Technology Master Plan

2014-2017

ANTELOPE VALLEY COLLEGE

Presented to the Board of Trustees June 16, 2014

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I. Overview, Mission, and Vision

Overview

This Strategic Technology Plan for the Antelope Valley Community College District exists to provide framework for the strategic implementation of technology in support of instructional and operational needs. The purpose of the plan is to align the application of technology to the District's Mission, Vision, and Strategic Goals and Objectives. Many of the projects listed are wider initiatives that touch both academic and institutional success. It will provide a roadmap for all major technology initiatives, undertaken by the District for the next four years; in support of the goals of the Educational Master Plan.

This document is a collaborative result of the input from the Information Technology Committee (ITC) and the Information Technology Services (ITS) department. ITC assumes this document to be a living document, and as a portion of its participatory governance responsibilities, will review this the college's Strategic Technology Plan on an annual basis, to assess progress of initiates, amend or revise as needed, and contribute to the identification and prioritization of future recommendations as the needs of the college change. This plan will be revised, in full, following the next college-wide Educational Master Planning process.

This plan has three sections, and supporting documentation:

Section I:	Provides an overview, background, and references the vision and mission, of the Antelope Valley Community College District and the Department of Information Technology Services.
Section II:	2013-2016 Educational Master Plan's Goals and Objectives, AVC's Board of Trustee's Initiatives 2013-14 & 2014-15, and the President's Goals.
Section III:	Addresses strategic initiatives identified meet the goals and objectives, with initiative overviews, benefits, resource requirements and timelines.
Appendix A:	Staffing Plan for Information Technology Services, spanning the duration of the plan to inform the college community of the staffing needs as the college's technology evolves.
Appendix B:	Provides information regarding district governance and advisory committees and groups.

Background

Since adoption of a Technology Strategic Plan in 2007, the college has experienced a protracted period of fiscal constraint and funding reductions, subsidized by infrequent infusions of funding based upon one-time dollars. This has had a couple of unintended consequences. First and foremost, is a reality of haves and have-nots where technology expenditures have been applied

between instructional divisions and programs. This has left over a third of the college's instructional labs with technology that is five years old, or older.

Multiple changes in departmental leadership within Information Technology Services, over past four years, has left an inconsistent cycle of technology leadership and in large voids in vision. In addition, past college leadership has lacked the political will to drive fiscal change to establish a structural funding cycle for Information Technology Services. The result has been an inconsistent investment in the instructional technology and infrastructure necessary to deliver a high level of consistent and current technology offerings.

Though a substantial investment was made with Measure R, for the fiber infrastructure, and a new college data center, it did not reach the closets and end points due to competing demands for funding. Over half of college's network is over five years old, and over a third is reaching end of support cycle with their manufacture. Over three quarters of our server infrastructure is three years old. And over half of the college's desktops are over five years old. The following plan, and initiatives, is crafted on an assumption of a substantive change in past practice and a sustained investment in the college's technological needs.

District Vision Statement

To provide quality education that enriches lives and builds futures.

District Mission Statement

The mission of the Antelope Valley Community College District is to provide a comprehensive education to a diverse community of learners by placing student success and student-centered learning as our number one priority through high quality educational standards and innovative programs and services in a professional, team-driven environment.

Antelope Valley College takes pride in providing a quality, comprehensive education for a diverse community of learners. We are committed to student success, offering value and opportunity to all members of our community.

Information Technology Services Mission Statement

The Information Technology Services Mission is to provide a stable information technology (IT) infrastructure and to protect the accessibility, integrity and availability of the district's IT resources for our students, employees, alumni and community members.

We apply our technical competence toward effective management and efficient utilization of these resources, while exploring and appropriately developing emerging technologies to meet the challenges of the district's changing instructional and operational IT needs.

II. AVC Planning & Leadership - Goals and Objectives

Antelope Valley College Educational Master Plan 2014-2017 Goals & Objectives

During the 2013 Academic Year a working group was established to evaluate and revise the College's Educational Master Plan. After a careful review of program review, student learning outcome, and operational outcome documents from academic and support services organizations across the college, the working group developed the following Goals with supporting Objectives to drive the development of the 2013 Educational Master Plan, and the implementation of services for the next several years. The Initiatives that comprise this Technology Master Plan have been compiled to with the following goals in mind; to enable the successful achievement of each through the supporting objectives.

Goal 1: The College as a community will provide students with an environment which supports learning and facilitates student success.

a. Increase number of degrees and certificates granted to exceed the standard of 1,033 set by the Student Success Committee
b. Strengthen the link between SLO/PLO assessment and action plan development and evaluation
c. Increase the student success rate to exceed the standard of 68% set by the Student Success Committee
d. Develop relationship between classroom instructors and counselors and career advisors by embedding counseling in division areas
e. Increase student retention to exceed the college standard of 60% set by the Student Success Committee
f. Validate prerequisites for courses
g. Increase class offerings in high demand classes and disciplines
h. Combine classes and revise curriculum in areas in which the faculty identify needs

Goal 2: The College will increase the transfer rate to Cal States, UC, and private colleges.

a. Increase the number of transfer students by developing TMCs to facilitate transfer to CSUs as the TMCs become available
b. Bring an eclectic group of colleges, universities and other higher education options to campus for visits and recruiting
c. Expose students to opportunities for higher education and the skills they need to achieve it
d. Increase the percentage of students who successfully achieve 12 transferrable units and transfer-level English and math courses up to five years after initial enrollment

Goal 3: The College will expand and diversify Career Technical Education options for students.

a. Recruit more non traditional students into CTE programs
b. Increase employer outreach for participation on advisory committees, in occupational work-experience and in job placement

Goal 4: The College will increase student success in Basic Skills and ESL courses.

a. Promote student information competency and technology skills
b. Enhance instructional support for basic skills and ESL courses
c. Create curriculum to increase the success rates of basic skills and ESL students
d. Establish a plan for providing professional development opportunities related to basic skills for basic skills staff, basic skills faculty and anyone who might want to be involved in basic skills

Goal 5: The College will utilize campus resources efficiently and effectively.

a. Integrate fragmented and redundant District processes and enterprise-wide business process revision
b. Rely on discipline faculty to identify program equipment and facility needs
c. Develop creative funding sources for equipment and facilities
d. Increase and enhance professional development for faculty, administrators, and classified staff

Goal 6: The College will maintain and enhance community partnerships.

a. Link campus needs with community resources through the AVC Foundation
b. Promote seamless transfer of high school students
c. Develop programs to reach out to middle schools

Goal 7: The College will increase resources to enhance technology's support of the college mission and processes.

a. Increase support for classroom, counseling, student services offices, and instructional technology
b. Develop effective orientation for online and hybrid course
c. Provide advanced faculty professional development for instructors of distance education courses
d. Advocate for increased resources for District-wide systems and services

Board of Trustee Initiatives

2013-2014

1. Review the organizational structure of the college for efficiency and develop a comprehensive staffing plan.
2. Develop a marketing and communication plan and implement through community relations and internal communications.
3. Strengthen Basic Skills instruction to support student completion.
4. Incrementally restore access for our students

2014-2015

1. Explore Bond Initiative Extension
2. Where possible implement a technology infrastructure expansion and upgrade to support college systems.
3. Explore and develop alternative funding sources
4. Ensure compliance with accreditation standards as a routine of operation and begin preparation of the self-study for the 2016 accreditation cycle.

President's Goals:

1. Develop a three-year planning cycle for the college to include, master plan, facilities, enrollment management, information technology, and budget and finance, with core principles, programs and operations defined and established.
2. Identify and define the core curricula and programs of the college, to include general education outcomes and assessments.
3. Incorporate enrollment strategies, which include course scheduling and sequencing to support student completion. A published two-year course schedule to support student progress and budget and facilities planning.
4. Strengthen our community involvement through institutional advancement activities encouraging direct community participation in events on campus and college participation in community events. Raise the level of college visibility in the community at large.
5. Focus on customer service both internally and externally. Fully develop and practice an ethic of service.

III. Technology Master Plan 2014-2017 Initiatives

The strategic initiatives summarized within this section are identified and prioritized in support of the Goals and Objectives of AVC's Educational Master Plan 2013-2016, as well as the Board of Trustee Initiatives and the President's Goals. The initiatives have originated from various sources; most brought forward through Administrative Services, Administrative Council, and Information Technology Committee. Others are compilations of individual projects, programs, or college leadership. All have been reviewed and contributed to through participatory governance structures and advisory groups across the District.

The figure below illustrates the intersection of these initiatives with the Antelope Valley College Educational Master Plan's seven defined goals.

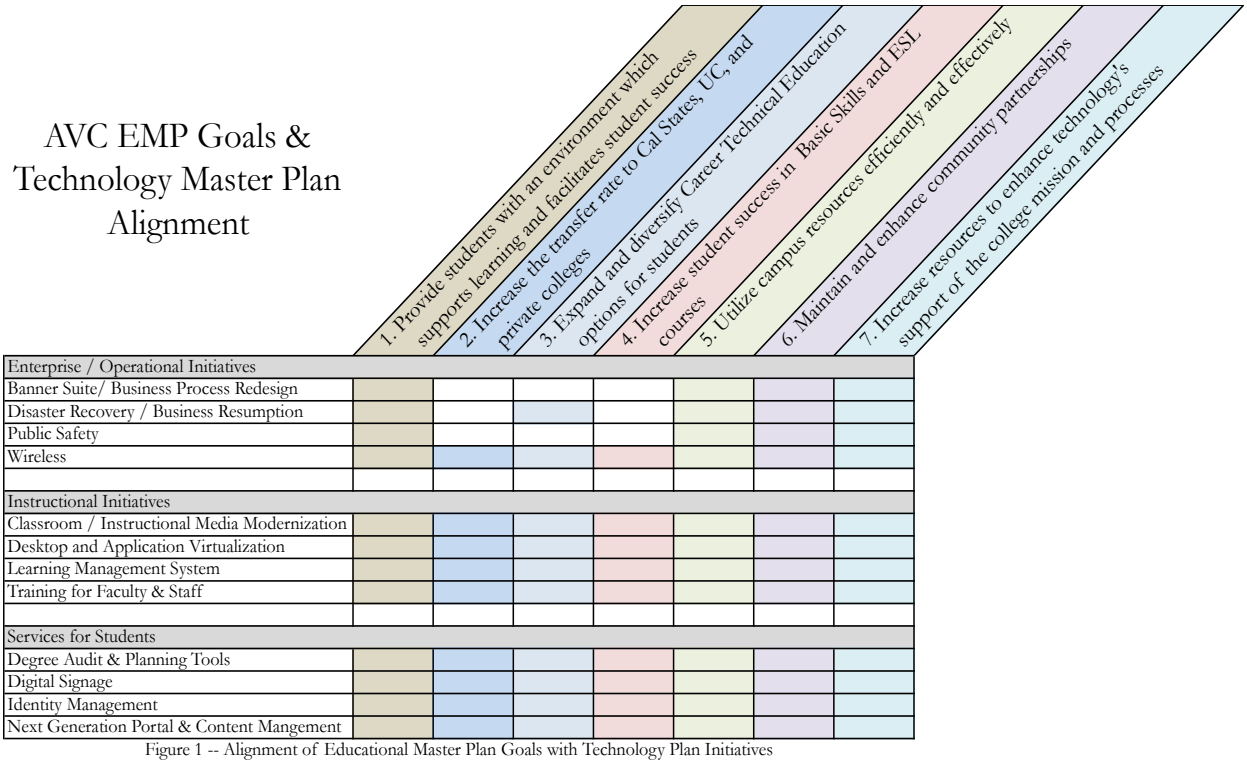


Figure 1 -- Alignment of Educational Master Plan Goals with Technology Plan Initiatives

The following pages provide overviews of the initiatives, with a listing of benefits, estimated resource requirements, and projected timelines. Initiatives are sectioned based up on the order above in Figure 1. No inference of prioritization should be attributed based upon order.

Banner Suite / Business Process Redesign

Antelope Valley College has for many years utilized portions of the Ellucian (formerly Banner) Enterprise Resource Planning Suite (ERP), specifically; Student Administrative Systems and the Luminis Portal. Concurrent with these systems the District has been reliant on the Los Angeles Office of Education for a number of enterprise services, including purchasing, payables, payroll, and human resources. This separation of services, without a systemic integration, has necessitated a growth of unique business processes and software solutions, which results in a substantial number of discrete and redundant data repositories. Further, due to a lack of automated structures for input and access to data, a substantial number of these discrete processes are driven by manual double entry.

To resolve these issues the District will pursue the implementation of the remaining portions of Ellucian's Banner ERP Suite, to include: HR, Purchasing, A/P & A/R, Asset Management, & a more robust reporting suite with Argos. Proposed project includes temporary staffing to backfill positions engaged in implementation, a platform/hardware conversion from HPUX to RedHat Linux, and consultant engagement in the necessary business process revisions.

Benefits:

- Full integration between Banner Student, Human Resources and Finance modules
- Allow for fiscal accountability and reduce the reliance on LACOE.
- Allow integration of several stand-alone systems to reduce redundancy and errors.
- Reduced workload with data integration
- Improved security
- Improved reporting
- Online information for students
- Self-service opportunities for employees
- Reduced paper storage

Resources: IT will need temporary programmers, and a project manager. Project's estimated cost is $4,200,000.

Timeline: Project is projected is anticipated to run 18 to 36 months, with a goal of completion of college fiscal independence by the end of June 2018.

Support of EMP Goals: 1, 5, 6, & 7

Disaster Recovery & Business Resumption

In 2009 CCCCO mandated all districts implement a Disaster Recovery and Business Resumption plan. To enhance this, and other efforts the CCC Information Security Center has recommended the adoption by colleges of ISO 27001 as a framework for enterprise technical operations; specifically in the areas of change management, security education and awareness, and disaster recovery / business resumption. Antelope Valley College will closely evaluate this standard and adoption components specific to our needs.

Effective planning and implantation of these recommendations is a long-term engagement, encompassing the entire institution; extending well beyond change management methodologies and business process improvement. Initial efforts for this initiative are underway to address the critical need for off-site emergency business resumption and restoration practices and services, as well as a more effective implementation for emergency notification and communication. It is recommended that the district engage with one or more firms to address the numerous facets of this need, including a careful assessment of business practices and supporting policy.

The initial steps toward addressing this need involves acquiring hardware to establishing off-site storage and server capacity, to enable; a basic capacity for resumption of networked services and learning management services, data replication and core enterprise applications and backups, and selection of a replacement vendor for our emergency notification needs.

Benefits:

- Rapid resumption of basic enterprise systems and web-based instructional services.
- Off-site replication of enterprise data, potentially including file shares.
- Reliable automated communication service for students, faculty, & staff for emergency notifications
- Compliance with State & CCCCO requirements

Resources: Staffing and collaboration between, Information Technology, Business and Finance, Risk Management & Environmental Health

Timeline: Initial replacement of emergency notification vendor and establishment of tertiary replication site for resumption of base enterprise and web services are targeted for Spring 2014.

Support of EMP Goals: 1, 3, 5, 6, & 7

Public Safety Initiatives

In response to the increasing potential of on-campus violence and enhanced security for physical property, an institution wide assessment has indicated the need for measures across the institution to enhance student and public safety.

These included:

- Replacing our existing a mass notification vendor to provide greater reliability and efficacy in delivery of SMS, voice messaging, email, social network integration, for a rapid and reliable dissemination of information.
- Implement an on-campus audible warning system (roof top large speaker array).
- Integration of resources from Digital Signage efforts to leverage displays in distribution of urgent notifications.
- Installation of video surveillance capabilities for campus safety image capture and real-time monitoring of key areas (e.g., Bookstore, Cafeteria, etc...)
- Implementation of emergency response procedures.

Ongoing training on usage of the systems will continue to be a high priority.

Benefits:

- Capability to warn both remote and on-campus students, faculty, and staff about current and changing situations at a college facility
- Improved communications systems for campus police, first responders, and students
- Increased capability for campus police to monitor situations in real-time
- Equipment available to support activation of an Emergency Operations Center in response to need.

Resources: The safety efforts will require ongoing IT assistance to maintain the systems

Timeline: Training and process changes will be ongoing

Support of EMP Goals: 1, 5, 6, & 7

Wireless

The dramatic proliferation of portable computing over the past decade, the general ubiquity of wireless services in higher education, and the growing need of students, faculty and staff to online learning resources and services makes it imperative that the college pursue an implementation of wireless services. Efforts to address this need in the past have been hampered by limited fiscal resources. The implementation of wireless has routinely been identified by the college's constituencies as one of the most pressing needs in delivering services to our students.

In the Spring 2014 the AVC's President has identified one-time money to expand wireless across the college. Planning began in January, and the expectation is that the initial implementation will be completed Summer 2014. In Fall 2014, the college will undertake an assessment of signal and capacity and plan for a second phase of deployment to enhance existing services.

Benefits:

- Enhanced connectivity for Students to distance education services and online resources.
- Greater connectivity for the college to students, and support for deployment of AVC's initial mobile application, Ellucian Go, and the delivery of student services to their mobile devices.
- Enhanced pathways for direct communication to students through their mobile devices in support of the colleges mass communication services.

Resources: One-time money allocation of $480,000 for cabling, equipment, and licensing.

Timeline: Deployment completion anticipated Summer 2014

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Classroom / Instructional Media Suite Modernization

The District made substantial investment over one hundred eighty smart classrooms. It has been over eight years since the latest refresh of many of these rooms. Further there is an inconsistency in the management software (if any), hardware, and configuration. To effectively utilize these rooms with the ever-evolving technology demands, we need to plan for upgrade and enhancement of these audio-visual and digital streaming instructional resources, with an established standard for hardware, configuration, and management suite. Recent installation of advanced A/V services in the Health Sciences Building creates an opportunity to leverage and expand an integrated management system; doing so will effective management these resources and realize substantial savings.

The Virtual Science Laboratory (VSL) is included within this initiative. Allocations for the media and sound equipment, to enable this instructional space, was cut from the initial deployments to the Health Sciences Building. The room is configured with a Spitz Dome and seating capacity for 82 students. The space will accommodate typical planetarium media for Astronomy courses, as well as human anatomy, art & natural history, biology, geology and geography, and visualization modeling of chemical and physical systems using an array of immersive virtual learning platforms.

The revised standard for smart classrooms will include:

- Audio-visual control system, with central management services
- Projector or integrated LCD Screens
- Desktop computer
- Integrated voice amplification for lectures where necessary
- Input for select BYOD electronics
- Media player (Blu-Ray), DVD and VHS to be phased out across campus with refresh
- Document camera

Benefits:

- Consistent capabilities and user experience for faculty
- Standardized user interface/control panel throughout all smart classrooms
- Predetermined operational schedules for A/V equipment prolongs projector bulb life
- Dramatically reduced power consumption
- Proactive maintenance of equipment through central console alerts & management
- Potential to leverage digital delivery to enhance in-classroom emergency notification services

Resources: Initial estimates for these projects exceed $1,500,000. Implementation will be accomplished through a combination of internal staffing and vendor assistance.

Timeline: Work could commence as early as Fall 2014

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Desktop and Application Virtualization

Under current paradigms labs are provisioned with a suite of applications based upon faculty / course assignment, and serviced in a number of ways; by an array of Blade PC with thin client terminals, web delivered services, and traditional desktop computers with images pushed, wiped and rewrite. Installation often requires a high touch engagement with every device in a lab, once a stable image has been developed. Changes in scheduling, or short notice from faculty on updated software needs, create an occasionally frantic effort to redeploy a lab.

Decoupling hardware from application / technology enables a substantially more agile delivery of services. Virtualizing Applications and Desktops, is the containerizing of services, removing hardware dependencies and software conflicts of an individual lab deployment, and offers opportunity for granular delivery of applications based upon enrollment.

Moving the processing, or actual computing activity, to a server level enables a commoditizing of applications and operating systems, and renders them substantially more portable. Rather than having to install to individual workstations, one image of an application or a desktop is rendered and then shared among multiple users and terminals. This delivery becomes platform agnostic, and in many ways makes obsolete the desktop CPU's processing needs. It becomes a delivery terminal.

Benefits:

- One-to-many delivery of applications and operating system images, enabling the rapid deployment of service adapting to changing classroom/lab/instructional needs
- Enabling a more nimble paradigm of updates and patch management – updating one image is substantially faster and more cost effective than updating hundreds
- Enrollment-based provisioning of applications through attributes within the users identity – dependent upon a successful Identity Management (IdM) implementation
- Enhanced accuracy in software licensing, potentially resulting is substantial savings in per seat costs of software packages
- Dynamic delivery of instructional applications beyond the campus boundaries, providing students much more flexible access to applications required for coursework
- Substantial savings in refresh of desktop systems by replacing them with thin client terminal, also resulting in dramatic savings in electricity, and facility costs
- Reduced capital expenditures due to longer lifespan of thin client hardware

Resources: Significant IT resources will be required for implementation; Hardware and software expenditures will be significant, funded by the college Technology Refresh budgets.

Timeline: Project will commence with Proof of Concept in Fall 2014, if successful expansion and will continue until existing BladePC services are decommissioned.

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Learning Management System (Next Generation)

Learning Management Systems have become an essential tool in higher education. Providing; document management resources, online community building, peer integration and evaluation, course work submission and workflow, and just-in-time access to grade through a term, to list a few of the features. Antelope Valley College is currently contracted through the 2017 academic year with Blackboard to provide a hosted solution for our Learning Management System.

Since the college originally contracted in 2007 year, and its subsequent renewal in 2012, the landscape of Learning Management Systems has changed dramatically. This coupled with the State Chancellor Office's efforts toward supporting both the Massive Open Online Course paradigm, as well as identification and deployment of a system sponsored distance-learning service in support of the California Virtual College, leave the college with unique opportunity.

As the college has not performed a comprehensive evaluation of the landscape in services and features, nor an internal assessment of needs and cost-benefit analysis, it is proposed that the college initiate a comprehensive study and assessment of solutions at the beginning of the 2016 academic year, with the goal of a decision on moving forward before Spring 2017.

Benefits:

- Potential for wider enrollment opportunities in collaborating with the California Virtual College.
- An opportunity to sit back and observe and assess the state's centralized efforts. Evaluate their platform and offerings versus AVC's needs, and the potential savings, without the trials of being an early adopter.
- Leveraging the CCCCO's planned certification structures and to enhance offerings for faculty in professional development and effective utilization of available platforms.

Resources: College is currently spending approximately $160,000 annual for our LMS. Adoption of the CVC.edu platform and structure, or alternately using it as leverage in negotiations with a future vendor, could provide dramatic annual savings.

Timeline: Academic year 2016-17

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Training for Faculty & Staff

Training is a key component in the effective use of technology. With the rapid pace of change in technology, it is difficult for employees to keep pace with the latest available software and online services.

The college provides faculty training for online instruction through flex workshops, and other staff development activities; as well as individual help on an as-needed basis. Each college has a faculty / staff resource center where hands-on guided instruction can take place. Deployments of new technology or upgrades to existing technology include training components for employees and students (where applicable).

There is a need to establish a dedicated faculty/staff training lab for hands-on training workshops providing both new and refresher training on available technology. Many of these workshops will be brief in format, recorded and integrated to our online learning platforms for just-in-time instructional / refresher needs.

The District should consider contracting with one or more vendors to provide online, self-paced training modules for many software applications. These online services provide web-based, self-paced lessons on dozens of software packages and technologies. Online training modules are made available to all employees via the portal. Such just-in-time opportunities for professional development would provide a powerful tool for enhancing employee productivity.

Note: New students are provided training on using the portal during course orientation meetings. Online documentation is available for self-help on using the portal and AVC's learning/course management system.

Benefits:

- Skilled workforce
- Improved collaboration
- Reduced help-desk calls
- Smoother technology rollouts

Resources: Training services are delivered by Information Technology Services staff; services will be expanded as new funding sources are identified.

Timeline: Training efforts will be ongoing

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Degree Audit and Planning Tool

Many manual processes are in place to advise and assist students. A degree audit and planning tool would automate many of those manual processes.

Current tools and processes for advising students are difficult to use with limited features. More robust tools are available, providing advanced features that can assist with student advising, degree audit, educational plans, and research. These tools also integrate with Banner.

The online system access will allow students to access information prior to meeting with an advisor, or provide self-service planning capabilities to the student.

A first attempt at implementation of a degree audit tool, enabling both student self-services/planning & in-depth councilor assisted services was met with business process complications and internal cultural issues, resulting in the service being left unutilized. Expectations linked to the Student Success Scorecards and other regulatory issues, has placed a growing urgency upon renew this tool.

Benefits:

- Determine what requirements are needed to be fulfilled in order to complete a degree; providing tools for planning future course selections and degree progress
- Potential for institutional planning for course demand/need
- View individual course grades, cumulative grade-point average (GPA), major average, and academic standing
- View transfer credits, waivers, and exemptions applied toward degree
- Assess transcript against articulation agreements for transfer to four year institutions, including capacity to run 'What If' options
- Determine which courses have been taken or transferred, and which ones count as electives
- Estimate how many semesters it will take to graduate
- Learn the prerequisites and co-requisites for courses by clicking on the course numbers

Resources: Consultants will be retained to assist IT and college staff with the implementation; Funding source will has been identified from within Counseling Services, ongoing annual costs are already incorporated with our annual maintenance budget.

Timeline: Project is proceeding with existing funding; launch anticipated before Summer 2014

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Digital Signage

Deployment of an integrated Digital Signage, or Informational Signage, service provides value from the small organizational promotion, to the promotion of campus wide events. Structured to address specific audiences dependent upon local audience, or ad hoc need. Project would establish a network of 55' informational LED screens linked to central controller to allow campus organizations, and/or central PIO's office to manage informational slide displays.

A second phase of the project would include two street side large-scale displays on Avenue K and 30th to allow continual information streams to passing traffic.

All devices would be configured to leverage a campus alert system as well, to support enterprise wide emergency notification capacity.

Benefits: Small constituency and broad based audience reach for broadcasting campus events, awareness and deadlines information for student support and services, as well as larger enterprise support for emergency notification needs

Resources: Total fiscal impact approximately $700,000
- $400,000 for Informational LCDs across campus
- $300,000 for street side information screens.

Timeline: Implementation would be scaled for a three-year deployment, locations to be prioritized by campus governance group, and based upon available fiscal allocations.

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Identity Management

Identity management (IdM) is the use of various technologies to identify individuals in a system (such as a network or an organization) and control access to the resources in that system by placing restrictions on the established identities of the individuals.

An IdM system will provide a substantially greater capacity to automate provisioning of, and access to, services through attribute allocation. Attributes can include: class standing; club/organizational membership; addition to course/instructional based listservs; opt-in of SMS communication from a distance learning service; course enrollment; enrolled/disenrolled status; or at risk status. Attributes can enable back-end systems automation, self-provisioning of services, or identification of specialized services to allow greater self-help capacities. In close integration with other initiatives, most notably desktop virtualization, IdM at a systemic level will allow the District to substantially advance its ability to provision and deliver technology services at a highly personalized level.

The California Community College Chancellor's Office has started an initiative to implement IdM at a state level. They currently plan to utilize Shibboleth and support InCommon. The Shibboleth System is a standards-based, open source software package for web single sign-on across or within organizational boundaries. InCommon serves the U.S. education and research communities, supporting a common framework for trustworthy shared management of access to on-line resources.

Benefits:

- Enrollment-based provisioning of applications
- Automated expiration access to services or applications
- Greater capacity for verification of eligibility to access library services
- Accountability with peer sharing and access to services
- Consolidation of credentials to a single user id and password for users across all authenticated services such as, wireless and desktop services, web access to partner institutions and vendors for online services

Resource: Implementation will be via a combination of internal staffing and vendor support

Timeline: Initial efforts for Federated Identity commenced with the 2013-14 academic year. Larger consolidation of authentication services across the district will begin when funding is identified.

Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Next Generation Portal, Web, & Content Management Enhancements

Over the past decade, due to the expansion of services, a need to serve larger populations, and the need to serve more students with fewer resources, the website has grown substantially from a small barebones site, to several robust sub-domains. Web technology is constantly changing, including software, media consumption devices, and standards. AVC needs to be able to deliver information to constituencies in the manner they choose to receive it. All of this drives the changes made to the college website. Interactivity and new services, along with a mobile-friendly version of the site, will continue to be developed and integrated as needs assessment identifies based on input from campus departments and the community.

The college website currently utilizes Adobe Contribute as a client-side Content Management System (CMS) along with key department Content Managers, but it lacks much of the technology needed to drive the ever-expanding website. Migration to Drupal, an open-source web-based CMS, will give AVC website administrators the ability to keep up with the expansion pace, add interactivity, ease structural changes, ensure compliance and standards are enforced, bring external unapproved websites in-house, and make site-wide design changes. This CMS will also more easily and efficiently put content management in the hands of department Content Managers. Design, development, and testing on the new platform are ongoing.

Benefits:

- Efficiency in content management, enabling greater ease of authorship, updates, maintenance of content currency, and potential for leveraging of content across multiple pages and sites.
- More robust server infrastructure to better deliver content, based upon emerging standards for dynamic content delivery and formatting.
- Leveraging an industry standard in open source software to take advantage of developer community and growing libraries of resources to enhance development.

Resources: Existing staff, new virtual server structure.

Timeline: In alpha testing phases Spring 2014, move to production projected Summer 2014

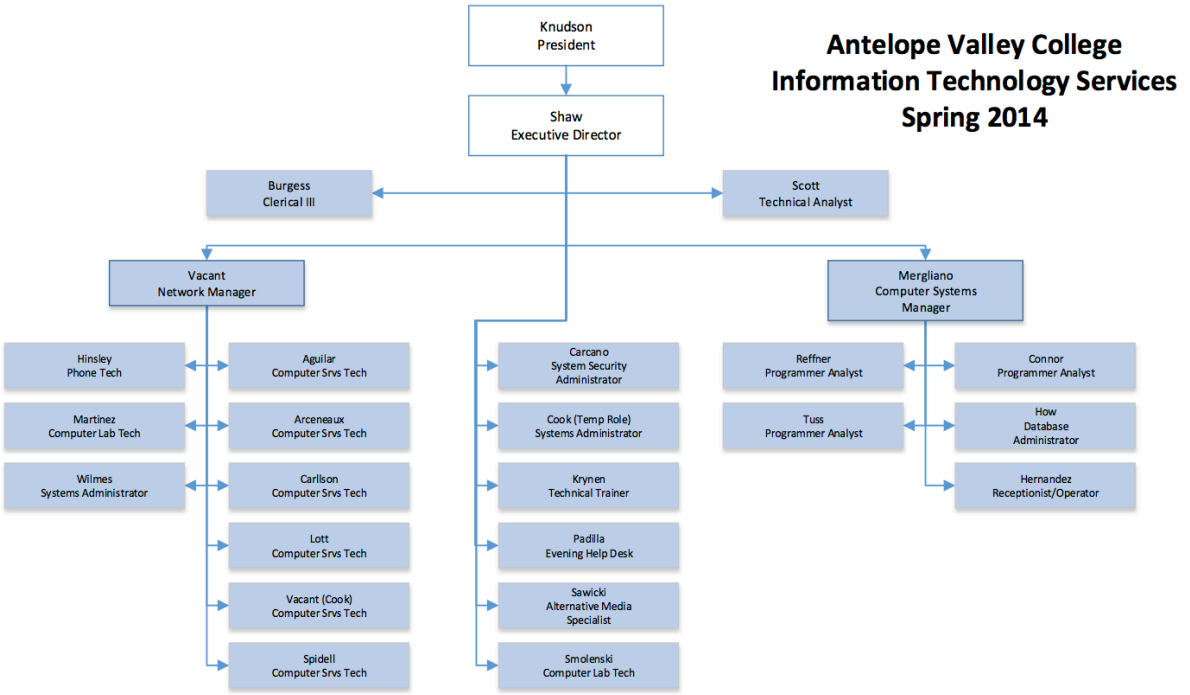
Support of EMP Goals: 1, 2, 3, 4, 5, 6, & 7

Appendix A. Information Technology Services Staffing Plan

Information Technology Services has, for many years, operated without sufficient highly skilled positions. With a growing reliance upon virtualization, server-side service delivery, legislative/regulatory/system expectations for support services, and an increasing BYOD (Bring Your Own Device) demand, it is essential that this talent short fall be addressed. In addition, a new emphasis upon customer service and a need, due to accreditation findings, to demonstrate a consistent level of responsive service in supporting enterprise services and academic initiatives, several new roles are required.

There are two organization charts below. The state of ITS as of Fall 2013, and one illustrating the changes of reorganization and growth as of Fall 2017. Changes are proposed to insure the quality and security of services essential for Antelope Valley College's continued success. Some of the needed changes can be achieved through attrition, restructuring, or in re-tasking roles as they're vacated. Others will require additional funding.

Fall 2013 Organizational Chart



Proposed Changes & Reorganization

Spring 2014's reorganization consolidates web development and computer lab technicians within ITS. Additionally, Instructional Multi-media Center (IMC) was moved into ITS, and will be managed under the Instructional Support Services. Over the next three years with anticipated addition of services and increased demand on staffing, several new positions are proposed. These are outlined within each department below.

Two additions are proposed under direct supervision of the Executive Director: a Projects Manager, in 2014-15, to aid, not only in the coordination of several enterprise wide projects, but to implement and drive a formal project management methodology for the institution; and an Administrative Assistant to ease the growing demands upon the department's Clerical III.

Enterprise Applications & Development

With the proposed implementation of Banner, and several other supporting systems greater custom programming and custom reporting demands will be placed upon Enterprise Applications and Development. To support this anticipated demand it is recommended that a Senior Programmer Analyst position be established, in 2016-17, to lend a greater depth of knowledge in software architecture and coordination to the developer team. This added leadership within the department will enable the Manager to anticipate and plan in a more strategic fashion the development and integration of enterprise applications and their supporting services.

With the reorganization the college's web master has been reassigned into this unit to better leverage development skills on the web and portal teams for greater integration of the college's next generation of web and portal services.

Infrastructure Services

The manager of this department is one of the proposed additions below. The college has lacked an enterprise architect, someone to over see the underlying systems and infrastructure upon which the entire enterprise technology services rely. As with any institution of this type, systems and services have been home grown, patched together, and acquired for niche needs. This position will bring oversight, planning and operations of these services under a single manager, and work toward a more integrated and reliable structure. This manager will also be responsible for development and execution of the college's safety systems, disaster recovery and business resumption plans.

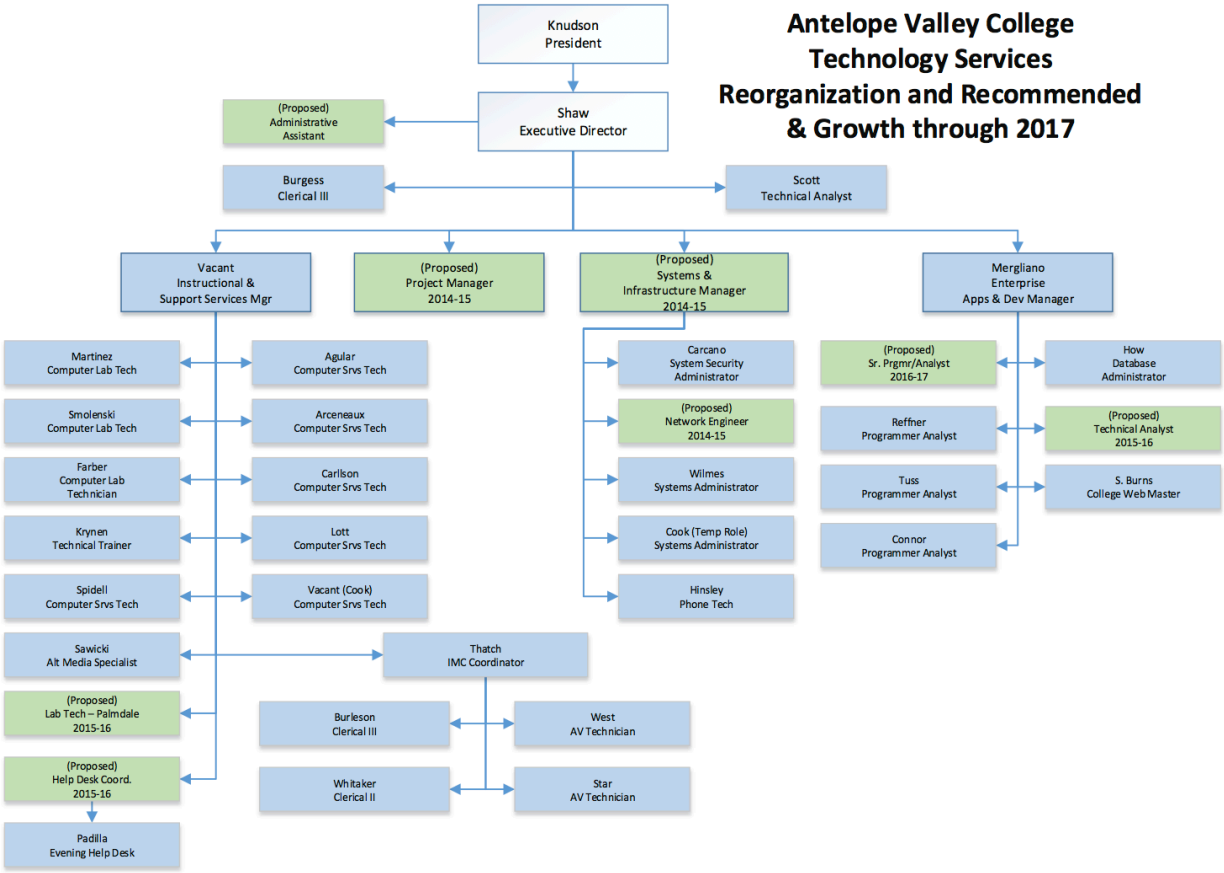
Within this department there it is proposed that the college create a Network Engineer's role, in 2014-15, to compliment the existing Security Administrator, providing back-up and redundancy in service delivery and a greater depth to the day to day responsibilities surrounding monitoring and managing our network.

Instructional & Support Services

The manager's role for these services was proposed with the 2010 Strata Report, initially identified as a Manager/Director of Academic Computing. With the college reorganization the Network Manager's role has been redefined to assume the customer-facing portion of those responsibilities. Under this new role end user support services, computer lab support, instructional multi-media, and the help desk will be consolidated to structure a cohesive user focused support structure.

New position proposed for this department includes a Help Desk Coordinator, in 2015-16, and a Lab Technician for the expansion of the Palmdale Center in 2015-16.

Anticipated Organization Chart Fall 2017



Note: Chart reflects Information Technology Services after college completion of reorganization in Spring 2014. Positions in green are proposed new positions to the department: notated with anticipated addition.

Appendix B. Governance & Advisory Structure

District Governance Structure

The purpose of the Antelope Valley College's participatory governance structure is to provide stakeholders and constituent groups the opportunity to participate in the planning process and initiatives as well as to develop, review, and revise policies and procedures through their representatives. Functionally, this is accomplished by councils, committees, and task forces created to formalize collegiality, to facilitate collegial communication, and to resolve issues as close to the point of origin as possible. These structures provide an opportunity for all perspectives of constituent group interests to be considered. Committees germane to the oversight of Technology Planning are outline below.

College Coordinating Council (CCC)

To serve as the coordinating body for governance issues at Antelope Valley College, except academic and professional matters, and collective bargaining issues. The Council will have four main functions:

- Issue Management
- Providing a communication network for distributing information to the campus constituent groups
- Determining the decision-making and recommending authority of campus-wide participatory governance committees
- Submitting recommendations to the President in areas of "effective participation"

The Information Technology Committee formally reports to this body.

Strategic Planning & Budget Council (SPBC)

The Strategic Planning & Budget Council (SPBC) is a shared governance council that provides oversight and monitoring of the various planning documents within the institution in order to accomplish the mission and goals of the district. SPBC utilizes the Educational Master Plan, which is the district's strategic plan, to review the mission, vision, values and practices of the institution and to monitor and modify the Strategic Goals and the Institutional Learning Outcomes.

Information Technology Committee (ITC)

The members of the committee serve in a representative capacity of their constituencies. Members should regularly communicate with their constituents on issues relating to campus wide information technology and provide feedback to the ITC.

The purview of the committee shall be the establishment of policies regarding the use of information technology (IT) resources at AVC. Use policies and guidelines are to be established and published for all faculty, staff, students and non-affiliated individuals with regard to use of AVC's IT resources.

Additionally the committee will help to establish priorities for replacement and installation of IT resources to optimally support the educational mission of AVC.

The committee is further charged with alerting and briefing the chairperson of pending issues that may impede, strengthen or otherwise impact upon the information technology area.

Distance Education & Technology Committee (DETC)

The Distance Education and Technology Committee's is charged with developing guidelines for the delivery of distance education that will maximize student opportunities for success. The committee makes recommendations to the Academic Senate on issues related to distance education, examines distance education practices for the purpose of developing best practice guidelines, and acts as a resource for technical matters related to academic computing.

The Distance Education and Technology Committee's mission is two-fold: first, to assist in the planning and implementation of the Technology Medicated Instruction (TMI) used by instructors and staff in the preparation of educational materials; and second, to provide guidance and recommendation in the pedagogical development and technology in both traditional and distance education.