



IT Strategic Annual Report

2022

Division of Information
Technology



Message from the Vice President of IT & CIO

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Dear Students, Faculty, and Staff,

The Division of Information Technology is proud to share our first ever IT Annual Report with the community. This report highlights key partnerships, initiatives, and IT strategic achievements that demonstrate our division's commitment to the strategic goals of the institution, operational excellence, and the provisioning of information services in support of Stevens rich academic culture and research environment.



This report is the first in a series of annual reports that provide concrete evidence of IT's commitment to the University's core tenets of student centricity, excellence in all we do, through collaboration impact and technology at our core.

The achievements highlighted in this report are a true testament to OneIT's teamwork, dedication, and commitment to our students, faculty and staff. I am proud of the contributions and achievements of the members of the Division of Information Technology. While it has been a significant year of growth, challenges, and major accomplishments for Stevens IT team, we know there are existing and emerging opportunities to pursue and harness. I would like to convey my deepest gratitude to all our colleagues who have partnered with the Division of Information Technology.

I am always interested in your ideas and feedback to further improve information technology services to serve you better. Please reach out to me at tej.patel@stevens.edu or visit us at www.stevens.edu/oneit.

We look forward to our continued partnership and collaboration with the Stevens community in pursuit of finding novel ways to support Stevens 2032 Strategic plan: Inspired by Humanity, Powered by Technology.



Tej Patel
Vice President for Information Technology
and Chief Information Officer



Division of Information
Technology

Information Technology Goals & 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 January 1, 2022 or June 1, 2022 through August 31, 2022 because of the availability of such data

Support University Priorities



Goal 1: Provide technologies and support to enable online, hybrid and in-person learning.

Teaching & Learning



135+ Classrooms, Collaboration and Event Spaces Supported by IT



10 Labs Supported by IT



12 IT Newsletters Sent to Employees or Students

11 Classrooms Upgraded
26 Conference Rooms & Offices Upgraded



25 Webinars & Workshops

Held for Faculty & Teaching Support



Tickets Resolved:
1,885 Learning Technology
384 Classroom Technology



4 Courses & **213** Students Supported, Engaged and Learned in XR Lab

Canvas

141,936,219

Total Log Ins to Canvas



2,692 Canvas Course Sites

22 New Canvas Features & Enhancements Implemented



70,998

Assignments in Canvas



Goal 2: Enable computationally intensive research, data management and scholarly collaborations.

2.5 Petabytes of Research Data



3,400 Cores



180 Compute Nodes



Goal 3: Make data and analytical tools widely accessible to inform institutional decisions.



3,083 Workday Tickets Resolved



110 Workday Integrations



9,086,340 Transactions

78 Items Closed by Workday Governance



192 Business Processes



16,857 Total Users Signed On

5 Workday Training Sessions Held in Summer 2022



1,427 Standard Reports Run

Data in Snowflake

3,446,690,008 Rows

1,538 Tables

255 GB



7 Dashboards & BI Solutions Developed

10 Systems with Data Available



Data & Analytics

Workday



Goal 4: Facilitate operational efficiency and effectiveness of University services.

82,500,000 Emails Sent throughout Stevens per Year

Communication & Collaboration



234% Increase in Communication from IT to the Campus Community

257,652 Zoom Meetings



1,129,702 Zoom Meeting Participants



58,548,594 Minutes Spent on Zoom Collaborating

31 New Zoom Features & Enhancements Implemented



215 Zoom Webinars
10,117 Webinar Participants



30,000 Teams Meetings

656 Teams Channels Active in the Last 90 Days

8,942 1:1 Teams Calls in the Last 90 Days



118 Microsoft Booking Sessions in Last 90 Days

450 PB Collaboration Software Storage Space



Faculty Page Load Times **Improved by 190%**

95% Websites Moved off Legacy Infrastructure

Infrastructure



2,200 Network Devices
1,750 APs Deployed During Wi-Fi Upgrade

33,000 Unique Wireless Devices on Campus

2 Million Session per Hour
3.6 TB Network Traffic per Hour



20 Gbps WAN Bandwidth
100 Gbps Core Bandwidth



Wi-Fi coverage

99% Inside Campus Buildings
99% Outside Gathering Spaces



200 VPN Users per Day

80 Applications on Stevens AppSpace
800 Users per Day Accessing Stevens AppSpace

Servers Supported by IT

200 Virtual Machines
20 Physical Servers



Provide a Strong Foundation



Goal 5: Foster IT operational excellence by maintaining secure and reliable technology and building a diverse, collaborative and customer centered IT team.

Client Support



18,671
Tickets Resolved



2,949 Minutes of Switchboard
Calls to Modsquad

1,900 Attila Chatbot Conversations

1,635 Users
Supported in TRAC



5,494 Minutes Saved from Front Desk



1,996 Devices Managed and Supported by IT



IT Projects
54 Open
23 Complete
47 In Progress



Security

942,048
Log ins to myStevens (Okta)



2,132,643
Successful SSO
Log ins to Apps



248,230
Successful
MFA Pushes

156 Apps Connected to SSO



733,334 Emails
Marked as Spam

2,488 Vulnerabilities Remediated

352,845 Phishing
Emails Blocked



10,371 Participants in Phishing Simulation
13% of Users Took Phishing Bait

Campus Community Stories

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

Sara Klein

Vice President for Student Affairs

“The team in IT has been incredibly supportive of the staff in Student Affairs and has made the student experience a priority. They have partnered with us on countless projects and initiatives this year, most notably on the selection, implementation, and onboarding of Stevens Guardian, the new safety app for the campus community, and Point and Click, an electronic medical records system that significantly improves our processes and the experience for students in Student Health Services, Counseling and Psychological Services, and Sports Medicine. The IT team has been helpful, proactive, creative, and genuinely great colleagues throughout all these processes. In addition to these large-scale projects, the IT team meets and interacts with us on a regular basis to hear our feedback on their performance and make improvements, and to discuss and address IT-related student concerns.”

Kevin Ryan

Teaching Professor, School of Business

“Every semester, the IT department provides exceptional and outstanding support in preparing all my Canvas course websites for the new semester. This includes providing the Canvas course shell and copying all course content from a previous semester’s website. This outstanding support is vital to me for the successful start of the semester and saves me a tremendous amount of work. It also comes at a time when things are most hectic (the start of the semester).”

Jean Naveen Palukurthy Moses

Engineering Management, Masters Student, School of Systems and Enterprises

“The Student CIO Advisory initiative proves that Stevens is an institution focused on students and that they are always available to help students achieve their dreams and goals. It is wonderful to see how easily we can approach the leadership with issues and how humbly and promptly they solve our problems. They set a great example for us to learn from as we become successful professionals.”

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.

Campus Community Stories continued

Subin Sam

Information Systems, Masters Student, School of Business

“I love how the IT team has become more student centric. There's a vast difference in the support from when I came to Stevens in Jan 2021 to where it is right now. It's easier to get in touch with support and the resolution is faster. Introduction of digital backpack, upgradation of technology in the classroom and better Wi-Fi connectivity around campus are the highlights for me personally.”

Erol Cesmebasi

Associate Dean of Undergraduate Academics

“As the Stevens Workday user community, we still have a lot to learn about the fine points of Workday to be more efficient and fluent users. The Workday Solutions Team’s training sessions with examples and demonstrations go a long way in providing an understanding of the details. I would highly recommend the training sessions continue since the repetitions reinforce the concepts and help newcomers to be exposed to the basics.”

Biruk Gebre

Research Engineer and Lecturer, Mechanical Engineering, School of Engineering and Science

“I have worked with Stevens IT on several projects throughout the years that have helped to enhance the classroom and teaching experience in my courses. Stevens IT has provided exceptional support including training, troubleshooting, and continuous feedback and improvements that has made integration of these new technologies much more seamless and less daunting. I also appreciate how Stevens IT is continuously innovating and providing us with new technologies, resources, and tools that integrate seamlessly with learning technologies like Canvas and Zoom that we use for our courses. Overall, I have had a very positive experience working with Stevens IT and look forward to utilizing even more IT resources in the future.”

Woo Lee

Professor and Department Chair for Chemistry and Chemical Biology, School of Engineering and Science

“I’ve collaborated with Learning Technology unit in IT to implement the knowledge-building approach in a large introductory engineering course for the past several years. We significantly revised course content, design and delivery so students could experience a knowledge-building culture to facilitate their development as deep and lifelong learners. Learning Technology team has provided outstanding support and played a key role in the redesign of the course.”

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



OneIT MVP Winners

The Division of Information Technology instituted a Most Valuable Player (MVP) award program where each month everyone in the division votes for the MVP on the OneIT Team for that month.

October 2022	Alex Cardoso Client Support Specialist	“Working at Stevens has improved my career growth tremendously by being able to work with mentors and learn from different experiences. I truly feel like I'm a part of a proper team when working with my IT teammates.”
September 2022	Jayson Viray Senior Network Administrator	“What I like most about being a part of Stevens OneIT is that everybody is willing to help each other and collectively collaborate to solve issues. The positive impact made on the technology experience of the Stevens community is what I find meaningful.”
August 2022	Mahnoor Nizam Academic Multimedia Specialist	“Stevens is an environment that allows you to grow and learn. I enjoy working for Stevens and the OneIT team and being able to do what I love.”
July 2022	Megan Kelley Associate Director for Data and Analytics	“What I love about working in IT is that we all have our own departments and areas, but we genuinely are all one team. There is a true collaborative spirit in OneIT, and it is a joy to be a part of that.”
June 2022	Chen Cheung Data Integration Engineer	“Being around so many peers with a sincere desire to make Stevens a better institution is truly inspiring.”
May 2022	Mauricio Castano Senior Network and Telecom Engineer	“I find working for Stevens IT to be rewarding as it allows me to be part of a team that makes an everyday impact on the entire community, working with new technologies and solutions that allow for continued university innovation.”
April 2022	Josh Poinsett Associate Director of Cloud Computing and Systems Engineering	“I enjoy working in IT because it is always evolving with new technologies to learn and experiment with, and with Stevens being an innovative institution, those new technologies are typically encouraged and welcomed.”
March 2022	Rafat Azad Cybersecurity Engineer	“Working for Stevens and with the OneIT team has been a pleasure and privilege. I feel blessed to work with such outstanding professionals all focused on a singular mission of providing the highest quality IT services at a premier university.”
February 2022	Steve Flanagan Associate Director for Workday Solutions	“I love the community at Stevens especially because there’s a genuine sense of wanting to collaborate. It is a great feeling to be able to proudly represent IT as part of that larger Stevens family!”
January 2022	Luis Quispe Associate Director of Network and Telecom Engineering	“I love what I do because the work we put in as a team impacts so many people on campus. Most services Stevens provides have an IT component associated and it makes my day that we can deliver that service cleanly.”

Overall Accomplishments

NextGen Wi-Fi

Stevens is the first and only Higher Ed institution in the State of New Jersey that currently has Wi-Fi 6. During FY22 1,700 Access Points (APs) were deployed across campus to ensure your device is always connected regardless of your location on campus. Our network supports speeds of 15-300 Mbps depending on device type and campus location.

Classroom & Collaboration Space Upgrades

During 2022 the Division of Information Technology helped upgrade 47 locations which included 11 classrooms, 15 conference rooms, 11 offices, 2 event spaces, 5 labs and 3 student spaces. Our team is committed to ensuring that students, faculty and staff can collaborate effectively by providing access to modern technology. In addition to the 47 spaces, new digital signage was added to 15 locations in the University Center, Babbio and the Library.

Workday @ Stevens

A Workday Governance structure was implemented including an Executive Sponsor Group, Steering Committee and Operations Committee. This governance allowed functional teams across Stevens to close over 78 items. Workday is now Stevens' system of record for Student, Human Resources and Payroll data with over 110 integrations.

Stevens Identity and Access Management Program

Stevens implemented Okta as the new Identity and Access Management (IAM) platform to improve user experience and enhance security when logging in to various systems. Utilizing single-sign on (SSO) helps students, faculty and staff by providing a safe online environment leading to seamless access and increased productivity.

Stevens Computing Device Program

The Division of Information Technology recently implemented Stevens Computing Device Program. Students can select laptops based on the requirements of their program of study. The program enables Stevens faculty and staff to purchase pre-configured MAC's, PC's, and peripherals at significant savings.

IT Support

To provide enhanced customer experience, the Division of Information Technology implemented a three-pronged program. One, you can now receive 24/7 phone support with ModSquad, our support partner. Two, students, faculty and staff can submit tickets, request services and review knowledge base articles through IT's new Support Portal. Three, get your questions answered by chatting with IT's AI powered chatbot 'Attila'.

Extended Reality (XR) Lab

The XR Lab connects augmented reality (AR), virtual reality (VR), mixed reality (MR) and 360-degree video resources on Stevens' campus. The aim of the Lab is to explore how extended reality can support learning, research and other pedagogical and curricular goals by bringing together people, technology, resources and space. In collaboration with the Division of Information Technology's XR Lab, Dr. DiMarzio and Dr. Gebre each successfully piloted the use of XR technology in one of their courses to enhance the learning experiences of more than 200 students combined.

Communication

The Division of Information Technology increased our communication with students, faculty and staff by 234% during FY22. This includes communication surrounding projects, system and service maintenance, upgrades, outages, training sessions, and newsletters.