Coast Community College District
District Information Technology
Annual Report 2013-14
October 28, 2014

This first District Information Technology (District IT) annual report provides an overview of projects, activities and accomplishments in 2013-14 and planned key projects for 2014-15. Our primary goal in District IT is to provide the best level of service and leverage technology to support and enhance instruction, student services and operations across the district.

Purposes of IT Reorganization

The reorganization of IT became effective July 1, 2013. As stated in documents provided during the analysis that led to the reorganization, a number of activities related to achieving the purposes and benefits of the reorganization have taken place in 2013-14 with others taking place in 2014-15 and 2015-16. The full implementation of all stated purposes and benefits was understood will take three to four years.

This reorganization took into account the extremely dynamic nature of Information Technology, the need for flexibility, responsiveness and adaptability for the future and effective and efficient service to the students, employees and community served by CCCD and its three colleges.

The purposes of the reorganization are to:

- improve services to our students, employees and community
- increase agility, performance, effectiveness and efficiency of our information technology services and best position our IT organization to be responsive and proactive to the ever changing IT landscape and expectations from our students
- reduce costs, where feasible and appropriate
- best utilize our human, technical and financial resources
- thrive in a competitive environment

The major premise of this reorganization was that information technology is a key to CCCD's success now and in the future. And while technology is a means not an end, it is undeniable that the pervasive nature of technology throughout the entire organization has made agile, state-of-the-art, effective and efficient technology a must for any successful organization including CCCD.

District IT Accomplishments 2013-14

Building a customer-service oriented IT organization

Starting in November 2013, District IT adopted the Information Technology Infrastructure Library (ITIL) framework to help transform IT from provider of technology to a provider of IT services by focusing on the business needs district-wide for both students and employees. For additional information on ITIL, please visit http://en.wikipedia.org/wiki/Information_Technology_Infrastructure_Library .

As part of adopting ITIL, every District IT employee (management and staff) attended an onsite, three-day certificate training program. As District IT proceeds in developing and implementing the ITIL framework, over the next few years, we will develop and implement processes to measure how well we are meeting district-wide needs and operational efficiencies, as well as the way we conduct business both internally and externally.

In order to provide end users with a better understanding of the services provided and how to access these services, District IT created and deployed the first Service Catalog. The Service Catalog is posted on the District web site

http://www.cccd.edu/employees/ITServiceDesk/Pages/default.aspx

The next step is to transform the Service Catalog into a dynamic, fully integrated platform with FootPrints such that end users can directly submit a project request or service ticket through the Service Catalog itself.

In January 2014, District IT consolidated four different IT helpdesks and processes into a single unified application called FootPrints. Since then IT service requests can be submitted by: e-mail itservicedesk@cccd.edu , web-form https://itservicedesk.cccd.edu ,or calling extension 88111. To enhance services further, on May 5, 2014 District IT also centralized the resetting of passwords for all district employees and students. The Student Services departments at Coastline Community College and Golden West College have been relieved of this task, which saved them many hours of work. In addition, by using a single district-wide process of validating the requestor, security for accessing District IT systems has been improved thereby reducing the District's risks and liability. Since the implementation of FootPrints in January 2014, the User Support/Helpdesk group has planned additional service enhancements such as remote desktop assistance which are in the process of being implemented (see Appendix 1 for a summary of tickets submitted through FootPrints).

Applications and Software Development

Between July 2013 and June 2014, the Applications and Software Development Department completed 95 projects.

District IT has implemented a host of technologies and support structures to ensure the effective implementation of the Student Success Act and increase student success.

In February 2014, District IT developed and deployed a new dashboard available to students called Priority Registration Eligibility. The dashboard gives students, counselors and other staff working directly with students the ability to see in real-time the status for each student of completing the requirements for establishing eligibility for priority registration and take proactive measures to assist students.

District IT has worked with the District Research, Planning and Institutional Effectiveness department to developed and deploy a robust infrastructure for data mining, analysis and reporting in order to support informed evaluation, decision making and planning in areas related to enrollment management, scheduling, course and program development, student success, resource allocation, room utilization, faculty loads, and accreditation.

In May 2014, District IT provided the technical support to deploy a new online orientation used by students at all three colleges.

In support of Financial Aid, in April 2014, District IT implemented a standard security protocol requiring PowerFAIDS system (this is the financial aid application) users to change their passwords on a regular basis, password hardening by requiring the use of special characters, verified all existing user accounts, and created user security groups to limit access to sensitive data. We are also in the final stages of aligning all user defined data fields in each of the colleges' PowerFAIDS databases to simplify staff's work to support the three colleges through consistency. Finally, District IT has automated several key processes between PowerFAIDS and Banner including Student Academic Progress (SAP). Prior to automating SAP, Orange Coast College Financial Aid staff worked 760 hours per term to complete this process manually. Now it takes only a few hours per term for district-wide SAP processing.

Below a list of some of the projects completed in 2013-14

- Coast Community College District Public Website
    - In coordination with the Public Information Office, designed, developed and implemented a new public web site based on SharePoint technology that allows for distributed authoring and updates.

- Argos Reporting Software Upgrade
    - In collaboration with the District Research, Planning and Institutional Effectiveness Department, upgraded Argos reporting software to version 4.25 that provides for enhanced functionality including: 1. Eliminate need for special operating software requirement at time of set up. 2. Allow users to save their custom reports (Cubes).

- Leave Request
    - Implemented District Information Technology SharePoint work flow to facilitate Leave requests. Upon employee leave request submission, form routes to manager for approval.

- FormFusion Upgrade
    - Upgraded to FromFusion 3.01 in order to:
        - Utilize Evisions MAPS (Multiple Application Platform Server) technology. All Evisions products (Argos) reside on one server.
        - Completely web-delivered
        - No Oracle drivers required on individual PCs
        - Color output capability

- DegreeWorks Upgrade
    - Upgraded DegreeWorks to version 4.13, to provide for bug fixes and enhanced functionality.

- Online Graduation Application
    - Configured for common district-wide functionality and deployed online graduation application in Banner.

- Service Desk – FootPrints
    - Installed and customized Footprints application for district-wide IT Service Desk: Single Point of Contact-First Call Resolution

- Financial Aid Forms
    - Created 12 new online forms to ease the burden for Financial Aid staff, created a more efficient work flow for handling hard-copy, in-person form submission, and improved overall customer service and user experience.

- FLAC (Faculty Load and Compensation)
    - In coordination and collaboration with Human Resources, automated the creation of employee job data from Banner Student class scheduling data.

- Out-of-state Payroll Processing
    - Implemented Out-of-State (instructors teaching outside of California) payroll processing (because the County does not process them).

- Benefits Online Open Enrollment
    - Converted Benefits Plus data and loaded into Banner.
    - Implemented and enabled employee benefit online open enrollment.

- Maxient, Adapt Courseware, SARS, Barnes and Noble Bookstore
    - Assisted with setup, configuration and authentication
    - Integrated Banner data to and from third party applications

- SharePoint Farm
    - Built SharePoint environment to support: District Public web site, Coastline College Intranet site, Golden West Intranet site.

- Active Directory and Exchange Migration and Consolidation
    - Created application and user reports to assist Coastline College, Golden West College and Orange Coast College with migrations.
    - Developed an easy to use password reset tool to assist User support.

- Banner Upgrades
    - Banner was upgraded with major releases in spring 2014
    - Banner had periodic California specific CalB upgrades installed
    - Since May 2014 there have been over 60 production updates.

- Priority Registration
    - Under a compressed timeframe, designed, developed and implemented a Priority Registration Eligibility dashboard
    - Developed and implemented priority registration appointments functionality.

Infrastructure, Systems and Security

- Completed the migration and consolidation of four different Active Directories and Exchange systems. All employee e-mail boxes, contacts, and calendars were migrated to the District Office data center. This major project involved IT staff from all three departments. The successful conclusion of this project provided the following savings:

    - Coastline Community College – elimination of 7 servers and 1.5 Terabytes of storage
    - Golden West College – elimination of 8 servers and 3 Terabytes of storage
    - Orange Coast College – elimination of 11 servers and 5 Terabytes of storage
    - District Office – elimination of 3 servers: this is due to the recent purchase of high capacity blade servers. The new consolidated Active Directory and Exchange system resides in only 4 servers.
    - Staff – 1 vacancy due to retirement not needed to be filled – IT Infrastructure Technician E-65 step 5 (ongoing savings of $84,583 annually)

    - Provided a single Archive and Journaling system for all e-mail; which also helps the District to be able to comply with regulations regarding maintenance of employee e-mails

- Implemented What's Up Gold as a single district-wide platform to provide proactive monitoring of all critical information technology systems including: servers (voice and data), storage, networks, backup power, and data center temperatures. When pre-defined thresholds are exceeded, the monitoring system is able to notify the appropriate IT personnel via e-mail, text, or phone call.

User Support/Helpdesk

The staff in the User Support/Helpdesk Department is often the first and, in some cases, the only IT staff with whom end users interact directly.

Staff in the User Support/Helpdesk Department work closely with District IT staff from the Applications & Software and Infrastructure & Systems Departments in the deployment and implementation of all new technologies and provide ongoing support and assistance to end users district-wide.

Below highlights of major activities and projects in which staff from the department provided significant support:

- Computer and mobile device updates and refresh at all three colleges: over 2,300 workstations were replaced by new equipment in instructional labs and employee workstations

- Migration and consolidation of four different Active Directories and Exchange systems: User Support staff were an integral and key part of the success of this major project

- Developed and implemented a remote support plan for the Coastline National Testing Centers (NTC) located at military bases throughout the United States
    - Remote support was implemented as part of the equipment refresh for the National Testing Centers.

- Coastline Google Apps For Education implementation
    - Implemented a Google Apps For Education pilot for the Coastline Acquire Brain Injury (ABI) program.
    - The pilot was setup to test the effectiveness of using Google Apps in an instructional setting at the Community College level. The key benefits that have been identified include:
        - The cloud based architecture of Google Apps allows for simplified collaboration between instructors and students.

    - It also gives instructors and students access to a common interface which can be accessed from any Internet enabled device 24/7.
    - Less time required to administer IT environment. Patches, upgrades, and new products are delivered seamlessly via the Google infrastructure.
  - The pilot has been expanded to a small group of administrative users to test Google Apps usefulness in a non-instructional environment.

- Pay-for-Print (GoPrint)
  - Implemented a district-wide Enterprise Pay-For-Print System for students at all three colleges

- Kiosk Server/Stations Upgrade
  - Server and workstations upgrades from Windows XP to Windows 7

District IT Staff

Staff Training

With assistance from the Chancellor and the Board of Trustees, since July 2013 District IT has provided over 1,900 hours of training for its employees ranging from Information Technology Infrastructure Library (ITIL) to Oracle Database Administration.

Summary of Position and Staff Changes As a Result of the IT Reorganization

	Prior to July 1, 2013	**Effective July 1, 2013**	**Comment**
IT Organizations	4 independent, highly decentralized organizations	One, consolidated and coordinated organization	
Number of IT Related Job Titles and Specifications	35	9	
Number of Classified Staff Employees in IT Related Job Titles	102 (Across the IT Organizations and other College Departments) Individuals with the same job title and specification frequently performed very different tasks; job duties inconsistent across same job title and specification	71 – became part of the Consolidated District Information Technology unit 29 positions (two retirements occurred prior to July 1, 2013) – remained at the colleges reporting to units other than District IT in same or new job titles	As of October 28, 2014, the number of employees in the consolidated District Information Technology Division was reduced permanently by 3 through attrition and the positions were eliminated due to efficiencies gained through the reorganization

Changes in Salary Placement for the 71 Classified Staff Employees Who Became Part of the Consolidated District Information Technology Unit Effective July 1, 2013

Effective July 1, 2013:

- 8 employees obtained a salary increase due to placement into a new job title and specification with a higher salary range
- One employee obtained a salary increase due to promotion through administrative action to reflect new duties assigned
- 33 employees remained at same salary range but were placed into a new job title and job specification
- 29 employees in the User Support/Helpdesk group transitioned into new job titles and specifications for which the associated salary ranges were lower than the prior positions in this department, based on a salary survey conducted by an outside consultant. However, the existing employees remained at the salaries ranges they had prior to July 1, 2013 and were grandfathered in their prior salaries including receiving any salary increases provided to CFCE members.
- Except for three employees in User Support, all other classified staff employees across all three District IT departments had reached Step 5 (highest step) in their salary range prior to July 1, 2013. The three employees were granted the increase to Step 5 and any increases in salaries provided to CFCE members.

Vacancies between July 1, 2013 and October 28, 2014:

- Nine vacancies occurred due to retirements, resignations, or promotions
- Two permanent internal IT staff were promoted to higher level positions into positions that became vacant through the recruitment process. One hourly employee was promoted into a permanent, full-time position that became vacant
- Three of the vacant positions were eliminated; positions not needed due to efficiencies gained through the reorganization
- Three new hires into vacancies created due to two promotions and one vacancy due to long-term disability
- One current vacancy for a programmer position will be filled shortly

Resulting Approximate Ongoing Annual Savings: $238,600 plus benefits and longevity

Customer Satisfaction

As part of the annual review process, in spring 2014, District IT administered a customer satisfaction survey which was sent to all employees and students district-wide. The purpose of these two surveys was to identity the level of satisfaction with the various services, applications, systems and infrastructure currently in place and areas where improvement is needed. 220 employees and 588 students responded.

Employee Summary Responses:

Rating of MySites: 54% satisfied or very satisfied
Rating of reports: 62% satisfied or very satisfied
Rating of assisting with current applications: 41% satisfied or very satisfied
Rating of communicating maintenance schedule: 60% satisfied or very satisfied
Rating of overall satisfaction with Applications and Software services: 38% satisfied or very satisfied
Rating of login to network: 54% satisfied or very satisfied
Rating of email reliability: 66% satisfied or very satisfied
Rating of wireless network: 39% satisfied or very satisfied
Rating of telephone system: 63% satisfied or very satisfied
Rating of communication of outages, scheduled maintenance: 57% satisfied or very satisfied
Rating of responsiveness to service requests: 61% satisfied or very satisfied
Rating of overall satisfaction with Infrastructure and Systems services: 56% satisfied or very satisfied
Rating of appropriateness of computer hardware and software: 73% satisfied or very satisfied
Rating of ease of use of the FootPrints systems: 62% satisfied or very satisfied
Rating of quality of resolution of tickets submitted: 63% satisfied or very satisfied

Student Summary Responses
Rating of MySites: 73% satisfied or very satisfied
Rating of timeliness of priority registration notification: 72% satisfied or very satisfied
Rating of pre-registration survey: 65% satisfied or very satisfied
Rating of online searchable schedule: 67% satisfied or very satisfied
Rating of waitlist functionality: 63% satisfied or very satisfied
Rating of online payment process: 79% satisfied or very satisfied
Rating of appropriateness of hardware and software in computer labs: 60% satisfied or very satisfied
Rating of DegreeWorks: 70% satisfied or very satisfied

Initiatives and Projects for 2014-15

- Banner ERP and Related Applications Re-architecture
    - The architecture and infrastructure put in place in 2007 for the Banner ERP and related applications have severe design and capacity limitations and shortcomings which have led to multiple performance problems. This major project will lead to implementing a new infrastructure and architecture to ensure that Banner ERP and related applications are highly performant and scalable to accommodate future growth.
- Implement a Tier 2 IT service desk to provide a higher level of support by having technical expertise available to assist employees.

    The goal of a Tier 2 support model is to provide faster and better service to our employees. Currently, when a call or e-mail comes into our Service Desk, an IT User Support Assistant (E-49) triages the incident as best she/he can and +90% of the time lacks the tools, knowledge, or skillset to assist the user. Then the IT User Support Assistant (using the rules built into Footprints) assigns the ticket to another technician who calls back and/or goes to the employee's workstation to perform the service request or fix the problem. The goal is for Tier 2 technicians to complete/fix all service tickets which do not require a site visit by a field technician. Meeting this goal will require deploying remote desktop technologies such as System Center and staff training.
- Centralize the deployment of base images for workstations and servers.

    As part of ITIL's Change Management process, creation of all images at a central location will ensure timely installation of all current patches of the Operating System, applications such as MS Office, and security are applied. Then, prior to deploying a new image, each District IT manager and IT Security staff will sign-off to validate the image.
- Transition Virtual Desktop Image maintenance from IT Infrastructure to User Support.

    As the District continues to expand the deployment of virtual desktops, User Support will create and maintain these client images. This is necessary so User Support can provide direct services to the end users and ties into the Tier 2 support model referenced above. Training User Support staff is planned as part of this transition.
- Develop and deploy centralized processes based on ITIL's framework: Request Fulfillment, Incident Management, Problem Management, Access Control, Change Management, Service Catalog enhancement, Service Level and Operational Level Agreements.

    Develop formal processes and procedures to help the IT organization mature and provide documentation of District IT standard practices. The colleges have requested services levels to form a basis of how well District IT is delivering its services.
- District-wide implementation of IT security standards and protocols, which will include PCI compliance.

Develop and implement IT security and protocol standards district-wide to not only satisfy PCI compliance, but overall security for all IT assets within the District. This would include centralizing user network/system account maintenance, uniformed password hardening and aging, Identity Management, user training, e-mail filtering of spam and phishing attempts, securing of desktops and mobile devices. This will require District IT staff to follow a common set of practices.

- Re-design and flatten the District's network to removed un-needed complexity and cost.

  Remove the complexity of the District's network through standardization and central management. This will reduce the time and effort needed to connect systems throughout the District and increase reliability. Today, District IT supports 3 different manufacturers of firewalls and routers. As systems and applications get more interdependent, flatting the Wide Area Network (WAN) of the District is critical. IT Infrastructure engineers will develop a design recommendation and implementation plan to meet these objectives.

- Transition User Support staff to support voice, workstation, and user account services.

  Train User Support staff so a single technician can service all equipment associated with a workstation (e.g., telephone, voice mail, PCs, printers, scanners). In addition, as part of the Tier 2 service desk, transition user account maintenance from IT Infrastructure to User Support. This will include: Active Directory accounts, password resets (network and voice mail), software changes to telephones.

- Golden West Infrastructure Changes and Upgrades

  Move Main Distribution Facility (MDF) - The MDF needs to be relocated from the GWC old Library as the building is set to be demolished on December 14, 2015

  Server, SAN Storage, Network and Backup - IT Infrastructure is a disparate and fragmented environment. These devices are unsustainable, unreliable, and very expensive to maintain

  - Server/Storage - 32 devices are 10-15 years old; End-of-Life (EOL) and/or End-of-Support (EOS).
  - Network - 135 switches/routers are antiquated, archaic, and very expensive to maintain;
  - Backup - Backup & Archive solution does not have enough capacity (disk/tape) to consistently perform Full, Incremental or differential backups; nor sustain future growth

  Standardization of Servers, Storage and Backup

  - Fractional ownership with CCC reduces GWC and CCC investment cost
  - 85% server reduction
  - Reduction in Capital Expenses, Operational Expenses and risk
  - Leverage the current District Office Data Center and provide a resilient, stable, scalable, flexible and cost effective environment
  - Eliminates the requirement to allocate building space on campus

    - Eliminates the requirement to build an expensive replacement Tier II Data Center that would require redundant power and cooling.
    - Significant saving on energy costs
    - Migrate to VoIP (Voice-over-IP)
    - Upgrade End of Life Network core and edge devices to provide resilient and stability for the desktop workstations, printers, etc and to enable VoIP

    The following projects are planned for GWC in 2014-15
    - Servers, Storage and Backup consolidation
    - Network upgrade
    - MDF (Main Distribution Facility) relocation
    - Voice over Internet Protocol (VoIP)
    - Data Center Decommission
- Coastline Infrastructure Changes and Upgrades
    - Servers and Storage consolidation
    - Leverage District Office Backup
- Orange Coast Infrastructure Changes and Upgrades
    - OCC Virtual Desktop Infrastructure(VDI)/Thin Client Infrastructure
    - OCC Network upgrade to support VDI
- Security Program
    - Conduct the first district-wide, comprehensive Cybersecurity assessment and analysis
    - Implement security standards and protocols to meet industry recommended security standards

Appendix 1. Summary of tickets submitted in FootPrints January 2014-October 2014

Month	Ticket Status	Applications	Infrastructure	User Support	Totals
Jan-14	Opened	181	168	942	1291
	Closed	62	74	397	533
	In Progress	119	94	545	758
Feb-14	*Opened*	147	144	921	1212
	Closed	162	142	1086	1390
	In Progress	104	96	380	580
Mar-14	*Opened*	134	114	836	1084
	Closed	118	135	887	1140
	In Progress	120	75	329	524
Apr-14	*Opened*	270	167	1177	1614
	Closed	189	101	979	1269
	In Progress	201	141	527	869
May-14	*Opened*	233	172	729	1134
	Closed	221	177	862	1260
	In Progress	213	136	394	743
Jun-14	*Opened*	250	160	560	970
	Closed	193	126	558	877
	In Progress	270	170	396	836
Jul-14	*Opened*	329	214	598	1141
	Closed	267	284	616	1167
	In Progress	332	100	378	810
Aug-14	*Opened*	381	173	919	1473
	Closed	272	185	570	1027
	In Progress	441	88	727	1256
Sep-14	*Opened*	389	137	1036	1562
	Closed	402	147	1230	1779
	In Progress	428	78	533	1039
Oct-14	*Opened*	124	42	390	556
	Closed	258	94	627	979
	In Progress	294	26	296	616

Cumulative	*Opened*	2438	1491	8108	12037
Jan-Oct 2014	*Closed*	2144	1465	7812	11421
	In Progress	294	26	296	616
	%Closed	88%	98%	96%	95%

Educational Services and Technology
District Information Technology

This chart does not include IT functions and positions reporting at the colleges Updated 9/18/2014