

A YEAR IN REVIEW 2022

Office of Information Technology



Architecture & Infrastructure Highlights

- Implemented Immutable Backups for 30 critical systems
- Completed the first disaster recovery exercise in over 2 years including a live test of Banner
- Rolled out RHEL 8 and Server 2022
- Migrated from Puppet to Salt Stack
- Decommissioned the last remaining piece of A&I equipment in Rich!
- Replaced 2PB of legacy backup storage
- Onboarded the first GT researcher into Google Compute Platform.
- Rolled out Udemy training for all Faculty & Staff
- Retired legacy F5 load balancers after countless roadblocks.
- Deployed Alkali on Kubernetes in Azure to replace legacy Salt management service.
- Achieved a first-year endpoint protection score of B" for systems under management.

AV Services Highlights

AV Services provided in-person AV Support for high-profile events on campus:

- Successfully supported the AV for the BOR meeting at Albany State University
 - April Board Meeting – April 9th through April 13th
- Successfully supported the AV for the BOR meeting at Dalton State College
 - October Board Meeting – October 8th through October 12
- Provided support for the Institute Address in Clough 152
- Provided support for the 9/13 Senate Study Committee Meeting in Dalney 180
- Assisted with commencement
- Worked with the Registrar's Office, CPSM and GTPE to upgrade over 45 classrooms during the summer of 2022.
- College of Computing Fall of Fame Wall
 - AV Service managed the design and contractor in implementing the large videowall for CoC
- Assisted with the timely kick-off of the Student Center AV, in addition to ensuring week of welcome had adequate AV for the week-long event

AV Services Highlights

- Successfully completed an Audiovisual Technical Support How-to Room Guide for faculty, instructors and TA's on how to use the audio-visual technology systems in the classrooms and conference rooms.
- Successfully completed installation of over 219 Lectern Rebranding Logo Plates from the Institute Communications project.
- Successfully assisted the Student and Campus Event Center team with over 1800+ hours to bring the John Lewis Student Center rooms online for opening day.
- How To Videos Created This year, "Setting Up Presenter Notes" & "Research Administration Building - Divisible Rooms" and "Setting up Classroom AV systems Room Capabilities and Web Conferencing".
- AV Services organized and hosted two Extron manufacturer led on-site control programming courses which were attended by representatives from GT, GTRI and several other USG institutions.
- Handled 2,007 incoming incidents
- Professional Development and Certifications:
 - Georgia Tech Inclusive Leaders Academy:
 - Culture Champion, Changemaker
 - AVIXA InfoComm 2022:
 - Design Thinking, Networked AV Systems, How to Effectively Manage AV Staff
 - Extron Control Specialist, Extron Control Professional
- Successfully launched and held the 1st AVS Office Hours for classroom instructors.
- Successfully held the first AVS Presentation to the Event Coordinators' Network on Setting the Stage to meet the audiovisual needs in technology enhanced rooms on campus.

Business Solutions – Collaboration & Productivity

- Successfully completed a series of Power Automate Trainings
- Successful sunset of BlueJeans Meetings and Events as well as WebEx video conferencing solutions, with the introduction and deployment of Zoom across Georgia Tech
- Faculty Governance Teams site and channel configuration
- Emma Email Marketing Services Pilot
- Sympa Inactive List Clean-Up
- Continued O365 Distribution Lists for Special Project Teams and Initiatives

CRM Services

Enablement

- CRM Streamlined Role-Based Permission - Phase 1
- CRM: EDW integration Improvements
- CRM: Launched Georgia Tech Salesforce User Community Group
- CRM: Operations Management / DevOps Improvements - Pipeline & Project Templates
- MC: Lean Six Sigma Paid Landing Page Improvement
- MC: New Mulesoft API for SCoB Events
- MC: Slate Integrations (EMBA, GTPE Online Grad Programs & MC)
- MC: Tactical support for SCoB (12)
- SSH: Advisee Alerts Cleanup to Display Current term (Part 1 or 3)
- SSH: BSMS-Computer Science Advisor Assignments Enabled
- SSH: Expand Historical Student Information back to 2017
- SSH: GT Community Prep
- SSH: Improved Page Layout (Primary/Secondary Major & Minors) on Student Contact Record
- SSH: Improved User Provisioning for FASET Advising
- CRM: Contact Management P2/Matching Enhancements
- CRM: Salesforce Spring '22 Major Release

- CRM: Spring '22 Release for Salesforce & Marketing Cloud
- CRM: Winter '22 Release Activated
- MC: Spring '22 Release
- MC: Zoom Meeting Integration with Dashcord (SCoB/GTPE)
- SSH: Created GTAA Manager Dashboard
- SSH: Display Student Athlete and Team Affiliation on Advisor Console
- SSH: Enhancement to Program Enrollment & Affiliation Syncing
- SSH: Improved Search Using Advisee Case by Legal Name & University Email
- SSH: Improved Student Login Error Messages
- SSH: Summer Release '22 for SSH & EDA
- SSH: View Wait Listed Courses

Initiative

- CRM: Corporate Engagement P1-Complete

CRM Services

Maintenance

- CRM: Enabled Enhanced Domains for GT Communities & Sites
- CRM: Improved Data Quality Dashboard v1
- CRM: Metallic Replacement Backup Solution
- CRM: Operational Data Loads
- CRM: Prep for DB Maintenance with Site Switch (test email connections)
- CRM: Refresh QA & Development Environments
- CRM: Use of Formula Fields to Reduce EDW Integrations
- SSH: Drprovision "inactive" Customer Community Plus licenses in QA& PROD
- SSH: Fixed Contacts after update Flow (improved consistency & reduced multiple Advisee Records)

Pilot Program

- Salesforce Talent Pipeline with Students Excursion - Pilot Program Development

Product Evaluation

- SSH: Salesforce Tableau Accelerator Evaluation

Roadmap

- CRM: EduConverse Migration Non-Credit MLP
- CRM: Trail Tracker POC (Salesforce Training application with management dashboard)
- MC: Launch Business Analytics Certificate Program (Joint SCoB/GPTE)
- MC: Launch Leveraging Technology for Exec Cert Program (Joint SCoB/GPTE)
- MC: Slate Unsubmitted Applications (Discovery Complete)
- MFA for Marketing Cloud
- SSH: Alerts Management (Multi-phased project) - Open Incomplete Grades, Low Grade Concerns, Course Withdrawal, Check for Repeated Course, and Sample Dashboard
- SSH: GTAA Advisor Link Onboarding
- SSH: Virtual Kiosk & InPerson Registrations - SCoB Advising

Student Outreach

- SSH: FALL '22 MTG4052 Student Experiential Learning Projects
- SSH: SPRING '22 MTG4052 Student Experiential Learning Projects

CRM Services

Conference Presentation

- Salesforce Education Summit Presentation: "Zero to Launch Student Success Hub in 20 Weeks" by Kimberly Wynn White, Andrew Jarrett, Tiago Ruivo

Professional Development

- Agile Workshop Series for 48 Staff in FY 23 (Cohort 1 of 3)
- CRM Services Team Retreat: StrengthFinders
- Salesforce Certified Business Analyst - Devki Kumayan
- Salesforce Certified Development Lifecycle and Deployment Architect - Andrew Jarrett
- Salesforce Certified System Architect - Andrew Jarrett
- Salesforce Certified Education Cloud - Tran Vu Tran
- Supervisory Training - Giving and Receiving Feedback
- Supervisory Training - Conflict Resolution

Professional Membership & Outreach

- Georgia Tech Toastmasters - Erin Schroder
- 2021-22 USG Project Management Constituency Group Chair - Kimberly Wynn White
- USG Salesforce User Group Members - Kim Wynn White, Andrew Jarrett

OIT Well-Being

- OIT Weekday Step-Off Team Captain - Erin Schroder

Cyber Security

- Completed phase 1 reorganization of the Cyber Security team to better support students, faculty and staff in achieving their goals while protecting our environment.
- Launched several major programs, projects and initiatives including:
 - Major research security projects including CMMC (cybersecurity maturity model certification) required for all DoD contracts; NSPM-33 required for federal research.
 - Cybersecurity Liaison Team to marshal the collective skills and capabilities of our campus IT community in our cyber defense.
 - Establishment of a Cyber Data analytics Team to leverage network and systems data in cybersecurity decision analysis.
- Restaffed and rebuilt the GT Security Operations Center (SOC), following mass exodus due to the current competitive cybersecurity market. Frontline defense against daily onslaught of attacks:
 - Stopped 4,500 phishing attacks; over 98% also identified and reported by the GT community.
 - Endpoint: 25,702 devices (85% of available licenses) with Cortex XDR endpoint protection installed
 - 102,000 active devices, routinely scanned by Qualys; scanning agents directly installed on 75,193 endpoints
- Major improvements in our Identity and Access Management program:
 - Standing up Technical Services registry for Access Management
 - 75 New applications integrated with Identity Management and now supports SSO
 - Went live with improved onboarding process for new applications wanting to establish SSO
- Direct compliance support that enabled researchers to perform duties from contracts and grants one including:
 - Obtaining ATO (authorization to operate) for the NASA/JPL Lunar Flashlight mission to the Moon
- Developed multiple high-impact processes to meet USG requirements and increased GT efficiency and security including
 - Implemented KnowB4 for annual awareness training requirements
 - Developing and achieving efficiencies around processes for assessing third-party vendors via the USG BPM 3.4.4 process, by work flowing the process in ServiceNow.

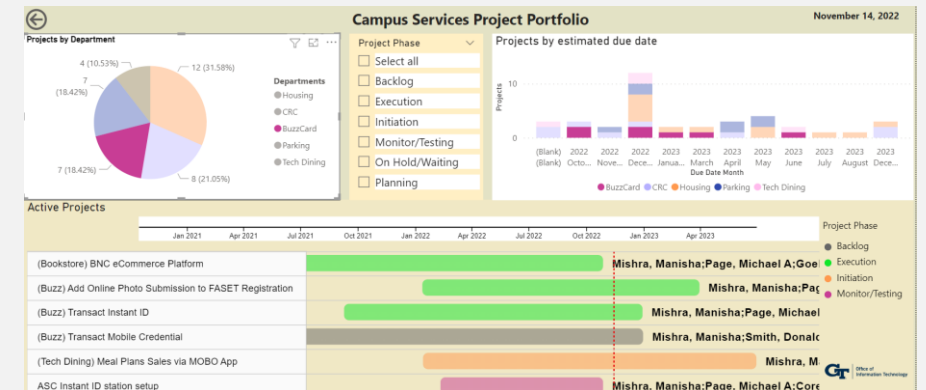
Digital Business

Web Development & Support

- Institute Communications UX Research Collaboration - Our team worked with IC to provide their team with insight and recommendations for their high-profile properties including: af.gatech.edu, procurement.gatech.edu, facilities.gatech.edu
 - ASC UX Research - Working with ScottMadden, our team provided user insight through UX research and design recommendations for the ASC's ServiceNow portal.
 - BuzzCard.gatech.edu - new site design & deployment on sites.gatech.edu
 - Housing.gatech.edu - Drupal 9 Migration & redesign
 - PTS.gatech.edu - new site design & deployment on sites.gatech.edu
 - StudentCenter.gatech.edu - Drupal 9 migration & redesign
 - HR.gatech.edu - new site design and Drupal 9 migration
 - TechWorks - new site design and migration to Drupal 9
 - IT Student Jobs Guide - new site launch for OIT Student Jobs marketing & promotion

Application Support

Establishing Campus Services Operational Project dashboard. This dashboard allows Campus services departmental leads to submit, update, track new and existing Operational Support Projects within a single visual tool.



Digital Business

ServiceNow Platform and Development

- Successfully completed major upgrade from “Quebec” to “San Diego” (May 2022)
- Purchased \$250K worth of ServiceNow training credits for OIT and our Strategic Partners (April 2022)
- Onboarded 4 contract developer teams (“Bravo”, “Charlie”, “Delta”, and GTPE Section Lifecycle)
- Deployed New Modules/Features (October 2022):
 - HR Case Management
 - HR Agent Workspace
 - Universal Request
 - Employee Service Center Pro
 - ASC Portal (<http://asc.gatech.edu>)
 - Appointment Booking Portal (<http://appointments.gatech.edu>)
- Improved existing Modules/Features (October 2022)
 - Appointment Booking for guests
 - Content Publishing for portal guests
 - Improved Agent Workspace UI

We upgraded ServiceNow to the San Diego release in late May. We tend to do a yearly upgrade, skipping every other release.

Over the 12-month period between October 2021 and 2022, we had been collecting weekly releases related to the Administrative Service Center project. During this period, the latest release was always available for demonstration purposes in the training environment. We did not update the production environment until October 13th, when we sequentially applied all of the queued releases during the same maintenance window. This was the first time we had performed the release process in this manner, and it went well.

Digital Solutions

- Updated aging web infrastructure for sites like Mealplan, Middleman, and Carpool
- Deprecated BUZZETL Oracle Server
- Completed 230 Development stories
- Built a Bluejeans Video Migration tool to assist in Migration to Zoom
- Assisted Campus Services with Data Integrations for Zendesk
- Assisted in Mealplan Audit Remediation items

Digital Learning Accomplishments

Team Accomplishment: Incidents managed: 1,489

- Professional Development / Service
 - 2022 Celebrating Distance Teaching and Learning Symposium
 - Birds of a feather facilitator : Online Student Engagement Technologies and Techniques
- GT Data Days Poster Session
 - Learning with Videos in Face-to-Face and Online Classes
- Attended 1EdTech Learning Impact Conference
 - Presented a session on Accessibility: Improving Opportunities, Access, and Success
- Attended Microsoft EduDays
- Completed: GT Inclusive Leaders Academy
 - <https://sdie.gatech.edu/programs-and-initiatives/leadership-development/inclusive-leaders-academy>
- Conference Chair
 - Affordable Degrees at Scale Symposium
 - <https://pe.gatech.edu/affordable-degrees-at-scale-symposium>
 - Summit on Accessible and Equitable Learning in a Quasi-Post-Pandemic World
 - <https://accessibilitysummit.c21u.gatech.edu/>
 - <https://pe.gatech.edu/blog/education-innovation/digital-accessibility-post-covid>

People Leader:

- Hired Lachelle - Digital Learning Support Specialist 2
- Promoted Samba to - Digital Learning Manager Sr.
- Created a Digital Learning Specialist Lead position to the Digital Learning Job family
- Hired a Digital Learning Specialist Lead (pending)

Digital Learning Accomplishments

- Conferences And Workshops:
 - Instructure Con
 - 2022 Distance Teaching & Learning (DT&L) Conference
 - ITIL Process Simulation
- Facilitate Training Sessions
 - GT 1000 Instructor Training: Canvas Overview
 - Celebrating Distance Teaching and Learning Symposium Birds Of A Feather: Engagement
 - 2022 Teaching with Technology Summer Institute: Black Board Ally Training
 - Canvas Overview for GT Faculty
 - Blackboard Ally Overview for GT Faculty
 - School of Literature, Media and Communication: Canvas Overview
- Lead onboarding/knowledge transfer for DLT Support Specialist II
- Manage the Canvas website
- Collaborated with PACE and GTPE for the automation of incidents/requests to ServiceNow and Teams with PACE and GTPE Teams
- Professional Development:
 - Completed MED: Higher Education Instructional Design & Technology
 - Submitted 9 tech fee proposals for FY2023
 - Procured and renewed 31 licenses for tools in the DLT portfolio
 - Completed Sole Sources for Canvas, Qualtrics & Padlet
 - Professional Development & Service
 - Completed ASPIRE leadership program
 - GT 1000 volunteer instructor
 - EDUCAUSE Proposal reviewer
 - Served on the Honorlock Customer Advocacy Program
 - Attended 1EdTech Learning Impact Conference
 - Presented a session on Accessibility: Improving Opportunities, Access and Success
 - Facilitated, HED Birds of a Feather: Collaborating to Converge the Interoperable Ecosystem
 - 2022 Celebrating Distance Teaching and Learning Symposium
 - Facilitated Birds of a feather sessions during CTL's Distance Teaching & Learning Symposium
 - Facilitated GT 1000 Instructor Training: Canvas Overview

Digital Learning Accomplishments

- Digital Learning Team (DLT) monthly review: August, September, October, November, December (forthcoming)
- DLT Office hours: Jun., Sept., Oct., Dec.
- Mercury Feed: 56 entries
- Service Now (SNOW)
 - Self-Service KBA
 - Accessibility and Privacy Statements for Canvas Learning Tools Interoperability (LTI)
 - Using Padlet in Canvas
 - Using Perusall in Canvas
 - Canvas Course Availability: Students
 - Kaltura Video Quiz: Troubleshooting Tips for Students
 - Internal KBA
 - Language Institute (LI): Add students to Parallel Courses
 - Quick Replies
 - Zoom Recordings (Instructor and Student option)
 - Restricted Access - Course Availability
 - Guest Account Initial Log-in
- Professional development training
 - ITIL Process Simulation training
 - Faculty training: Fall (8 sessions)
- Conference and workshops
 - InstructureCon: July 14, 2022, virtual
 - Distance Teaching & Learning Conference: Aug. 3-5, virtual
 - School of Literature, Media, and Communication: Aug. 15
 - Center for Teaching and Learning (CTL)
 - Summer Institute: Jun. 27, Jun. 30 - virtual
 - TA (Teaching Assistants) Orientation Session: Aug. 23, virtual
 - Distance Teaching & Learning Symposium, Nov. 7, virtual
 - Birds of a feather facilitator: Online Student Engagement Technologies and Techniques
 - Microsoft EduDays: Dec. 7-8

Digital Learning Accomplishments

- Faculty training: Spring (8 sessions), Fall (15 sessions), 6 sessions in plan for Spring 2023
 - Canvas training for the School of Literature, Media and Communication, Aug.15
- DLT office hours: Apr., May, June, Sept., Oct., Nov., Dec.
 - Date to be determined for Spring 2023
- LTI test and installation: Argos, Padlet, Examity, Lumen Learning, Zybooks, Kritik, Webwork
- LTI 1.3 upgrade: Blackboard Ally, LinkedIn Learning, Kaltura
 - Plan for December: Cengage, Piazza, Pearson, Perusall
- Canvas roles and permission six-month review: February and August
- LTI annual review: October
- Canvas newsletter: March, May/June, August, December
- KB articles:
 - Feature comparison: Zoom and MS Teams Meetings
 - Using Turnitin draft coach
 - Piazza Canvas integration
- Professional development training:
 - Educause Digital Learning Leaders Institute
 - ITIL Process Simulation training
 - Safe Space Training Spring 2022
 - GT Data Days: Oct. 10-13
- Conference and workshops
 - InstructureCon: July 14, 2022, virtual
 - Distance Teaching & Learning Conference: Aug. 3-5, virtual
 - 1EdTech Global Learning Impact Conference: June 13-16
 - Presentation: Accessibility at Georgia Tech Improving Opportunities, Access and Success
 - CTL's Distance Teaching & Learning Symposium, Nov. 7
 - Birds of a feather: Accessibility Challenges and Solutions for Online Course Components
 - Microsoft EduDays: Dec. 7-8

Enterprise Applications

Student/Customer Improvements

- Banner 2022 Spring and Fall Upgrades
- Axiom Elite Upgrade
- Slate Implementation for Graduate Studies
- Staff Elections Updates
- Automate Bursar Close Out
- Image Now Upgrade
- GTRI Accessibility/Performance Consultation
- Promotional Campaign for Accessibility Service Offerings
- AIRA Way Finding Solution for blind and low vision Deployment (Named User)

System Improvements

- New Techworks website
- Legacy PeopleSoft application sunset
- Legacy HCM/Financials LITE reports
- Legacy Databases VPN restricted Access
- Banner Disaster Recovery Exercise
- Inactive Account Process Implemented
- ServiceNow Accessibility Form Development

Financials Team

Student/Customer Improvements

- Workday 2022 Spring and Fall Updates
- Workday reporting Dashboards (Grants)
- Workday Today (home page update)
- Workday Assistant
- Workday Reporting Improvements/Additions
- Workday Drive Implementation

System Improvements

- Workday API upgrades
- Workday Security SOD improvements
- Automated Workday API integrations w/ServiceNow

EDWI

Integrations

- Maxient
- TutorTrac
- Genius
- Alumni Association
- Service Now ASC
- IService Now GTPE
- IRIS
- OrchID
- LMS
- Jaggaer Tax/Fright
- Tech Dining - Eatec
- Office of Academic Effectiveness
- Enhancements- Salesforce Advisor Link
- Workday Reports to EDW
- HCM Journal Load Year-End (+3)
- Emma
- eASR Xtender
- Knack
- PingBoard
- Pcard Alerts Configuration/Integrations
- Workday Integration System Upgrade (+20)
- System-EIB Upgrade (+38) 2022 - 2023
- Delket Contract Management Integrations (+5) Project
- ETL Integration Production Support/Maintenance
- OneUSG Connection Integration: Production Support and Maintenance
- Implementation of Integration System-EIB Dashboard
- Workday SAML/SSO Certificates Upgrade
- Integration - GTRI Integrations(10+) Enhancements and Production Support
- Fiscal Year Worktag and Budget Reference Integration (Saved 6+ hours in Fiscal Y-E timeline)
- Financial Accounting Year-End Support: (Weekend/night support)
- Adaptive Project: WD to Adaptive configuration, Integration/Reporting Planning
- PCard Verification Integration/Report for Campus Users
- JAGGAER Purchase Order Monitoring and Reprocessing
- Automation of GTF Budget Amendment and Journal Integration
- IRS 1099 Form for 2021
- RPA BOT to Workday Integrations: Gran(2+), Procedure to Pay(5+)
- GATECH Dining Eatec(+2)
- Escalation for Traveler to File Expense Report
- Grant LOC Transaction to Financial Accounting (Boomrang)
- Reassign security in non-production tenants, Update User Based Groups for Existing Terminated Employees
- GT and GTAA Check and PO Signature updates
- Mass GTPE Project to Workday

EDWI

- Covid-19 Integrations, Support, and Data Curation
- Covid-19 Executive Order Data Project
- Workday Support
- Oracle 19c Upgrade
- Data stage Re-IP
- EDW Test Rebuild / Maintenance
- WD Journal Process Improvement
- EDW 2FA - Radius
- Added 100s of tables from source systems to support Integrations and Reporting
- Modeled new fields in EDW to support integrations and Reporting
- Created dozens of new MVWs and VWs to support integrations and Reporting
- Data Days
- POC and Training with Azure
- Deloitte Engagement Project with I&S
- EDW Support and Maintenance
- OneUSG Connect Upgrades: Support and Maintenance (Release 6.30, 6.32, 6.34, and 6.36)
- Decommission of GT Legacy HCM, Finance, and Techworks
- Legacy Reporting support and involved in rewriting some of the reports
- Commitment Control/Grant Projects(Cold Fusion) - eASR Reporting Enhancement
- System Health Check & Performance - Notifications/Alerts Management Enhancement
- Workday Customer Central Tenant - Enabled SSO and SAML Authentication, Configured Tenant Setup, and assigned Security
- Workday Production Tenant Available Notification for Workday Core Team
- Workday Object Transporter 2.0 Feature - Configuration/Testing/Documentation
- SolarWinds WorkDay Production Monitoring
- Workday Sandbox Preview Access for Active Employees
- Renewal of *.workday.com SSL Certificate - Production and Non-Production Tenants
- Multifactor Authentication in Workday Studio
- 2021 GATECH Internal Audit Support for Workday Integrations and Security
- Workday Tenant Management Support and Refresh
- Workday 2022R1 Release: Integration Regression Testing, Feature Release Evaluation, Tenant Maintenance, Deployment
- Workday 2022R2 Release: Integration Regression Testing, Feature Release Evaluation, Tenant Maintenance, Deployment
- Workday Integration Production Support Maintenance
- Workday System Administration and Support
- Workday Feature Evaluation/Implementation: WQL, Workday Extend, Innovation Services and Machine Learning, Worksheet, Discovery Board

Human Resources

Improvements:

- Record Breaking Talent Acquisition Efforts, thus far in 2022 we have hired 79 positions and are slated to reach the 100 mark by end of year
- Successful completion of Reclasses and major Reorganizations to better align human capital with business operations
- Significant headway with making more competitive salary offers

Network Engineering Highlights

Access Control

- Converted 741 doors to the S2 system (171 remain, ETA for completion 12/31/22)
- Deployed delegated scheduling of doors to Global Learning Center and Ferst Theater
- Updated several hundred legacy readers to accept mobile credential
- Expanded mobile credential pilot to include >200 individuals who are actively testing

Infrastructure Design & Engineering

- 395 design projects completed, total budget \$4.1M
- Major projects included: Skiles walkway wireless, Fiber-optic cabling for HBCUs, renovations for Coliseum Annex, Techway Lab, Biltmore
- Began decommission/transition of campus CATV to streaming

Core Network

- 1300+ resolved ServiceNow requests and incidents
- 66 Knowledgebase articles written
- 143,000 wired network ports (100% of campus) audited and configuration compliance enforced
- Campus access layer refresh year one: 9 entire buildings + 14 more building MDF switches upgraded (total budget \$3.985M)
- Campus access layer refresh year two: 3 of 23 buildings upgraded thus far (total budget \$5M)
- Built out full Juniper switch and Mist access point pilot deployment in Howey
- VAPOR (isolated high-speed research network core and fabric) refresh in ISYE, CCB, French, Techway, EBB, PACE
- Awarded \$1.1M grant for SoX connectivity to Atlanta University Center (5 participants) and Tuskegee University

Network Engineering Highlights

Firewall/VPN

- In collaboration with CyberSecurity, sunsetted Cisco Anyconnect VPN service after 15 years of use, in favor of Palo Alto based GlobalProtect and userID-based VPN solution
- In collaboration with CyberSecurity, Palo Alto, and Deloitte, designed a new security architecture that will move GT toward a simpler, zone-based firewall solution
- Purchased and began implementing \$2.8M of new firewall appliances and log collectors to support the new security design
- Migrated primary border firewall instance to new Palo Alto 5450 appliances, which increases throughput at the campus border from 30Gbps to 120Gbps
- In collaboration with A&I, implemented a Fortigate 2601F security appliance to pilot the new outbound web proxy service, which will become production next year

Telecom

- OIT migration to Microsoft Teams soft client for telephone calls
- E911 location data solution built (43,000 ports on 234 switches in 21 buildings) and now in testing with GTPD
- Rollout of ASC call center
- Parking and Transportation move
- Upgraded Nortel and Juniper switches to Cisco

Organizational Change Management & Communications

- Change and Communications Support for 13 Projects within OIT, including (but not limited to) Cisco AnyConnect Sunset, BlueJeans Sunset/Zoom Launch, New TechWorks/PeopleSoft Sunset, Data Excellence Program, Annual Compliance Campaign, etc.
- Introduced New and Improved Website for Faculty Governance
- Introduced Organizational Change Management Program within OIT
- Onboarded New Training Development Professionals to Strengthen OIT Activities
- 19 Published Communications Articles
- 10 Published Daily Digest and Newsroom Articles
- Completion of First Full Year Managing OIT Awards Program
- In partnership with SLT, Managed Eight 8 Engagement Activities for OIT (including Ice Cream Social, Doughnuts with Daren, Virtual Costume Meet-Up, etc.)
- Chaired Inaugural Georgia Tech Data Days Planning Committee
- Developed and Delivered Institute's First Data Excellence Training
- In partnership with the BRM team, introduced Microsoft Teams program within OIT
- Orchestrated Nine (9) Monthly OIT Town Hall Meetings

PACE Accomplishments

Cyber Infrastructure

- Upgraded all clusters to RHEL 7.9 (February 2022)
- Implemented expansion to scratch file space to Phoenix cluster (April 2022)
- Implemented infrastructure and support processes for Open OnDemand, supporting PACE's clusters (May 2022)
- Continuous improvement of performance data collection and visualization for HPC clusters, using Prometheus and Grafana (July 2022)
- Upgrade of CUI based storage, increasing capacity and flexibility for projects on the Firebird cluster (November 2022)
- Hired 3 team members (April and November 2022)
- Increased capacity and reliability of automated configuration management, based on SaltStack and Red Hat Satellite (June 2022)
- Continued testing to store large scale file systems to cloud providers (AWS SnowBall and AWS DataSync, October 2022)
- Started expansion of the Coda Datacenter, adding 12 racks along with 500KW available for new services (AI Manufacturing Institute) and controlled expansion of existing clusters (Phoenix, ICE, Firebird). Initiated October 2022; expansion expected to be ready for use by May 2023.
- Automated deployment of new Slurm scheduler system, allowing for migration of large portions of the clusters, up to 500 nodes at a time (September 2022)
- Implemented security recommendations from USG IT Handbook (use of privileged separated accounts for use on system administration) (October 2022)
- Work in progress to make IDEaS research centered storage using DDN storage appliances with 1.3PB of raw space (started installation June 2022; expected release for user access November 2022).
- Increased reliability and decreased deployment times for PACE supported applications, in joint collaboration with the Software Engineering team.

PACE Accomplishments

Hiring

- Completed 8 external hires, 3 internal hires, and 4 student assistants (one published while at PACE).
- Two Research Scientist II's promoted to Research Scientist Sr's!
Congratulations Semir Sarajlic & Fang Liu!
- Published two PACE newsletters on PEARC 22 and SuperComputing 22 conferences
- PACE members served on NSF reviewers and chairs in PEARC conference
- Onboarded many new faculty

New hardware that went into Production:

- New AMD Servers
- New Optane Servers

New Service Offerings:

- Open On Demand: A web interface to utilize PACE hardware.
- EVPR-PACESHIP: \$200,000 scholarship fund for students to utilize PACE.

Increased Reliability and Researcher Throughput:

- Migration to SLURM: Hive Cluster
- Migration to SLURM: Phoenix Cluster (1,000 of 1,319 nodes)
- Software
- Stack upgrades and Spack-based packaging
- XMod Upgrade & community release
- RHEL 7.9
- Charge rates adjusted and simplified
- Prepaid compute offering initiated

Coda Migration

- PACE Audit completed

Outreach and Training

- SC22 newsletter
- GPU hackathon in collaboration with CSE and Nvidia, with PACE providing resources (COC-ICE) and mentors
- Satellite site for first ACCESS HPC Workshop

PACE Accomplishments

5 Publications

- Mehmet Belgin, Semir Sarajlic, Ruben Lara, Laura Cadonati, A. Nepomuk Otte, Ignacio J. Taboada, Gregory L Beyer, Norman B Bonner, Michael Brandon, Pam Buffington, J. Eric Coulter, Aaron Jezghani, David Leonard, Fang Liu, Paul D Manno, Craig A Moseley, Trever C Nightingale, Ronald Rahaman, Kenneth J Suda, Peter Wan, Michael D. Weiner, Deirdre Womack, Dan Zhou, Andre C McNeill, Neil C Bright, Robert W Gardner, Pascal Paschos, Lincoln Andrew Bryant, Judith Lorraine Stephen, James Alexander Clark, Brian Hua Lin, Todd Tannenbaum, and Gregory Thain. 2022. Buzzard: Georgia Tech's Foray into the Open Science Grid. In Practice and Experience in Advanced Research Computing (PEARC '22). Association for Computing Machinery, New York, NY, USA, Article 47, 1–5. <https://doi.org/10.1145/3491418.3535135>
- Aaron Jezghani, Semir Sarajlic, Michael Brandon, Neil Bright, Mehmet Belgin, Gergory Beyer, Christopher Blanton, Pam Buffington, J. Eric Coulter, Ruben Lara, Lew Lefton, David Leonard, Fang Cherry Liu, Kevin Manalo, Paul Manno, Craig Moseley, Trever Nightingale, N. Bray Bonner, Ronald Rahaman, Christopher Stone, Kenneth J. Suda, Peter Wan, Michael D. Weiner, Deirdre Womack, Nuyun Zhang, and Dan Zhou. 2022. Phoenix: The Revival of Research Computing and the Launch of the New Cost Model at Georgia Tech. In Practice and Experience in Advanced Research Computing (PEARC '22). Association for Computing Machinery, New York, NY, USA, Article 13, 1–9. <https://doi.org/10.1145/3491418.3530767>
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Strategic Initiatives

PPMO (Strategic Business Projects)

- Implementation of Maxient – Institute’s new case management system, providing for a more transparent and streamlined way to track both staff and student behavioral records
- Technical Services Registry Project - Completed pilot to document services and meet future audit requirements, as well as a growth strategy for documenting (new and existing) services
- Mitigated identified audit findings for Access Controls Audit, StarRez Controls Audit, Mealplan Audit
- Migrated and decommissioned 5 of the 6 core network routers with the Campus Core Refresh project
- Decommissioned WebEx as a part of the larger Video Collaboration review project focused on standing up Zoom campus wide
- Met USG requirements by identified deadlines (BPM 12.6) and launched ticketing system in Service Now for Data Subject Requests (DSRs) with Data Privacy project
- New Banner Registration Go-Live
- Banner 2022 Spring upgrade and Banner 2022 Fall upgrade
- Axiom Elite upgrade - an ETL tool that brings in data into Banner along with applying business rules during the transformation and load

Resource Management

- Worked with OIT and others on campus to successfully processed year end orders totaling over \$28.5M
- Coordinated with OHR and budgets to successfully reorg ERP and TAG into OIT
- Successful year end - spend the funds without going over
- Facilities - Annual Inventory completed successfully
- PCS - increase in print jobs produced with record setting monthly revenue

Strategic Initiatives

Business Relationship Management & Strategy

Expanded OIT Student Internship Program from 1-4 students:

- This program exists to help supplement the GT student's college experience with actual work experience in OIT.

Developed Cyber Security Liaison program (CSL) in conjunction with OIT Cyber Security Team:

- Developed Cyber Security Liaison program (CSL) in conjunction with OIT Cyber Security Team. A multi-functional and cohesive team of OIT and distributed IT staff serving as extended members of the central Cyber Security Office. The mission of the CSLP is to combine forces to strengthen our cyber defenses by identifying and tracking our digital assets, finding, and fixing weaknesses, quickly responding to threats, while enabling our stakeholders to conduct core Institute business of instruction, research, and services. On-boarded 24 participants from OIT and the distributed IT areas into the CSL Program.

Developed FBI Summer Camp program in conjunction with Dept of FBI:

- The Office of Information Technology partnered with CEISMC, the Atlanta InfraGard Chapter, and the FBI to present Georgia Tech's inaugural Summer Cybersecurity Camp from June 13-17, 2022. The camp had a diverse group of 25 high school 9th-12th grade students from local schools who actively participated in learning cybersecurity, data protection, and information privacy concepts. OIT partnered with GT Library to host this exciting opportunity.

Strategic Initiatives

Initiated and managed the CIO Faculty Advisory Council Meetings:

- The OIT Faculty Advisory Committee brings together over 30 voices from across the Institute to advise and influence decision making around IT initiatives that will impact faculty and students. Providing a two-way channel of communication between the faculty community and the OIT organization through the CIO.

Completed the OIT/COO Analytics Operational Reporting Assessment 2022:

- Successfully assessed OIT's current operational reporting capabilities, and how OIT can improve operational reporting, and provided recommendations for Senior Leadership to improve OIT operational transparency, accountability and help eliminate departmental reporting data silos. This effort laid the foundations for the development of a departmental operational dashboards. Dashboards that highlight areas for opportunities so that OIT Senior Leadership can have improved operational data decision making capabilities along with increased organizational transparency.

Initiated and managed the CIO Student Advisory Council Meetings:

- The OIT Student Advisory Committee brings together voices from across the Institute to advise and influence decision making around IT initiatives that will impact the students. Providing a two-way channel of communication between the student community and the OIT organization through the CIO.

Technical Application Group

- Fusion - GTF Check Request process
- MyTestRegistration - modified to provide wastewater testing
- AWS - Architecture \ Infrastructure redesign
- AWS - Infrastructure As Code using Terraform
- AWS - Glue ETL development
- Promote -Email Template manager
- Promote - Committee workflow manager
- Promote - Tenure on Appointment
- GT-TRACS - upgrade to Spring Boot and MySQL
- GT-TRACS - Foreign National reference for ASC
- GT-TRACS - Migration to AWS

2022 OIT Meetings and Activities

CIO Book Club

- August 26 - 1st meeting/1st book
- November 11 - 1st meeting for second book

CIO Office Hours

- March 15
- April 20
- May – canceled
- June 15
- July 20
- August 31
- Sept 29
- November 16

Coffee with the CIO

- February 9
- May 11
- July 27

Cooking it up with Dwayne Palmer (healthy cooking and eating demonstration)

- April 15

Doughnuts with Daren

- October 6

Ice Cream Social

- June 13

Georgia Tech Data Days

- October 11-14

Meditation and Mindfulness with Amanda Planchard

- May 20

OIT A&F Staff Culture Listening Sessions

- May 11
- June 8
- July 13
- August 10
- October 3

2022 OIT Meetings and Activities

OIT Awards (award date)

- March 24
- April 28
- May 24
- June 30
- July 28
- August 31
- September 30

OIT End-of-Year Luncheon

- November 17

OIT Town Hall

- January 28
- February 24
- March 24
- April 28
- May 24
- June 30
- July 28
- August 31
- September 30
- (No Town Halls in Oct., Nov., and Dec.)

OneIT Symposium

- May 16

Steps Challenge

- April 11-15
- April 18-22

Virtual Yoga

- May 24

Virtual Costume Meet-Up

- October 31

Women in Technology

- March 1
- May 3
- June 14
- July 12
- September 13
- October 4