Annual Assessment Report

Executive Summary

Unit name: Information Technology   **Assessment year: 2022-23**

<u>Unit Mission:</u> The Information Technology (IT) Department provides innovative technology leadership and services to support LaGuardia's curriculum and student success initiatives with a high level of service through reliable and sustainable technology resources that support the instructional and operational goals of the College.

Assessment Results by Goal and Objectives

Goal 1: Maintain a safe, efficient, reliable and secure information technology and associated physical environment that protects the confidentiality of the users and the security of their data from internal and external threats in administrative and academic facilities.

   Supporting Strategic Plan Goals: 1 - Build Student Access and Success

Objectives	Method and Measure
1.1 Maintain and improve point of service and access tools for cyber security of the College campus, including regular, scheduled externally validated reviews for data and IT security.	1. Successfully pass CUNY's cyber security biannual attestation. 2. Number of external attacks that were missed by network security. 3. Average monthly number of spam messages that were blocked from emails. 4. Number of times malware was detected and removed from work stations.

Overview of findings, analysis, recommendations and future initiatives

<u>Results</u>
1. 100% Compliance - Monthly security meetings and measures have allowed the College to meet 2 of 2 biannual security attestation assessment audits.
2. 0.004% attacks missed - Based on 705,840 average attacks in 2022/2023 stopped vs 29 successful attacks.
3. 58,820 average monthly spam messages blocked from emails
4. Average Endpoint Security malware detected is 1037 monthly.

<u>Analysis</u>
The results exceeded targets.
1. Network and security policies adjusted to align with CUNY-set requirements.
2. Identified root cause of successful attacks, as well as the impact. Actions taken to help prevent future similar attacks.
3. Continued assessment of effectiveness of tools performed. Based on ongoing studies, current tools/systems are most effective systems available at fighting spam/malware.

4. End-point security effectiveness is analyzed at both the Campus and University level. Most effective solution considering performance and price. Primary action to make it more effective is to make sure to keep it updated on patches as well as the databases for known viruses.

Recommendations and future initiatives

1. Establish a process to track the number of faculty & staff taking CUNY Cybersecurity course.
2. Create tools to measure cyberawareness effectiveness.

Goal 2: Partner with Student Affairs, Academic Affairs, Institutional Advancement, Administration, Adult & Continuing Education to provide development and support of systems to increase operational efficiency and enhance the student experience.

Supporting Strategic Plan Goals:
1 - Build Student Access and Success
2 - Strengthen Learning for Students - and for Faculty, Staff and the College
3 - Enrich the Student Experience

Objectives	Method and Measure
2.1 Advance and develop tools to promote, track, and enhance student engagement and success.	1. Integrate SSO (Single Sign-On) feature for ACE students. 2. Evaluate benefits of proceeding with the development and implementation of XenDirect's CRM module/features.
2.2 Ensure that students have access to suitable facilities for the completion of academic work.	1. Number of computer upgrades completed for computer labs and classrooms. 2. The College website downtime.
2.3 Ensure students have ready, responsive and up to date access to software, databases and information technology services.	1. Percentage of students using each technology access point, e.g., My LaGuardia Student Portal, Students Resource website page, etc. 2. Percentage of students using the online appointment app. 3. Percentage increase of students using mobile app. 4. Select and purchase new Content Management System (CMS) for website redesign. 5. Complete development and implementation of website redesign.

Overview of findings, analysis, recommendations and future initiatives

Objective 2.1

Results:
1. The initiative to develop, integrate, test and launch a new Single Sign-On (SSO) for ACE students has been taken over by CUNY Central. As a result, LaGuardia no longer has control over its development and implementation.
2. The benefits of proceeding with the development and implementation of XenDirect's CRM module/features were evaluated and based on the results, no CRM features have been added to XenDirect. As new CRM functionalities become available, this will be revisited.

Analysis:

1. Identified and are in the process of completing the successful implementation of the following Business Services programs:
   - NY Designs XenDirect Implementation (Park)
   - Small Business Development Center (SBDC)
   - Small Business Transportation Resource Center (SBTRC)
   - Procurement Technical Assistance Center (PTAC)
   - Goldman Sachs 10K Small Business Program (SB)
2. Completed remaining internal tasks including:
   - Workforce Outcomes report created and is undergoing improvement for enhanced efficacy and precision.
   - The Perkins Report has been created and is being utilized effectively.
   - O Drive Migration to XenDirect in discovery stage - exploring and making progress.
   - Workforce dashboard implementation in discovery stage - exploring and making progress.
   - ACE leadership dashboard implementation in discovery stage - exploring and making progress.
3. SSO for ACE Students now with CUNY Central. Will remove from future plans.
4. Based on CRM evaluation, we will remove from future planning.
5. ACE website upgrade completed.
6. Completed Communications Plan for improved communication reports.
7. Improve overall ACE Xenegrade reporting.
8. Developed and implemented training plan to improve XenDirect understanding and usage among ACE staff.

Recommendations and future initiatives:
1. Complete O Drive migration once data is stabilized and discovery stage is completed.
2. Revisit SSO for ACE students once CUNY Central has completed their work.
3. Continue to identify potential XenDirect upgrades, provide support to ACE and improve reporting capabilities as necessary.
4. Explore accurate reporting of ACE students who have become full time matriculated students.

Objective 2.2

Results
1. Currently, there are no further requests for split classrooms.
2. The College website downtime was 0.00%, based on 1 hour downtime during 8,760 total hours in a year.

Analysis
1. Currently, there are no requests for hyflex classrooms. However, from time-to-time, professors may request an OWL webcam in order to temporarily convert a traditional classroom or conference area to a virtual hyflex one.
2. The College website was down for only a total of 1 hour, exceeding the goal at 0.0001%.

Recommendations and future initiatives:
1. After completion of the last four hyflex classrooms, there is currently no demand for additional rooms of this type. However, should the request for additional rooms occur, we will evaluate need and provide the latest technological solution to fulfill the request.

Objective 2.3

Results
1A. On average 53% of students registered for Spring I 2023 used ML weekly compared to average of 46% of students registered for Spring I 2022 that used ML weekly.
1B. From March 7-June 16, 2023 there were 4,626 unique visitors to the Student Resources website page, appx. 40% of students registered for Spring I '23. Note: Google Analytics can't specify if visitors were students.

1C. 16,578 unique users used the mobile application from January through June 2023 compared to 12,682 unique users who used the mobile app from January through June in 2022, an increase of 30.7%.

1D. In 2023 from January to June:
- 2,221 requested live chat sessions.
- 826 accepted live chat sessions.
- 1,133 declined live chat sessions.
- 1,395 missed live chat sessions.

2A. Although there was no Virtual Student Orientation Fall 2022 survey conducted, 89.4% of the students surveyed in Fall 2021 said the Technology Resources presentation was helpful in learning about the many technology resources available.

2B. Using the online appointment app, 19,723 appointments were made by students from January through June of 2023, with many support services including advising, ASAP, etc.

3. Successful development, completion and launch of new, improved website now hosted in the cloud, including features and benefits such as simplified navigation, streamlined content management and mobile-responsive design.

4. Successful selection and implementation of WordPress as the website's new CMS.

5. Existing website successfully moved to WordPress.

6. Successfully developed and applied new website redesign elements to current/new content using WordPress.

Analysis

1A. This reverses a trend of steadily decreasing use of ML on a weekly basis. The increase is likely due to the increase of students on campus.

1B. There was a substantial increase (116%) of visitors to the Student Resources page in 2023 compared to the same period in 2022. This is likely due to the increase of students on campus.

1C. Mobile app users increased by 30.7% in 2023 when compared to a similar period in 2022. The increase is likely due to the increase of students on campus, the need to show a digital ID and the increased ability to log into other apps and systems remotely.

1D. Continued trend of decreased live chat sessions in recent years due to drop in student enrollment and ongoing distance learning. Increase in number of missed engagement opportunities and declined chats volume due to staffing shortages at the SIC. e.g., SIC was receiving chat requests but didn't have the manpower needed to accept them.

2A. Since there was no student survey conducted in 2022, IT will explore conducting a survey itself or together with another department.

2B. Due to an increase in the number of students on campus, there was an increase in the number of appointments made by students in 2022.

3. The new website was launched and optimizing work will continue in order to identify and remove any lingering broken or orphan links, as well as to add additional DNS (Domain Name System) entries that would allow for backup communications with the site in the unlikely event that CUNY.edu goes down.

4. WordPress has performed as expected.

5. The challenges of moving the existing website to WordPress were successfully addressed.

6. The challenges of applying new website design elements to current/new content using WordPress were successfully addressed.

Recommendations and future initiatives:

1. The new website will continue to evolve to ensure that the site delivers an enhanced digital platform with improved content management and navigation while offering a seamless and user-friendly experience. Additional WordPress modules will be explored to maximize the student experience.

2. Increase student usage and awareness of the mobile app's integration and access to other systems and programs.

3. Data verifies that students are using the online tools and services available to them. We will continue to ensure students have access to these tools and services, and any new tools that become available.

4. Reach out to the SIC and discuss collaborating with other departments to assist the SIC during peak times with the acceptance of chat requests.

Overall summary

Goal 1
Maintain a safe, efficient, reliable and secure information technology and associated physical environment that protects the confidentiality of the users and the security of their data from internal and external threats in administrative and academic facilities.

IT continued its ongoing commitment to the goal of maintaining a safe, efficient, reliable and secure information technology and associated physical environment to protect the College community. Since March of 2020, that goal has included distance learning and working remotely.

Using the successful results of the 2019-20, 2020-21 and 2021-22 AES Plans as benchmarks, both the target of 99.9% successful pass of the biannual attestation and 0.01% percentage of external attacks missed by network security were favorably met, demonstrating success in achieving cyber security on campus.

As in past years, we were ready and able to control spam and security malware attacks in 2022-23:
- 0.004% attacks missed - Based on 705,840 average attacks in 2022/2023 stopped vs 29 successful attacks.
- 58,820 average monthly spam messages blocked from emails.
- Average Endpoint Security malware detected is 1037 monthly.

For 2023-24, we will:
1. Continue to adjust network and security policies as needed to align with CUNY-set requirements.
2. Identify the root cause of successful attacks, as well as the impact. Take actions to help prevent future similar attacks.
3. Continue assessment of effectiveness of tools.
4. To increase the effectiveness of end-point security solutions, keep updated on patches as well as the databases for known viruses.
5. Establish a process to track the number of faculty & staff taking CUNY Cybersecurity course.
6. Create tools to measure cyberawareness effectiveness.

Goal 2
Partner with Student Affairs, Academic Affairs, Institutional Advancement, Administration, Adult & Continuing Education (ACE) to provide development and support of systems to increase operational efficiency and enhance the student experience.

- **Objective/Outcome 2.1**
  Advance and develop tools to promote, track, and enhance student engagement and success.

  IT successfully continued the work that began in 2019-20 to develop, implement and integrate XenDirect, the new ACE SIS software and registration program.

  However, the initiative to develop, integrate, test and launch a new Single Sign-On (SSO) for ACE students has been taken over by CUNY Central. As a result, LaGuardia no longer has control over its development and implementation.

  In addition, the benefits of proceeding with the development and implementation of XenDirect's CRM module/features were evaluated and based on the results, no CRM features have been added to XenDirect. As new CRM functionalities become available, this will be revisited.

  We completed remaining internal tasks including:

- Workforce Outcomes report created and is undergoing improvement for enhanced efficacy and precision.
- The Perkins Report has been created and is being utilized effectively.
- Drive Migration to XenDirect in discovery stage - exploring and making progress.
- Workforce dashboard implementation in discovery stage - exploring and making progress.
- ACE leadership dashboard implementation in discovery stage - exploring and making progress.
- Developed and implemented training plan to improve XenDirect understanding and usage among ACE staff.

Moving forward:
- We have identified and are in the process of completing the successful implementation of the following Business Services programs:
  a. NY Designs XenDirect Implementation (Park)
  b. Small Business Development Center (SBDC)
  c. Small Business Transportation Resource Center (SBTRC)
  d. Procurement Technical Assistance Center (PTAC)
  e. Goldman Sachs 10K Small Business Program (SB)
- Improve overall ACE Xenegrade reporting.
- Complete O Drive migration once data is stabilized and discovery stage is completed.
- Revisit SSO for ACE students once CUNY Central has completed their work.
- Continue to identify potential XenDirect upgrades, provide support to ACE and improve overall Xenegrade reporting capabilities as necessary.
- Explore accurate reporting of ACE students who have become full time matriculated students.

- **Objective/Outcome 2.2**
  Ensure that students have access to suitable facilities for the completion of academic work.

  Although the creation of split classrooms was very successful in 2021-22, there were no further requests for split classrooms in 2022-23. Currently there are no requests for hyflex classrooms. However, from time-to-time, professors may request an OWL webcam in order to temporarily convert a traditional classroom or conference area to a virtual hyflex one. Should the request for additional rooms occur, we will evaluate the need and provide the latest technological solution to fulfill the request.

  Website downtime continues to be important given the reliance on accessing our website for information related to admissions, enrollment, student/faculty/staff resources, distance learning, working remotely, enrollment, etc. The downtime was extremely low in 2022-23, e.g., 0.00%, based on one hour during 8,760 total hours in a year. We will continue to take the necessary steps to minimize website downtime.

- **Objective/Outcome 2.3**
  Ensure students have ready, responsive and up to date access to software, databases and information technology services.
  During 1922-23, IT continued its ongoing work to ensure meeting that students will always have ready, responsive and up to date access to software, databases and information technology services.

  - The My LaGuardia (ML) Portal: ML continues to provide students with one place where they can easily access software, databases and services. On average 53% of students registered for Spring 1 2023 used ML weekly compared to average of 46% of students registered for Spring I 2022 that used ML weekly. This reverses a trend of steadily decreasing use of ML on a weekly basis. The increase is likely due to the increase of students on campus.

- Student Resources Website Page: From March 7 -June 16, 2023 there were 4,626 unique visitors to the Student Resources website page, appx. 40% of students registered for Spring I '23. Note: Google Analytics can't specify if visitors were students. There was a substantial increase (116%) of visitors to the Student Resources page in 2023 compared to the same period in 2022. This is likely due to the increase of students on campus.

- Mobile App: 16,578 unique users used the mobile application from January through June 2023 compared to 12,682 unique users who used the mobile app from January through June in 2022, an increase of 30.7%. Mobile app users increased by 30.7% in 2023 when compared to a similar period in 2022. The increase is likely due to the increase of students on campus, the need to show a digital ID and the increased ability to log into other apps and systems remotely.

- Live Chat Sessions: In 2023 from January to June: 2,221 requested live chat sessions, 826 accepted live chat sessions, 1,133 declined live chat sessions and 1,395 missed live chat sessions. This continues a trend of decreased live chat sessions in recent years due to the drop in student enrollment and ongoing distance learning. The increase in the number of missed engagement opportunities and declined chats volume are due to staffing shortages at the SIC. e.g., SIC was receiving chat requests but didn't have the manpower needed to accept them.

- Virtual Student Orientation Survey: Although there was no Virtual Student Orientation Fall 2022 survey conducted, 89.4% of the students surveyed in Fall 2021 said the Technology Resources presentation was helpful in learning about the many technology resources available. Since there was no student survey conducted in 2022, IT will explore conducting a survey itself or together with another department.

- Online Appointment App: 19,723 appointments were made by students with many support services including advising, ASAP, etc., using the online appointment app from January through June of 2023. There was an increase in the number of appointments made by students in 2022 due to an increase in the number of students on campus.

- New College Website: Successful development, completion and launch of new, improved website now hosted in the cloud, including features and benefits such as simplified navigation, streamlined content management and mobile-responsive design. The new website was launched and optimizing work will continue in order to identify and remove any lingering broken or orphan links, as well as to add additional DNS (Domain Name System) entries that would allow for backup communications with the site in the unlikely event that CUNY.edu goes down.

- New Website CMS: Successful selection and implementation of WordPress as the website's new CMS. WordPress has performed as expected.

- Move Existing Website Content: The challenges of moving the existing website to WordPress were successfully addressed and the existing website content was efficiently moved to WordPress.

- Apply Redesign Elements to New Website: Overcame challenges to successfully develop and apply new website redesign elements to current/new content using WordPress.

Looking at the future,
- The new website will continue to evolve to ensure that the site delivers an enhanced digital platform with improved content management and navigation while offering a seamless and user-friendly experience. Additional WordPress modules will be explored to maximize the student experience.
- We will work to increase student usage and awareness of the mobile app's integration and access to other systems and programs.
- Data verifies that students are using the online tools and services available to them. We will continue to ensure students have access to these tools and services, and any new tools that become available.

- We will reach out to the SIC and discuss collaborating with other departments to assist the SIC during peak times with the acceptance of chat requests.