



IT Strategic Annual Report

2024

Division of Information
Technology



Message from the Vice President for IT & CIO

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Division of Information
Technology

Dear Students, Faculty, and Staff,

As I prepare to leave Stevens this Friday (9/6/24), I want to express my deepest gratitude to everyone who has supported and partnered with OneIT during my tenure. To my team, the cabinet members, deans, faculty, staff, and students it has been a privilege to serve as your VP & CIO for the past 4 years, and I am confident that the strong foundation we have built together will continue to support Stevens' mission and its strategic vision for the future.



I'm deeply grateful for the trust and collaboration the Stevens community has shown me and the OneIT Team. I eagerly anticipate all the great accomplishments Stevens will achieve in the years ahead. The memories, achievements, and lessons learned will stay with me always – thank you.

As I reflect on the FY24 year, the Division of Information Technology is filled with immense pride in the progress we have made together. OneIT has worked tirelessly to align with Stevens' strategic goals and the ambitious objectives we set for FY24. This year, we focused on enhancing our digital infrastructure, improving cybersecurity, and fostering innovation across campus.

The Division of Information Technology made significant strides in FY24, advancing the university's digital infrastructure. Key achievements include the implementation of Zoom Phone, a cloud-based telephone system, and the expansion of the Workday ecosystem, which streamlined campus operations and enhanced user experiences. The restructured IT Project Management Office (PMO) supported over 55 collaborative projects. Research Computing Services launched a High-Performance Computing cluster and introduced new consultative services in partnership with researchers, now supporting over 100 faculty researchers and students. Cybersecurity, data governance, and analytics capabilities were strengthened, fostering a data-informed culture through executive dashboards. Additionally, 32 classrooms and collaboration spaces were upgraded, 3,500+ Canvas course sites were supported, and the Extended Reality (XR) lab facilitated 12+ virtual reality projects to advance teaching and learning with technology. The team deployed 700+ laptops through the CASPR program and handled 25,000+ support requests to improve customer support experiences campus-wide, underscoring its commitment to innovative tech solutions for the Stevens community.

These accomplishments would not have been possible without the unwavering collaboration between the Division of Information Technology and various departments across Stevens. The partnerships we have forged have been instrumental in driving the university's mission forward. I am particularly proud of the OneIT Team, whose dedication, expertise, and resilience have been the cornerstone of our success. Their commitment to excellence and service has profoundly impacted the entire Stevens community.

Looking ahead to FY25, the Division of Information Technology (OneIT) remains committed to advancing Stevens' strategic goals through three key priorities: Ongoing IT Services Enhancements, Strengthening Academic, Business, and IT Collaboration, and Driving Continuous Digital Advancements. You can find details of these strategic priorities in [FY25 Priorities Document](#).

Best,

Tej Patel
Vice President for Information Technology and Chief Information Officer

Information Technology FY24 Strategic Priorities

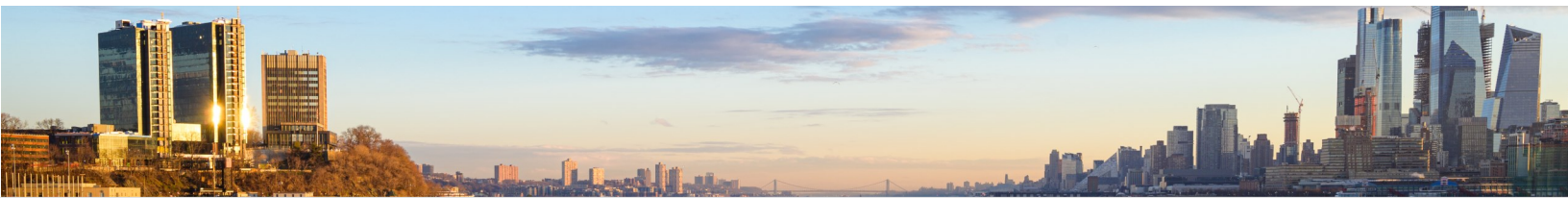
Information Technology Vision

Empower the Stevens' community by providing innovative technology solutions, exceptional digital customer experiences, reliable service and trusted partnership.

Summary of Plan's Goals & Priorities

The Information Technology Strategic Plan supports the university's strategic priorities and provides a secure and reliable technology foundation to enable the work of the Stevens community. Plan goals, priorities and progress towards achieving the goals is summarized below.

* Please note that the data in this report spans from July 1, 2023 through June 30, 2024.



Priority 1: Evolve OneIT Culture, Talent Resources, and Collaborative Communication

Create a culture of inclusion and belonging that fosters open and honest communication. Celebrate diversity of thought to unify and motivate employees. Encourage team members to continuously learn and invest in developing their skills and talents in order to enhance our value to the university.



18 Team members nominated for a OneIT Excellence Award



41 IT Teams channels
23 Division Standup Meetings



10 Internal IT Newsletters
3 Team building activities
1 IT Townhall

Priority 2: Optimize OneIT service alignment to support business outcomes for Stevens

Enhance the efficiency of OneIT's design, delivery, and support of technical services for the campus community. Ensure we are maximizing our effectiveness and impact by being student, faculty, researcher, and staff focused.

Client Support

3,137 Minutes of switchboard calls to Modsquad

19,018 Minutes of Client Support phone calls



43,212 Tickets resolved

91% of Users **Happy** with Ticket Response



1,647 Users supported in TRAC



4,808 Attila Chatbot Conversations

703 Laptops deployed under CASPR



1,867 Faculty & Staff primary devices managed and supported by IT

Collaboration

177,914 Zoom meetings



728,663 Zoom meeting participants

33,356,346 Zoom meeting minutes



298 TB data in OneDrive

39 TB data in SharePoint

80 TB data in Exchange



268 Zoom webinars

9,135 Zoom webinar participants



40 Third-party apps added to Zoom

16 Zoom enhancements implemented

20,478 Teams meetings in the last 180 days



20,478 1:1 Teams calls in the last 180 days

788 Teams channels active in the last 180 days



Priority 3: Continue to improve and enhance existing components of the Workday ecosystem to create more efficient and effective operations and a better experience for users

Expand Workday ecosystem with new modules and functionality to create a more unified platform and create a culture of inclusion and belonging that fosters open and honest communication. Celebrate diversity of thought to unify and motivate employees. Encourage team members to continuously learn and invest in developing their skills and talents in order to

Workday

13 Workday training sessions held



132 Workday integrations



862 Workday tickets resolved

1,823,306 Business Process transactions



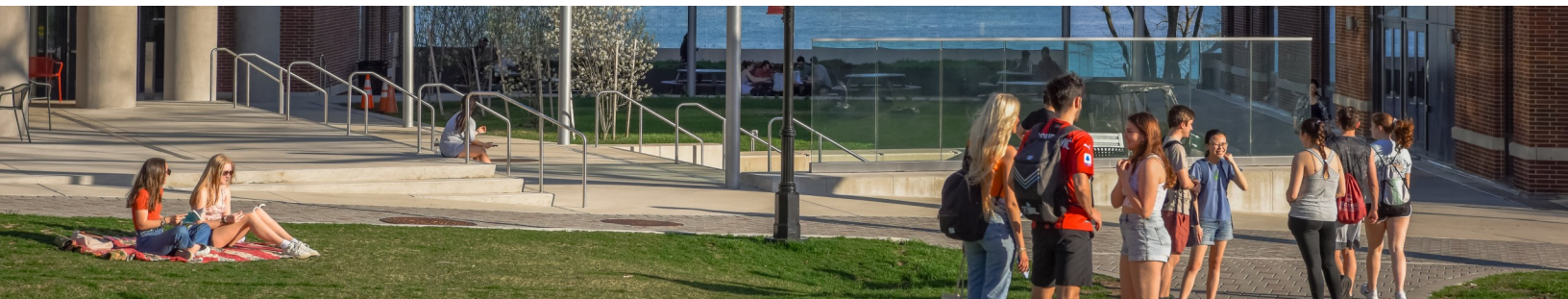
39 items closed by Workday Governance

223 Business Processes



11,539 total users signed on

1,605 Reports run



Priority 4: Improve data literacy, availability, and accessibility university-wide to promote a data-informed culture through Data Governance

Create a Data Governance structure to support the university by building standards and best practices to support future data needs. Expand the portfolio of reporting, BI, and analytics offerings with more data and to a broader user base, and update and enhance existing solutions.

12 Systems with data available



Data in Snowflake

7,665,390,460 rows
8,114 tables
599 GB



11 Data domains represented

Data & Analytics



28 Data Governance team members

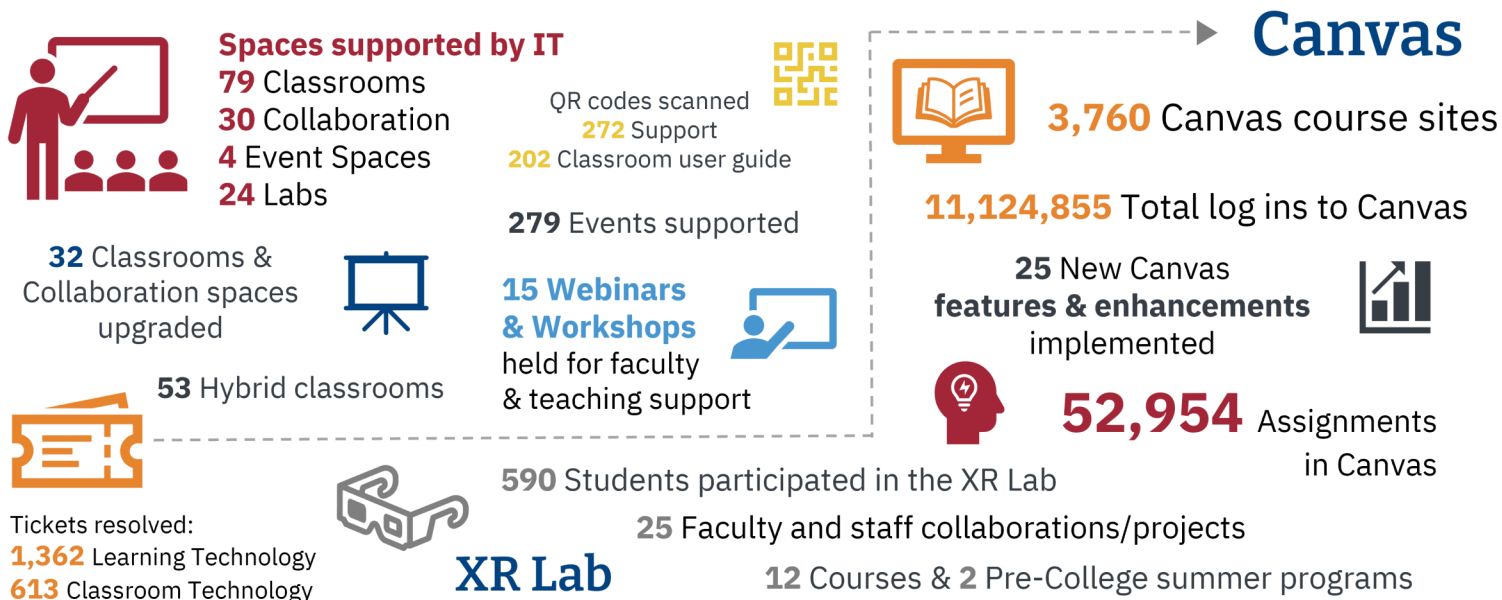
33 Dashboards & BI solutions developed





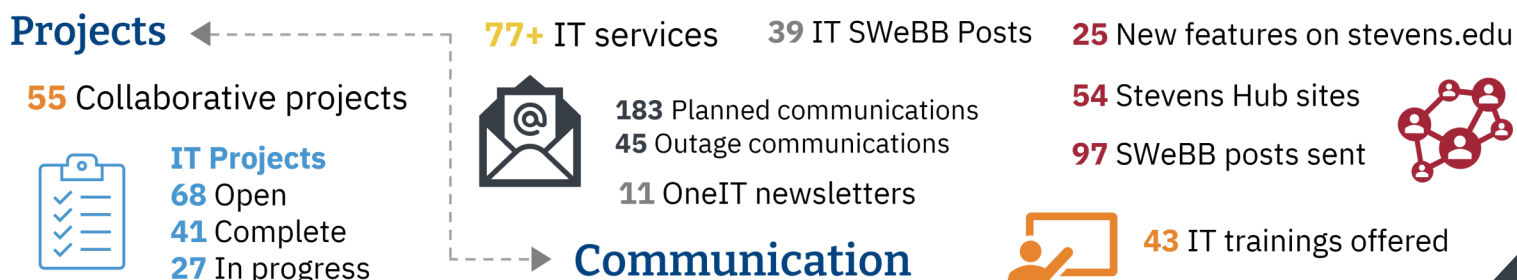
Priority 5: Deliver technologies, services, and innovative learning experiences that empower both faculty and students to excel academically

Increase the adoption of instructional technology tools across campus for faculty and students. Optimize and expand the learning technology stack to ensure faculty and students have the technical resources to be successful. Advance the use of XR technology for enhanced learning and improved student experience.



Priority 6: Strengthen and refine OneIT Project, Change, and Service Management Practices to ensure maturity and effectiveness

Document and formalize processes of project, change and service management practices to support the Stevens campus community. Optimize all existing services to ensure their effectiveness.



Priority 7: Advance Research Computing Services

In partnership with the academic enterprise, develop a robust computational infrastructure and implement mature data management practices while fostering impactful scholarly collaborations. Develop and implement Research Computing Services that support and empower researchers at Stevens by launching the new High Performance Computing cluster and expanding current cluster offerings.

100 Researchers
utilizing RCS



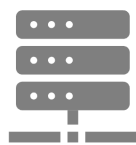
2.5 PB of
Research Data



3,400 Cores
180 Compute Nodes

Jarvis

46 Servers
2,752 Cores
14 TB Memory



Over **150** teraflops of computational power
HDR **100** InfiniBand interconnects
1.2 PB of storage and integrated GPUs

Priority 8: Digital Infrastructure and Telephone Systems Upgrade

Deploy Zoom Phone, a cloud-based telephone service, across campus to provide more flexibility, mobility and privacy to the campus community.

Infrastructure



Wi-Fi coverage

100% Inside campus buildings
99% Outside gathering spaces

2,200 Network Devices

20 Gbps WAN bandwidth
100 Gbps Core bandwidth

200 VPN users per day

3.6 TB Network traffic per hour



33 Zoom Contact Center agents

1,083 Zoom Phone users



35 Fax lines ported to eFax



1,000+ Phone numbers ported
to Zoom

Telephone System Upgrade

35,000 Wireless devices across campus

2 Million sessions per hour

Priority 9: Digital Trust, Cybersecurity, Identity and Access Management, and Physical Security through Transact improvement

Continue to improve Stevens' security posture by expanding the Identity and Access Management program, by providing training and generating awareness around cybersecurity under the Protect Stevens program and by expanding physical security across campus.

Security

926,797 Log ins to myStevens (Okta)

175,068 Phishing Emails blocked



2,126,208
Successful SSO
log ins to apps



38,585
Successful
MFA pushes



13,481 Participants in phishing simulation
11.84% of users took phishing bait

243 Apps connected to SSO

3,800 Vulnerabilities remediated

1,297,856 Emails marked
as Spam



Campus Community Stories

The Division of Information Technology has received a number of statements and stories from members of the Stevens Community.

Robert Maffia

Vice President for Facilities and Campus Operations

“Facilities has worked very closely with IT this year, partnering on multiple moves, classroom upgrades, and improved technology capabilities across all capital improvement projects, along with enhancing security measures throughout the campus. IT is playing an active role in programming the new mixed-use building, being a regular participant in all programming and design meetings. We have also made great progress in solidifying the operation of the Archibus Space Management program, successfully moving it from being Stevens-hosted to the cloud. IT also collaborated with Campus Police on upgrading its computer systems in the Dispatch Center, offices, squad room and mobile data terminals in police vehicles. IT also conducts our roster uploads, required to run our parking management system. We continue to work together to strengthen this partnership.”

Sarah Goodman

Teaching Assistant Professor, Chemical, Engineering and Material Science, School of Engineering and Science

“I have been partnering with the XR lab since June 2023, and it has been a fantastic experience. Since then, we have had more than 400 ENGR 311 students come to the XR lab to study crystal structures in virtual and mixed reality. The Learning Technology team and I designed a study to collect data about the students' experience, and the results have been extremely promising.”

Stacey Greene

Assistant Vice President for Strategic Initiatives and Brand Management, University Relations

“The partnership between University Relations and IT has allowed us to provide services, support and crucial information to the faculty and staff community, including (but not limited to!) the Canva branded graphics platform, brand support portal, Emma email system and, importantly, the Rave emergency alert system. The problem-solving and collaborative nature of our work together empowers my team to reach our goals.”

Rocco Vaccone

Alumni, Computer Science, School of Engineering and Science

“As a recent alumnus and former CIO Student Advisory Board member, I am grateful for the opportunity to work with the great people behind the Division of IT. The division genuinely cares about improving the student experience and has been remarkably open to feedback. Over the last year, they have successfully revived the OneIT Expo, created a new Instagram account, and expanded the board's presence. These initiatives have increased student engagement and positioned IT to continue making significant improvements for the next generation of ducks.”

Reza Peyrovian

Senior Lecturer, Computer Science, School of Engineering and Science

“The IT team took the lead in developing a tool to transfer grades from Canvas to Workday using the Workday Extend app. This application allowed me to seamlessly transfer grades for 300 students, saving me several hours of work. I am grateful for their partnership in planning, developing, and testing the app.”

Campus Community Stories continued

Edmund Synakowski

Vice Provost for Research and Innovation, Office of the Provost

“Staff in Information Technology have provided sophisticated and energetic support to the Office of the Vice Provost for Research and Innovation (OVPRI) this year. They have brought forward and to maturity a new research dashboard capability that enables up-to-date, validated views of research awards and expenditures data and other vital research-related information that is at the core of Stevens’ research and innovation-related metrics. This data is now available for viewing by Stevens leadership and has enabled data-driven discussions with members of the Board of Trustees that simply were not possible before. A vibrant collaboration with IT, OVPRI leaders of Electronic Research Administration and Post-Award services, and staff from the Division of Finance has been essential not only in the validation of the dashboard tool but also in laying the foundation for the deployment of InfoEd, the system chosen by Stevens to be the tool to facilitate proposal and grant management. IT’s responsiveness to the OVPRI’s needs has been outstanding – accurate, flexible, and highly informed - on all matters.”

Sakshi Pawar

Finance, Masters Student, School of Business

“Being a member of the OneIT team and supporting users in TRAC, I have been able to eagerly embrace the challenges of troubleshooting complex technical issues and delivering seamless support to the vibrant Stevens Institute community. It is satisfying to unravel intricate problems and witness the immediate relief on users’ faces. Each interaction is an opportunity to hone my technical acumen and refine my communication skills, all while being part of a collaborative team that thrived on problem-solving. Being a part of the OneIT team not only deepened my technical knowledge but also sparked a lasting passion for technology and its impact on my day-to-day life.”

David Fernandez

Chief Risk Officer, Division of Finance

“The Division of Information Technology are valued partners who have provided tremendous support to our office. We have collaborated on numerous strategic projects that have enabled us to enhance our processes and overall efficiency and effectiveness. The IT Team is always ready to assist and support us as we pursue a best-in-class operation.”

**Some statements above have been reworded to use generic language for the purposes of the Annual Report.*



OneIT Excellence Awards

The Division of Information Technology created an [awards program](#) to recognize and reward our OneIT full-time team member's hard work and dedication to the Stevens community.

Leadership Excellence Award – Steve Flanagan

“Steve has displayed extremely strong leadership skills both within OneIT and across campus. He has successfully built up the Workday Solutions team which plays a pivotal role in supporting Workday for the entire campus. The effects of his leadership are present in the team – its members are committed, work well with each other and with their campus colleagues, and are trusted partners. He has developed this team into a cohesive unit, managing both the turnover of a key member and the addition of new members. Steve’s solid reputation and relationships with our campus partners are responsible for the positive image of OneIT that he promotes.”

Employee Excellence Award – Rafat Azad

“Rafat has consistently demonstrated the highest level of professionalism and excellence in everything he does. His attention to detail as he rapidly shifts tasks from Okta, Cyber, Vulnerability management, and alert monitoring is remarkable. He also works closely with so many other team members to amplify the impact of his efforts.”

Rising Star Excellence Award – Phillip Paluga

“In just slightly over a year of employment, Phillip has quickly established himself as the “go-to” when it comes to all equipment purchases and hardware related support and service. Phillip has established that he is a constant on the Client Support team and has proved his work ethic and reliability by completing work by the deadline regardless of the hurdles presented.”

Project Team Excellence Award – Josh Poinsett, Kurt Hockenbury, Joe Formoso, Mike Parente, Chen Cheung, Hammad Ali, Ted Vallejos, Jayson Viray, Luis Quispe, Mauricio Castano

“The project team members did a fantastic job in the successful implementation and migration of services into the cloud. The Cloud Smart project had a significant impact on the university's mission and priorities and sets the standard for future improvement of operations, resiliency and efficiency. The project will allow for improved productivity among our students, faculty and staff. The project team completed the project with minimal impact and delivered exceptional client experience.”

OneIT Values



MISSION FOCUSED

We are student and faculty focused and invested in furthering the University’s mission.



INTEGRITY

We build trust by maintaining a high standard of ethics, honesty and respect for others.



EXCELLENCE

We proactively and collaboratively deliver high quality work to ensure that we succeed as a team and meet the needs of our campus community.



VERSATILITY

We continually seek to evolve to meet the current and future needs of the campus community.



TRANSPARENCY

We strive for full, open, and honest communication with the Stevens community and each other.

Overall Accomplishments

Zoom Phone

Stevens migrated to [Zoom Phone](#), a cloud-based telephone service, to provide more flexibility, mobility and privacy to the campus community. The OneIT team ported over 1,000 phone numbers to Zoom so that over 1,083 users have access to the new platform with 33 Zoom Contact Center agents active to help support the campus community.

CASPR

The [Computer Asset Standardization, Procurement and Replacement \(CASPR\) Program](#) and [Policy](#) was put in place to enhance the computing services, compliance and support experiences for faculty and staff. The OneIT team has deployed over 700 laptops under the CASPR program while supporting and managing over 1,800 primary devices for faculty and staff.

Research Computing Services

The Division of IT launched a centralized [Research Computing Services](#) program to support the Stevens Research community. It includes access to high-performance computing (HPC) clusters, storage, networking, and cloud computing resources. Additionally, it offers training, IT consulting, managed IT services, and support services. By delivering advanced computational resources and expert guidance, this service aims to significantly enhance support for our research enterprise.

Configurations for JARVIS, Stevens' new HPC cluster were completed. The cutting-edge cluster boasts 46 servers with 2,752 cores, 14TB of memory, over 150 teraflops of computational power, HDR 100 InfiniBand interconnects, 1.2PB of storage, and integrated GPUs. Over 100 researchers were onboarded and are already utilizing the new HPC cluster.

Enterprise Data & Analytics

[Enterprise Data & Analytics](#) service capabilities were strengthened to foster a data-informed culture at Stevens. Various executive dashboards were developed to enhance data awareness and understanding across the university.

Project Management Office

The Division of IT's [Project Management Office](#) (PMO) improved the project management process to streamline workflow and enhance collaboration across departments while continuing to fulfill Stevens' mission and strategic goals. The PMO supported over 55 collaborative projects. Over 3,400 reports and 395 dashboards were created amongst the 480 users utilizing the project management software, Smartsheets to complete 55 collaborative projects and numerous operational tasks.

Classroom & Collaboration Space Upgrades

During FY24 the Division of IT helped upgrade 32 classrooms and collaboration spaces. The OneIT team supports [79 classrooms](#) (53 hybrid capable), [30 collaboration spaces](#), [4 event spaces](#) and 24 labs across campus. Our team is committed to ensuring that students, faculty and staff can collaborate effectively by providing access to modern technology.

Extended Reality (XR Lab)

The OneIT team expanded the use of XR technology across campus to support 12 courses and 2 pre-college programs including 590 student participants and 25 faculty or staff collaborations and projects. The [Stevens XR Lab](#) is dedicated to providing the entire Stevens community the opportunity to explore virtual reality (VR), mixed reality (MR), augmented reality (AR), 360-degree video and other extended reality (XR) technologies.

Looking Ahead

Workday @ Stevens

Stevens is expanding the [Workday ecosystem](#) to include Workday Financials and Workday Learning during FY25. [Workday Financials](#) will streamline financial processes and improve efficiency by connecting financial transactions directly to the same environment where Human Capital Management (HCM) and Student transactions occur. Workday Learning will allow employees to participate in onboarding, compliance and professional development training in a platform they are already familiar with.

Artificial Intelligence (AI)

The Division of IT is working to establish the necessary AI foundation for the Stevens community. The goal is to utilize AI and machine learning (ML) to help increase operational excellence and efficiency.

Classroom & Collaboration Space Upgrades

The OneIT team will continue to upgrade classrooms, collaboration spaces, and labs across campus to ensure technology supports the growing teaching and learning needs across campus.

Research Computing Services

The Division of IT is expanding the Research Computing Services to support advanced computation needs. We will continue to enhance the high-performance computing (HPC) infrastructure to ensure we meet the needs of the Stevens research community.

Learn more about OneIT's strategic priorities in the [FY25 Priorities Document](#).

