# Strategic Plan for Information Technology 2019-2024

March 2019

This is a five-year plan describing the services, technology initiatives, goals and accomplishments of the Department of Information Technology Services at the San Mateo County Community College District which includes Cañada College, College of San Mateo, Skyline College, and the District Office.

## **Table of Contents**

Overview
Vision, Mission & Goals
Current Technology Environment
Administrative Systems 4
Network Services, Infrastructure & Security 4
Peninsula Library System
Construction Support Services
Instructional Technology and Web Services
Computers Support & Media Services
Equipment Replacement Strategy
Technology Training
Personnel Training
Student Training
ITS Data Center
Disaster Recovery Center
Telephone and Voicemail
ITS Organization
1. Desktop and Media Support
2. Banner® Personnel/Student Data Support16
3. Network Services and support
4. Web Services and Support
5. CRM SYSTEM Support
Summary of Major Projects Completed
ITS Projects:
Desktop Support:
Future IT Initiatives
Self-Assessment
Assessment of ITS Support and Services
Appendix A – Technology Projects
Appendix B – ITS Planned Future Projects

## Overview

The Information Technology Services (ITS) department is a centralized service organization dedicated to providing information technology leadership, support staff, training, policies, and procedures related to technology, strategies for the effective deployment and utilization of information technology, and assisting Cañada College, the College of San Mateo, and Skyline College, as directed, with local technology initiatives, projects, and planning.

ITS provides information technology leadership, has highly qualified support staff, conducts technology training, develops policies and procedures related to information technology, creates strategies for the effective deployment and utilization of information technology, and assists the three colleges within the District, as directed, supporting their mission, advancing college values, goals, vision, and improving institutional effectiveness.

All ITS personnel including those providing desktop support to the colleges are centrally managed and supervised. Being centrally located allows ITS to allocate its resources to each college as necessary based on need or based on requirements for specialized knowledge or skills. Seamlessly sharing technology solutions and best practices provides saving and increased efficiency to the colleges.

ITS and the Colleges collaborate district-wide, and one-on-one, on decision-making processes and priorities related to technology. ITS staff regularly participate in various college committees to discuss operational issues and in the development of project plans for a variety of topics which include technology needs in support of teaching and learning, district-wide communications, research, and other operational systems.

Examples of these committees include:

- Chancellor's Council
- District Research Council (DRC)
- Enrollment Services Committee (ESC)
- Business and Finance Officers Group (BAFOG)
- Financial Aid Advisory Committee (FACC)
- Distance Education Advisory Committee (DEAC)
- Facilities Planning and Operations (FPO)
- District Safety and Security Committee
- District Matriculation Committee
- Network Advisory Group
- Technology Planning Committee (TPC)

A strategic plan is a dynamic roadmap that defines the direction that the Colleges and the overall organization need to take with the deployment and use of technology to support the mission of the Colleges. This alignment begins with the vision and mission for Information Technology for the San Mateo County Community College District (SMCCCD). The vision statement provides an overall "picture" of the state of technology within the institution. It describes the parameters for decision making now and, in the future, and serves as a baseline for assessing the guality of technology support and services.

## Vision, Mission & Goals

In 2008, the following information technology vision and mission statements were developed and were recently validated as part of the effort to revise this plan and remain appropriate. Each year this plan will be reviewed and evaluated based on what has been completed, changes in the evolution of technology, and what resources might

be available in the future. Due to the dynamic nature of planning, each year the vision and mission statement will be reassessed.

### VISION

The San Mateo County Community District is committed to the effective and responsible use of information technology resources to:

- Enhance and support the teaching and learning environment
- Provide easy access to learning resources and support services
- Facilitate communication throughout the District
- Improve institutional effectiveness by maximizing resources, improving services, and supporting technologically enhanced learning activities
- Improve operational effectiveness and efficiency
- Serve our diverse teaching and learning communities

### MISSION

The mission statement describes the purpose of technology use within SMCCCD, guides the actions of ITS, and provides a framework and context for current and future strategies and goals.

#### **Mission Statement:**

To provide a responsive and supportive information technology environment that is consistent with the mission of the Colleges and the District Office. Information Technology Services (ITS) provides all services and support focused on customer service and satisfaction.

Based on a set of planning assumptions, goals can be developed to meet the current and future technology needs of SMCCCD. Goals are strategic level objectives that are intended to achieve the technology vision, support the technology mission, and ensure that there is alignment with AACJC Standard III. The goals are numbered for reference purposes only and are used when aligning projects to meet one or more of the goals. They are all of equal importance and intended to be viewed equally.

These goals are based on the ones contained in the Strategic Plan for Information Technology from 2008. They have been validated and continue to be relevant to the current environment.

### GOALS

- Continue to enhance and improve the capabilities and functionality of the administrative information systems environment by increasing student personalization and communication and expanding analytics to serve faculty, staff, and students better.
- 2. Enhance the capabilities and support for the use of instructional technology for teaching and learning.
- 3. Continue to improve the information technology infrastructure to provide reliable and high-performance access to the network and online services.
- 4. Maintain an effective and responsive organizational structure to support administrative information systems and instructional technology.
- 5. Provide technology leadership for the many college construction projects currently in progress or planned for the future.
- 6. Research and present to the District new technologies that have the potential to improve teaching and learning or enhance administrative functions.

## **Current Technology Environment**

A first step for the development of a Strategic Plan for Information Technology is to determine the status of the current technology environment. This information is the foundation for planning assumptions from which strategic objectives can be identified. The following description has been updated and properly reflects the technology environment at SMCCCD.

ITS provides technology assistance and support in many areas: Administrative Systems, Network Services, the Peninsula Library System, Web Services, Computer and Media Support, and Help Desk. ITS offers a variety of services to the District and its constituencies in support of its overall mission and its commitment to meeting Accreditation Standard III. Below, is a description of the current services provided by ITS.

- Administrative Systems
- Network Services & Infrastructure
- Peninsula Library System
- Construction Support Services
- Instructional Technology and Web Services
- Computers and Media, Service and Support
- Technology Training
- Disaster Recovery Site
- Video Surveillance Systems
- Emergency Contact Systems
- Building Management Systems
- Telephone & Voicemail

## **ADMINISTRATIVE SYSTEMS**

ITS provides and maintains a wide range of tools and applications that are used by the Colleges and the District Office to support operational needs effectively. Many of the core services are provided through the Enterprise Resource Planning (ERP) system and the capabilities of third-party systems.

**BANNER**® - The ERP system in use at San Mateo CCD is ellucian Banner. It was initially installed in 1991-92 and has undergone significant major upgrades since it was initially installed. Banner is extensively used by all faculty, staff, and students and includes major modules for student registration, faculty grading, transcript production, student accounts payable, financial accounting, budget development, purchasing, student financial aid, and payroll and human resources. The Banner® web interface, locally called WebSMART, is accessed by students and staff to conduct a variety of self-service tasks such as registration, payment of fees, faculty grading, etc. Banner® version 9 uses Oracle Release 12c as its database and is hosted at the District office on IBM AIX servers for the database and VM Linux servers for the application. Software upgrades, patches, and the development of new services are the responsibility of the programming team. Mandated state and federal reporting is largely based on information residing in the Banner® database.

Web Site: https://banner.smccd.edu (intranet) Vendor: https://www.ellucian.com/

**FACULTY AND STAFF EMAIL** - ITS maintains a comprehensive unified messaging service for the staff of the Colleges and District Office which includes voicemail, email, and fax. The system is cloud-based Microsoft® 0365 and provides the following functionality:

• Exchange Email Outlook

Word

- PowerPoint
- Excel
- OneNote
- Sway
- Forms
- Teams
- Skype
- SharePoint

- OneDrive
- Yammer
- Flow
- PowerApps
- Dynamics
- Delve
- Planner

Over 180 days from June 21 to December 21, 2018, the following occurred:

- 2,232 active Email Accounts
- 1 TB of OneDrive Files Stored
- 342,800 files on SharePoint
- 112 users on Skype
- 1,600 activated Office installs
- 97 users on Microsoft Teams

*Email Training:* <u>http://office.microsoft.com/en-us/outlook-help/CH010371352.aspx</u> *Voicemail Training:* <u>http://www.smccd.edu/phone</u>

ARGOS – The web-based reporting tool used to provide users with a variety of reports and data extracts from the Banner® transactional or data warehouse Oracle databases is Argos. It is a product licensed from Evisions, Inc., a company based in southern California. The application is also intended to provide end-users with the ability to create ad-hoc reports more easily.

Web Site: https://maps.smccd.edu/argos Vendor: http://www.evisions.com/ Training: http://www.evisions.com/Services/Training/OnlineRecorded.aspx

**FORMFUSION®** - A product from Evisions, Inc. used to capture output from text-based reports generated from Banner, add and delete data, insert text and graphics, and then distribute the output where and when it is required. It is used to print and/or email a variety of other forms such as purchase orders, student financial aid correspondence, student schedule bills and tax forms (1099s, W2s).

Web Site: https://maps.smccd.edu/ Vendor: http://www.evisions.com/ Training: http://www.evisions.com/Services/Training.aspx

**CCCAPPLY®** – Students use CCCApply to apply for admission and enrollment at any of the three colleges. The system is hosted by the California Community College Chancellor Technology Center. Applications are downloaded automatically into Banner.

Web Site: https://banner.smccd.edu/cccapply.html Vendor: http://cccapply.org/Apply/ Training: http://cccapply.com/staff/workshop.asp

**BANNER®** XTENDER SOLUTIONS – Xtender is a comprehensive document imaging system tightly integrated with Banner. It allows users to scan, index and efficiently retrieve documents. Documents can be retrieved directly from Banner or through Xtender's user interface. Student Services, the Financial Aid offices, Purchasing and Finance offices are all heavy users of document imaging to reduce document storage and filing costs greatly. Currently, Xtender stores several million documents and images.

Web Site: <a href="http://imaging.smccd.edu/AppXtender/Login.aspx">http://imaging.smccd.edu/AppXtender/Login.aspx</a> Vendor: <a href="http://www.sungardhe.com/Solutions/Banner-Document-Management-Suite/">http://www.sungardhe.com/Solutions/Banner-Document-Management-Suite/</a>

**DEGREE WORKS™** – Degree Works is a web-based academic advising and degree audit tool that the district implemented in 2011. Students and advisors can check academic progress and receive advice on courses needed to satisfy requirements towards achieving academic goals. The system is used to evaluate graduation petitions, and it also provides the capability for developing electronic education plans.

Web Site: <u>https://websmart.smccd.edu/dgwp/</u> Vendor: http://www.sungardhe.com/Solutions/DegreeWorks/

**BANNER® WORKFLOW** – A workflow tool licensed from Ellucian is used to support a canceled class and an application for concurrent enrollment students. The workflow can integrate various pieces of technology making data sync between Xtender, WebSMART, and Banner seamless and efficient to the users.

**SINGLE SIGN-ON (SSO)** – SSO has been used for user authentication throughout the district for a variety of systems such as Canvas, Banner 9 Administrative pages, Xtender, Workflow, and others. ITS is in the process of expanding its use and support capabilities by licensing OneLogin. Once OneLogin is fully implemented, numerous additional third-party systems such as Regroup, Formstack, Pharaoh's Printing, Adobe Creative Cloud, OmniUpdate, ExLibris, Clockwork, and WebSMART will be connected.

**SARS** - At all three colleges, SARS Software Products are used for counseling appointments and record keeping enhancing student services. Currently, supported products include SARS-GRID, SARS-CALL, SARS-TRAK, and eSARS. The SARS servers utilize an MS SQL Server database and are maintained and backed-up in the data center. Interfaces between SARS and Banner are supported by ITS.

Vendor: http://www.sarsgrid.com/

**STUDENT EMAIL** – The District provides all registered students, who have paid fees, with an email address, using google apps for education. The student email is branded *my.smccd.edu* 

Web Site: http://my.smccd.edu/ Vendor: http://www.google.com/apps/intl/en/edu/ Training: http://my.smccd.edu/tutorials.php

**GWAMAIL** – A locally developed application that is integrated into Banner and launched in the summer of 2007. GWAMAIL allows authorized users to send email messages to targeted populations of students. A rewrite of GWAMAIL was made in 2012 to base it on more user-friendly, web-based technology and to provide the option of sending text messages.

**NON-EMERGENCY TEXT MESSAGING** – A locally developed application integrated into Banner. Mobile numbers are initially downloaded from the CCCApply® application. Also, each term students are asked to update their contact information. Mobile contact is used to notify students of changes in waitlist status, registration appointments, and other non-emergency type notifications.

**EMERGENCY TEXT MESSAGING** – Students, faculty, and staff can subscribe to this service receive important campus-wide emergency announcements via text messaging. The District contracted with AlertU, now owned by Waterfall, to provide this service. Another product named, Regroup, will replace the service mid-2019.

Web Site: http://www.smccd.edu/alertu/ Vendor: http://www.alertu.org/ Vendor: https://www.regroup.com/

**PAYMENT PLAN** – Students are provided with the ability to sign up for a payment plan for their fees through Nelnet. Once authenticated through WebSMART, a link directs students to the Nelnet's website to complete the application for a payment plan.

Web Site: <u>https://websmart.smccd.edu/stuhelp/fee\_payment\_faq.pdf</u> Vendor: <u>https://www.nelnet.com/welcome</u>

**FINANCIAL AID DIRECT DEPOSIT** – Bank Mobile, a third-party vendor, is responsible for processing financial aid payments to students. For more information about BankMobile, visit this link: <a href="http://bankmobiledisbursements.com/refundchoices/">http://bankmobiledisbursements.com/refundchoices/</a>.

Vendor: https://www.bankmobile.com/

**FEE PAYMENT** – Students are provided with the ability to pay their fees via a link in WebSMART to TouchNet which processes credit card transactions on a secure system.

Vendor: https://www.touchnet.com/

**PARKING PERMITS** – Students can purchase parking permits in person or through a WebSMART link to Credential Solutions, the vendor hired to issue parking permits. Full year, single term, and discounts for BOGW students are provided.

Vendor: http://www.credentialssolutions.net/

**TRANSCRIPTS** – Credential Solutions also issues printed and electronic transcripts for students via a WebSMART link that directs students to their online request form.

Vendor: http://www.credentialssolutions.net/

**ONLINE ORIENTATION** – Students can complete online orientation through a WebSMART link that directs them to a site supported by COMEVO – the vendor/platform used by the District to provide this service.

Vendor: https://www.comevo.com/

**SALESFORCE** – In 2018 the District implemented Salesforce, a CRM product, to support the application and admissions process for international students. In 2019 the District decided to expand the use of Salesforce to support recruitment, retention, success and all other facets of student interaction for all (international and domestic) students making this product an integral and very important part in the overall support of student engagement.

Vendor: https://www.salesforce.com/

**DATA WAREHOUSE** – To facilitate reporting to the Colleges, ITS designed and maintains a local data warehouse. The warehouse is supported with local scripts and a job scheduler to move Banner® data periodically into denormalized tables.

**JITTERBIT** – Jitterbit is a tool used by ITS to integrate and sync data between Salesforce and Banner. With the expanded use of Salesforce, it is expected that this system will become even more critical in maintaining the data between these two systems (and potentially the data warehouse) in sync.

Vendor: https://www.jitterbit.com/

**SAP BUSINESS OBJECTS®** – This reporting and analytics business intelligence (BI) platform is not supported by ITS; however, it is hosted to provide reporting capabilities for Planning, Research, & Institutional Effectiveness (PRIE).

### **NETWORK SERVICES, INFRASTRUCTURE & SECURITY**

To ensure that faculty, students, and staff have access to high-performance and reliable network services such as Internet, voice communications, and email resources, ITS has implemented a comprehensive and redundant network infrastructure across the District.

The District's WAN (Wide Area Network) interconnects three primary sites: Cañada College, Skyline College, and the College of San Mateo/District Office. In August 2018, ITS upgraded the district backbone from AT&T 1 Gigabit Opt-E-Man circuits to AT&T 5 Gigabit EtherSwitch Service, between District Office Main Point of Entry (MPOE) and each campus MPOE. This upgrade provides optimum bandwidth for file shares, Banner® access, backup services, as well as offering higher-availability toward technology services. In case of primarily service outages, the district-wide interconnection is also designed to route traffic via alternate campus, to regain Internet and Intranet network and phone services instantly.

During the Summer of 2018, the CENIC connections were upgraded from 1 Gig to 10 Gigabits, with two 10 Gig connections for redundancy. The upgrade allows each campus to individually connect to CENIC's high-speed research and education network, which is ten times faster than the previous connection

In addition to the wired network, ITS has deployed 631 wireless access points (WAP) district-wide. As part of SMCCCD's Capital Improvement Bond Project (CIP3), started in January 2016, a replacement and upgrade project was implemented in two phases. Phase I replaced existing and possibly added access points without extensive infrastructure upgrade and is complete. Phase II Expansion: Adding wireless access points in all classrooms as well as enhancing coverages in open areas such as student centers, learning spaces and centers, and libraries, is still in progress (80% complete – district-wide). Utilization of the wireless network continues to grow significantly.

Network security is provided using a variety of tools and techniques. During Spring 2017 college firewalls were upgraded to Palo Alto Networks Next-Generation Security Platform. These devices are a key part of the network traffic defense of the District and individual campus data networks. The current firewall, which, the industry references as the next-generation of firewall switches offers various functions, including enhanced perimeter protection from denial of service (DOS), virus, and malware attacks.

There are three primary VLANs in use within the District: Administrative, Instructional, and Public. The Administrative VLAN provides District employees who have appropriate authentication credentials access to Banner and other electronic resources and services within the District. The Instructional VLAN is for labs and classrooms where students use college-owned equipment to access instructional resources that are local or on the Internet. The Public VLAN allows campus guests and students with personal network devices Internet access, but they are prevented from gaining access to the other District VLANs and secure network resources.

In addition to the three primary VLANs, there are several other unique VLANs in use. Examples of these are the VoIP telephone system, ACAMS security system, Building Management Systems and environmental controls, Bookstores, and KCSM TV and FM radio station. Wireless access to all but the Public VLAN is protected with encryption and secure authentication through the use of certificates.

The District telecommunications system is a Voice over Internet Protocol (VoIP) telephone system. In June 2016, SMCCCD upgraded its phone and voicemail system to include service redundancy and failover between each campus site should there be any service outage as a result of power or service provider interruptions.

The District maintains a high-performance data network that connects the workstations and devices of the three College campuses and the District Office. The District Office contracts with AT&T to provide fast, redundant, and reliable connectivity for each of the college campuses and to the Internet. Internet services are provided by CENIC and have been upgraded many times over the years; currently, each campus has a 1-gigabyte connection to the internet. All buildings on campus have access to the wireless network for both public and administrative access. SMCCCD's new Palo Alto Networks firewalls, in addition to blocking illegal peer-to-peer traffic, address URL Filtering which prevents users from accessing malicious or unknown URLs and to help prevent the illegal sharing of copyright material.

Securing college data is a high priority and some hardware and software tools are in place to protect and detect unauthorized access, including:

- In Spring 2015, SMCCD upgraded to *Sophos End-Point Protection* which is a cloud-hosted service and includes *Sophos InterceptX* as additional security to defend against ransomware and command-and-control types of threats. In addition to preventing virus infections, this new platform security suite uses comprehensive end-point protection, taking advantage of multiple embedded technologies from deep learning signature-based detection to preventing ransomware file-encrypting processes from executing. When medium or critical vulnerabilities are detected on end-user devices, the technical staff receives alerts to respond and remediate the issue immediately.
- Cisco Netflow is used to monitor and report on network connections.
- Microsoft Group Policies is applied to District-owned and managed PCs to protect them from malware, plug-ins that are malicious, file attacks, and to prevent students from installing software on PCs in the instructional computer labs.
- Public Wireless Network is open to use by students and allows access to internet services; access to the public wireless network is automatically shut down from 11:00 pm to 6:00 am daily.
- Private Wireless Network is a secure wireless network that requires authentication and provides access to services like Banner.

### PENINSULA LIBRARY SYSTEM

In May 1988, the District joined the Peninsula Library System (PLS) and approved a joint powers agreement that includes all city and county public libraries in San Mateo County. The primary objective of the District in joining PLS was to automate the libraries of each college, expand the library resources available to students and faculty, and benefit from other cooperative activities of the public libraries within the County. This decision continues to be extremely cost-effective and beneficial to the District and each of the three Colleges.

As authorized by the Board in April 1994, an agreement was executed with PLS which relocated the PLS library computer system, network, and their support staff to ITS. In this agreement, the District provides PLS office space for its technical staff, environmentally controlled floor space in the Computer Center, utilities, network, and technical support services, computer operations support, and management services.

The District continues to manage, maintain, and operate the PLS library circulation system and network environment. PLS, staff will continue to be responsible for the applications software, maintenance, and support of the Innovative Interfaces library information system and providing technical consulting assistance to the staff of PLS member libraries.

### **CONSTRUCTION SUPPORT SERVICES**

The inclusion of a robust technology infrastructure has been at the forefront of the recent construction projects across the District. Technology design standards for new construction were provided for all projects, and regular meetings were held with all constituents to ensure appropriate technology was being incorporated during all phases of planning and construction. Information technologies are a critical element in the design of all new buildings and for the renovation of older buildings. This technology includes voice, data, video, security, fire alarm systems, HVAC systems, audio/visual systems, EAS, Cell Phone Repeaters, Digital Signage, and other technology.

https://sharepoint.smccd.edu/SiteDirectory/CPD/CPD%20Downloads/SMCCCD%20Design%20Standards% 20and%20Construction%20Specifications/Big%20Picture%20Design%20Standard%20Topics/Telecommun ications%20Infrastructure\_DS\_V4\_2009\_01\_03.pdf

Most classrooms throughout the district have been constructed or upgraded to meet the local standards for smart classrooms. These smart classrooms provide faculty the ability to easily utilize a projector and speakers to enhance the learning experience. Wireless internet access is provided in all classrooms for faculty and student use.

*Web Site* Link: Link to ITS Construction Standards: http://www.smccd.edu/accounts/smccd/departments/facilities/Dowloadspage.shtml Then select SMCCCD Design Standards and Construction Specifications

### INSTRUCTIONAL TECHNOLOGY AND WEB SERVICES

ITS provides a wide array of instructional technology tools and web services to meet the needs of our faculty, staff, and students. Below is an alphabetized listing of services with a brief description of each service and links when available.

**CANVAS:** Canvas is a Course Management System that assists faculty and students in teaching and learning. Every faculty member that has a class assignment in Banner automatically has a Canvas course(s) shell created. Faculty use of Canvas ranges from supplemental course information to providing a course completely online.

Web Site: http://smccd.edu/canvas
Vendor: Instructure
Training: https://community.canvasIms.com/community/answers/training

**CATALOG:** Online catalog for each college is dynamically generated from CurricUNET extracts and loaded into OmniUpdate transformation web templates.

#### Web Sites:

Cañada: https://catalog.canadacollege.edu/current/

CSM: http://catalog.collegeofsanmateo.edu/

Skyline: <u>http://catalog.skylinecollege.edu/current/</u> Vendor: OmniUpdate & CurricUNET Training: N/A

**CLASSCLIMATE:** This is a Faculty and Administrative Peer Evaluation Solution for Paper and Online Evaluations.

Web Site: http://classclimate.smccd.edu
Vendor: Scantron
Training: https://www.scantron.com/resources/?types%5B%5D=training

**CLOUDWAYS:** This is a managed cloud hosting for legacy web applications, laravel applications, and Wordpress.

Web Site: https://www.cloudways.com/en/ Vendor: Cloudways Training: N/A

**CONFER NOW ZOOM CONFERENCING:** This Online conferencing solution gives faculty and staff the opportunity to participate in screen sharing, remote lectures, meetings and office hours.

Web Site: http://conferzoom.org/ Vendor: California Community Colleges Chancellor's Office Training: http://conferzoom.org/ConferZoom/Guide

**NOT ANYMORE:** Online Student Title IX training includes a suite of interactive online programs, featuring numerous student testimonials that foster viewer empathy to help prevent interpersonal violence.

Web Site: Accessed inside WebSMART Vendor: Student Success by Vector Solutions Training: N/A

**NOVISURVEY:** This survey application is used for delivering online surveys, self-assessments, and conducting online elections as needed.

Web Site: https://surveys.smccd.edu Vendor: https://novisurvey.net Training: https://novisurvey.net/Survey-Software-Help.aspx

**DISTRICT SUPPORTED GOODS AND SERVICES:** Purchasing/General Services and ITS jointly maintain the DSGS website. The website is used by District employees to access information about the purchase of computer hardware, software, audiovisual equipment, and other ITS supported equipment.

Web Site: http://smccd.edu/dsgs Vendor: homegrown Training: N/A

**FACULTY DOOR CARDS (OFFICE HOURS):** Faculty members post their availability for students online via a homegrown system referred to as faculty door cards. The faculty office hours are accessible from this website and also integrate into the online searchable staff directory. Faculty members can also print out their hours and post them on their office doors.

Web Site: https://smccd.edu/doorcard/

Vendor: homegrown Training: N/A

**FORMSTACK:** This is a form solutions with attachments, signatures, and workflows to replace PDF form and homegrown applications. Planned future integration with Salesforce and OneLogin.

Web Site: https://www.formstack.com/ Vendor: Formstack Training: https://help.formstack.com/hc/en-us

FUNNELBACK: This is a unified search solution to make web content more easily accessible to student and provide reports on back-end web issues.

Cañada: https://search.canadacollege.edu/s/search.html?collection=canada-search CSM: https://search.collegeofsanmateo.edu/s/search.html?collection=san-mateo-search Skyline: https://search.skylinecollege.edu/s/search.html?collection=skyline-search Vendor: Funnelback Training: https://www.funnelback.com/training

**GUIDEDPATHWAYS:** Custom built web application for Skyline College, GuidedPathways to present a collection of potential pathway maps to students based on meta-majors.

Web Site: http://guidedpathways.college.technology/ Skyline: https://guidedpathways.college.technology/public/skyline-college/metamajors Vendor: Guided Pathways Training: N/A

IT SERVICE REQUEST FORM: This is a one-stop location for users to make IT support requests including:

- Manager Request for new accounts (Banner, Email, WebExtender, Telephone, WebSMART and Website Requests.)
- HelpCenter (Submit technology-related work orders and track the status of your requests)
- Directory Information (Request your directory information to be updated)
- Email Redirection (Forward or stop forwarding your email)
- Surplus (ITS collects/surpluses old computers, AV and electronic equipment)
- MySmccd (Request a @my.smccd.edu Google Apps Email Account)
- Request Microsoft Outlook Conference Room (ITS can set up your conference rooms in exchange, allowing people to book them in outlook.)

Web Site: https://smccd.edu/portal Vendor: homegrown Training: N/A LYRIS: Lyris is an email mailing list software for marketing and newsletters. Allows for auto-subscribing users or users can self-subscribe and unsubscribe.

Web Site: http://lyris.smccd.edu Vendor: Lyris Training: http://lunar.lyris.com/help/lm\_help/11.1/

**MOBILE SERVICES:** ITS Web Services launched and supported ellucian Mobile for two years with low campus adoption by students. The ellucian mobile solution had limited functionality and students expressed that using their browser on their phone to access college student services was more useful than the mobile app. The Colleges' marketing departments agreed to retire the mobile application and instead focus on ensuring College websites followed universal design best practices including being responsive (mobile-friendly) and accessible.

**MYSMCCD GOOGLE APPS:** SMCCCD provides all students with an @mysmccd.edu Google email account, calendar functions, and other apps as part of the Google Apps for Education suite of products.

Web Site: http://my.smccd.edu Vendor: Google Training: http://my.smccd.edu/googlesupport.php

**MYSMCCD SUPPORT CENTER:** A hosted helpdesk is readily available to students, and it provides them access to resources to get answers for any questions they may have related to the tools available to them through their my.smccd.edu email account.

Web Site: http://mysmccd.helpserve.com/Tickets/Submit Vendor: Kayako Training: N/A

**OU CAMPUS**<sup>™</sup>: OU Campus is a Content Management System for higher education web professionals. ITS deployed OmniUpdate as a tool for selected end users to maintain their web sites that are hosted on the District's servers. There are approximately 100 active licenses throughout the District.

Web Site: https://www.omniupdate.com/oucampus/login.jsp?user=sanmateo

Vendor: Omniupdate

Training: http://support.omniupdate.com/documentation/ox/10/

SHAREPOINT® (WEB BASED COLLABORATION TOOL): SharePoint® Services is included in the Microsoft Office Product Suite and allows users to post and interact with documents via the web. Over 150 District-wide committees, departments, and organizations currently use SharePoint for agendas, minutes, calendars, forms, surveys, forums, picture libraries and more.

Web Site: https://smccd.sharepoint.com Vendor: Microsoft Training: https://support.office.com/en-ie/article/sharepoint-online-video-training-cb8ef501-84db-4427ac77-ec2009fb8e23

**SMCCCD DOWN**: This is an externally hosted web services down page for planned or unexpected outages. Requires DNS redirection but allows ITS to offer an informational landing page that ties to status updates.

Web Site: http://phpstack-124735-403615.cloudwaysapps.com/ Vendor: homegrown Training: N/A

**SMCCCD PORTAL:** The portal is the gateway for District employees to access College and District Office web-based services and related web sites.

Web Site: http://smccd.edu/portal Vendor: homegrown Training: N/A

**SMCCD SELF SERVICE PASSWORD MANAGEMENT:** ManageEngine (Zoho) ADSelfService Plus is password self-service with custom Twilio API integration for text messaging. It allows employees to change, update, reset, and unlock their Single Sign-On (SSO) account password.

Web Site: https://adselfservice.smccd.edu

Vendor: ManageEngine

Admin Training: <u>https://www.manageengine.com/products/self-service-password/free-online-</u>

workshop.html

**SMCCCD STATUS**: This is an externally hosted web services status page providing real-time up-time reports and announcements for all IT supported services — integrated announcements with a WordPress® back-end for quickly updating essential sites with urgent announcements as needed.

Web Site: https://smccd.college.technology/ Vendor: homegrown Training: N/A

**WEB FOLDERS:** Every staff member, department, and service area is given a web folder with 500 MBs of web space to maintain a website or store files. ITS maintains the web server, creates accounts, installs web applications as needed, and assists users with debugging of their websites. ITS currently supports 63 active web folders. It is anticipated that Faculty Website hosting will move to the Cloudways in 2019.

Web Site: http://www.smccd.edu/accounts/smccd/webpages/website\_list.asp

Vendor: Homegrown

Training: http://www.smccd.edu/accounts/portal/index.php/posts/district-web-site-hosting/

**WEBSCHEDULE OF CLASSES:** WebSchedule is a search engine for searching through all courses offered at Cañada, CSM, and Skyline College. It provides different entry points for search based on user requirement. It displays all details for any particular course including, important registration dates, course textbooks, class location, etc.

Web Site: https://websmart.smccd.edu/webschedule/default.php Vendor: Homegrown Training: N/A

**WEBSMART:** WebSMART is the web interface to Banner that enables students, faculty, and staff to register for classes, submit grades, request transcripts, update personal information, and much more. Below is a more comprehensive features list:

For students, it provides the capability to:

- Add/Drop classes
- Add/remove from a waitlisted class
- Print schedule of classes
- Pay for account balances
- Select or update an education goal
- Link to purchase textbooks
- Sign up for a payment plan
- Obtain an unofficial transcript
- Request an official transcript
- Link to Degree Works
- Schedule a counselor appointment
- Order a parking permit
- Sign up to receive emergency texts
- Review financial aid documents, status, requirements, and award
- Sign up for a BOG waiver
- Print a 1098T

For faculty, it allows them to:

- Enter grades
- Enter attendance
- Send emails to the class
- Download/Print class lists, waitlist and attendance lists
- Print authorization codes
- Print schedule of classes

For employees, they can:

- Enter timesheet details
- View benefits and deductions
- Review/print payroll information
- Review/Print tax forms
- Review accumulated time off balances

For advisers, it allows:

- View student's unofficial transfer
- Access Degree Works to counsel students
- Access Degree Audit

For staff, it provides the capability to:

- Run reports
- Approve documents
- Enter requisitions
- Review Budgets
- Process journal entries

Web Site: https://websmart.smccd.edu/ Vendor: ellucian Training: N/A

## Computers Support & Media Services

Desktop computers and media services support for the Colleges and District Office is a centralized ITS service. ITS technicians are physically located on each campus. ITS technicians assist the Colleges with technology purchases. They also work cooperatively with the Colleges to develop minimum supportable standards for computers, provide regular software updates, maintain an inventory database of technology that has been installed, and install new equipment. Service and support are provided through a centralized HelpCenter that uses a web-based tool to enable users to place repair orders and track their status through completion.

http://www.smccd.edu/accounts/portal/ITSRequest/requestoptions.asp

ITS maintains an inventory database of all computers, laptops, labs, printers, and projectors to assist in technology replacement planning. Based on this information ITS provides the Colleges with recommendations on equipment replacement strategies and best use of their technology funding.

When computer labs require computer upgrades, faculty members submit a "program review document" to the Division Office. The Division Office reviews all paperwork received, establish priorities and needs, and then sends them to the College Council to review. College Council approves and works with ITS to determine specifications, and then ITS develops the Purchase Order.

## Equipment Replacement Strategy

The Long Range Instructional and Institutional Equipment Planning Team meets quarterly to review equipment replacement needs and to set priorities based on available resources. The membership consists of the Executive Vice Chancellor, the Vice Chancellor of Facilities, Operations and Planning, the Vice Presidents of Instruction, the Vice Presidents of Student Services, the Chief Technology Officer, and the Director of Information Technology Services.

Older computer labs are replaced or repurposed depending upon academic needs and discussions with the deans and faculty.

Cañada College	Building 5 room354	Student Services	8 stations
	Building 9 room 200	Learning Center	106 stations
	Building 9 room 312	Library	37 stations
	Building 16 room 204	Micro Cell Biology	20 stations
	Building 16 room 212	Biology	20 stations
	Building 16 room 204	Micro Cell Biology	20 stations
	Building 16 room 212	Biology	20 stations
	Building 16 room G05	Bio/Anatomy	3 stations
	Building 16 room G10	Bio/Anatomy	20 stations
	Building 16 room 209	Rad-Tech	4 stations
	Building 18 room 221	Anatomy	20 stations
	Building 22 room 118	Computer Science	24 stations
College of San Mateo	Building 10 room 161	Digital Media	30 stations
	Building 10 room 370	Assessment Center	20 stations
	Building 19 room 10	Instrument Calibration	25 stations
	Building 19 room 24	Electronics	30 stations
	Building 19 room 104	CAD Lab	22 stations
	Building 19 room 110	CAD	25 stations
	Building 19 room 124	CIS Networking Cart	45 stations
	Building 36 room 100	Astronomy/Planetarium	20 stations
Skyline College	Building 4 room 4230	Cosmetology	4 stations
	Building 7 room 7211	Allied Health	7 stations
	Building 7 room 7238	Biology	21 stations
	Building 7 room 7241	Biology	16 stations
	Building 7 room 7305	Astronomy	20 stations
	Building 7 room 7305	Physics	27 stations

Building 7 room 7338	Chemistry	17 stations
Building 7 room 7341	Chemistry	18 stations

## Technology Training

## PERSONNEL TRAINING

The district recognizes that for faculty and staff to make efficient use of technology they need to be provided with opportunities to learn about the services available. Due to budgetary restrictions, the Centers for Teaching and Learning were eliminated, and much of the training that was provided through them is now the responsibility of the Colleges.

Training on a limited number of common desktop applications has continued periodically.

- Some workshops on Adobe applications are offered as well as Microsoft Office workshops: http://www.smccd.edu/accounts/smccd/adobe/default.php
- Media Services Website has a wealth of info for smart classroom training: <u>http://www.smccd.edu/media</u>
- On request, ITS provides training and workshops on various topics for departments and/or groups of staff. Examples of recent training include Introduction to SharePoint, Securing Your Workspace to meet FERPA standards, and Single User Sign-on.
- Jaz's Web Tips Available from the District's portal page, it provides answers to frequently asked questions regarding the technologies supported by ITS.
- Opportunities for faculty training are provided by individual colleges and at a district level through the Structured Training for Online Teaching (STOT) part of the district's professional development program.
- Banner 9 navigation training workshops are provided to staff.
- WebXtender navigation training workshops are provided to staff.

Through staff development and flex activities, the Colleges regularly offer technology training opportunities for faculty and staff. The staff development program also supports training for distance education faculty using outside resources, such as @ONE, Lynda.com, and textbook publisher materials.

In addition, each year the California Community College Banner Group (3CBG) holds an annual conference for the California Community Colleges that use the ellucian Banner® application. Staff from various departments throughout the District attend and participate in workshops and discussions on how to get the most effective use of Banner. <a href="http://www.3cbg.org/">http://www.3cbg.org/</a>

## STUDENT TRAINING

ITS provides FAQs and tutorials online for students and does presentations to students in classes as-needed when launching new systems, such as Student Email, WebSchedule, and Degree Works.

• Student Support & Tutorials: <u>https://smccd.edu/studenttutorials</u>

## **ITS Data Center**

To maintain the reliability of services that are hosted by ITS at the District Office, the facilities department has installed and maintains an emergency generator to provide backup electrical power to the building for as long as necessary during a power outage.

For fire protection, a VESDA (Very Early Smoke Detection Apparatus) system is installed in the Computer Center. In the event of a fire or overheating of equipment, the VESDA systematically shuts down the equipment in the Computer Center and sets off the appropriate warnings.

ITS conducts backups for all administrative data stored on its servers daily. Also, ITS has in place a comprehensive backup strategy to ensure that all server-based data is recoverable. This data is written to high-density tapes that are stored in an off-site location every week.

ITS facilities around the District host the District's security system, ACAMS. ITS supports the network services that are required to operate this system.

### **DISASTER RECOVERY CENTER**

ITS conducts backups for all administrative data stored on its servers daily. Also, ITS has in place a comprehensive backup strategy to ensure that all server-based data is recoverable. This data is written to high-density tapes that are stored in an off-site location every week.

Also, for all major systems including Banner, email services and web services, ITS has built a disaster recovery computer center that is located at Skyline College. Using specialized features in Oracle enables this backup/recovery site to stay synchronized with the primary Banner® system located at the District Office.

Due to insufficient equipment, a full failover has not been tested. An updated business continuity plan is required to ensure that all systems can be replicated and supported if the Computer Center at the District Office becomes inoperable.

## **Telephone and Voicemail**

The District uses a Siemens HiPath 4000 to meet voice telecommunication requirements. Along with the phone system, SMCCCD deploys approximately 1400 Voice Over IP (VOIP) phones, 350 analog devices (*faxes, courtesy phones, and elevator phones*), and 16 Session Initiated Protocol (SIP) Emergency phones across the district. Included with the HiPath 4000 telephone system is the Siemens Xpressions voicemail system which integrates with Microsoft Exchange to provide unified messaging and delivers voice messages to an individual's email inbox.

## **ITS** Organization

ITS is divided into four units including desktop and media support, network services and support, web support services, and administrative information systems. In 2019, another unit will be established, CRM System Support. Three additional positions will staff this department.

## **1. DESKTOP AND MEDIA SUPPORT**

The ITS department consists of 41 employees dedicated to assisting the Colleges to meet their technology goals. Of the 41 employees, a majority are IT Support Technicians responsible for desktop and media support across the three colleges. They work cooperatively with the Colleges to develop minimum supportable standards for

computers, provide regular software updates, maintain an inventory database of technology, and install new equipment. Service support is provided through a centralized HelpCenter that uses a web-based tool to enable users to place repair orders and track their status through completion. (http://www.smccd.edu/accounts/portal/ITSRequest/requestoptions.asp)

After each HelpCenter work-order is closed, a satisfaction survey is sent to the end-user. Three questions are posed to users regarding responsiveness, professionalism of the technician, and resolution of the problem. The overwhelming majority of responses expressed satisfaction.

### 2. BANNER® PERSONNEL/STUDENT DATA SUPPORT

ITS has six Programmer Analysts, a Database Administrator, an IT Support Specialist, two Systems Administrators and a Director responsible for maintaining Banner® modules and supporting external systems that integrate with Banner. They assist end-users with saving and retrieving data from the mainframe database as well as implementing new efficient workflows or tools to assist with day-to-day business procedures.

### 3. NETWORK SERVICES AND SUPPORT

ITS has one network manager, two network infrastructure technicians, and two Systems Administrators responsible for maintaining, supporting, and ensuring the reliability of the network infrastructure, wireless internet, network security, backups, telephone VOIP system, and over 150 physical and virtual servers.

## 4. WEB SERVICES AND SUPPORT

Web Services is a team of three web programmers, one accessibility specialist, and one director who supports several web systems as well as assist with web sites and applications district-wide. Web Services Support maintains the Course Management, Content Management, SharePoint Portal, Support Ticket system, writes many custom applications such as the webschedule, employee directory, faculty door cards, etc., and provides web support for Banner 9 and Degree Works. They assist the Colleges with existing tools as well as researching and implementing new web solutions, best-practices, and custom programming.

## 5. CRM SYSTEM SUPPORT

The CRM System Support team will be composed of two support personnel and one director. They will be responsible for the installation, implementation, maintenance, and support of the new CRM application to be licensed in 2019.

## Summary of Major Projects Completed

To continue on a path of progress, moving projects, and initiatives forward in a strategic manner, best practices suggest that an organization review what has been accomplished in the near past. Over the past six years, ITS has provided services and support to the Colleges in a variety of ways. This support is in alignment with Accreditation Standard III by providing support to student learning programs and services and all SMCCCD constituencies. Below, are summaries of the major accomplishments of ITS. ITS has provided services daily which may not be documented or included below but are reflective of the commitment ITS has to the needs of the Colleges and other constituencies. See Appendix B for a complete list of projects.

### **ITS PROJECTS:**

- 46 total projects have been part of the workload of ITS in support of the District and the Colleges.
- Of the 46 total projects, one was canceled and three were placed on hold. The remainder have been completed.
- 21 of the projects were in direct support of student learning and programs.
- 23 of the projects were in direct support of administrative systems and functional users.
- 16 of the projects were directly related to infrastructure in support of SMCCCD systems.
- 3 of the projects were related to planning and leadership in exploring new technologies that will respond to specific needs of the Colleges.

### **DESKTOP SUPPORT:**

- Completed approximately 9373 work orders at our 3 campuses and the District Office via the online HelpCenter work order system and telephone Help Desk.
- Installation and replacement of approximately 1242 computer systems (included Bond funded replacements mentioned above) and 445 printers.
- Replacement of 33 failed projectors and 14 projector screens in campus classrooms due to deterioration.
- Specified and installed Cell Phone repeater systems in 17 buildings (some multi-story) at 3 campuses.
- Specified and installed a variety of Digital Signage monitors, connected to content management server and provided instruction to appropriate staff. Ongoing support for server and signage required.
- Replacement of approximately 28 Uninterruptable Power Supply (UPS) systems due to deterioration. This UPS system ensures the ITS guaranteed "uptime" of 4hrs in the event of a power outage at any of our campuses. Equipment is housed in the IDF(s) in each building at all 3 campuses.

## Future IT Initiatives

Future trends in technology that will impact the Colleges include:

- Network bandwidth demand
- Wireless networks
- Cloud and hosted services
- Virtualization of servers and desktops in computer labs
- Services Integrated across multiple platforms
- Network and data security
- Backups, recovery, and redundancy
- Paperless and automation of workflow and processes
- Protection from identify theft
- Protection against spam, viruses, and other threats
- Impact of social networking on teaching and learning

Once technology goals are determined, the initiatives, objectives, and projects that fulfill the goals on a more tactical basis can be identified. To ensure that the proper direction is taken for each of these endeavors, projects need to be aligned with the relevant Accreditation Standard and related ITS technology goal. Shown in Appendix A are the projects that have been prioritized for implementation by ITS for the next five years. In the table, the Accreditation Standard and the ITS technology goal that is supported by the project is shown. Similarly, Appendix B provides a list of projects that have been completed by ITS over the past 3 years.

Additional priorities for ITS over the next five years:

- New ITS branch, led by an IT CRM Director managing the CRM solution Districtwide
- Expand single-sign-on to all compatible web services
- Adopt Version Control and GIT for development
- Create Streamlined Purchasing Workflow to Standardize Technology Purchases
- Standardize Accessibility Vetting for all Software Purchases
- Provide Essential Security Best Practices Training to Staff
- Implement a New HelpCenter Solution with Incident Management

## Self-Assessment

### **ASSESSMENT OF ITS SUPPORT AND SERVICES**

A key performance indicator of success is to gauge to what extent the SMCCCD community perceives that it is well served. To determine user satisfaction, ITS has surveyed users and tracked technology support.

This self-assessment aligns with best practices and is in keeping with the Accreditation Standard IIIC, technology support of student learning, teaching, and administrative services.

A survey of faculty and staff was conducted in April 2012 to evaluate their level of satisfaction with the services and systems provided by the department. Using a scale of 1 to 5, with 5 being the highest level of satisfaction, ITS was rated from 4.10 for technology purchases to 4.69 for the reliability of the services provided. One area for improvement includes the need for more training related to the use of Banner, the document imaging system, and Degree Works (score 3.75). Overall, the average rating across 12 categories was 4.33. The following services were the highest rated in terms of need: WebSmart, telephones, employee email, ITS HelpCenter, the wireless network, cell phone reception, web-based schedule of classes and emergency text messaging.

HelpCenter:

A satisfaction survey is sent to all users of the HelpCenter upon closing of the Help Ticket and assistance has been provided to users. The overwhelming majority expressed satisfaction:

- How quickly a problem is resolved
- The professionalism of the technician assigned to the case
- Effective resolution of the problem

#### WebSMART:

Student users are surveyed to determine the level of satisfaction they have in email and student services. Nearly 500 students responded to nine survey items expressing overall satisfaction. The survey included those items below addressing the main item, "In the past year, how satisfied have you been using WebSMART to:

- 1. Find the class you wanted (WebSchedule)
- 2. Register for classes (including add/drop)
- 3. Register using an Authorization code
- 4. View your schedule of classes
- 5. Order an official transcript
- 6. Review and pay your fees
- 7. Sign up a Payment Plan
- 8. Order a Parking Permit
- 9. Review your Degree Works Audit
- 10. Review your Degree Works Student Education Plan
- 11. Performed a What-if Audit in Degree Works
- 12. Update your Goal/Major
- 13. Apply for a Board of Governor's Fee Waiver
- 14. Review your Financial Aid Status
- 15. Sign-up for emergency text notification (AlertU)
- 16. Reset your student email password
- 17. View Placement Test Results
- 18. View Grades
- 19. Order Textbooks
- 20. Make a student service appointment (eSars)

## Appendix A – Technology Projects

The matrix below demonstrates the alignment of ITS projects with the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges (ACCJC) Standard IIIC and ITS goals. Since technology projects and initiatives are dynamic and accumulative, existing technology continually evolves to the next level of service, support, and functionality; hence, the following project information reflects the accomplishments of 2017-2018. To list projects from 2013 – 2018 would be redundant.

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
1, 3, 4	1	ADSelfservices	This is the Password management tool for faculty and staff	2-Med	Nov 2017		In use
			Developed				
			<ul> <li>Login Page and theme transformation (<u>https://adselfservice.smccd.edu/showLogin.c</u> <u>c</u>)</li> </ul>				
			Waterfall SMS proxy SMS sender APP (WFSMS) for Self-service password reset				
1, 2, 3, 4	1, 2	Astra	Astra is the room scheduling software that the district uses to manage room assignments and events.	1-High	Dec 2018		Skyline went live in 2017. CSM and Cañada went live at the end of 2018.
1, 2, 4	1	Banner 9	This was a major upgrade to the Banner ERP system. It took over 2 years and significant resources to establish the infrastructure and to transform local and modified administrative pages.	1-High	Dec 2018		Went live on a transition schedule over several months from April to December of 2018. All functionality (with a few pages that have not yet been delivered by Ellucian) is supported.
1	1, 2	Canvas	<ul> <li>Provide Administrator Support for Canvas</li> <li>Provide Tier 3 Support</li> </ul>				
1, 3, 5	1, 2, 3	Catalog	<ol> <li>Coordinated team of staff and vendors in a multi-campus, year-long project to produce an online catalog.</li> <li>Designed accessible web template for colleges using their input/feedback.</li> </ol>	1-High			

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
			<ol> <li>Developed scripts for each campus using node, webpack, and git allowing for custom distribution of catalog CSS and dependency management.</li> <li>Provided and continue to provide support to college web teams and marketing directors.</li> <li>Created 30 page technical specification document for OmniUpdate to develop the catalog application.</li> <li>Worked with CurricUNET in developing an API to extract course and program information.</li> <li>Reports:         <ul> <li>Produce HTML for WebSchedule course descriptions</li> <li>Produced a comparison tool to check differences between catalog years</li> <li>Produced on-demand SQL reports for Curriculum Specialists</li> </ul> </li> <li>Scripts:         <ul> <li>Developed scripts to get information from CurricUNET API and then perform complex sorting using relational DB</li> <li>Created a distribution of those scripts and trained college Webmasters on how to run them</li> <li>Coordinated working meetings between campuses to produce 1718 and 1819 catalog</li> <li>Working with web teams on a solution for IGETC worksheets displaying the PDF</li> </ul> </li> </ol>				
1, 2, 3, 4	1	Degree Works	<ul> <li>Maintain and develop mods including what-if API, XSL, and PHP SCRIPT</li> <li>Upgrades:         <ul> <li>Worked with DBA to upgrade from version 4.1.1 to 4.1.5</li> <li>Working with DBA on complex 5.x upgrade with SSO and full Tomcat</li> <li>Migrated audit rules and launched Online Scribe</li> </ul> </li> <li>Support:         <ul> <li>Provide direct support for counselors, scribers, and Deans</li> <li>Troubleshoot technical issues, working with Ellucian and</li> </ul> </li> </ul>	1-High	2018	Compl eted	

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
			<ul> <li>consultants as needed</li> <li>Consult with ITS management to strategize upgrades and other changes</li> <li>Participate and provide leadership in upgrade committees</li> </ul>				
1, 2	1, 2	EIS - SSO	<ul> <li>New Banner 9 Login Page transformation (https://xe- admn.smccd.edu/ApplicationNavigator)</li> <li>Maintain the Canvas Login page for the upgrades</li> <li>Proxy Login Portal         <ul> <li>Canvas Login is working in the development environment</li> </ul> </li> <li>Logout leads to EIS server logout page and will probably need auto redirect back to login portal from EIS logout confirm page to have a complete solution</li> </ul>				
		Firewall	Developed firewall pages				
		Formstack	<ul> <li>Continue work on Formstack API parsing - EOPS forms</li> <li>Receive User Information from Banner (needed)</li> <li>Full logic to prepopulate every field on Formstack based on Field Name or create a template for all forms that use the API</li> </ul>				
1, 2, 3	1, 2	Funnelback search engine	<ul> <li>Help lead a project for Skyline implementation         <ul> <li>Organized initial meetings with vendor</li> <li>Assisted with web template development</li> <li>Provided degree APIs and page mark-up</li> </ul> </li> <li>Working on a team to implement Funnelback at other colleges</li> <li>Working to replace Funnelback Degrees API with online catalog data</li> <li>Developed Course (Schedule API) with PHP Slim 3 framework (https://api.smccd.edu/v1/schedule/)</li> <li>Worked with senior developer Shell</li> </ul>	1-High			

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome	
			Chen to improve the performance of the data output from Banner System Developed Active Directory API with PHP Slim 3 framework ( <u>https://api.smccd.edu/v1/directory/</u> ) o Maintaining the APIs for adjustments					
1	1, 2	Google Analytics	Added Google Analytics and Google Tag managers to track the users' Actions and Events for further insights into how end users using SMCCD webpages and services					-
1	1, 3	Guided Pathways	http://guidedpathways.college.technology – Custom built for Skyline, with the expectation to implement Districtwide & to be model for State.					
1, 3	1,2	Helpdesk	<ul> <li>Doorcard and Directory bug Fixes</li> <li>Canvas LMS and students inquiries.</li> </ul>					-
1, 3	1, 3	Mobile-friendly Banner	Developed Mobile-friendly Banner Site for Employee and Programmers ( <u>https://banner.smccd.edu/</u> )					
1, 3	1, 2	New Employee Portal	Developed New Employee Portal (http://smccd.edu/portal/)					-
1, 2	1, 2	PAF/PRF Processing	<ul> <li>Designed form</li> <li>Designed workflow</li> <li>Developed training</li> <li>Trained HR</li> </ul>					-
		PDF Inventory	<ul> <li>Determine "highest traffic" PDFs to move to Formstack</li> <li>Bulk Conversion of PDFs</li> <li>Convert Existing Forms to Formstack</li> </ul>					-
		Salesforce (CRM)	<ul> <li>Integrations for International Student Applications</li> <li>Templates and Designs for International Students Application</li> <li>Setup and modify the forms in Salesforce</li> </ul>					
1, 2	1, 2, 3	Server Management	<ol> <li>Manage and maintain web services IIS servers         <ul> <li>Developed scripts to automatically provision servers with a security safe</li> </ul> </li> </ol>					

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
			<ul> <li>web configuration</li> <li>b. Documented scripts and put in a git repo</li> <li>2. Migrate web services sites to new servers including sweb-canada, sweb-skyline, sweb- smccd, and swebsmart</li> <li>3. Working on migrating CSM and MySQL to new servers</li> <li>4. Migrated apps from web servers to Cloudways</li> <li>5. Maintain and solved follow up bugs and errors after migrations</li> </ul>				
1, 2, 3	1, 2, 3, 4	SharePoint migration	<ol> <li>Assisted web services team with SharePoint migration strategy and execution</li> <li>Updated APIs for construction notices and facilities</li> <li>Worked with facilities to move their files to the SharePoint internal site or directly into their facilities website</li> <li>Developed a proxy APP and API for SharePoint document sharing for public view a. PHP Slim 3 Framework b. SharePoint REST API</li> <li>Created API endpoints with oData Query Parameters for web services to use in District Webpages</li> <li>Moved Public SharePoint Sites to Private SharePoint Sites</li> <li>Provided support, workflow design, &amp; security resolutions</li> </ol>				
		Skyline Events	<ul> <li>Developed API (Astra Events ICS JSON Exporter) to proxy the ADAstra Event Management software with PHP Slim 3 Framework</li> <li>Integrated event data and created a Skyline Event template for Wordpress (https://events.skylinecollege.edu/)</li> </ul>				
1, 2	1, 3	Slackbot	Integration with Host-Tracker messages for Down channel in SMCCD Canvas Team				
		SMCCD Strategic Plan	<ul> <li>Designed and developed OmniUpdate XSL transformations</li> <li>New District Header theme (<u>http://smccd.edu/strategicplan/</u>)</li> </ul>				

1, 3       1, 2       Swagger UI       API Documentation tool SMCCD Theme development (https://api.smccd.edu/v1/schedule/         1, 2,       1, 2, 3       Training & Support       1. Provide training and support for Microsoft products, OmniUpdate, Parking Permit, Vehicle Database support, Silicon Valley Intensive English Program, Moodle migration       1. High         1, 2, 3       1, 2, 3       Web Development       1. Maintain and provide support for in-house web services applications and websites       1. High	ome	Status	Completion Date	Priority	Description	Name	IT Goal	Standard III
Supportproducts, OmniUpdate, Parking Permit, Vehicle Database support, Silicon Valley Intensive English Program, Moodle migration1, 2, 31, 2, 3Web Development1. Maintain and provide support for in-house web services applications and websites1- High						Swagger UI	1, 2	1, 3
Development web services applications and websites					products, OmniUpdate, Parking Permit, Vehicle Database support, Silicon Valley		1, 2, 3	1, 2,
<ul> <li>used at the District and all three campuses</li> <li>Produced new SMCCD home page, created a reusable design framework for other pages</li> <li>Developed new website for Foundation in OmmiUpdate</li> <li>Updated SVIEP website to use District theme</li> <li>Moved CCCE NoviSurvey web application from local machine to server and refactored code to run on a scheduled task</li> <li>Developed Nevi Survey videos, reports, and upgrades</li> <li>Updated all applicable internal district web service applications to use PHP 7.x and PDO SQL</li> <li>Produced and maintained SMCCCD theme git repository</li> <li>Working on CakePHP application to store information about servers</li> <li>Working on cakePHP application to store information about servers</li> <li>Working on script to pulcatalog information into each main college websites</li> <li>Provided PCF training in OmniUpdate to college websites</li> <li>Provide technical support and training as needed to college web teams</li> <li>Frovided PCF training in OmniUpdate to college web teams</li> <li>Create Accessibility Standards for SMCCD pages (i.e. Semantic PTIM, ARIA) for consistent user experience</li> <li>CSM a.</li> <li>Assisting CSM with college re-design b. Moved setemal</li> <li>Moved external CSM apps from internal to Cloudways</li> </ul>				1- High	<ul> <li>web services applications and websites</li> <li>Manage and develop OmniUpdate templates used at the District and all three campuses</li> <li>Produced new SMCCD home page, created a reusable design framework for other pages</li> <li>Developed new website for Foundation in OmniUpdate</li> <li>Updated SVIEP website to use District theme</li> <li>Moved CCCE NoviSurvey web application from local machine to server and refactored code to run on a scheduled task</li> <li>Developed Novi Survey videos, reports, and upgrades</li> <li>Updated all applicable internal district web service applications to use PHP 7.x and PDO SQL</li> <li>Produced and maintained SMCCCD theme git repository</li> <li>Working on CakePHP application to store information about servers</li> <li>Working on script to pull catalog information into each main college website</li> <li>Provided PCF training in OmniUpdate to college webmasters</li> <li>Provide technical support and training as needed to college web teams</li> <li>Evaluate Catalog accessibility; create templates</li> <li>Create Accessibility Standards for SMCCD pages (i.e. Semantic HTML, ARIA) for consistent user experience</li> <li>CSM a. Assisting CSM with college re-design b. Moved external CSM apps from internal</li> </ul>	Development	1, 2, 3	1, 2, 3

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
			<ul> <li>c. Working on migrating calendar app to Cloudways</li> <li>d. Moving remaining MySQL databases to new server</li> <li>18. Cañada and Skyline</li> <li>a. Support web framework and OmniUpdate templates</li> </ul>				
1, 2	1, 2	WebSchedule	<ul> <li>Developed a new version of mobile-friendly and AA compliant WebSchedule         <ul> <li>PHP Slim 3 Framework</li> </ul> </li> <li>Upgrading and maintaining for the improvements</li> </ul>				
		Web Services	<ul> <li>Status Site</li> <li>Cloud hosted site to display WebServices Statuses and Host the Notifications for District Websites and Pages</li> <li>Wordpress site with custom (SMCCD Notification) plugin</li> <li>Added Notification alert Spaces and Self- contained Javascript to display the Published notifications from Web Services Status site</li> </ul>				
1, 3	1, 2	WebSmart Login page	Developed a responsive WebSmart login page ( <u>https://websmart.smccd.edu/</u> ).				
1, 3,	1, 2	Wordpress	Migrated Local Wordpress sites to Cloud hostings; GoDaddy and Cloudways.				
		WeBWork	<ul> <li>(Online Math homework and assignments application)</li> <li>Integrations to Canvas</li> <li>Upgraded to the latest version to work with LMS integrations</li> </ul>				
1, 4	1	WebSMART Graduation Petition	Developed a form in WebSMART to allow students to submit graduation petitions. The form contains rules and functionality to make the student submission easy and provide all the detail data elements that the evaluators need to award the degree or certificate.	1- High	Mar 2018		Live for the fall 2018 graduation cycle. Enhanced for fall 2019.
1, 4	1	WebSMART integration with	A form was created in WebSMART to direct students to COMEVO to complete their online	2-Med	Spring 2016		Completed and still in use

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
		COMEVO	orientation. Once completed, a process provides data back to Banner to update the student record for SSSP and registration checklist.				
1, 4	1	SSSP implementation and Banner integration	With the introduction of SSSP, significant business process and data gathering requirement changes were needed. Brand new integrations from SARS and Degree Works were developed to support this change. Priority Registration rules were also affected.	1- High	Fall 2015		Completed and still in use
1, 4	1	Skyline Baccalaureate Degree	Several Banner® configuration changes were needed to identify, track and support this group of students. Cohort codes were created to support registration restrictions, and a WARE table for cohorts was developed to support reporting.	1- High	Fall 2016		Completed and still in use
1, 4	1	Skyline and District Promise Scholarship	Initially developed as a Skyline program, it is now a District-wide initiative. The support for this involved several parts around the application, identification, fee assessment, and reporting.	1- High	Fall 2017		Phase 1 was completed for fall 2018. Enhancement and additional requirements are still being developed.
1, 4	1	Multiple Measures	This was also a significant project that required various areas of ITS support. Initially, the State discontinued the testing tool being used by the Colleges for one they were developing only to cancel the initiative at the last minute. ITS had to create integrations with Accuplacer and develop a new set of codes to support the change.	1- High	Jan 2017		Completed and still in use but enhancements for HS data coming from CCCApply as well as a new WebSMART page is awaiting final testing.
1, 4	1	International Student Application – Salesforce	With the creation of a new application for international students using the Salesforce platform, a new integration between Salesforce and Banner was developed using Jitterbit as the tool to support this functionality.	1- High	Oct 2017		Completed and still in use but enhancements are currently being developed.
1, 4	1	Enhancements to the data warehouse	Although this is and will continue to be an ongoing project, there has been an increased demand to provide data to the PRIE offices.	2-Med	Multiple dates based on specific data request.		Many tables have been completed, but the expectation is that requests will be ongoing.
1, 4	1	Application for Concurrent Enrollment	A new WebSMART application form was developed to allow students to submit applications including attachments with their parents and school principals' signatures. The form is loaded into Xtender, and a workflow is triggered. Once	1- High	Spring 2017		Completed and still in use

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
			approved, all the relevant data is populated in Banner, and email notifications are sent to students.				
1, 4	1	Electronic transcript processes and articulation	This project has two parts <sup>-</sup> (1) need to establish policies and procedures and configure Banner to articulate incoming transfer course work, (2) need to set up system and procedures to bring in a transcript.	1-High	Fall 2012	Closed	1 – Large – The District decided to outsource transcript processing and terminate the contract with XAP.
1, 4	1	Pre-requisites in Degree Works	Degree Works provides for a more flexible way of creating rules to check for prerequisites. Degree Works will be evaluated to determine if a change from Banner is feasible.	1-High	Fall 2012	Closed	1 – Large – The District decided not to pursue this option and continue to use Banner
1, 3, 4	1	Mobile Applications and Devices	Provide student, faculty, and staff with access to services through mobile devices.	1-High	2012	Closed	After a lot of work and review, the colleges decided that it was not a suitable product and decided to instead focus on making their websites more mobile-friendly.
1, 4	1	Admissions and Records BPA	A review of internal A&R business processes will be conducted to identify potential areas for improvements.	1-High	March 2012		1 – Large – The BPA was completed leading to numerous business process changes.
1, 2, 4	3	VoIP – New Phone System	Mitel was implemented.	2-Med	TBD		1 – Large - Completed in 2018
1, 3, 4	4, 5	Construction and Design of New IT Building	The District decided not to pursue this project	2-Med	TBD	Closed	1 – Large – No budget was allocated
1, 4	1	BOWG-FA	Upgrade to CalB-supported version and new web application to make the interface more user- friendly to students and to reduce the errors generated due to the use of rate codes.	2-Med	Aug 2015		2 – Med – The new Calb version using exemptions was implemented.
1, 2, 4	3	Implement Workflow	One of the BPA recommendations was to make better use of this tool to simplify business processes that require automation.	2-Med	Fall 2015		2 – Med – The canceled class workflow was implemented and is still in use.
1, 4	1	New CCCApply	Upgrade to the new system provided by the Chancellor's office which will provide a more user-	2-Med	Aug 2015		2 – Med – New CCCApply was migrated from XAP to

Standard III	IT Goal	Name	Description	Priority	Completion Date	Status	Outcome
			friendly interface to students at a lower cost.				the CCC Technology center. Implemented and still being used with a periodic enhancement to the interface.
1, 2, 4	3	Microsoft O365	This project concerns outsourcing faculty and staff email and SharePoint to the version hosted by MS which will provide for easier upgrades.	2-Med	?		2 – Med – Don't recall the date
1, 4	1	Web-based student requests for services	Need to design an easy-to-use way for students to submit requests for transcripts, graduation, transcript evaluation, etc.	2-Med	TBD	Closed	2 – Med – A couple of applications were developed in WebSMART, but then the district decided to shift its focus to Salesforce.
1, 4	1	Upgrade Enrollment Dashboard	Convert Hyperion enrollment dashboard to Argos.	1-Low	April 2013		2 – Med – Completed and still in use.

## Appendix B – ITS Planned Future Projects

Standard III	IT Goal	Name	Description	Priority	Target Date	Status	Est Effort Level
1, 2, 4, 5	3	Disaster Recovery Upgrade	ITS implemented a DR site at Skyline College. The site currently hosts backup servers for Banner and other services. An updated business continuity plan is required to ensure that all systems can be replicated and supported if the computer center at the DO becomes inoperable.	1-High	Summer 2020	In-progress	1 – Large
1, 2, 4	1, 3	Single Sign On	OneLogin implementation will be launching in the spring 2019.	1-High	Spring 2020	In-progress	1 – Large
1 a.	3	WebAccess 2.0	Upgrade the online schedule of classes.	2-Med		New	2 -Med
1 c.	3	SharePoint 2012 Upgrade	SharePoint 2012 Upgrade.	2-Med		New	2 -Med
1 b.	3	Web tips	Continue to provide quick tips on the use of technology.	2-Med		In-progress	3 – Small
1 b.	1	Peer Training	Continue training in the M/S Sandbox.	2-Med		In-progress	3 – Small
1 b.	1	Informal training for students	Continue to support Counseling and A&R staff for as needed help for students.	2-Med		In-progress	3 – Small
1 b.	1	WebAccess tutorials	Support links from student and faculty WebAccess pages.	2-Med		In-progress	3 - Small
1 a., c.	3	Enhance System Wide Status Notification	Enhance non-emergency student messaging and incorporate SMS (text) capabilities.	2-Med	Spring 2012	New	2 – Med
1a.	1	District Logo and Website	Update district sites with a new logo, templates, and framework.	2-Med	Fall 2013	In-progress	2 – Med
1a.	1	Degree Works Reporting	Degree Works has provided a wealth of information about student goals and progress towards achieving them. This project focuses on identifying the types of data that are available and what to do with it.	2-Med	Fall 2013	New	2 – Med

Standard III	IT Goal	Name	Description	Priority	Target Date	Status	Est Effort Level
1, 2, 4	1, 4, 6	CRM/Salesforce Implementation	During 2017, The District convened a Technology Taskforce to explore how to improve the student experience, outcomes and success through the application of technology in support of its Students First strategic focus. The Taskforce identified three areas of need: (1) operational efficiency through integrated and transparent business processes, (2) expanded the use of data, and (3) greater ease of use for students and employees. As an outcome of its analysis, the District decided to purchase and implement a Constituent Relationship Management system (CRM) to augment or replace its current recruiting and retention software packages and processes.	1-High	2 – 3 years	In-progress	1-High
1, 4	1	District Promise Scholarship Enhancements	As the Promise Scholarship Program has been rolled out to all three colleges, the focus is on sustainability replication of services. Enhancements to the application, administrative management and reporting are being implemented	1-High	Fall 2019	In-progress	2 - Med
1, 4	1	Implement Rolling Drop	To simplify the drop for non- payment process, the district has decided to implement rolling drops where students will be given up to 7 business days from the time of registration to pay or apply to one of the many services that will exempt them from dropping.	1-High	Summer 2019	In-progress	2 - Med
1, 4	1	Split summer/fall registration cycle	Current practice is for registration for the summer and fall term to begin at the same time. Several issues will be resolved by having them start at different times including separate payment plans.	1-High	Summer 2020	New	2 - Med
1, 4	1	Multiple Measures – Test scores and placement codes	Load HS grades and GPA from CCCApply and WebSMART to use for data reporting and placement.	1-High	Spring 2019	In-progress	2 - Med
1, 4	1	Enhancements to Program of Student selection and Degree Works Audits	Improve audit data accuracy by improving the student selection of course program of student and catalog year.	1-High	Fall 2019	New	2 - Med

Standard III	IT Goal	Name	Description	Priority	Target Date	Status	Est Effort Level
1, 2	3, 6	Enhancements to the backup and restore process	Need to upgrade and enhance current backup solution.	1-High	Summer 2019	New	2 - Med
1, 2	3, 6	Upgrade NetApp storage	The current data storage solution is coming to its end of life. Need to explore upgrade/replacement options.	1-High	Fall 2019	New	2 - Med
1, 2	3, 6	Evaluate options for cloud hosting of Banner and other systems	Need to evaluate the feasibility of continuing to host Banner and other systems locally.	2-Med	2021-2022	New	1-High
1, 4	1	Banner 9 Apps	Upgrade WebSMART to Banner 9 Apps.	2-Med	2020- 2021	New	1-High
1, 4	1	New budget system	Finance wants a new budget system to replace Banner position control.	1-High	Fall 2019	New	2-Med
1, 2, 3	2, 3, 5, 6	Cañada College Building 23	New construction of Math Science Technology. Ensure infrastructure and appropriate technology is installed to establish a successful teaching and learning environment.	1-High	Fall 2019	New	1-Large
1, 2, 3	2, 3, 5, 6	Cañada College Building 1	New construction Kinesiology and Wellness. Ensure infrastructure and appropriate technology is installed to establish a successful teaching and learning environment	1-High	Fall 2019	New	1-Large
1, 2, 3	2, 3, 5, 6	Cañada College Building 13	Remodel classroom and building technology such as network and wireless signal for enhanced learning.	1-High	Summer 2021	Remodel	1-Large
1, 2, 3	2, 3, 5, 6	Skyline College Building 12	New construction Environmental Science building. Ensure infrastructure and appropriate technology is installed to establish a successful teaching and learning environment.	1-High	Fall 2019	New	1-Large
1, 2, 3	2, 3, 5, 6	Skyline College Building 7	Develop a new STEM Center with a technology infrastructure for flexible presentation and collaboration.	1-High	Fall 2019	New	2-Med
1, 2, 3	2, 3, 5, 6	Skyline College	Remodel classroom and upgrade building technology such as network and wireless signals	1-High	Summer 2020	Remodel	1-Large

Standard III	IT Goal	Name	Description	Priority	Target Date	Status	Est Effort Level
		Building 1	for enhanced learning.				T
1, 2, 3	2, 3, 5, 6	Skyline College Building 19	Remodel classroom and office spaces for adequate technology use toward instruction.	1-High	Spring 2019	Completed	1-Large
1, 2, 3	2, 3, 5, 6	College of San Mateo Building 17	Create a central HUB, various study spaces, and collaboration site for student activities and related programs.	1-High	Spring 2020	Remodel	1-Large
1, 2, 3	2, 3, 5, 6	College of San Mateo Building 3 Theater	Remodel the theater's audio-video technology, network infrastructure and wireless signal for enhanced learning	1-High	Spring 2020	Remodel	1-Large
1, 2, 3	2, 3, 5, 6	College of San Mateo Building 19	Remodel classroom and building technology such as network and wireless signal for enhanced learning	1-High	Summer 2020	Remodel	1-Large
2, 3	3, 4	Horizontal / East-West Network traffic Protection	Secure and control IoT and BYOD devices as they have the protentional to create hazardous security gaps.	1-High	Summer 2020	New	1-Large
2, 3	3, 4	Network Infrastructure Upgrade	Upgrade and repair building-to-building and intra- building network infrastructure in addition to instructional lab connections.		Fall 2020	In-progress	1-Large
2, 3	3, 4	Physical Security of MDF/IDF spaces	Add access control and security measures to monitor and protect intra-building technology services.		Spring 2021	In-progress	1-Large
2, 3	3, 4	UPS MDF/IDF spaces	Add or upgrade UPS (Uninterruptible Power Supply) of all network rooms district wide to minimize service disruption such as network and phone services from power outage.	1-High		In-progress	2-Med
2, 3	3, 4	Enable richer security controls toward virtual server environment	Apply security controls between virtual machines, applications, and data storages to minimize vulnerability against data breach and cyber attacks.	1-High	Summer 2020	In-progress	1-Large
2, 3	3, 4	VMware vRealize Operations Management	Apply operations management across virtual server environment to better manage and analyze system log data, troubleshoot issues with virtual server hosts, and perform security auditing and	1-High	Summer 2019	In-progress	2-Med

Standard III	IT Goal	Name	Description	Priority	Target Date	Status	Est Effort Level
	Τ	T '	compliance testing.	T			
2, 3	3, 4	Event Announcement System (EAS) speaker expansion	Expand Event Announcement System's speaker coverage to all classrooms, conference rooms, office spaces, as well as common areas, district wide.	1-High	Summer 2019	In-progress	1-Large
2, 3	3, 4	Video Management System Server	Upgrade video management server for Public Safety as current video servers are between 7-10 years old and are antiquated. In some instances, hard drive failures have occurred. Scalability is also in question as we continue to add new cameras to buildings, new and existing.	2-Med	Summer 2019	In-progress	2-Med
2, 3	3, 4	District Wide Camera Upgrade	Replace all district wide cameras in the next 2 to 3 years as they are 8 – 10 years old and are displaying poor quality video as well as experiencing frequent hardware failures or rapidly dying.	2-Med	2 – 3 years	In-progress	1-Large
2, 3	3, 4	Digital Signage	Update current antiquated digital signage system to an up-to-date, web-based, and central management system so the colleges' marketing and public relations teams can simply control and pushing digital contents from anywhere.	2-Med	Spring 2020	In- progre ss	2-Med
2, 4	3, 4	Mass deployment and management system	Update current end-user device and instructional lab installation methods through a centrally managed system, with the goal to simplify and expedite mass deployment of operating systems, applications, or refreshing of instructional labs.	2-Med	Summer 2021	New	2-Med
2, 4	3, 4	Mass deployment and management system	Update current end-user device and instructional lab installation methods through a centrally managed system, with the goal to simplify and expedite mass deployment of operating systems, applications, or refreshing of instructional labs.	2-Med	Summer 2021	New	2-Med
2, 4	1, 4	Hardware inventory management system	Upgrade current hardware tracking system to asset and inventory management tracking details, such as purchase date, usage, warranty expiration date, and location to quickly and accurately report on asset inventory. Reports will also allow the colleges and departments to decide	2-Med	Summer 2021	New	1-Large

Standard III	IT Goal	Name	Description	Priority	Target Date	Status	Est Effort Level
			to replace old or faulty hardware, and more.				
2, 4	3, 4	New web-based helpdesk ticketing system	Upgrade current ticketing system (IT support ticket system) which collects all end-user support requests from a wide range of sources and manages them in one location.	1-High	Spring 2020	New	2-Med
1, 2, 4	2, 4, 5, 6	Classroom and learning space technologies	During 2018, The District assembled a Classroom Technology Taskforce to explore how to improve teaching and learning experiences, fulfil current pedagogical expectations, and make classrooms more dynamic and interactive.	1-High	2 – 3 years	In-progress	1-Large

