



INFORMATION TECHNOLOGY SERVICES

GOVERNING BOARD MONITORING REPORT 2019

Chaffey  College

www.chaffey.edu/its

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INTRODUCTION

On February 25, 2016, the college's Governing Board approved a District-wide Strategic Technology Plan. Several initiatives were incorporated into that plan to improve technology and its use, facilitate communication and information on technology-related matters, and improve staffing and service levels within the Information Technology Services ("ITS") Department. Since that time, the ITS Department and the District's Technology Committee continue to work effectively towards implementing those initiatives.

A component of evaluating the overall effectiveness of the Strategic Technology Plan includes an assessment of the progress made on the initiatives identified and prioritized therein. The updates below address the work that has been completed in furtherance of specific initiatives identified in the Strategic Technology Plan and prioritized by the Technology Committee.

"Our mission is to provide an optimal level of current technology for the district through leadership, direction, planning, services, and support which promotes and facilitates the use and integration of technology for all academic and administrative requirements"



ORGANIZATIONAL 02 – ANALYZE AND ADDRESS IT STAFFING NEEDS

The Information Technology Services (ITS) department worked with Computer Information Systems (CIS) and Strong Workforce personnel to analyze, assess, and address staffing needs created by the new Cyber Security and Amazon Web Service programs. The department recruited and hired a new Network Technology Technician to help with the additional workload created by these programs.

ORGANIZATIONAL 04 – FORMALIZE DISASTER RECOVERY PLANS

ITS has completed an initial draft of a Disaster Recovery Plan. Detailed steps to recover District systems are being documented and tested. Network and Server documentation that was collected last year is being verified, and network diagrams are being updated. It is anticipated that a final draft of the plan will be submitted to the Vice President of Administrative Affairs before the beginning of the fall semester.



ORGANIZATIONAL 08 - FORMALIZE DATA AND INFORMATION SECURITY PLANS

A draft of a Data and Information security plan was developed and submitted to the District's legal counsel for review. The workgroup who developed the plan, which includes the Vice President of Administrative Affairs, Internal Auditor, Director of Technical Services, and Manager of Administrative Application Services, is reviewing the recommended changes and ensuring the document is complete. The workgroup continues to meet to ensure the District complies with numerous IT security-related mandates and regulations, and facilitate the completion of the formalized IT security plan.

ADMINISTRATIVE 05 – IMPLEMENT BEST PRACTICES FOR EMAIL

ITS staff has completed the migration of all District e-mail mailboxes to Microsoft Office 365 (Office 365). Office 365 is a cloud-based email platform removing the need for Microsoft Exchange on-premise. As part of this migration, all District computers were upgraded to Windows 10 and Microsoft Office 2016. In addition to other benefits, Office 365 provides end users with a much larger mailbox, as well as 1TB of OneDrive storage space.

NETWORK 01 – IMPLEMENT UBIQUITOUS WIRELESS ACCESS

The District's wireless network received several upgrades/changes this year. The Rancho Cucamonga campus was upgraded from a 100Mbps Internet connection to 1Gbps (a 10x bandwidth improvement). The Chino and Fontana campuses were provided with 1Gbps of wireless Internet service. This eliminated the need for these campuses to share bandwidth with the Rancho Cucamonga campus and, in turn, reduced the payload on the Rancho Cucamonga connection.



NETWORK 03 – IMPLEMENT REDUNDANT INTERNET ACCESS

The upgrades to our Internet bandwidth that began last year were completed. Working with the Corporation for Education Network Initiatives in California (CENIC), the new 1GB connection from Chino to CENIC was installed and made operational. Two new 10Gb circuits, one between Chino and Rancho Cucamonga, and one between Fontana and Rancho Cucamonga are now online. These additions provide a seamless triple redundant connection to the Internet for the District.

HARDWARE 01 – IMPLEMENT A HARDWARE MANAGEMENT SYSTEM

Using the hardware management system, Microsoft's System Center Configuration Manager (SCCM), that was implemented last year, ITS staff were able to complete the upgrade of all student, staff and faculty machines to Windows 10 and Microsoft Office 2016. These upgrades were required to complete the Office 365 email migration. Also, this system has allowed ITS staff to manage the operating systems installed on all District-owned desktops and laptops and has allowed ITS staff to ensure that all software applications are current and on the same revision.

HARDWARE 02 – IMPLEMENT A ROLE-BASED LIFE CYCLE

As part of the District's Technology Replacement Plan, over 300 student computers were purchased for installation this summer. Included in this purchase were replacements for several MAC computer labs in the Center for Arts, building A (CAA) that will be utilizing the new 5K iMacs. Also, 240 computers purchased in spring of 2018 were installed at the Chino campus before the Fall 2018 semester. These new computers are the same product line as the District's current standard but have a smaller form factor that fits as an all-in-one chassis, giving students more desktop space in the classroom.

ITS staff added redundant firewalls at the Chino and Fontana campus locations. The new redundant Fortinet firewalls support higher speed connections and have much higher throughput than the old Cisco adaptive security appliances (ASAs) previously installed. These firewalls also support two-factor authentication, providing a higher level of security between the District and vendors as recommended by the California Attorney General's Office.

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DIGITAL CLASSROOMS

ITS staff continued to make headway on the Digital upgrade project. To date, the District has converted over 190 classrooms to a digital format. This new digital format enables classroom projectors to run at a higher resolution and allow faculty computers to connect with the newer HDMI and display port style connections versus the old VGA analog connections that classrooms were set up with originally.

BACKUP/RECOVERY SOFTWARE

ITS staff researched selected and implemented a new backup/recovery system by VEEAM technologies. This new system is fast, efficient, and more user-friendly than the previous system. In addition to the improvements this system provides, it also adds the ability to park older backups to cloud storage for archival purposes.

CLOUD SERVICES

ITS staff continues to work with Amazon Web Services (AWS) as the District's cloud provider. The District is using AWS for three purposes: backup replication, disaster recovery, and load balancing. ITS staff are currently working with Amazon and the newly purchased/implanted back/recovery software vendor, VEEAM, to implement backup replication top the cloud. Instead of sending backup tapes out to a third-party vendor, such as Iron Mountain.

INTERNAL WAN UPGRADES

ITS staff worked with Frontier Communications to upgrade and increase the District's internal Wide Area Network (WAN) using hybrid cloud technologies. Rancho Cucamonga, Fontana, and Chino have been upgraded from 1GB connections to 10GB connections, while the remaining sites are being upgraded from 100MB connections to 1GB connections. These upgrades resulted in the reduction of monthly recurring charges by more than 40%.

MEASURE L INSTALLATIONS

ITS staff installed new Wi-Fi, life-safety, network and classroom technology in the five final Measure L projects. These installations included classroom technology in nine classrooms, security cameras, network switches, and Wi-Fi access points.

Additionally, ITS staff worked with Maintenance and Operations and the Measure L construction teams to relocate the network switch from the Theater backstage area to a newly constructed data closet in the basement of the Theater.

PATH TO MODERNIZATION



ORGANIZATIONAL 03 – ANALYZE EXISTING BUSINESS PROCESSES ADMINISTRATIVE 01 – OPTIMIZE THE USE OF THE COLLEGE’S ERP

Late last year, the District began a “Path to Modernization” initiative with Ellucian, the District’s student/administrative information system provider, to maximize its investment in Ellucian solutions and develop an attainable roadmap to modernize its technology investments. In that regard and as part of that initiative, ITS, in collaboration with numerous departments across the college, has begun implementing the following projects:

ETHOS AND ANALYTICS

The ability to analyze data significant to student success and the success of District initiatives around Guided Pathways is critical. Ethos provides the ability to build integrations between Colleague (the District’s student/administrative information system) and other disparate systems to provide a single framework from which to view and analyze data. Hand in hand with the Ethos implementation is the implementation of Ellucian Analytics. Once implemented, the Analytics solution will provide the District with historical and predictive data to make real-time informed business and resource decisions.

MOVE TO THE CLOUD

Last year, ITS staff conducted a review and analysis of moving its Ellucian Colleague and related systems to the cloud. The review analyzed anticipated growth during the next five years and included a total cost of ownership (TCO) document comparing the costs of continued maintenance of on-premise systems to moving those systems to the cloud.

The analysis identified multiple advantages to moving all student, staff, and faculty web services to the cloud, including those identified below.



- Guaranteed Redundancy and Disaster Recovery Services
- Improved Data Security through Amazon Web Services (AWS) Standardization
- Improved and Streamlined Services Management

The migration process began in January and continued through February and March with the first cloud instance available April 29. District staff is currently in the process of moving through the established protocols for verifying and validating all business workflows, interfaces and services now provided in the cloud. Staff will move through several mock cloud migrations during the next few months with the final live migration scheduled to begin Thursday, December 19 at 5:00 pm. Once in place, the District will have the advantages of a hosted cloud solution.



DATA GOVERNANCE AND SECURITY

With the advent of big data requirements for the many Chancellor's Office initiatives and the need to manage District data more effectively and securely, ITS is taking the lead to develop a true data governance model and further coordinate that data governance model into the requirements of the Chancellor's Office initiatives. ITS staff is in the process of identifying pain points in data management and data security to ensure valid and verifiable data and data sources, both for mandated reporting and

longitudinal planning. Ultimately the data governance process will provide a set of practices and policies to ensure both secure and relevant data for District planning.

IMPROVED PROCESSES AND WORKFLOWS

Last year, the District worked with Ellucian to review its current student/administrative information system workflows across all departments and modules using Colleague. The review was extensive and included interviews with key system stakeholders. Ellucian consultants then provided a review document which identified strategic areas where improvements in processes and workflows could be achieved.

The District is working with Ellucian to schedule focused consulting with these affected areas to streamline processes and improve the student experience. These consulting sessions are intended to lead the District into the next level of digital services for our students, faculty, and staff and will be conducted over a span of two and a half years. Each incremental service level is intended to provide improved service experiences for all students the District serves.

