop (Fall 2015)
9. Web Self Service for Student Request of Transcripts (Fall 2015)
10. Automation of Forms with Workflow Features for routing and approvals for electronic signature (Fall 2015/Spring 2016)
11. Luminis 5.0 Upgrade – Previous Vendor delays due to conversion and new release availability now resolved and proceeding (Fall 2015/Spring 2016)
12. Banner Tool for Data Views (ODS) to support Argos Report Tool (Fall 2015/Spring2016)
13. Major Oracle database upgrade to release 12 (Spring 2016)
14. Elumen SLO System – LPC to upgrade to Cloud SaaS release – (LPC Fall 2015/Spring 2016)
15. Evaluation of Blackboard vs. other products on market requested by College Technology Committees - Initial Project is replaced by the state's Online Education Initiative (OEI) to assess the colleges' needs with the new state "Canvas" software and determine if conversion to the state option is desirable. (Fall 2015/Spring 2016)
16. Evaluation of Web Content Management System for colleges and district (Fall 2015/Spring 2016)
17. Software Review for Electronic Signature – Docusign for external contracts - New Adobe Agreement through State Chancellor's office (Summer 2013), Digital Signature capability for external contracts (Spring 2016)

18. College Net Room Scheduling – Phase 2 for Events in addition to existing Academics portion (Spring/Summer 2016)
19. Web for Finance for online Requisitions using BDMS for storage PO attachments with Evisions software upgrade (Fall 2015/Spring 2016)
20. Review of modifications to multi-campus handling to replace customizations with Banner baseline for Financial Aid module in preparation for Banner XE (Review Spring 2016, Live Spring 2017)
21. Expansion of Banner Mobile Apps using Cloud option as new features become available (On-going)
22. Automation of Faculty Office Hours as follow on to Pay by CAH (Spring 2016)
23. Personnel Action Form ePAF Phase 2 for new jobs for existing employees (Spring /Fall 2016)
24. Review of ZONE with Technology Committee and Students for improvements to webpage (Fall 2015/Spring 2016)
25. Regulatory Upgrades for Financial Aid 3-4 times annually (Ongoing)
26. Human Resources/Payroll, Student, and Finance Banner Upgrades (Ongoing)
27. Automatic Student Billing – dependent on reconciliation of student payment history (Summer 2016)
28. Additional COTOP process for student fees owed - currently have COTOP Financial Aid loans (Summer 2016)
29. New Banner XE Upgrade from Release 8 to Release 9 eliminating Oracle Forms with Conversion Tool – Analysis and Training in progress (Fall 2016/Spring 2017)
30. Continuation of Bond Measure B projects enumerated on January 2014 two-year bond plan for technology expenses. (Fall 2014/Spring 2016)
31. On-going Technology design and installation to support the College building renovations and new construction under Bond Measure B. (Fall 2014/Spring 2016)
32. Technology Support for Accreditation 2015 for technology project updates and processes (Fall 2015)
33. Support of new Technology Coordinating Committee (TCC) for district-wide technology initiatives in coordination with the college technology committees. (Fall 2014/Spring 2016)

A3. <u>"To Be Scheduled" Projects (Dependent on other projects or available resources or On Hold)</u>

1. Banner (Ellucian) Enrollment Management & Contact System for Marketing - CLPCCD has the Recruiter module and now other new products such as Pilot and Perform are available for the future
2. Expanded Use of Banner Tool for Data Views (ODS) to support Argos Report Tool for all User Areas
3. New Banner module for Data Warehouse (EDW) capabilities for trend analysis
4. Banner (Ellucian) Advancement module for Alumni
5. Automate Timesheets online using Banner
6. Migration to Banner's new XE upgrade and consolidation of CALB Solution Center into the Banner baseline product for XE (Fall 2016/Spring 2017)

7. Implementation of WebEx type Video tool to allow faculty ability to login and participate in classes remotely via Web requested by College Technology Committees
8. Centralized Streaming Video Services for colleges and district
9. Lecture Capture capabilities for faculty and students
10. Expand Video Conferencing capabilities at all locations where appropriate
11. Review of Banner's Faculty & Compensation Module (FLAC) to replace the CLPCCD custom "autopay" program
12. Evaluate the State's Common Assessment Tool for usage at the two colleges
13. Review Banner's Finance feature for handling of Grants to determine if pertinent for district use
14. Assess available tools for sharing of data across all three CLPCCD locations including new Windows options now that Outlook and Active Directory are used district-wide
15. Evaluate and standardize on new smart classroom configuration to provide Enhanced Learning Environment
16. Expand training options for technology to provide improved professional development for all staff
17. Expand WiFi at college campuses which includes coordination with Facilities on needed cabling upgrades in older buildings
18. Improve the district's Help Desk to consolidate requests for all locations and provide more online features with status tracking
19. ON HOLD - Evaluation of the vendor offerings for the new industry trend of MOOCs for possible use at the colleges for Basic Skills classes, preparation for Assessment tests, or new higher level classes that are not currently offered at the colleges. (Project on hold and now proceeding with reviewing the state's Online Education Initiative (OEI) which is in process).

16.0 BOND TECHNOLOGY COST SUMMARY

The Measure B Bond projects contain new construction projects or facility renovations that require technology improvements in the data network and computer equipment. The new technology improvements required to support this facility activity are addressed in two categories.

- The first category includes technology changes related to the facility structure such as fiber optic and copper wiring and conduit between buildings required for the District networking infrastructure. These types of costs have been incorporated in the facility costs for all the college buildings for both renovations as well as new structures since these improvements are an integral part of the building structure or are in the ground surrounding the building.
- The second category includes classroom equipment, network devices, communication equipment to support data, video, or voice, and all technology advancements that support the instructional environment. These types of costs are either segregated to the specific college or aggregated for shared network and communication equipment. This second category is the types of innovations that are included in the Bond Technology funds for Measure B and are centrally managed by the District's Chief Technology Officer.

A review and reprioritization of the Measure B funds was completed in October 2013. The Chancellor's Senior Leadership Team (SLT), which includes the Chancellor, College Presidents, Vice Chancellors, and Chief Technology Officer, went through an extensive review of all the remaining Bond funding. This review resulted in a recommendation with the objective to make allowance for a new building at each of the two college campuses and to accelerate the remaining projects within a two- year period from 2013 to 2015. The proposed budgets which identified the remaining projects to be completed at the colleges was approved by the Board of Trustees in January 2014. This new plan resulted in a new Academic Building at Las Positas and a new or renovated Biology building at Chabot and still preserved the other critical needs for the college's "small projects" list, technology, M&O, energy, and construction project management. CLPCCD ITS developed a very detailed budget for the remaining bond Technology projects. As of September 2013, the previous Bond Technology fund balances of $13.2M were reduced by 34%, resulting in a remaining balance of $8.7M, to be completed in a two-year period from 2013 through 2015. This impacted all locations for college and enterprise systems. The IT $8.7M budget did not include the technology for the two new college buildings at Chabot for Biology and at Las Positas for Academics. Funding for the technology in these new buildings will be addressed as part of the Facilities construction project using contingency funds that are available.

The available funding addresses the projects accomplished in the past two years from 2013-2015. All technology projects are listed by categories to support college and district-wide infrastructure requirements under Measure B. The twelve equipment categories include:

1. Network Equipment – Routers/Switches/Connectivity
2. Other Network Devices - Firewalls, Wireless, Network Monitoring Tools
3. Cabling - Critical needs not covered by Facilities projects
4. Installation/Implementation/Integration Services
5. Desktops (PCs,MACs) and Laptops/Tablets
6. Software (Facility or Infrastructure Related) - no funding due to budget
7. Audio-visual (Supplemental and upgrades to Facilities projects)
8. Servers (Enterprise and College Specific)
9. Printers - no funding due to budget
10. Telecommunications (Telephone)
11. Multi-Year Maintenance Agreements (5 years) and Enterprise Systems
12. Other Peripheral Equipment (UPS, GoPrint, Equipment Components/Racks)

The Bond Technology budgets by equipment category and by location are provided in the cost charts in Sections 16.1 and Section 16.2. The first cost chart provides a summary of the IT Bond budget by technology category for the next 2-year period from 2013 through 2015. A summary of the Bond Technology budget broken out by specific college and district location for the past two years 2013-2015 is also provided and shown by equipment category. These costs relate to all the Information Technology projects as described in Sections 4.0 through 15.0 which identify the scope of the technology improvements to be accomplished within this two-year period.

It should be noted that most of the technology upgrades and additions to the college campuses over the past several years have been funded by the Bond Measure B. Due to state budget issues, the operational funds for technology at both the Colleges and District have been reduced substantially. Only those few products that were not eligible for bond funding remained in the operational budgets. Therefore, it is imperative to continue to utilize the balance of the Bond Technology funding prudently and strategically, in order to achieve the most technology advancements possible with these limited remaining funds. CLPCCD ITS has efficiently utilized the Bond Technology dollars in order to perform the necessary replacements and upgrades of equipment to modernize our instructional environment campus-wide. The most recent equipment procurements have been forward-looking so as to maximize the life span of the equipment and performance of the infrastructure. The anticipated lifetime of the technology equipment is as follows:

- Network equipment: 7-10 years
- Desktop/laptop computers: 4 years
- Servers: 5-7 years
- Printers: 5 years
- Audio-Visual equipment: 7 years

As such, equipment procured in the last one to two years from 2013 to 2015, will continue to provide a robust platform for CLPCCD users for several years in the future.

Once the Bond Technology funding is spent, and the performance of the technology infrastructure begins to degrade, the College and District operational funds for technology will need to be increased to cover these technology replacement costs in the future.

16.1 Bond Technology Cost Charts for Period 2013-2015

This chart provides the IT Bond budget by technology category for the two-year period from 2013 through 2015. These costs relate to all the Information Technology projects as described in Sections 4.0 through 15.0, which identify the scope of the technology improvements within the IT plan. These technology improvements, as defined by the "MUST" projects, are prioritized to upgrade and improve technology before performance or equipment obsolescence negatively impacts college activities. This is in compliance with the CLPCCD ITS standards for equipment replacements in accordance with industry standard practices.

This Bond Cost chart includes the combined two-year budget from 2013 through 2015 which totals $8,713,473 for all locations and for the twelve different equipment categories. All of the items identified for each of the categories were evaluated and deemed critical "MUST" IT items that either support current Facility construction/renovations, or that are required to maintain the IT infrastructure connectivity and performance within the boundaries of the useful life of the equipment. Based on this latest two-year plan, the equipment upgrades will extend the technology several years beyond the end of the Bond IT funds in 2015, thereby allowing CLPCCD time to secure other funding sources for technology in the future.

CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT

BOND TECHNOLOGY (IT) FUND BALANCES REMAINING

ESTIMATED FUNDING ALLOCATION

BY CATEGORY FOR ALL FUNDS AND SITES

FOR FISCAL YEARS 2013-2014 AND 2014-2015

Current Budget Balance Remaining as of Sept 2013	**13,174,838.92**
IT funding reduction (34%) as of Oct 2013	**4,461,365.80**
Remaining IT Funding Balance as of Oct 2013	**8,713,473.12**

CHART #1 - As of October 29, 2013

Item No.	Category Title	PROJECTS FROM THE IT BOND PLAN A: Must 2013-2014	B: Must 2014-2015	A+B: Must Totals (Updates/ Expansion to Maintain Current Functionality)	PROPOSED PRIORITY CONSTRUCTION PROJECTS FOR CAMPUSES: LPC Academic Building	Chabot Biology Building
1	**Network Equipment - Routers/Switches/Connectivity**					
	Chabot					
A	Chabot B100/Library switch (new IDF) 4506		60,493.00	60,493.00		
B	Replace 4506 Supervisor engines (4) - 2009 switches partial end of life	84,462.40		84,462.40		
C	Replace 4506 switches (4) – 2005 switches full end of life	241,972.00		241,972.00		
D	Chabot New Biology (two 4506)					120,986.00
	Las Positas					
E	LPC Library B2000/Faculty Bldg B2100 - new 4506	60,493.00	60,493.00	120,986.00		
F	Replace 4506 Supervisor engines (4) - 2009 switches partial end of life	84,462.40		84,462.40		
G	Replace 4506 switches (4) - 2005 switches full end of life	241,972.00		241,972.00		
H	LPC New Academic Building (two 4506)				120,986.00	
	Both Campuses					

Item No.	Category Title	A Must 2013-2014	B Must 2014-2015	A+B Must Totals (Updates/ Expansion to Maintain Current Functionality)	LPC Academic Building	Chabot Biology Building
I	new 6509 switch with 10G - Chabot	292,639.60		292,639.60		
J	new 3560-X switches - Chabot (3), LPC (2)	27,280.00		27,280.00		
K	POE+ blades for 4506, Chabot (4), LPC (4)	52,764.80		52,764.80		
L	new 10Gb card for 6509 - Chabot (1), LPC (1) (for CENIC upgrade to 10Gb Internet in 2014-2015)		196,240.00	196,240.00		
M	OPT-E-MAN - all sites, including performance upgrade	46,663.00	46,663.00	93,326.00		
2	**Other Network Devices - Firewalls, Wireless, Network Monitoring Tools**					
	Both Campuses					
A	New Firewalls - 10Gb capable, 2 per College site, mandatory for CENIC 10Gb)		492,782.40	492,782.40		
B	Routers for OPT-E-MAN connectivity - all sites (expansion of OPT-E-MAN will require changes in routers at Chabot and LPC right away, and the other sites, Dublin/Franklin/Valley Care, can be done later.)	29,920.00		29,920.00		
	Network Security and Performance Monitoring					
C	Network monitoring and remote tools	30,000.00		30,000.00		
D	Cisco Intrusion Prevention tools	55,000.00		55,000.00		
E	Cisco NAC (network access control) - required for BYOD security/virus checking		115,000.00	115,000.00		
	Chabot Wireless					
F	Wireless Licensing and Functionality Expansion (next generation)					
G	Access Points (150) 802.11ac					
H	Chabot B100/Library access points (10)		13,200.00	13,200.00		
I	Chabot New Biology building access points (20)					26,400.00

Item No.	Category Title	A Must 2013-2014	B Must 2014-2015	A+B Must Totals (Updates/ Expansion to Maintain Current Functionality)	LPC Academic Building	Chabot Biology Building
	LPC Wireless					
J	Wireless Licensing and Functionality Expansion (next generation)					
K	Access Points (150) 802.11ac					
L	LPC Library B2000/ Faculty Bldg 2100 access points (10)		13,200.00	13,200.00		
M	New Academic Building access points (20)				26,400.00	
3	**Cabling - Critical needs not covered by Facilities projects**					
	Note: Cabling Installations Typically Funded by Facilities Modernization					
	Chabot					
A	PE Athletic Fields - softball and track					
B	Library Mezzanine - 135 computers/lab and wireless					
C	Chabot Art Classrooms B1000 (5 outlets)					
D	Additional AP locations (B1600, 2000)					
E	Chabot Health/Dental B2200 computer lab (25 computers)					
	Las Positas					
F	LPC Computer Center/Auto B800 (218 connections)					
G	LPC Science B1800 (210 connections)					
4	**Installation/Implementation/Integration Services**					
A	JasNET - Bond IT Infrastructure Design/Implementation	128,300.00	128,300.00	256,600.00		
B	Microsoft Exchange Design/Implementation	54,000.00		54,000.00		

Item No.	Category Title	A Must 2013-2014	B Must 2014-2015	A+B Must Totals (Updates/ Expansion to Maintain Current Functionality)	LPC Academic Building	Chabot Biology Building
5	**Desktops (PCs,MACs) and Laptops/Tablets (4-year cycle)**					
	Chabot					
A	Last cycle of desktops, laptops, tablets (1400 PCs)	735,000.00	735,000.00	1,470,000.00		
B	Chabot Math/Physics B1700 (275 computers)	288,750.00		288,750.00		
C	Chabot Library/B100 (110 computers)		115,500.00	115,500.00		
D	Chabot New Biology (classrooms, offices and labs 450 computers)					472,500.00
	Las Positas					
E	Last cycle of desktops/laptops/tablets (1155 PCs)	757,500.00	577,500.00	1,335,000.00		
F	LPC Library/B2000 computers (200 computers)		250,000.00	250,000.00		
G	LPC New Academic Building (ten 45-person computer labs, ten classrooms, 30 faculty offices)				637,000.00	
	All Locations					
H	HR (11 PCs)	12,300.00		12,300.00		
I	District/Contract Ed (51 PCs)	60,600.00		60,600.00		
J	Tablets (20) - all locations	42,000.00		42,000.00		
K	Laptops (15) - Training rooms, all locations	20,000.00		20,000.00		
6	**Software (Facility or Infrastructure Related) - no funding due to budget**					
7	**Audio-visual (Supplemental and upgrades to Facilities projects)**					
	Note: Initial AV Installations Funded by Facilities Modernization - not refurbishments					

Item No.	Category Title		A Must 2013-2014	B Must 2014-2015	A+B Must Totals (Updates/ Expansion to Maintain Current Functionality)	LPC Academic Building	Chabot Biology Building
	Chabot						
A	65 rooms refurbished		280,000.00	240,000.00	520,000.00		
B	Polycom - Chabot Nursing and Valley Care			210,000.00	210,000.00		
	Las Positas						
C	92 rooms refurbished, new equipment for MD 2420, Campus AV equipment, new AV in PE and building 500		223,000.00	223,000.00	446,000.00		
8	**Servers (Enterprise and College Specific)**						
A	Chabot - 9 servers		108,000.00		108,000.00		
B	Chabot - VDI upgrade			26,000.00	26,000.00		
C	LPC - 20 servers		84,000.00	156,000.00	240,000.00		
D	District wide - 10 servers		120,000.00		120,000.00		
E	District wide Blade Server system			120,000.00	120,000.00		
F	District wide SANS and VMWare			80,000.00	80,000.00		
G	District wide IBM and AIX servers			124,000.00	124,000.00		
9	**Printers - no funding due to budget**						
-							
10	**Telecommunications (Telephone)**						
A	Chabot - Phone system		32,500.00	32,500.00	65,000.00		
B	Las Positas - New system (for growth and to replace obsolete technology. The current phone system is at max, and LPC needs new one to support the new Academic building.)					650,000.00	

Item No.	Category Title		A Must 2013-2014	B Must 2014-2015	A+B Must Totals (Updates/ Expansion to Maintain Current Functionality)	LPC Academic Building	Chabot Biology Building
11	**Multi-Year Maintenance Agreements (5 years) and Enterprise Systems**						
A	Blackboard, Sirsi & Worldshare College Library Systems, Ricoh copiers/scanners, Mobile Apps		110,000.00	327,022.52	437,022.52		
12	**Other Peripheral Equipment (UPS, GoPrint, Equipment Components/Racks)**						
A	UPS batteries - all locations		9,000.00		9,000.00		
B	HP Tape backup - all locations		30,000.00		30,000.00		
C	Document Imaging (BDMS) scanners - all locations		28,000.00		28,000.00		
D	LPC Academic: Scanners, copiers, Goprint					150,000.00	
E	Chabot Biology: Scanners, copiers, Goprint						60,000.00
	TOTAL COSTS FOR ALL BOND "TECHNOLOGY" CATEGORIES		4,370,579.20	4,342,893.92	8,713,473.12	1,584,386.00	679,886.00
	NOTE: LPC AND CHABOT NEW BUILDING TECHNOLOGY FOR LPC ACADEMIC BUILDING AND CHABOT BIOLOGY BUILDING IS NOT PART OF THE $8.7M "MUST" IT BOND EQUIPMENT. NEW BUILDING EQUIPMENT WILL BE FUNDED IN CONJUNCTION WITH THE NEW FACILITIES CONSTRUCTION. THIS EQUIPMENT INCLUDES SWITCHES/ROUTERS, DESKTOPS/LAPTOPS/TABLETS, WIRELESS, PRINTERS/ SCANNER/ COPIERS.					Total New Buildings at both Colleges	2,264,272.00

16.2 Bond Technology Budget Chart by Location for Period 2013-2015

This chart provides the IT Bond budget by technology category for each location for the two-year period from 2013 through 2015. These budgets relate to all the Information Technology projects as described in Sections 4.0 through 15.0.

CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT
BOND TECHNOLOGY (IT) BUDGET
BY CATEGORY FOR ALL FUNDS AND SITES

CHART #2 - As of October 29, 2013

Item No.	Category Title	Chabot	Las Positas	District	Total All Sites	Percent
1&2	Network Equipment - Routers/Switches/Connectivity. Other Network Devices – Firewalls, Wireless, Network Monitoring Tools	735,517.40	497,914.80	1,012,268.40	2,245,700.60	29%
3	Cabling (Supplemental to Facilities)	0	0	0	0	0%
4	Installation/Implementation/Integration Services	0	0	310,600.00	310,600.00	4%
5	Desktops/Laptops	1,874,250.00	1,585,000.00	134,900.00	3,594,150.00	41%
6	Software (Facility or Infrastructure Related)	0	0	0	0	0%
7	Audio-visual (Supplemental to Facilities FFE)	730,000.00	446,000.00	0	1,176,000.00	13%
8	Servers (Enterprise and College Specific)	134,000.00	240,000.00	444,000.00	818,000.00	9%
9	Printers	0	0	0	0	0%
10	Telecommunications (Telephone)	65,000.00	0	0	65,000.00	<1%
11	Multi-Year Maintenance Agreements (5 years)	0	0	437,022.52	437,022.52	5%
12	Other Peripheral Equipment (UPS, GoPrint, Equipment Racks)	0	0	67,000	67,000.00	<1%
	TOTAL COSTS FOR ALL "TECHNOLOGY" CATEGORIES	3,538,767.40	2,768,914.80	2,405,790.92	8,713,473.12	