



Queens College
Information Technology Services
STRATEGIC PLAN 2022-2026



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A note from the ITS Strategic Planning Committee

In 2019, we were challenged by our new administration and Chief Information Officer to curate a Strategic Planning Retreat. A call to action was sent throughout the organization. Volunteers from throughout the organization and at every level came together to form the first ITS Strategic Planning Committee. The committee was comprised of eleven members, with our college assistant workforce representing the majority. We endeavored to curate the inaugural Strategic Planning Retreat. This document outlines our organizational outlook for the next four years and provides a roadmap.

Committee Membership

Evelyn Alvarenga
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Alberto Lenis
Theodossios Nicolaou
Ruben Ortiz
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Framing the Queens College Technology Ecosystem

The Queens College Information Technology Services (ITS) Strategic Plan is designed to align with the [Queens College Strategic Plan](#). As stated in the College's Plan, "Students are our priority." Our strategy is to prioritize projects that improve the student experience.

For context, the reader must understand that ITS faces specific challenges. This understanding is foundational and fundamental to this document. Readers may misinterpret the reason, value, and need for **Digital Transformation** to serve and achieve the most fundamental goals within the College's Strategic Plan. A Digital Transformation refers to rethinking how technology, people, and process combine to create and deliver value to the College. It transforms technology from a utility of the institution to an organizational partner to advance the mission. Digital transformation accomplishes the following goals:

- Enhance competitiveness
- Increase enrollment/retention
- Improve customer experience
- Improved agility across the college

Our project priority is developed in conjunction with overarching goals set by President Frank Wu and the College's strategic plan. Project priority is also impacted by the following: staffing resources, funding resources, and external considerations such as cybersecurity, supply chain risks, regulatory compliance, and the ever-changing technology requirements of the digital age and campus. The following five guiding tenets are foundational to understanding our strategic plan:

1. Primary service delivery systems are antiquated and must be replaced to facilitate efficiency and leverage innovation in the marketplace.
2. National, state, local policy, and laws directly impact technology strategy in cybersecurity, cloud technology selection, supply chains, student technology fee guidelines; FERPA; and HIPAA. Each of these items directly impacts technology selections for the deployment and continual support of the systems.
3. ITS must prioritize, upgrade, and continually refresh projects in order to keep operations current and responsive to the ever-changing needs of the college community.
4. Technology modernization and business process refinement cannot be accomplished simultaneously; the business process takes precedence.
5. ITS is a 24-hour, seven days a week operation; there is no luxury of "down-time."



A few facts to consider in reading this plan:

- Our diverse staff of 65 professionals serves approximately 24,923 students, faculty, staff, and retirees (QC Community). The IT support professional to QC community ratio drastically decreases if technician skillset is taken into account. *There are currently a total of 15 FTEs employed at the Help Desk.
- The Queens College community holds a variety of accounts for various local and enterprise services.
- At any moment in time, Queens College students, faculty, and staff average 3-4 devices each to the network. Devices include phones, laptops, cell phones, tablets, and various internet-capable devices such as TV's, streaming services such as Spotify, Hulu, Netflix, Amazon Alexa, gaming devices, etc.
- ITS core systems serve an 85-acre campus (roughly the area of a small shopping mall), 45 buildings, and more than 50 departments.
- 31,000 support tickets were received and resolved from 2020-2021.



A Message from the CIO



The Queens College Information Technology Services Strategic Plan has been a tireless effort since 2019, led by ITS staff volunteers on a recurring basis. The inception of the ITS Strategic Planning Committee (SPC) occurred late in 2019, and much of the development of the strategic plan occurred throughout the pandemic. Thank you SPC, your diligent work and commitment will only continue to empower the age of Digital Transformation.

As we embark on our **Digital Transformation**, we will be cognizant of the following with regards to data and systems: we must protect, continually update and improve our Cybersecurity Resiliency. Our primary concerns are as follows: data ownership (who owns the data), data management (who controls it), data use (who uses it), and data administration (who makes those decisions).

Cybersecurity begins with educating users. Technology can thwart cybercrime; however, human engagement, education and interaction are still central to cybersecurity. Therefore, ITS will provide ongoing training and tests to help our community identify and prevent cyber threats.

The Queens College community is certainly no different from the rest of the world, experiencing an ever-increasing reliance on technology that has now grown into dependency. Technology is embedded into every fiber of our daily lives. Technology is a fundamental aspect of the Queens College ecosystem. It dictates how we communicate, our business operations, building management systems, and the conveyance of pedagogy to our students. Leveraging the technologies at our disposal provides us with a competitive advantage over our peers.

It is mission-critical that Queens College Technology is on the leading edge of innovation to assist our faculty and student recruitment teams in maintaining a competitive technology edge in an ever-evolving technology landscape.

This plan is the result of an inclusive process between our internal employees and the Queens College community, students, faculty, and staff. We heard you and hear you. We thank everyone that provided us with ongoing feedback and support during the planning process.

We look forward to serving the community. We are ITS, we are here to help.

Sincerely,

A handwritten signature in black ink, appearing to read 'Troy J. Hahn'. The signature is fluid and cursive, with a long horizontal line extending to the right.

Troy J. Hahn, Chief Information Officer





Our Mission, Our Vision, Our Value

PURPOSE

- The ITS Strategic Plan communicates organizational goals to division employees and provides the technical direction, vision, and philosophy for researching, designing, implementing, and operating technology services. It is important to acknowledge that regardless of our intricate planning and roadmap, the Queens College Technology infrastructure requires significant financial and human capital investment to realize the goals set forth.

OUR MISSION

- Our mission is to advance the teaching, learning, research, and administrative operations of Queens College by providing exceptional technology services and support to students, faculty, and staff.

OUR VISION

- The Office of Information Technology Services is a collaborative community of diverse professionals that serve Queens College students, faculty, and staff with innovative and reliable technology resources.

OUR VALUES

- We **will** provide outstanding service to Queens College through professionalism.
- We **will** foster an environment of diversity, inclusion, and equity.
- We **will** foster an open and honest environment, respecting the knowledge and expertise of all team members at all levels. We will cultivate a positive and impactful one-team culture.
- We **will** promote cross-team collaboration within Queens College and within CUNY.
- We **will** empower each other to create innovative solutions and accomplish goals that support Queens College.



Planning Process

The Office of Information Technology Services strives to deliver exceptional technical services to the Queens College community. Our goals align with the institutional goals established by President Frank Wu. We focus on enhancing and supporting the core areas of teaching and learning, research, security and risk, enterprise architecture, user experience, and community and collaboration. We will ensure that our strategies and plan support Queens College's goals while setting the stage for the future to provide increasingly agile and responsive systems to support the needs of an ever-changing educational environment.

These goals are central to the following seven themes:

- Teaching and Learning
- Student Experience
- Faculty Experience
- Community and Collaboration
- Cybersecurity As *Everyone's* Obligation
- Enterprise Architecture
- Investment in IT Organizational Success

Planning Timeline

It was the dedicated effort of the strategic planning committee that kept this endeavor moving forward through the global pandemic and ensuing transition of the college to remote learning.

Below is the chronology of our strategic planning activities:

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- October 24, 2019**
 - Convening of Strategic Planning Committee
 - November 12, 2019**
 - Discussion with Gartner representatives of Strategic Plan Development
 - November 2019 - January 2020**
 - Retreat planning
 - January 24, 2020**
 - Inaugural Strategic Planning Retreat at Flagship Microsoft Store
 - February 2020 - March 2020**
 - Data Aggregation and Development of Strategic Plan Goals and Initiatives Matrix
 - March 2020 - May, 2020**
 - Committee priorities shifted to support the transition to distance learning and remote education
 - May 2020 - October 2020**
 - Subcommittee task delegation
 - October 2020 - December 2020**
 - Pause to focus on cloud email transition
 - January 2021 - March 2021**
 - Reconvening of SPC
 - March 2021**
 - Presentation of Strategic Plan Goals and Initiatives to ITS division
 - May 2021**
 - Development of Strategic Plan Activities/Action Items
 - June 2021**
 - Assembling of first draft of Strategic Plan document





Our Framework

Teaching and Learning Technology Evolution

In a time of rapid evolution in both technology and culture there is a dramatic impact on college life and *our* academics. Technology is now a ubiquitous presence in our lives. The use of technology is integral to modern institutions of higher learning. ITS will foster partnerships across the academic spectrum to ensure technical equitability, agility, efficiency, and value as the leading institution within CUNY. ITS will and must build capacity and provide the support necessary for emerging forms of Hyflex, hybrid, and online education.

Factors that impact academic technology:

- The constant state of change in IT
- Continual increase in the complexity of technology services, integration, and cybersecurity threats
- Providing equitable solutions that holistically benefit Queens College before the individual units
- Institutional goals and priorities come before departmental needs

We will offer a robust suite of services that enables faculty to engage the Queens College student effectively through adequate investments in technology. Technology purchases must be aligned with pedagogical outcomes, cost efficiency and business needs. In partnership with the Office of the Provost, ITS will collaborate and support the Center for Teaching and Learning and in an effort to provide advanced technology and accompanying training. The modernization of technology infrastructure enables ITS to facilitate teaching and learning outcomes while remaining responsive to new and emerging technology needs of students and faculty.

ITS will provide technology solutions to facilitate robust in-person, hyflex, hybrid, and online experiences for both our students and faculty.



The Plan Framework: Goals and Strategies

Goal 1: Implement innovative technology solutions for classrooms and labs

- Collaborate with Academic Affairs, CETLL, and faculty to design classrooms and labs that support the curriculum.
- Implement classroom designs that prioritize HyFlex and Blended Learning technologies; a minimum of 20 rooms a year.
- Implement lab designs that prioritize HyFlex and Blended Learning.
- Research, evaluate, and implement a video repository for educational use.
- Research, design, and implement three active learning and student engagement lab design.
- Redesign four public computer lab spaces with modern technology and upgraded facilities to foster student engagement and learning.
- Research, collaborate and establish one to three strategic partnerships with technology industry leaders.

Goal 2: Create a consistent, reliable, and engaging instructional technology experience for students and faculty.

- Establish Standard Operating Procedures (SOPs) for classrooms, labs, and use of public spaces that impact student learning.
- Establish a secondary Help Desk Center within Rosenthal Library as a focal point of support for students.
- Establish and lead training programs in collaboration and support of the Center for Excellence in Teaching, Learning & Leadership on using all technology spaces and technical support tools. ITS will operationalize the training and tools provided by the Center for Excellence in Teaching, Learning & Leadership.

Goal 3: Evaluate the effectiveness of IT Services for teaching and learning

- Provide optional feedback surveys on all support calls.
- Establish twice a year feedback session with President's Council.
- Establish faculty satisfaction surveys on classroom technology and furniture.
- Establish student satisfaction surveys on all public lab computer spaces.

Goal 4: Develop a Model for Continuous Operational Improvement

- Establish a strategy, plan, and implement ITS unit and team level KPI's, operational guidelines, and procedures.
- Develop and implement a review process for SOP's and KPI's.
- Evaluate and refine all current operational guidelines and procedures.
- Establish and implement a change management process.
- Establish and implement an administrative change management process.
- Every position in ITS will have a qualified backup by May 2024, achieving redundancy.
- Develop plan to replace current ITS building facility that serves dual purpose of providing support to campus constituencies and a learning hub for ITS Staff and campus community.

Goal 5: Create and promote professional development opportunities for division staff systematically for investment in personal growth within and outside the institution

- Establish a weekly half-day professional development and training program.
- Unit managers and team supervisors will establish a 360 performance and professional development plan for all team members.
- Establish an apprentice model for those members wishing to cross-train and learn something outside their current skill set.
- Establish an internship program within ITS for our students.
- Evolve our College Assistant workforce into enrolled Queens College student-paid intern positions, at a minimum of 10 students a year.

Goal 6: Enhance External IT Communications

- Establish a yearly technology communications plan in collaboration with the Office of Communications.
- Establish an ITS Communications team.
- Host one technology town hall per semester for each audience (students, faculty, and staff).
- Distribute, at minimum, a quarterly technology newsletter.
- Establish an annual report cycle.
- Develop, implement, and review website and e-mail templates for standardized communications to expedite community notification.
- Develop student, faculty, and staff orientation videos in collaboration with divisions across the College.

Goal 7: Improve Internal IT Communication

- Establish Microsoft 365 as the official form of internal communications within ITS by Fall 2021.
- Host monthly full ITS Team meetings.
- Conduct Deputy CIO meetings with teams twice a month.
- Area managers and supervisors conduct weekly team meetings.
- Develop a communications campaign to highlight the work and personalities of the ITS Team.

Goal 8: Establish a Sustainable IT Budget & Cost Funding Model

- Develop and implement a three and five-year financial plan in collaboration with CFO's Office.
- Educate and train area leaders on how to do budget planning.
- Develop and implement ITS yearly budget workbooks.
- Implement a Cost Savings and Strategic Opportunity Matrix.
- Collaborate with the Purchasing Department to develop ITS Purchasing SOW SOPs.
- Design training programming for ITS budgeting and purchasing.



Goal 9: Create new policies and processes that administer the technology infrastructure

- Conduct and complete a services risk analysis report.
- In collaboration with CUNY CIS, develop an Enterprise Performance Management Plan and manage enterprise technology to that plan.
- Develop a policy that declares the CUNYfirst identity as the single technical identity that QC ITS will support for connectivity to all required technical services, whether on premise, CUNY Cloud, or commercial cloud system.
- Implement and evaluate a change management process.
- Establish Standard Operating Procedures (SOP's) for classrooms, labs, and general public use spaces that impact student learning.
- In collaboration with Legal Affairs, ITS will develop technology process policies to improve the resiliency of Queens College.

Goal 10: Improve technology and services that support campus infrastructure

- Continuously improve our internet capacity over the next four years by increasing our internet circuits to 40 Gbps (Gigabit per second) to provide reliable connectivity for instruction, learning, research, and business operations.
- Upgrade the campus networking core to modern equipment that will also support building management technologies.
- Modernize The Summit's internet capacity from a T-1 line to Fiber optics.
- Upgrade the telephone system into a modern application-driven tool to support distance education, HyFlex, and off-campus work environments.
- Transition college e-mail into a cloud environment.
- Research, evaluate, and implement a media repository system.
- Research, evaluate, and implement intelligent parcel lockers for off-hours, contactless, package, and deployed technology pickups for the community.
- Upgrade Campus Distribution's package tracking system to improve accuracy, efficiency, and oversight to overall service quality.
- Research, develop, and implement a plan to modernize the college Central Receiving warehouse in collaboration with Facilities.
- Establish a main ITS Help Desk in Kiely Hall.

IT Organizational Success

Queens College depends on ITS to support and improve the teaching, learning, student experience, operational and research endeavors. QC ITS leadership will develop and implement internal and external success goals to facilitate the technology used to support Queens College. Technology is our tool. To achieve employee retention, we must train, support, value, reward and recognize our talented and highly motivated team of technology professionals.

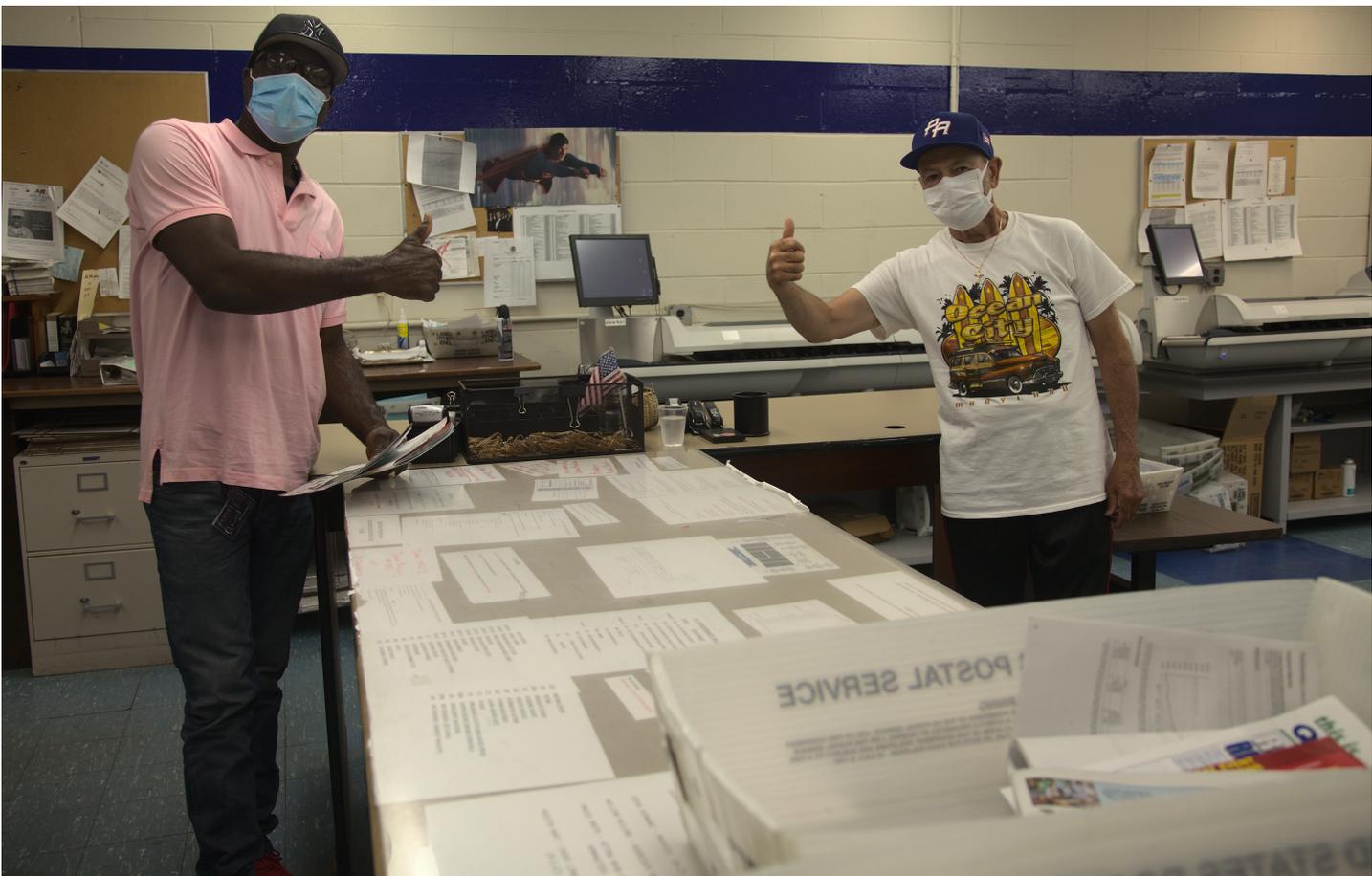
Queens College will continue to be inclusive and recruit and retain the best technicians, managers, and leaders within the CUNY system and seek external experts to hire when necessary. Our technology professionals will be challenged and provided with a rewarding career path that promotes lifelong learning and improvement within all levels of the organization.

The technical team will continue to be ethical members of the community and openly embrace integrity and honesty as they continually are entrusted to protecting our most sensitive data.

The critique of many of the current technology systems is understandable. Many were developed by technical inclined individuals with little or no regard to the user experience (UX) or user interface (UI). User interaction and technology design is now at the forefront of our technical plans and will incorporate user experience as a critical need; just as important as the technical solution itself.

IT is Core to Queens College's Success







Improve Campus Functional Capacity and Infrastructure

Queens College: Welcome to one QC

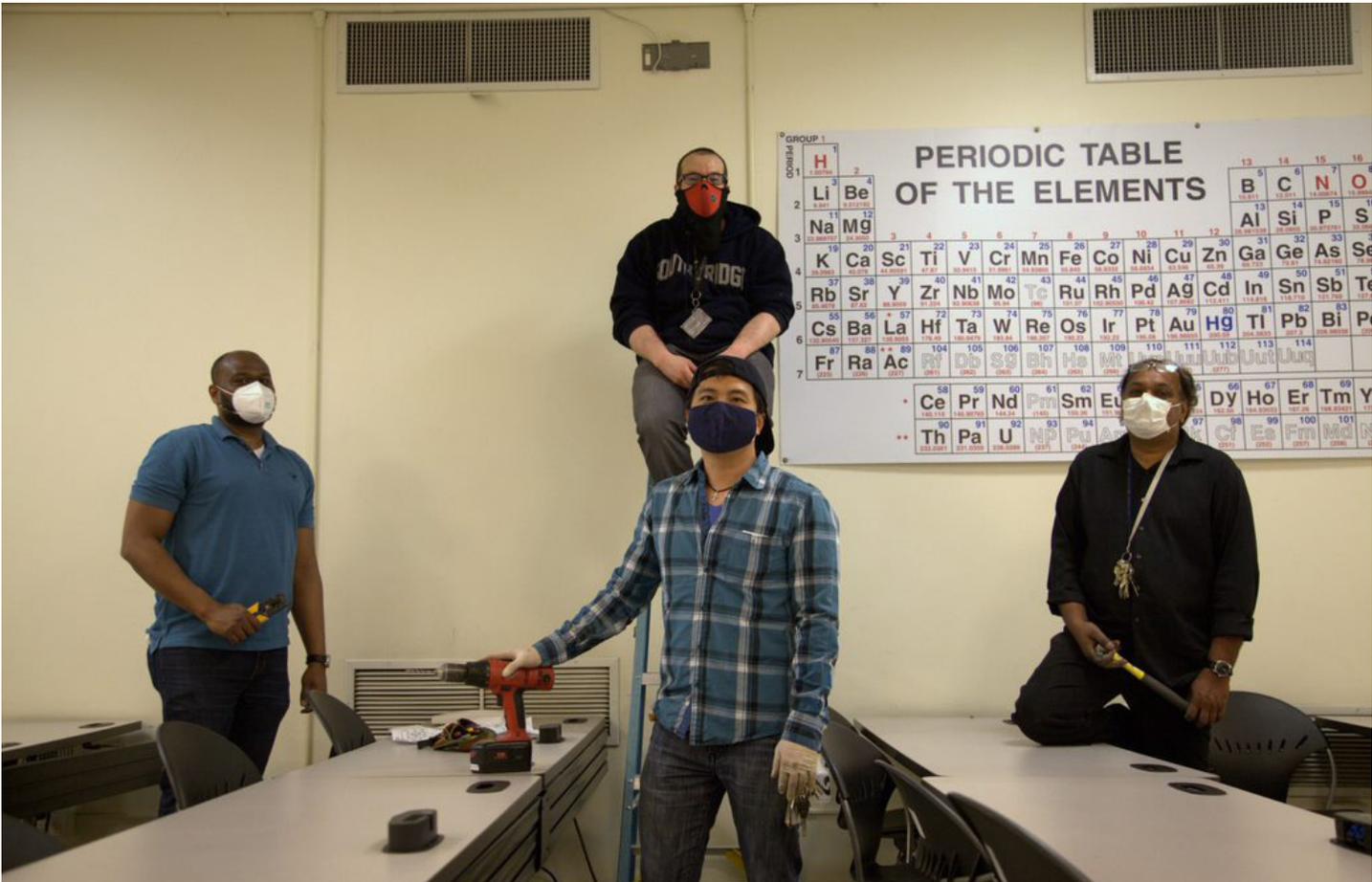
The COVID-19 Pandemic has accelerated the need to upgrade Queens College's antiquated telephony and collaboration infrastructures. A state-of-the-art enterprise cloud solution was selected to address various service demands for continuous service improvements, academic services resiliency, personal productivity, and the performance of complex and evolving administrative capabilities regardless of end user location. The modern cloud solution unifies communication methods.

The use of cloud technology services has matured dramatically over the last decade. Cloud services have facilitated a reduction in organizational ownership and authority, in addition to significantly decreasing infrastructure and labor costs within areas that benefit from its implementation. During times of digital insecurity and a challenging cybersecurity landscape, cloud solutions have gained effective security and compliance capabilities. Cloud services are inherently more accessible and available, in contrast to traditional on premise platforms. As a result, business continuity, disaster recovery, and resiliency are more readily achieved. Operational improvement includes, rapid user deployment and improved user productivity translate into measurable organizational benefits. Numerous public and private sector academic institutions have deployed full/hybrid cloud-based email services, and this increased usage has also been accompanied by increased purchasing options available within the higher education space. The scales of economy and capacity possibilities afforded by cloud-based platforms (e.g., storage capacity of documents, email, geographic based data distribution, productivity services such as email, calendaring, and digital collaboration), significantly surpasses that of traditional on premise systems.

Over the next four years, Queens College's technology ecosystem will transition to a hybrid modality, which leverages both cloud-based platforms, as well as local on premise platforms, for technology service delivery. The use of this modality, allows for Queens College technology professionals, to improve and increase the efficiencies of community interactions, while utilizing enterprise class cloud platforms.

Our business process will require re-engineering and is a necessity for any technological enhancement to occur. However, applying technology to outdated business processes exacerbates wastefulness, cost and substantially increases the risk of inferior outcomes; therefore, as the technology evolves, the Queens College operations will evolve in parallel.

Technology alone does not solve academic or administrative problems





Summary

Measuring Success

Our methodology for measuring success is rooted in progress and Key Performance Indicators (KPIs). Our KPIs are as follows:

- Project completion rate
- Customer satisfaction surveys
- Building a depth chart
- Fiscal sustainability
- Employee skill diversification
- Employee satisfaction and feedback
- Monthly reporting
- System usage analytics

Analytics will be reviewed and adjusted on a regular basis to determine success. Our entire team is integral to organizational success.

Next Steps

The ITS Strategic Plan will be actively distributed and promoted across the college community to ensure that the vision and anticipated benefits identified are realized. The plan will continue to serve as a driver of enterprise IT vision and strategy, and will be updated as necessary to respond to changing technologies and evolving community needs. ITS Cabinet will initiate a formal review of the plan during the summer of 2022.

Concluding Thoughts

We are honored to undertake the activities and initiatives described in this report, and feel privileged to collaborate with the community in support of Queens College's mission. We continue to be both excited and challenged by the transformative potential of the digital transformation and its promise to dramatically advance learning, teaching, and research at Queens College.



We are ITS. We are here to help.