



**Information Technology Services
Governing Board Monitoring Report 2021**

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 have continued 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 either been completed or is currently in progress in furtherance of specific initiatives identified in the Strategic Technology Plan and prioritized by the Technology Committee.

Information Technology Services Mission

"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."



Strategic Technology Plan Goals/Initiatives

The following address specific actions that have been taken to further the goals identified in the College's Strategic Technology Plan:

ORGANIZATIONAL 02 – ANALYZE AND ADDRESS IT STAFFING NEEDS

The Information Technology Services (ITS) department continues to run lean. Still, assessments of staffing levels in conjunction with increasing demands for technical support are ongoing, and staffing plans are adjusted accordingly. Due to increasing demands for help desk support for students, faculty, and staff, and in an effort to improve overall response time, the department was able to hire an additional Help Desk Coordinator this year. Additionally, the department was able to fill another Help Desk position that was vacant due to a retirement last year.

ORGANIZATIONAL 04 – FORMALIZE DISASTER RECOVERY PLANS

ITS has completed a draft of the Disaster Recovery Plan. Detailed steps to recover District systems are being documented. New systems added to support the Horizon Virtual Labs have been documented and added to the Plan. Vendor information and product lines for replacement equipment is being updated. Due to COVID restrictions, networking staff have been delayed in verifying the recovery procedures. It is anticipated that all procedures will be verified and the Plan completed by the end of summer 2021.

ORGANIZATIONAL 08 - FORMALIZE DATA AND INFORMATION SECURITY PLANS

The workgroup working on the Data and Information Security Plan completed all revisions and incorporated all the suggestions made last year by the District's legal counsel during their review. The Technology Committee has reviewed the Plan and has completed the task of identifying an appropriate Security Awareness training program. The Technology Committee is working with Human Resources to make the training mandatory for all district employees.

ADMINISTRATIVE 01 – OPTIMIZE THE USE OF THE ELLUCIAN COLLEAGUE SYSTEM

As part of its efforts to optimize the use of the Ellucian Colleague system, the ITS department has continued to further the Ellucian Path to Modernization project and transition web-based services from My ChaffeyVIEW to the Ellucian Self-Service system. Those efforts have resulted in the successful completion of multiple projects, which are outlined on the following pages.

Ellucian Path to Modernization

During the past year, significant progress has been made in several focus areas related to the College's *Path to Modernization* initiative. Those projects have focused on creating efficiencies throughout Ellucian Colleague (the College's student information system/enterprise resource planning system (SIS/ERP) and include the following projects:



Intelligent Learning Platform (ILP)

The integration between the Ellucian Colleague and the College's learning management system (Canvas) has successfully been implemented in a test environment. This new process will eliminate the need for transferring files between the two systems using stale data. The project, once complete, will provide for a dynamic integration between Colleague and Canvas for various data, including classes, faculty information, and grades.

Ellucian Analytics



To date, Ellucian Analytics has been successfully implemented in a test environment. Configurations will soon be completed and tested, and users will be trained on the module. The use of analytics will provide data insights that can be used for planning and informed decision-making.

Ellucian Customer Relationship Management (CRM) Advise

The use of CRM Advise has moved into phase II, which incorporates the use of communication plans to connect with students along their educational path. The communications delivered to students are based on criteria developed for student actions and include such triggers as to when a student drops a course, misses a registration appointment, or fails to access their Canvas courses. Phase II will measure outcomes and assess activities against identified key performance indicators (KPIs). Phase II will also expand data integrations to make use of all data sources, including students' educational plans and other student services data.

Ellucian Customer Relationships Management (CRM) Recruit

During this past year, with the help of consulting services, the department completed a project integrating CCCApply application data into CRM Recruit – a module used to communicate to and cultivate relationships with potential/prospective students. Ultimately, the application data will flow into the CRM Recruit module and then to Colleague, allowing the College to complete more effective recruiting and admission processing.

Ellucian Self-Service

Significant to the ability to provide a more effective student experience has been the continuing migration from our old My ChaffeyVIEW web service interface to the more effective and flexible Ellucian Self-Service model. The new interface has a more modern look and feel and is more manageable and configurable, saving time and effort to manage while providing more flexibility with deploying new services. During the last year, efforts for expanding the use of Self-Service have

concentrated on the registration and portal experience and have provided for the new workflows listed below.

Self-Service Registration

In the past, students were required to use two separate interfaces to complete their registration: Self-Service during the standard registration period and My ChaffeyVIEW once classes had begun. With the completion of the new Self-Service Add Authorization process (a process which faculty use to grant students authorization to add their class, students now use only Ellucian Self-Service for all registration activity, providing a more unified and efficient registration experience.

Revision of Billing Rules for Enrollment Charges

The revision of the numerous billing rules used to calculate enrollment charges has created efficiencies and has eliminated the need to bill some student populations manually. This, in turn, has saved staff many hours of manual tracking and billing.

Curriculum Tracks

In the past, when counselors met with students, courses were manually loaded into a student's educational plan. With the implementation of curriculum tracks, which serve as templates, counselors are now able to load a complete course map for a student based on their academic and career community program. This project has created not only increased efficiencies for counselors but also increased level of service to and better experience for students.



Information/Cyber Security

PASSWORD POLICY CHANGE



According to the National Institute of Standards and Technology (NIST), passwords are responsible for more than 80% of data breaches and represent a critical component to maintaining a strong [security posture](#). As Institutions started trying to strengthen passwords, they adopted password complexity policies meant to increase entropy so that passwords would be more difficult to crack. An unfortunate by-product of those policies was that passwords also became much more difficult for users to remember.

The result?

- More passwords are written down.
- More passwords are reused.
- Predictable "complexity" that diminishes the point of complexity (for example, adding a "1" to the end of one's password).

NIST and Carnegie Mellon conducted multiple studies and determined that by changing password policies, an institution could gain a massive improvement in password protection while improving usability. This could be accomplished by changing to a minimum 15-character password that allows but does not require uppercase, lowercase, numeric and special characters and eliminates a password expiration date. The guideline is documented in NIST [Special Publication 800-63B: Digital Identity Guidelines](#). The chart below shows the difference in time to crack a password based on length and complexity.

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	1 sec	5 secs
7	Instantly	Instantly	25 secs	1 min	6 mins
8	Instantly	5 secs	22 mins	1 hour	8 hours
9	Instantly	2 mins	19 hours	3 days	3 weeks
10	Instantly	58 mins	1 month	7 months	5 years
11	2 secs	1 day	5 years	41 years	400 years
12	25 secs	3 weeks	300 years	2k years	34k years
13	4 mins	1 year	16k years	100k years	2m years
14	41 mins	51 years	800k years	9m years	200m years
15	6 hours	1k years	43m years	600m years	15 bn years
16	2 days	34k years	2bn years	37bn years	1tn years
17	4 weeks	800k years	100bn years	2tn years	93tn years
18	9 months	23m years	6tn years	100 tn years	7qd years

 -Data sourced from HowSecureIsMyPassword.net

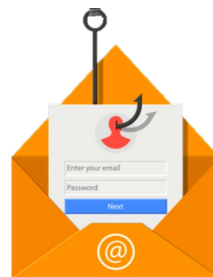
As a result of the information identified above, this past year, the Technology Committee recommended that the College implement such a password policy change to improve overall security. The previous policy required an eight-character password that only allowed for upper/lowercase letters and numbers and expired every 90 days. The new password policy, which was implemented on May 3 of this year, changed to a 15-character password that allows for any combination of upper/lowercase letters, numbers, and special characters, with no expiration date. The change follows the new guidelines published by NIST.

PHISHING ATTEMPTS

Social Engineering attacks are the hardest to defend as they circumvent much of the security that has been put in place to protect the District's assets. In the past few months alone, the College has seen several successful phishing attempts propagate our network.

Below are some facts about Phishing from Barracuda (our email protection software) and the Federal Bureau of Investigation:

1. 85% of organizations have experienced a successful phishing attack in the last 12 months.
2. Phishing was the 3rd most common scam reported to the FBI last year, regardless of the organization's size.
3. 97% of people cannot identify a phishing attempt.
4. 1 in every 99 emails is a phishing attempt.
5. 45% of the 15 billion emails sent daily are spam.
6. 45% of phishing attempts were answered.
7. 66% of successful Ransomware is installed via a malicious email attachment.



Although the College has implemented several industry-leading products to protect against social engineering (O365 Advanced Threat Protection, Barracuda spam filtering, Sophos anti-virus, and Microsoft Defender), the District still encounters approximately 36 successful phishing attempts per year, with at least 6 of those being large-scale phishing attempts that multiple users answer. These events create a disruption in email delivery, requiring hundreds of hours to remediate the end-users' accounts and working with internet providers to remove the College from email blacklists.

To further improve the District's information data security footprint and conform with several State and Federally mandated security guidelines, the Technology Committee is working with the Human Resources department to provide all employees with security awareness training accessible via the Learning Hub.

Response To Covid-19 Pandemic

LOANER EQUIPMENT

As the COVID-19 pandemic began in March of 2020, the ITS department developed a plan to retrieve all of the mobile devices (laptops and tablets) used in the classrooms so that they could be reissued as loaner equipment to faculty and staff who began working remotely. To date, over 200 laptops, 50 iPads, 300 webcams, 100+ hotspots, and multiple headsets and extra monitors have been issued.

CLASSROOM TECHNOLOGY

During this past year, Information Technology Services has integrated 50 lecture capturing (Pan/Tilt/Zoom (PTZ)) cameras into classrooms. These cameras capture the front of the classroom. Additionally, 15 overhead document cameras were installed in classrooms. Both of these are compatible with multiple platforms such as Zoom, Google Classroom, Microsoft Teams and can be used to record lectures for asynchronous learning or to stream and broadcast hybrid courses synchronously. An additional 150 PTZ cameras and 15 document cameras have been ordered to outfit the remaining classrooms.



VIRTUAL LABS

To provide students with access to District-owned software to participate in distance learning, ITS staff repurposed the software and servers running the Virtual-Desktop labs (2 labs in Language Arts had been piloting the software). ITS staff also created the Horizon virtual lab. These virtual labs are web-based products that present a desktop similar to what students would see if they were physically in a lab on-campus. These virtual labs can run the majority of the District's applications regardless of the speed and power of the device a student may be using.

Once ITS was able to assess the efficacy of this solution, additional servers and licenses were purchased to increase the number of available virtual seats in the labs from 70 – 450.

Unfortunately, Apple products do not work in the same virtual environment. ITS staff found and implemented a different application for Apple products called Splashtop. Splashtop provides remote access to the physical Apple desktops, allowing students to connect from home and use software loaded on these machines in the labs. While Splashtop has been successful, it does have some limitations. In an effort to bridge the gap, ITS staff is working with the School of Visual and Performing Arts to provide a pool of loaner MAC laptops and at-home licenses for several of the products.

VIRTUAL PRIVATE NETWORK (VPN) TECHNOLOGY

ITS networking staff leveraged an available feature in our Fortinet firewalls to allow staff to VPN into their District workstations from home. The VPN setup provided access to critical applications, including Ellucian Colleague, Image Now, and documents stored on the Z-drive.



Other Technology Updates



TECHNOLOGY RESOURCES WORKGROUP

This past year, ITS staff has been spearheading a combined workgroup with Distance Education, Disability Programs and Services, and several other departments/areas to identify and consolidate information regarding the technology resources available to students, faculty, and staff. The goal is to make the identification and use of available resources easily accessible, especially for students.

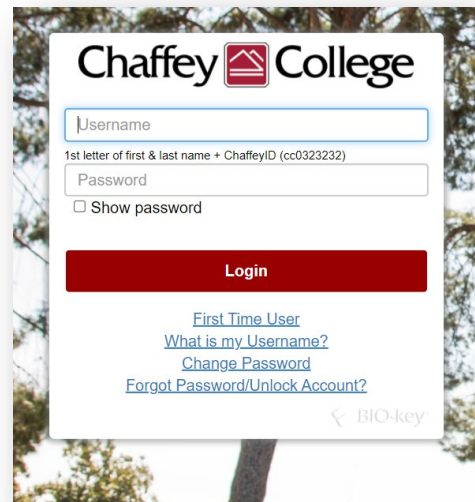
DIGITAL FORMS, SIGNATURES, AND WORKFLOWS

This past year, a workgroup was formed to assess and recommend a District standard for the creation of digital forms, electronic signatures, and related workflows. After viewing multiple solutions, the workgroup unanimously recommended the use of Formstack. The College is in the process of developing a phased implementation plan for this new solution.

MY CHAFFEY PORTAL

- **Single Sign-On (SSO) Authentication**

During the past couple of years, the performance of the College's single sign-on process to the portal had degraded significantly, most especially at the start of each term. Single sign-on is the door through which all students pass to reach the services required for success at Chaffey. To improve that entryway for students, as well as faculty, and staff, and provide a more secure dependable method for accessing crucial services, the single sign-on process was moved from Unified (our current portal vendor) to PortalGuard. PortalGuard is an identity management service provider that is reliable and widely used among other community colleges. The transition to PortalGuard occurred this past December and has proven successful.



- **Outdated Portal**

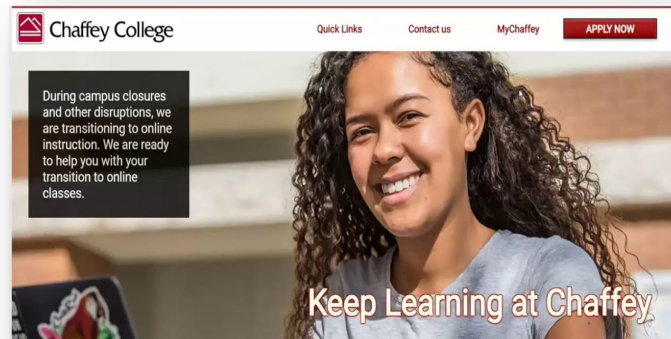
The current portal interface uses older technology and does not provide students and employees with a modern look and feel. The portal is also reaching its end-of-life and will no longer be supported after December of 2021. A portal workgroup was formed this past February to investigate other solutions. The workgroup focused its efforts on finding a new solution that is easy to configure and manage and provides a modern interface that will drive student engagement. The workgroup participated in product demonstrations from five different companies and evaluated the solutions each company offered.

Additionally, members of the student design team also reviewed the demonstrations and completed evaluations. One product was ranked #1 overall by both the portal workgroup and student design team members. The District will be moving forward with procuring and implementing that solution.

- **Student Registration Improvements**

The COVID-19 pandemic in many ways changed the way services are delivered to students. As a result, the role of the entire registration process in the delivery of those services required significant review to provide those services in a digitally significant manner. To identify and address ways in which the registration experience

could be improved upon, a registration experience workgroup was formed that included faculty, managers, classified professionals, and a student representative. The workgroup was charged with collecting input from the various service groups on campus to improve and modernize the registration process for students. The changes ranged from improving the language used to describe course offerings in the course catalog and class schedule to moving registration to one single interface, Ellucian Self-Service. Some of the student registration experience changes implemented include the following:



- Messaging improvements were made throughout the schedule of classes.
- Students are now able to register for a class regardless of when the class actually starts. Previously, 14-week, Fast Track 1, and Fast Track 2 classes had different registration dates that started later in the term.
- Waitlist history is available to allow for future planning.
- The "Search for Sections" functionality has been moved from My ChaffeyVIEW to the new Ellucian Self-Service model allowing for a more modern look and feel and expanded filtering of course offerings.
- All registration has been moved from My ChaffeyVIEW to the new Self-Service model.
- Add codes are no longer used for registration. Instead, the College has moved to the new Ellucian Self-Service Add Authorization model, which provides a more modern look a feel and improved student experience.
- Applications are now processed twice a day to provide more rapid access to registration.
- Language has been clarified in the system to more easily identify remote versus on-site courses and locations.
- The number of registration appointments assigned per day has been increased to expedite the time in which new students who have applied to the College are able to register for classes.
- Workshops, video tutorials, and improved communication describing the registration experience improvements have been provided to students, faculty, and staff.