Professional Development Days: Project and Initiative Updates

IT Strategic Plan for VT

Kyle Johnson

Associate Vice President for IT Governance, Planning, and Strategy

Purpose

This IT strategy—an IT strategy for the entire university— was developed with faculty, student, and staff engagement and accelerates Virginia Tech's IT modernization efforts.

The plan establishes goals and strategies to enable teaching, research, outreach, and operations with the support of technology. It is a living plan that provides the basis for regular assessment and adjustment of priorities. Additional information about the planning process and participants is available on the IT strategic planning site.

it.vt.edu/it-strategic-plan

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STRATEGIC THEME #1

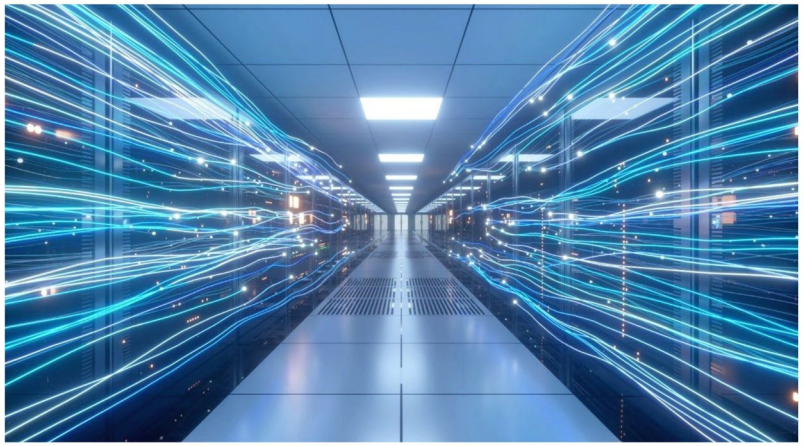
Enable global impact around teaching, research, and outreach

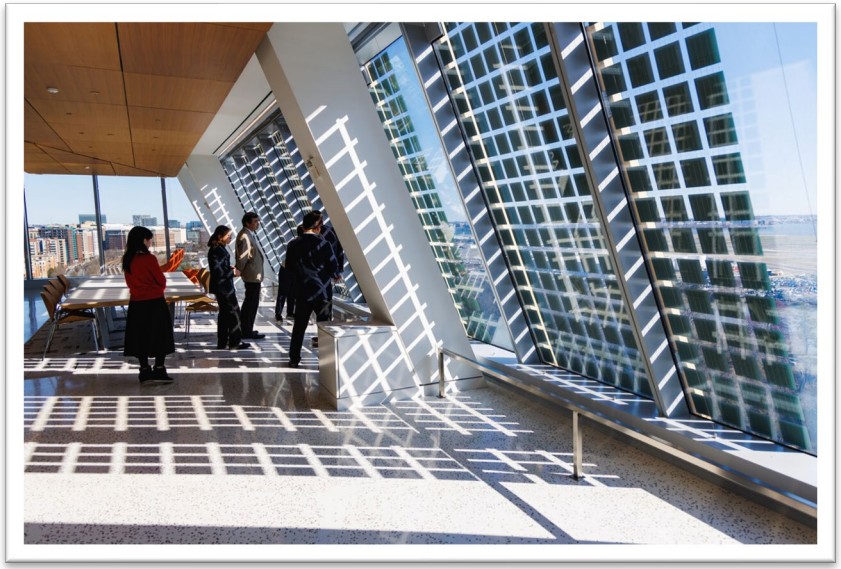
- Expand compute and storage capabilities to support researchers, research data security, and AI
- Expand consulting services to help researchers access world-class services and solutions
- Create integrated, multi-organizational approaches to support data life-cycle management plans and guide adoption of data storage, sharing, and archiving solutions
- Continue to lead partnerships to support evolving education and research needs
- Support experimentation and adoption of new learning technologies that enable innovation and security
- Assess the performance of the university's portfolio of academic software, drive towards enterprise solutions, and address solutions that are underperforming or at end of life
- Provide technologies, training, and support to advance universal design for learning

STRATEGIC THEME #2

Modernize and optimize administrative applications and data platforms

- Complete the Student Information System (SIS) stabilization project
- Begin the modernization of the Enterprise Resource Planning system (ERP) and other enterprise systems
- Implement a new central hub (data warehouse/lake) for administrative data with an expanded scope of quantitative and qualitative data accessible to facilitate analysis and integration
- Enhance identity and access management capabilities to support internal and external collaboration, increase the ability to provide (and remove) access to data and services, and advance the implementation of IT security standards and controls
- Provide university-wide solutions to enable deployment of capabilities such as AI, process automation, and digital document management





STRATEGIC THEME #3

Improve the IT customer experience

- Expand university-wide core services to improve security, realize economies of scale, consolidate overlapping solutions, align service delivery, and provide consistent access to technology capabilities
- Adopt IT Service Management methods, product management structures, and user-centered design principles to routinely and continuously evaluate and improve services
- Create a user-friendly, easy to navigate catalog of university IT services and solutions
- Consolidate general help services
- Deploy AI to facilitate easier access, promote efficiencies, and provide personalized service experiences
- Enhance collaboration among IT professionals and improve communication with all users of IT services

STRATEGIC THEME #4

Expand capabilities to use, manage, and protect data

- Improve tools to track sensitive data, align data access to individual roles, and make data definitions transparent
- Reduce risk by consolidating IT solutions and expanding core IT services
- Enhance network segmentation and secured data environments to protect research and administrative data
- Provide role-specific training programs to build awareness of data governance and security practices
- Develop a university information security strategy to complement the IT strategy
- Improve data lifecycle management

STRATEGIC THEME #5

Strengthen technology and data governance

- Leverage the revised IT governance framework to oversee core services, prioritize changes to the application portfolio, and review/recommend guidelines and standards to improve effectiveness and enable innovation
- Establish clear frameworks, processes, and roadmaps for university IT services
- Enhance enterprise solution management by maintaining an applications inventory, establishing responsibility for service or product ownership, and providing clear standards and support to enable application development and the deployment of AI
- Strengthen data governance through strong executive sponsorship, training for data stewards, implementation of a data management tool, and promulgating data quality standards

Next 12 Months – Some Highlights

FOUNDATIONAL

- Confirm scope of core IT services and designate service owners and service delivery teams
- Develop plans (timeline, structure, tools, and terminology) for a single integrated catalog of IT solutions and services
- Update and align the information security strategy with the IT strategy
- Complete review of IT policies, including updating policies and addressing gaps
- Implement a revised IT governance framework*

OPTIMIZING

- Implement university-wide Configuration Management Database (CMDB) processes and tool*
- Continue implementing network segmentation to create additional secure data enclaves or segments that meet Cybersecurity Maturity Model Certification (CMMC) requirements
- Leverage AI capabilities to make it easier to search, request and obtain IT solutions

MODERNIZING

- Complete the implementation of the new student information system
- Move to an “Identity First” strategy that separates identity from individual systems*
- Develop a roadmap and funding plan for ERP modernization of HR/Finance

* Items that are from the IT Transformation initiatives

Future Years – Some Highlights

FOUNDATIONAL

- Develop and communicate software development guidelines, architectural reviews, and code reviews to support any software development effort for administrative and student support applications
- Integrate regular methods of assessment to evaluate the performance of core services
- Confirm the data governance model for the university and identify enabling tools and processes required to support its ongoing implementation*

OPTIMIZING

- Implement additional core services to rationalize the application portfolio*
- Leverage AI capabilities to make it easier to search, request and obtain IT solutions
- Expand consultative capabilities and expertise to provide general research consultations, data privacy and security and research application development.
- Adopt a shared IT Service Management (ITSM) approach, tool, and processes*

MODERNIZING

- Make substantive progress on ERP modernization
- Identify and plan replacement of additional enterprise applications as necessary (advancement, customer relationship management, academic applications for teaching and learning)*
- Continue to expand research computing clusters and related data center infrastructure needs

* Items that are from the IT Transformation initiatives

Takeaways

- Provide an infrastructure to increase compute-, data-, and AI-intensive research
- Improve constituents' satisfaction with IT services and solutions
- Enable intuitive, efficient, integrated, and accurate administrative processes and services
- Develop a capable and engaged community of IT professionals
- Build increased capacity for comprehensive IT security work

Questions?

IT Governance Evolution

Kyle Johnson

Associate Vice President for IT Governance, Planning, and Strategy

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What is IT Governance?

"[specifies] the decision rights and accountability framework to encourage desirable behavior in using IT."

Weill, Peter & Ross, Jeanne W. "IT Governance: How Top Performers Manage IT Decision Rights for Superior Results." Harvard Business School Press, 2004.

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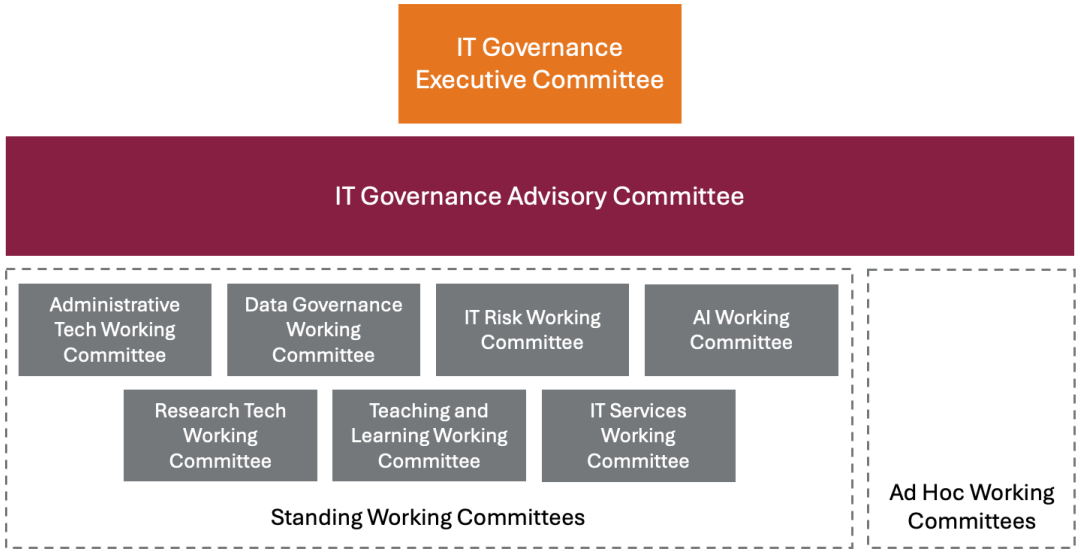
Seriously, What is IT Governance?

- The processes and structures that allow us to:
  - Ensure that IT work and service offerings across the institution meet the university's academic, research, and administrative needs
  - Increase consistency and transparency in decision-making and prioritization of initiatives to ensure we can effectively manage the level of work
  - Empower work across functional and technical areas
  - Control investments in software and services through guidance and review during the planning and procurement process

Historical Challenges

- Perceived disconnect between the efforts of the working committees and the IT Executive Committee
- Lack of clarity regarding scope of roles and responsibilities for working committees
- Lack of regularly scheduled governance meetings at all levels
- Lack of connection between IT governance, IT procurement, and IT project management

The Evolution



- New “middle” layer to bridge gap between IT Governance Exec and the working committees
- Regular cadence of meetings at all levels
- Clearer charters for committees
- Intentional connection between IT governance, procurement, and project management

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Committee Structures

Executive Committee

- Meets three times a year
- 14 members
- Provost and COO (co-chairs)
- The Faculty Co-Chair of the University Council Cabinet
- Three senior leaders from University Administration and three from Academic Administration
- One senior leader appointed by the President
- One Dean from an academic college
- Vice President for IT and Chief Information Officer (ex-officio)
- Co-Chairs of the IT Governance Advisory Committee (ex-officio)

Advisory Committee

- Meets every other month
- 20 members
- 14 co-chairs of the seven standing working committees
- one member appointed by each of the five senate bodies (Faculty Senate, AP Faculty Senate, Staff Senate, Undergraduate Student Senate, and Graduate Student Senate)
- Associate Vice President for IT Governance, Planning, and Strategy (ex-officio)

Working Committees

- Meet monthly
- Nominations solicited from community and selected by IT Governance Executive Committee
- One co-chair selected by IT Governance, one elected by the working committee
- Each working committee assigned an IT subject matter expert from within DoIT (ex-officio)

Administrative Support

- DoIT is repurposing some existing resources to provide support for:
  - Scheduling recurring, regular meetings of IT governance committees
  - Coordinating with chairs and DoIT leadership to develop meeting agendas
  - Recording action items and decisions of IT governance committees
  - Publishing minutes from meetings
- Each working committee will have at least one technical subject matter expert from DoIT as an ex officio member
- The IT PMO is tasked with shepherding projects through governance as part of the project lifecycle process

Ties to University Governance

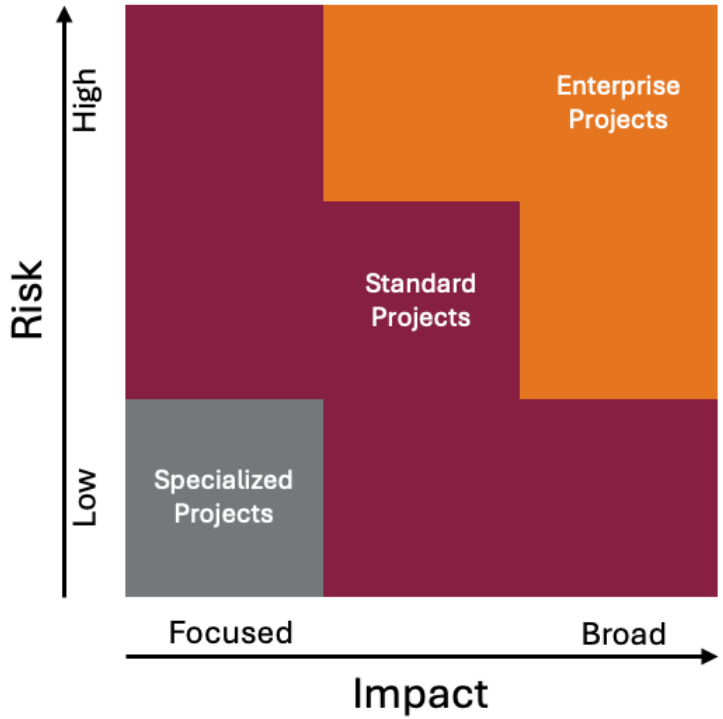
- Each of the five University senates (Faculty, AP Faculty, Staff, Undergraduate Student, Graduate Student) will be asked to formally appoint one member each to the IT Governance Advisory Council
- We will be starting conversations with Kim O’Rourke about replacing the currently suspended Information Technology Services and Systems Committee with the IT Governance structure
- DoIT will shepherd any new or updated policies through the normal University processes for policies

Bridging Plans

- DoIT has developed updated “interim charters” for each governance committee that will keep things going this year while we work with committees on updated permanent charters
- DoIT is asking all current committee chairs and members to continue to serve for one more year
- There may be times we rely on email for ”straight forward” project approvals as we work to understand the rhythm of things

Intersection with IT Project Management

- IT projects would all go through an **intake** and **discovery** process that helps categorize projects
- Could be referred by procurement or contact the IT PMO to start the process
- Enterprise projects reviewed and approved by IT Governance Exec
- Standard projects reviewed and approved by IT Advisory
- Specialized projects reviewed by appropriate working committee



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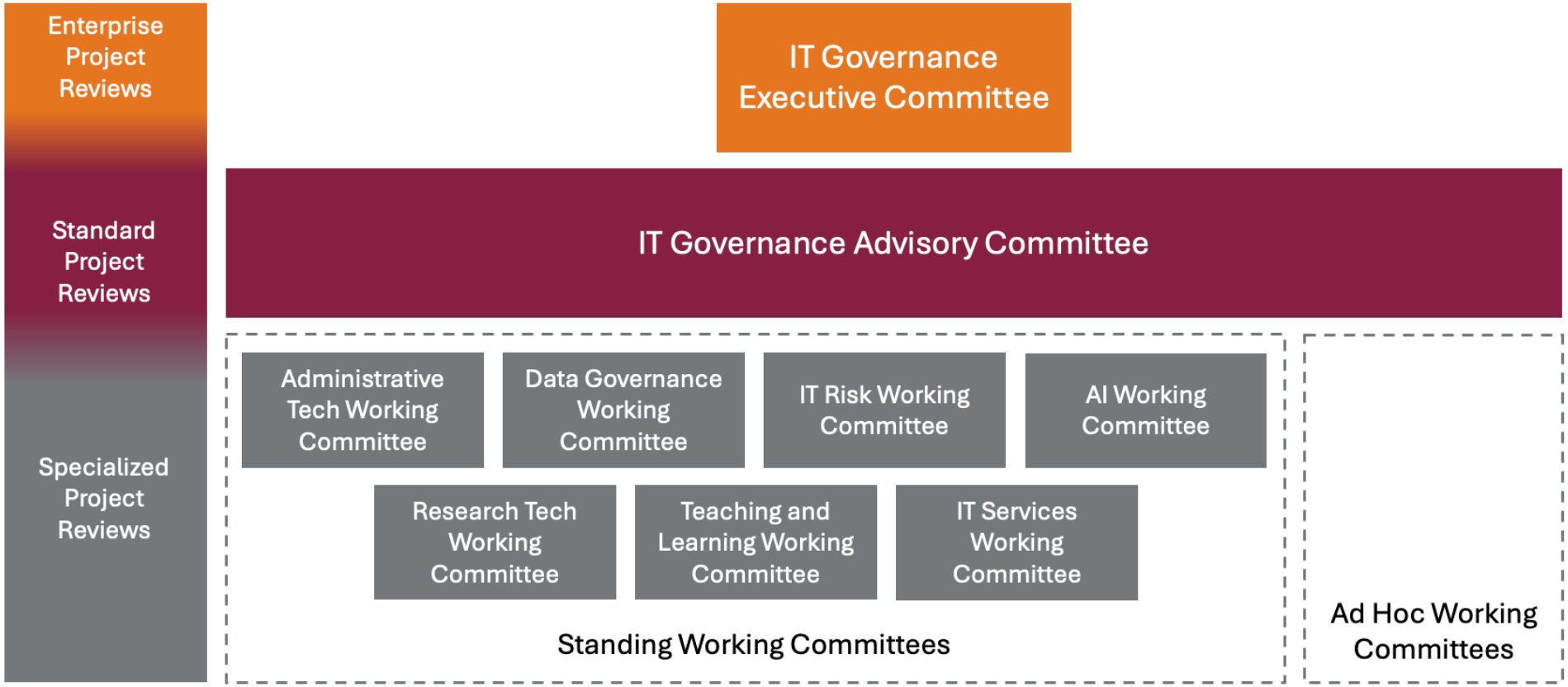
Intersection with IT Project Management



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Intersection with Technology Acquisition

- Coming updates to the University Procurement Policy will include an addition indicating all technology procurement must follow a new IT procurement process
- DoIT has developed that draft IT procurement process, and we will be asking everyone to follow pending the official policy updates
  - See included information for details on the IT procurement process
- There is a strong desire to align project intakes and discovery with the University budget planning cycle to provide better information to decision makers as part of the funding request process

Questions?

Security and Identity Projects and Initiatives

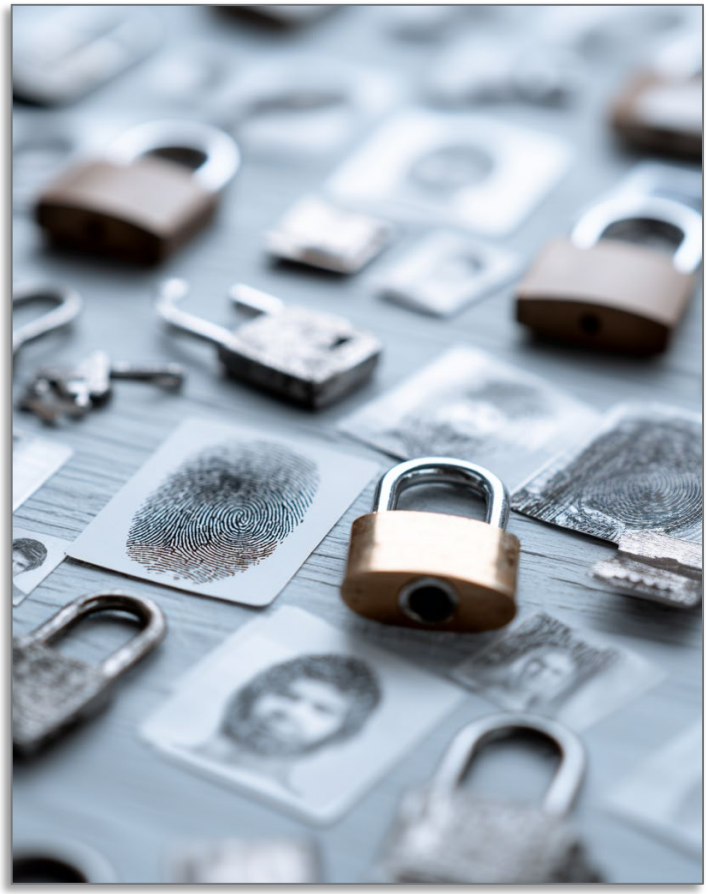
David Raymond, AVP for Security and Identity

INFORMATION TECHNOLOGY
VIRGINIA TECH

Agenda

- IT Security and Identity Strategy
- Identity First
- Research Cybersecurity Working Group
- Cyber Range Digital Accessibility

IT Security and Identity Strategy Project



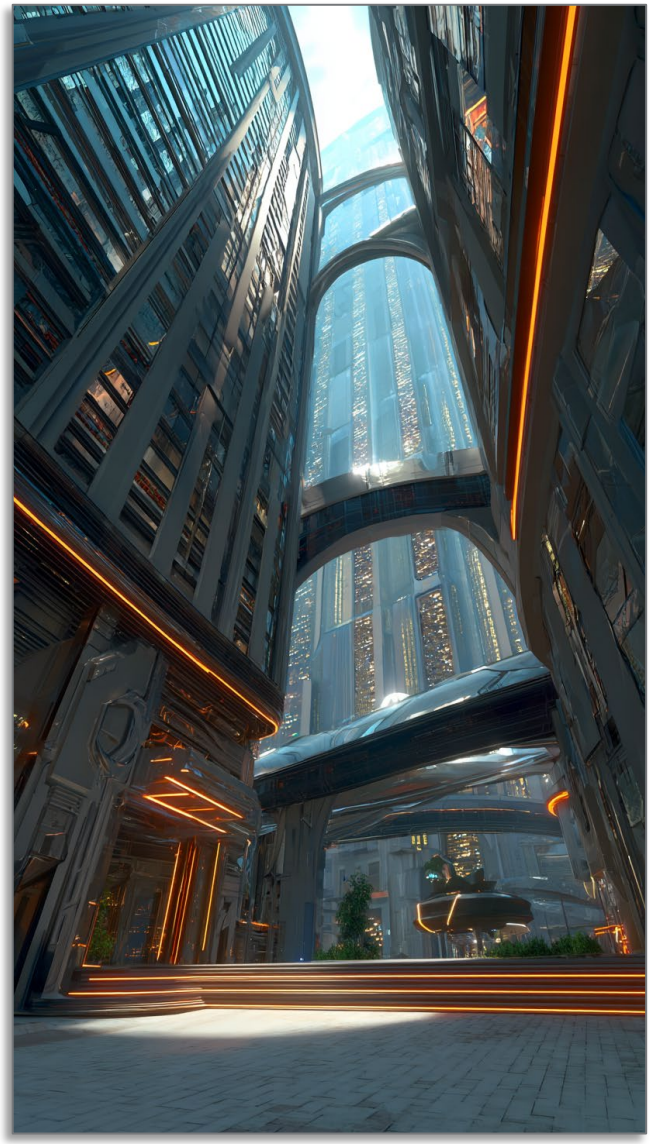
- Charting an IT security and identity strategy for the next 3 – 5 years
- Goals:
  - Address vulnerabilities and proactively strengthen IT security and compliance
  - Develop a comprehensive security strategy tailored to the institution's unique demands
- Next step:
  - Stakeholder engagement – focus groups and survey

IT Security and Identity Strategy Project Themes

- **Alignment**: support the university IT strategic plan
- **Collaboration**: work with IT leaders university-wide to plan and implement
- **Visibility**: give leaders insight into the security posture of their organization
- **Core services**: where possible, provide centralized tools to meet requirements
- **Risk based**: fix the most important things first

Identity First

- We are re-architecting our Identity and Access Management Infrastructure
- All digital identities will be created in Midpoint™
- Creates consistency of the identity onboarding and provisioning process
  - Reduces the potential for creating duplicates
- This will eventually change identity creation for all apps, and the onboarding process for all VT Username types



Research Cybersecurity Working Group

- National Security Presidential Memorandum (NSPM) 33
  - Recognizes increasing concerns of foreign gov't interference and exploitation of federally funded research
  - Requires research institutions to enhance their security programs
    - ***Cybersecurity***
    - Foreign travel security
    - Research security training
    - Export control training
- ***The biggest impact to university departments will be markedly increased cybersecurity requirements for all federally funded research***

Cyber Range Digital Accessibility

- Why digital accessibility?
  - Legal and regulatory compliance
  - Inclusion and opportunity
  - Improved user experience for everyone
  - Reputation and trust
- The Virginia Cyber Range web sites and portal have supported digital accessibility since 2020
- The courseware repository and CTF platform still need work
- ***If you have web-based content, get started on this now!***

Other Security and Identity Projects

- Identity and Access Management Support of ERP Stabilization
- Automated Vulnerability Scanning
- Enhanced 2-Factor Authentication
- Annual Security Awareness Training
- Endpoint Management
- IT Policy and Standard Updates
- Disaster Recovery

Questions?

David Raymond
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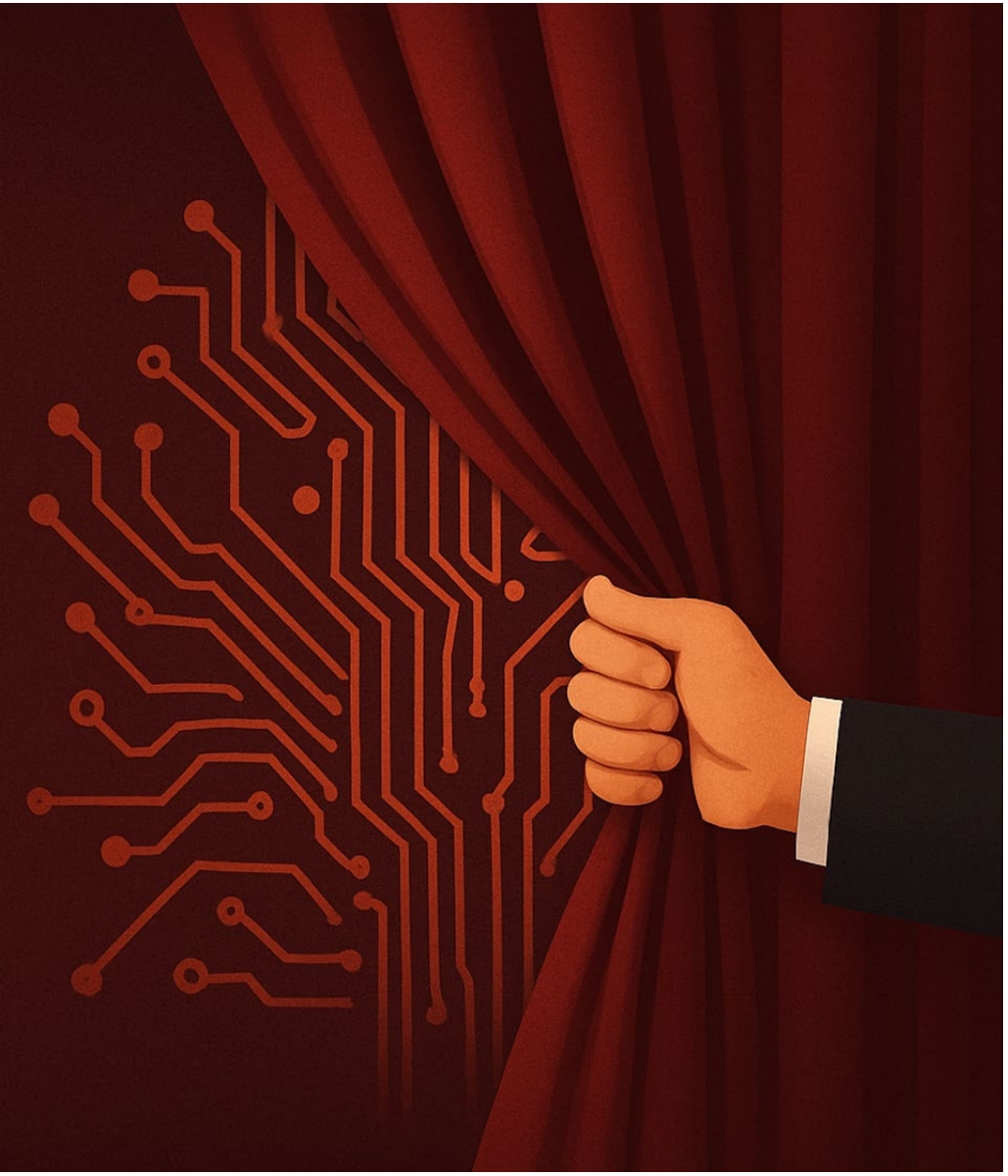


Infrastructure Unseen: The Tech Behind the Curtain

Steven Lee

Sept 9, 2025

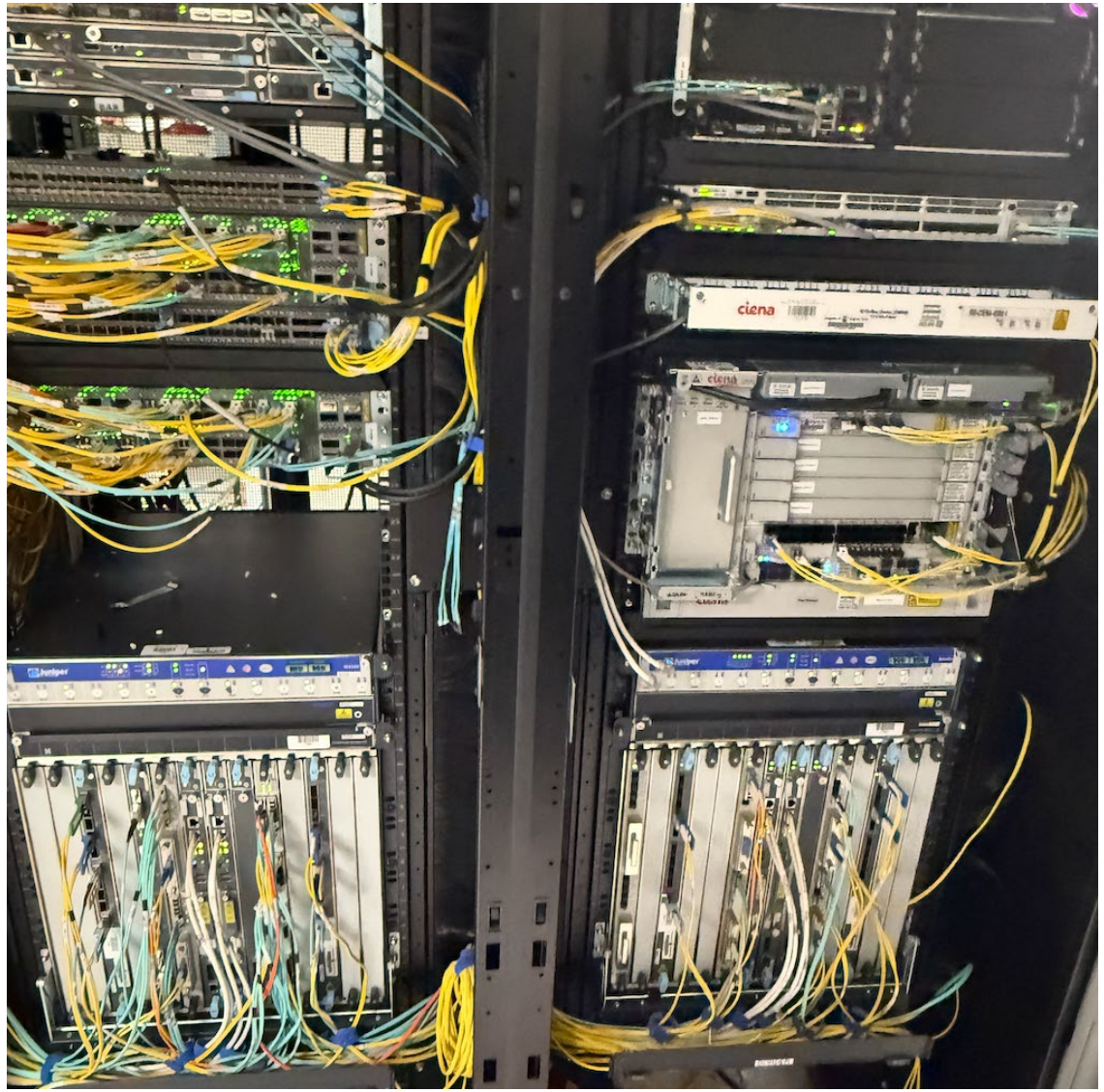
Where we started…Gaining momentum 40 years ago

Network infrastructure

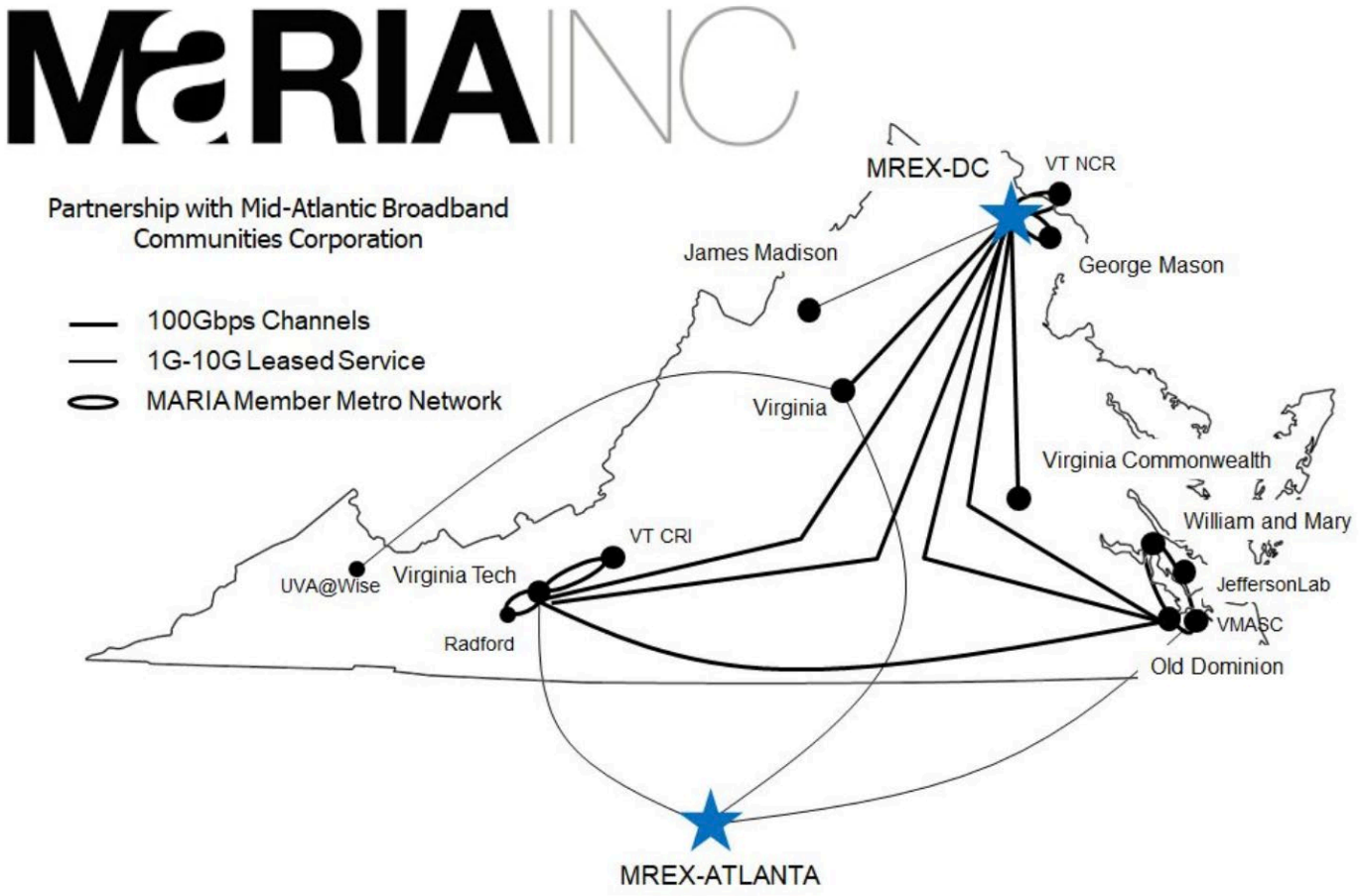
- Fiber optic cabling – 100's of miles installed
  - Primary connectivity on and beyond campus
    - Outside Plant
    - Inside Plant
- Copper cabling – 10's of thousand of miles installed
  - Analog communications
  - Ethernet
  - Coax

Core connectivity

- Capacity
  - Campus core 400 Gbps between switching centers
  - Internet and Roanoke connectivity 100 Gbps
- Redundancy
  - Multiple geographically diverse paths
  - Redundant router components

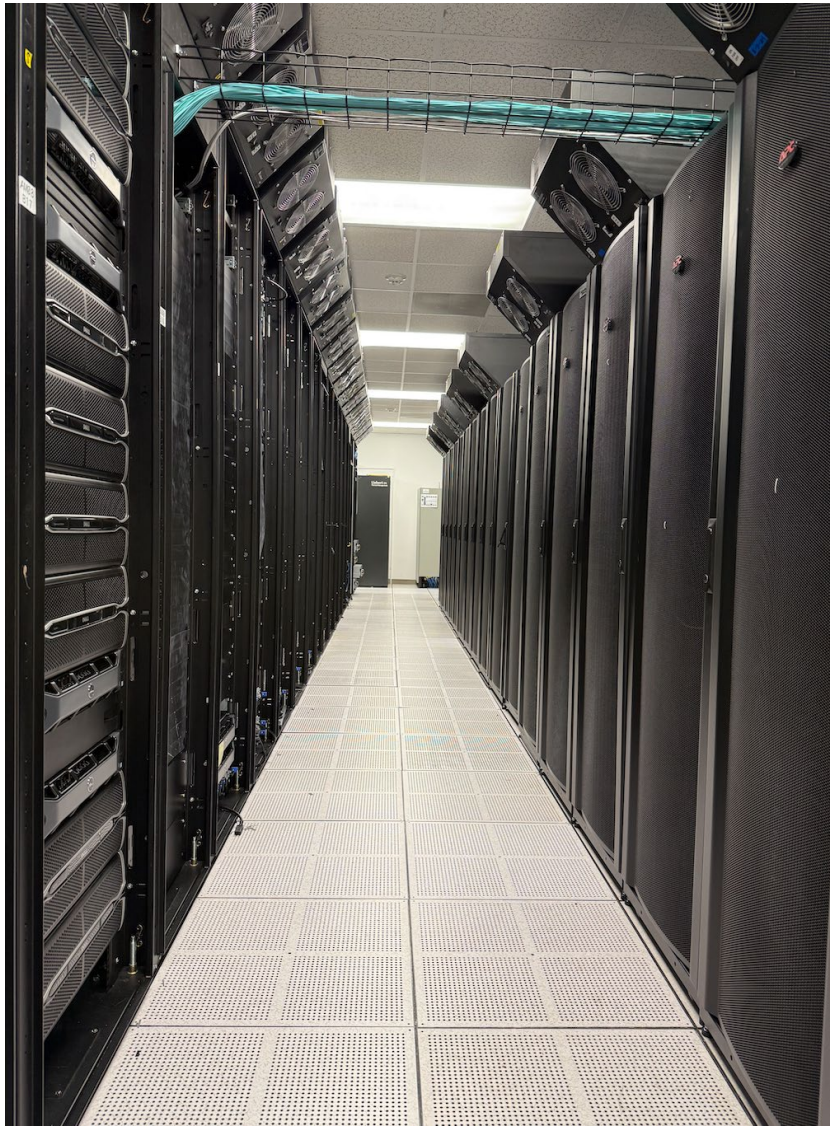


Statewide connectivity



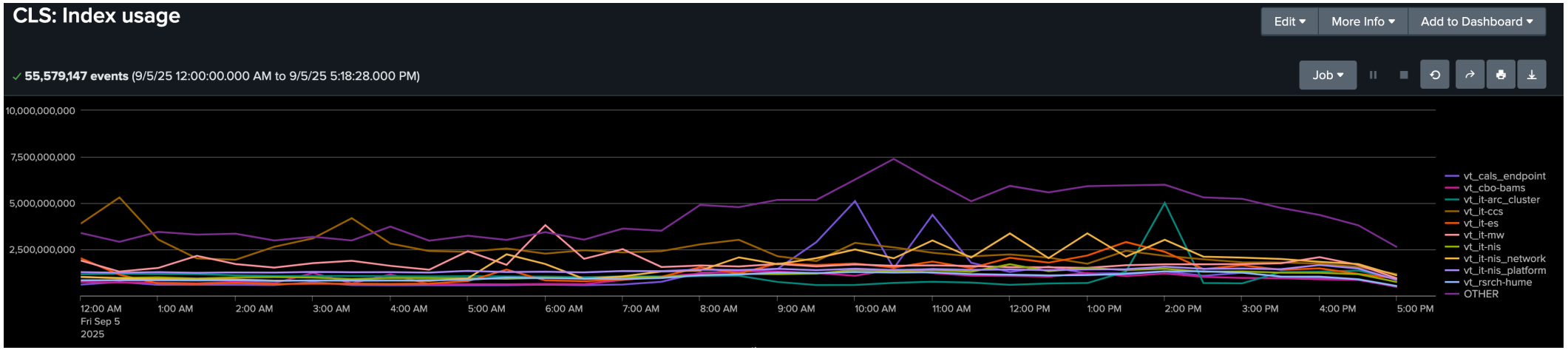
Data Center Systems – supporting the enterprise

- Systems Engineering
  - Unix/Linux system administration
  - Infrastructure as a service
  - Virtualization as a service
  - Storage administration
  - Hardware management
- 375 virtual machines
- 160 physical servers



Data Center Logging Services – securing the institute

- Centralized Logging Service
  - Send/store/search/visualize logs
  - High-risk or critical system logs are analyzed by the Omni-SOC
  - Ingests ~800GB
  - Over 1000 hosts



Data Center Facilities – keeping the lights on

- 10,000 sq ft facility at Andrews
- 3 Backup power generators and UPS systems
- Halon gas fire suppression
- 9 computer room air conditioners
- 2 chillers

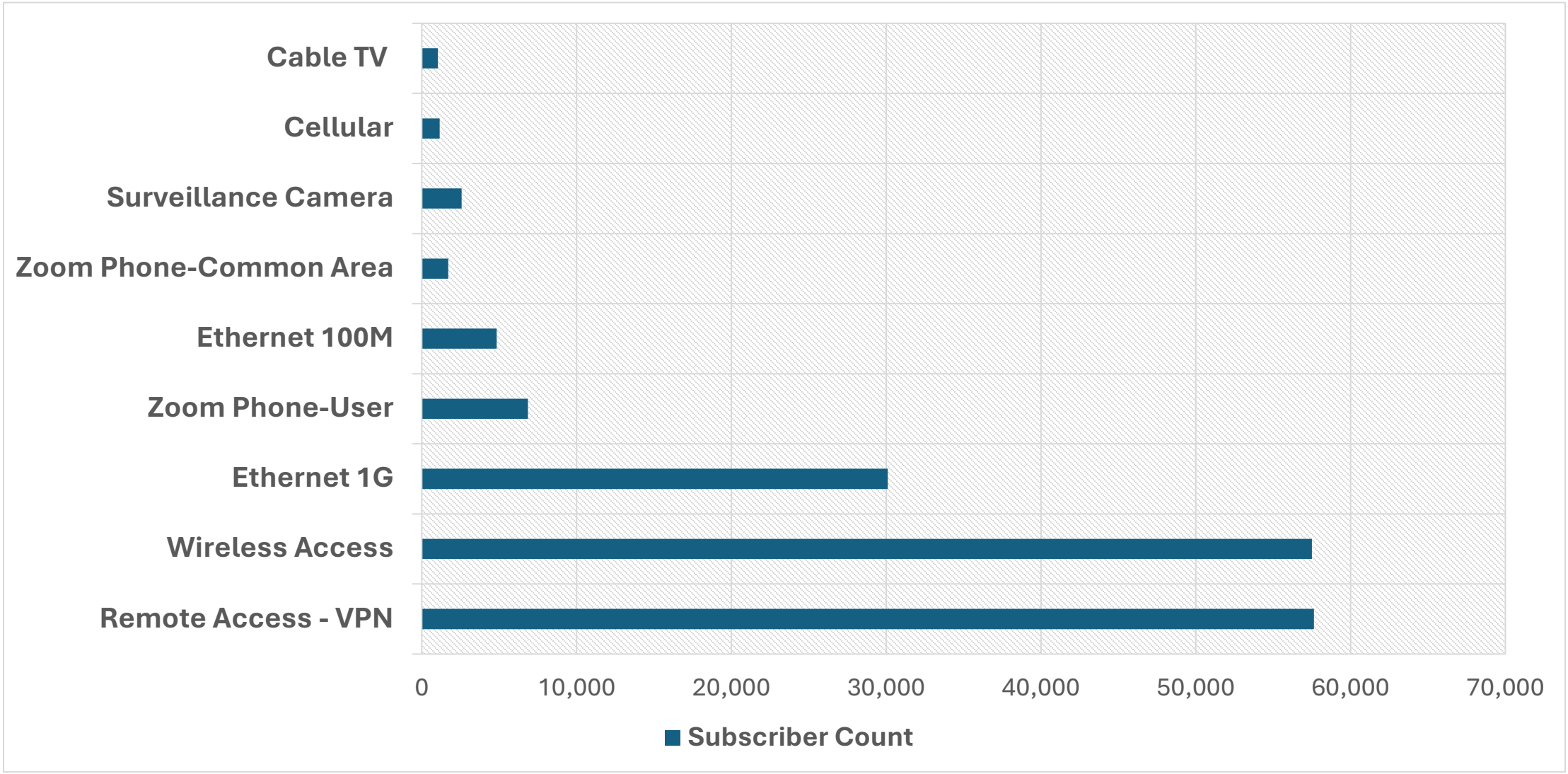
Phone services

- Consultant & design/contract reviewer for all cellular infrastructure on campus
  - Distributed Antenna Service (DAS)
  - Macro rooftop antenna sites
  - Cellular ‘head end’ facility
- 6800 Zoom Phone client users
- 2500 Physical Zoom phones
- Call Centers
- Broker for consumer cellular service plans and devices

Public Safety

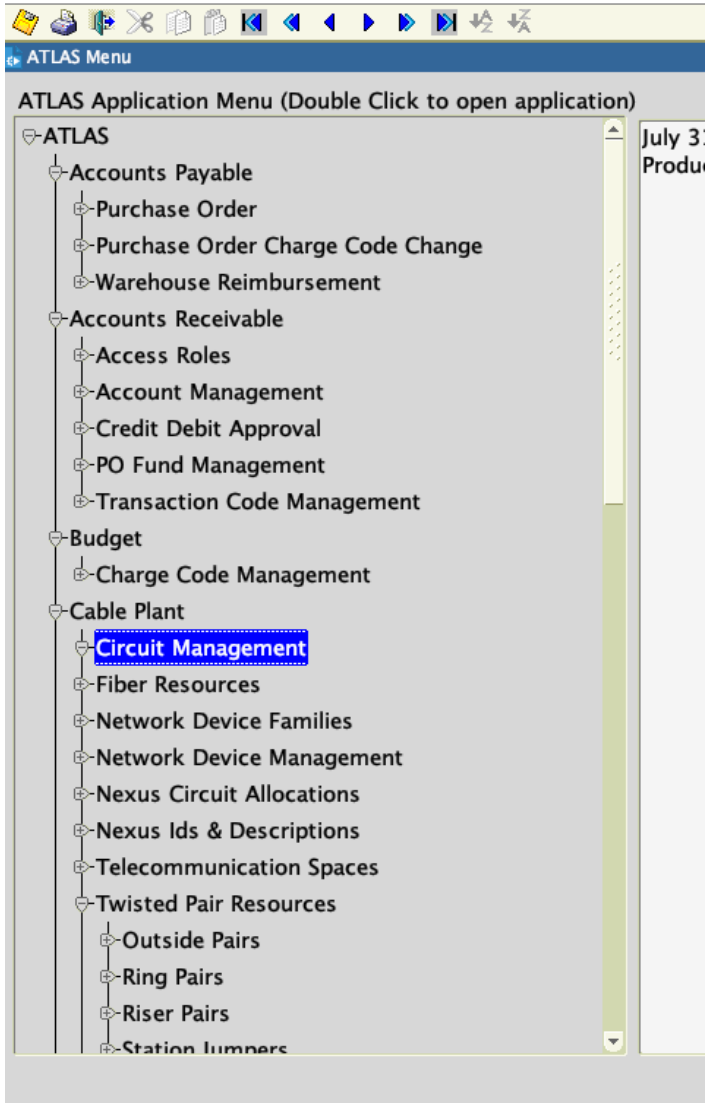
- Collaboration with VT Police and Office of Emergency Management
- 400 panic buttons
- 2500 cameras & footage retrieval
- VT Alerts platform - integration with notification methods
  - 700 notification boards
  - Fire alarm speakers, SMS/email/phone calls
- Emergency phones (118 blue light pedestals, 353 indoor)
- Fire alarm connectivity

Service portfolio



Service fulfillment

- 100,000's service data points
  - Customers/accounts
  - Assets
  - Resources
- ATLAS – custom IT service management platform
  - Service management
  - Infrastructure and network resource management
    - Cable plant
    - Network assets
  - Customer information
  - Business processes
    - AP/AR/logistics/purchasing
  - Project estimates
  - Work orders
  - Inventory



Gaining momentum….

- WiFi access using device certificates
- Increased internet redundancy for campus
- CBRS pilot
- Modernize ATLAS applications
- Improved network automation
- 400 Gbps internet connectivity
- Data center infrastructure & network upgrades

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Questions

Advanced Research Computing Updates

https://arc.vt.edu

ALBERTO CANO

Associate Vice President for Research Computing

Advanced Research Computing

Division of Information Technology

Virginia Tech

ABOUT ARC

INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

MISSION

Provide research computing resources and support to advance scientific research at Virginia Tech

ACCESS TO ARC

1. Get an account (https://arc.vt.edu/account)
2. Get added to a compute & storage allocation (https://coldfront.arc.vt.edu/allocation)
3. Connect via SSH (tip: use SSH keys) or Open OnDemand (https://ood.arc.vt.edu)

RESOURCES AND TRAINING

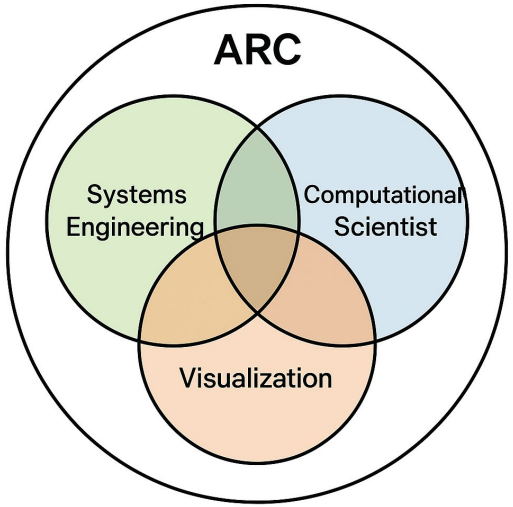
- Read the documentation (https://docs.arc.vt.edu), examples on GitHub, Friday workshops
- Need help? Contact us (https://arc.vt.edu/help) or office hours (Zoom and Torgersen 3050)

ABOUT ARC

TEAM UPDATES

Welcome **Nichole Braunscheidel** - Computational Scientist
Ph.D. in Chemistry from Virginia Tech in 2024

New restricted position - Research Software Engineer
Currently interviewing candidates



ARC INFRASTRUCTURE

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MOTHER OF ALL UPGRADES (SUMMER 2025)

- **Systems**
  - Consolidated all systems under Rocky Linux 9.5
  - Deployed new biomedical research cluster (NIST 800-171)
  - Installed H200 GPU nodes, powered off Infer cluster and P100 GPUs
  - Consolidated partitions, preemptable queues and enabled QoS options
  - Expanded and consolidated software stack (growing from 300 to 700+ packages)
- **User support**
  - Expanded from 800K to 2M compute hours per PI per month
  - Enabled actionable dashboards and tools to support job efficiency
  - Reorganized helpdesk support and operations
  - Doubled office hours (in person and online)
  - Refreshed and expanded documentation and training materials

ARC INFRASTRUCTURE

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RESEARCH COMPUTING
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HPC CLUSTERS

Cluster	Nodes	CPUs	GPUs	RAM	Scratch	Purpose
TinkerCliffs	353	44,224	168	133 TB	455 TB	CPU and GPU flagship
Owl	91	8,704	-	80 TB	728 TB	Water-cooled AMD CPUs
Falcon	111	4,896	307	44 TB	910 TB	Mid-range NVIDIA GPUs
CUI	8	512	16	7 TB	91 TB	DoD and ITAR projects
Biomed	7	448	8	5 TB	55 TB	NIH and NIST 800-171 projects
Total	**570**	**58,784**	**499**	**269 TB**	**2 PB**	

Storage: All clusters mount a **10 PB** projects workspace and **633 TB** home workspace

Challenges: Provide university-wide research data storage system
Backups and archival storage system

ARC INFRASTRUCTURE

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IMMERSA DECK

Immersive Room Volume: 14'8" x 14'8" x 9'2"

Display surface area: 700 sq ft
Laser projectors: 15000 lumens

ART tracking
Active stereo with dual eye-point projection

Total pixels: 47,923,200

Compute: Dual Intel Xeon Gold 5317 (24 cores)
512 GB RAM, 4 TB SSD
4 NVIDIA RTX A6000 GPUs

CLUSTER UTILIZATION

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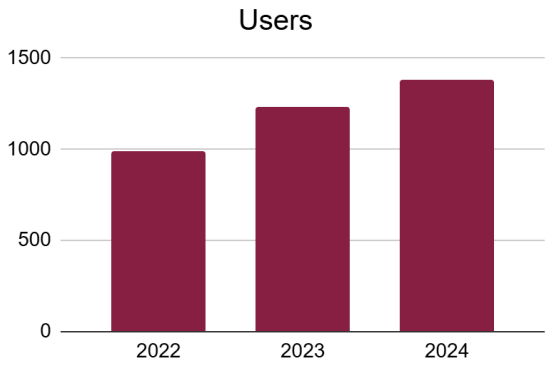
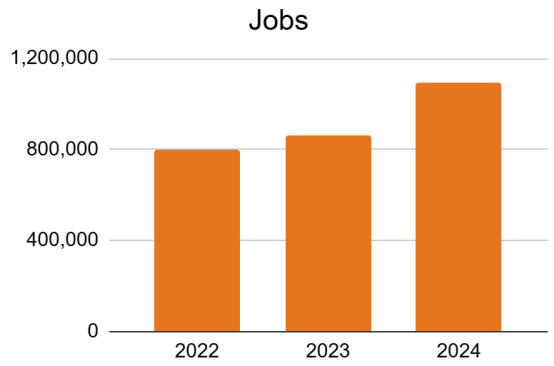
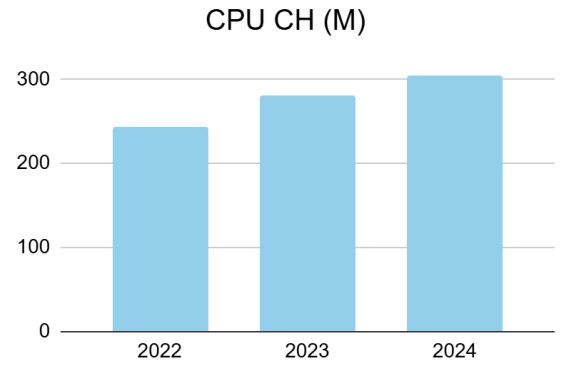
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

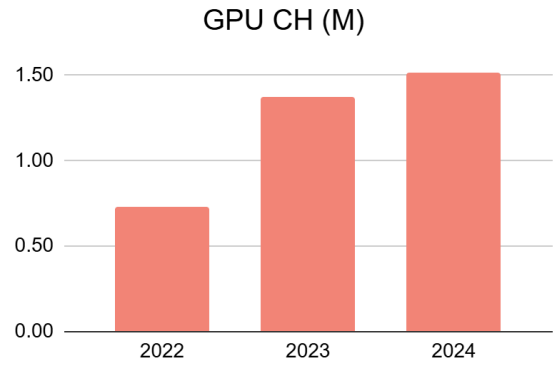
USERS, JOBS, COMPUTE HOURS (CH)

Year	Users (YoY Δ)	Jobs (YoY Δ)	CPU CH (YoY Δ)	GPU CH (YoY Δ)
2022	991	800,590	243,003,650	731,287
2023	1,235 (+25%)	861,288 (+8%)	281,199,927 (+16%)	1,375,230 (+88%)
2024	1,379 (+17%)	1,090,489 (+27%)	303,942,647 (+8%)	1,519,860 (+11%)
2025 YTD (YTD Δ)			216,087,673 (+8%)	1,263,951 (+29%)







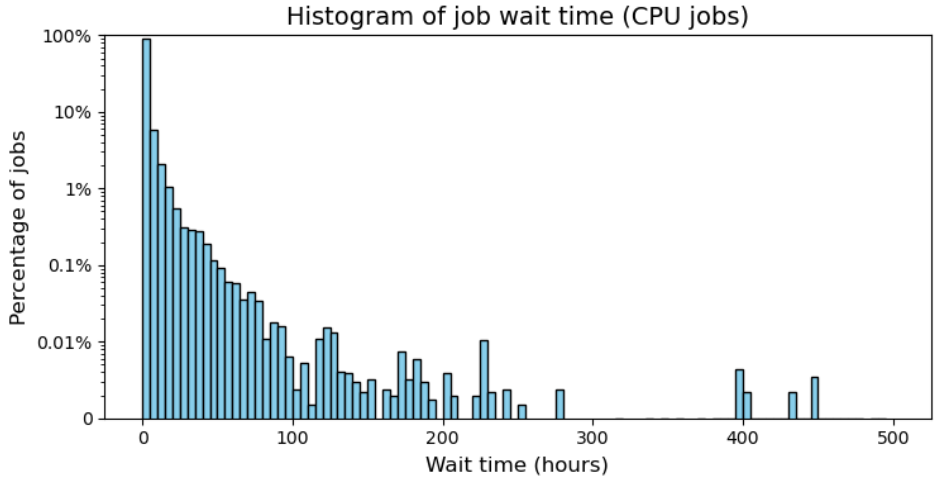


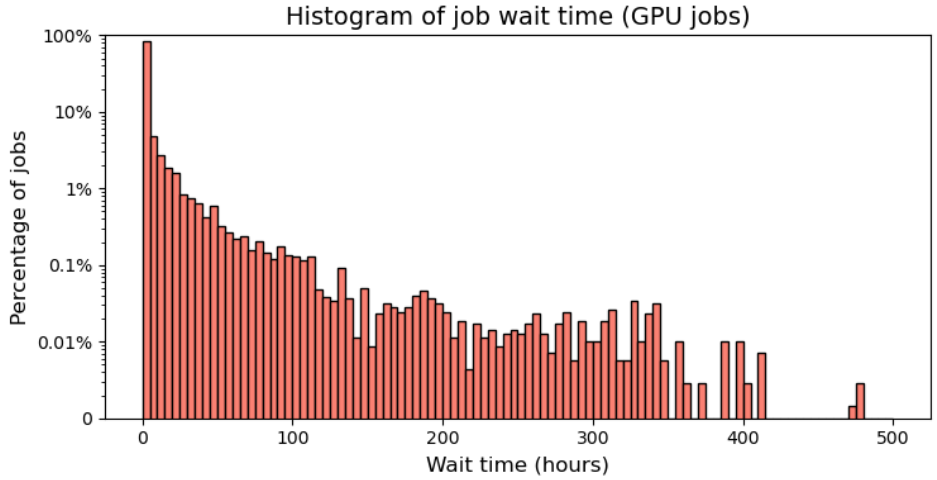
CLUSTER UTILIZATION

INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

JOB WAIT TIME (HOURS)

2024





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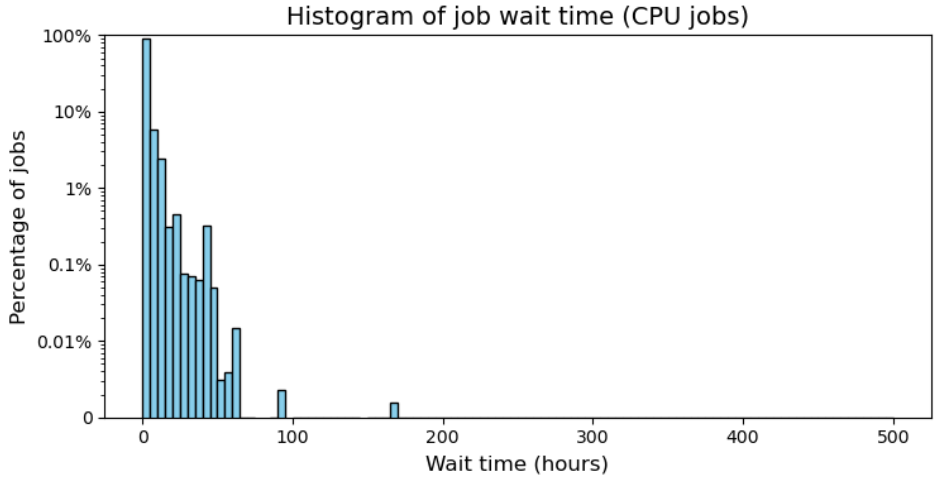
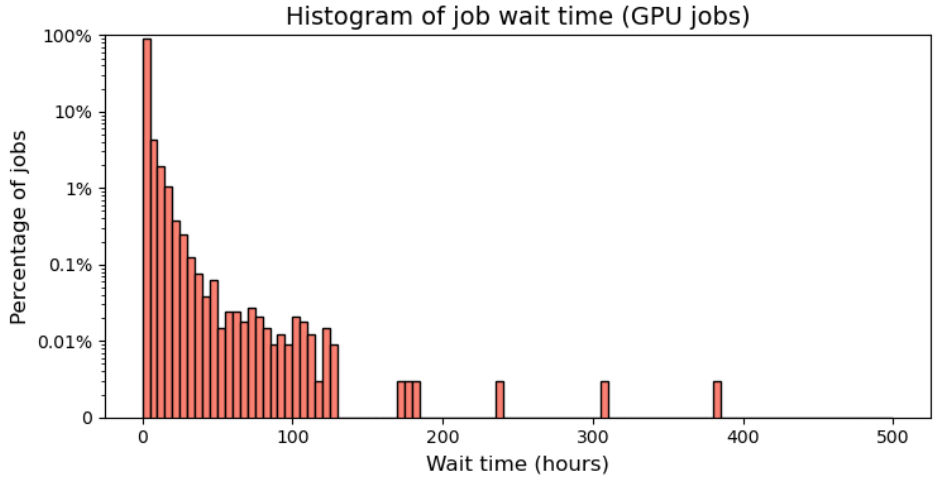




CLUSTER UTILIZATION

INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

TOP 10 DEPARTMENTS USING **CPU** COMPUTING

Department	CPU hours	% Total
Chemical Engineering	58,301,620	19.32%
Mechanical Engineering	48,697,520	16.14%
Aerospace and Ocean Engineering	39,796,960	13.19%
Chemistry	31,903,200	10.57%
Materials Science & Engineering	17,373,890	5.76%
Computer Science	14,899,310	4.94%
Geosciences	10,471,340	3.47%
Physics	10,338,280	3.43%
Civil & Environmental Engineering	7,666,568	2.54%
Statistics	7,073,507	2.34%

CLUSTER UTILIZATION

INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

TOP 10 DEPARTMENTS USING **GPU** COMPUTING

Department	GPU hours	% Total
Chemistry	405,129	26.69%
Computer Science	281,693	18.56%
Biochemistry	227,457	14.99%
Chemical Engineering	146,393	9.65%
Electrical and Computer Engineering	124,643	8.21%
Mechanical Engineering	56,299	3.71%
Statistics	54,055	3.56%
Civil & Environmental Engineering	52,362	3.45%
Biological Sciences	27,208	1.79%
Psychology	24,639	1.62%

CLUSTER UTILIZATION

INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

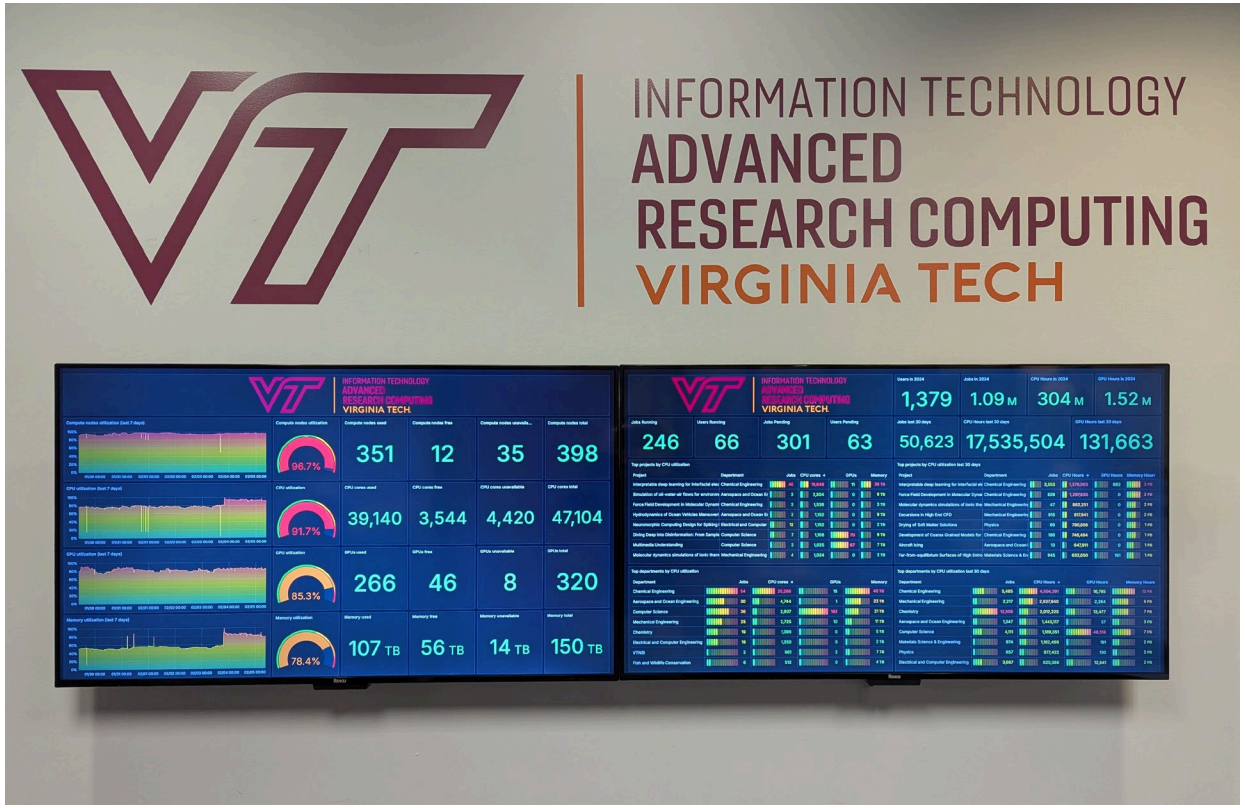
TOP 10 DEPARTMENTS USING PROJECTS **STORAGE**

Department	Storage (TB)	% Total
Computer Science	1,174	30.80%
Chemical Engineering	392	10.29%
Advanced Research Computing	336	8.81%
Biochemistry	303	7.94%
Mechanical Engineering	214	5.62%
Aerospace and Ocean Engineering	175	4.58%
School of Plant & Environmental Sci	139	3.64%
Biological Sciences	101	2.65%
Chemistry	95	2.49%
Mathematics	83	2.17%

REAL-TIME DASHBOARDS

https://dashboard.arc.vt.edu/dashboards?kiosk

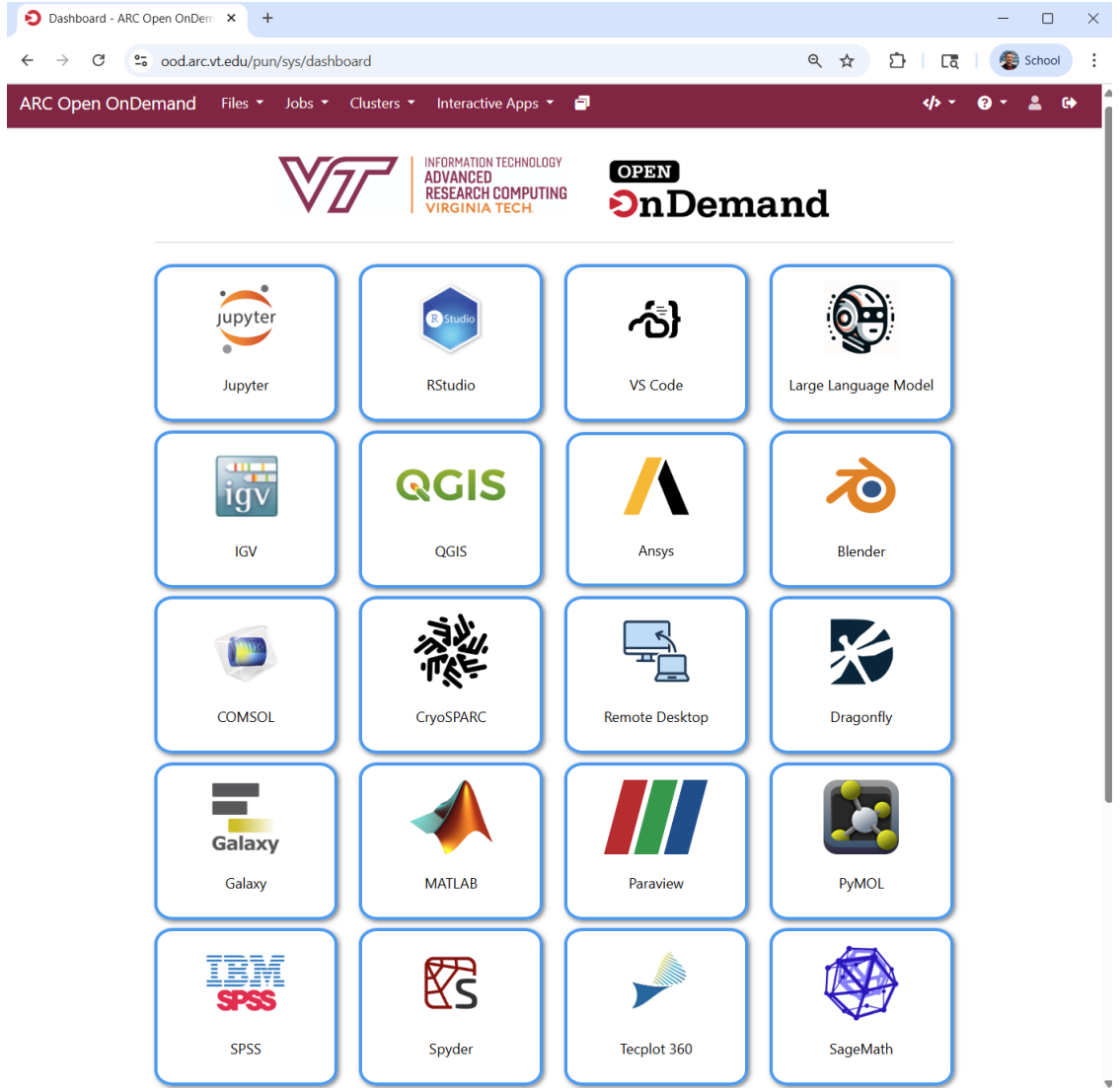
- Cluster load (nodes/CPU/GPU/memory)
- Utilization by research project, department, and college
- Real-time and 30-day statistics
- Tools to help researchers run their job optimally



BROADENING ACCESS

OPEN ONDEMAND

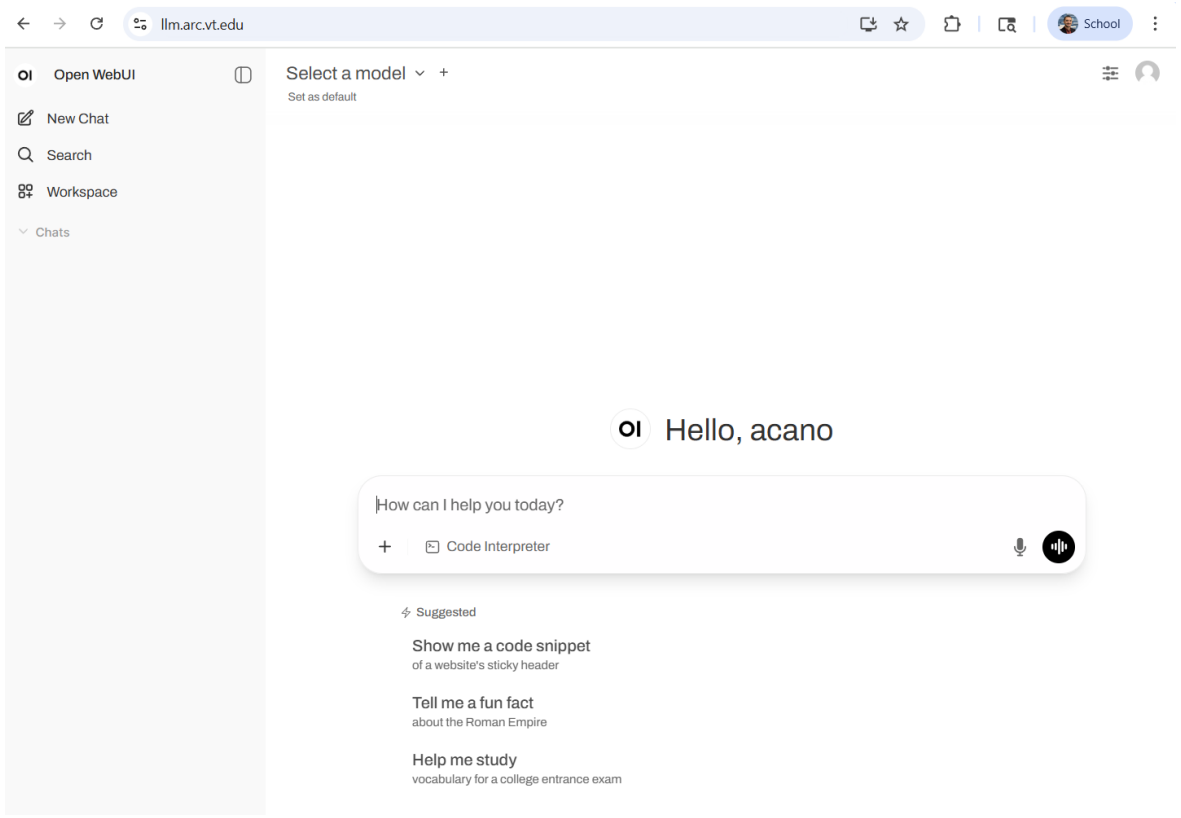
- https://ood.arc.vt.edu/
- Lower access barriers
- Most common applications
  - Matlab
  - Rstudio
  - Jupyter
  - VS code
  - ParaView
  - Ansys



AI SERVICES

https://llm.arc.vt.edu

- No-effort web interface to access a LLM
- Web interface only, no API access
- Runs within ARC infrastructure
- No ARC account needed
- Available to everyone
- No cost
- No token limits
- Access via VT network or VPN
- Not approved for high-risk data

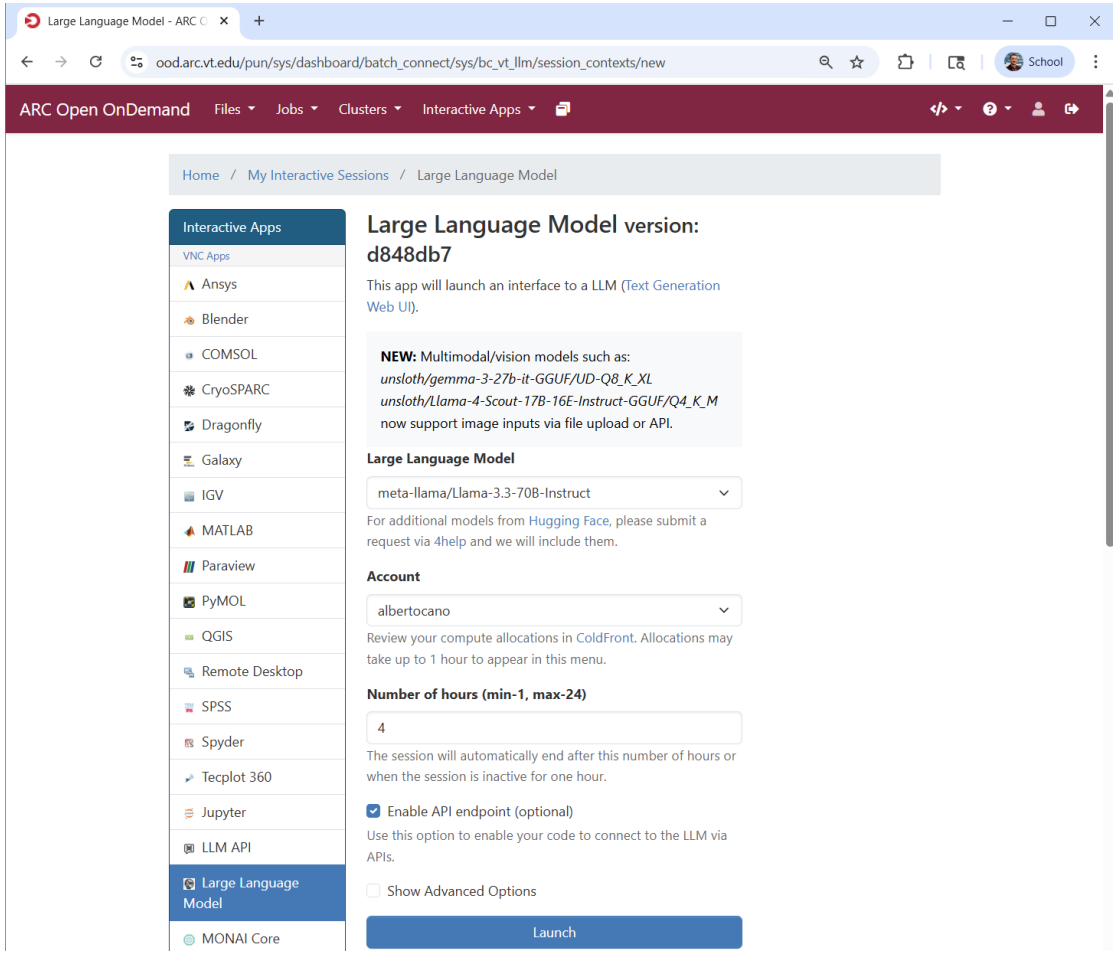


AI SERVICES

INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

https://ood.arc.vt.edu

- Deploy a dedicated LLM
- Select your preferred model from Huggin Face
- Web and API access
- Runs within ARC infrastructure
- ARC account needed
- Costs billed against the allocation
- No token limits
- Access via VT network or VPN



AI SERVICES

Advanced custom deployments

- Use Ollama, llama.cpp, or vLLM (installation via containers or virtual environments)
- Use Hugging Face models available at /common/data/models
- Deploy as many web or API endpoints as you need
- Use SSH port forwarding to tunnel apps (running inside or outside of the cluster) to the LLM running inside of the cluster
- Maximum flexibility for custom deployments
- See https://docs.arc.vt.edu/usage/ai.html


INFORMATION TECHNOLOGY
ADVANCED
RESEARCH COMPUTING
VIRGINIA TECH

Questions?

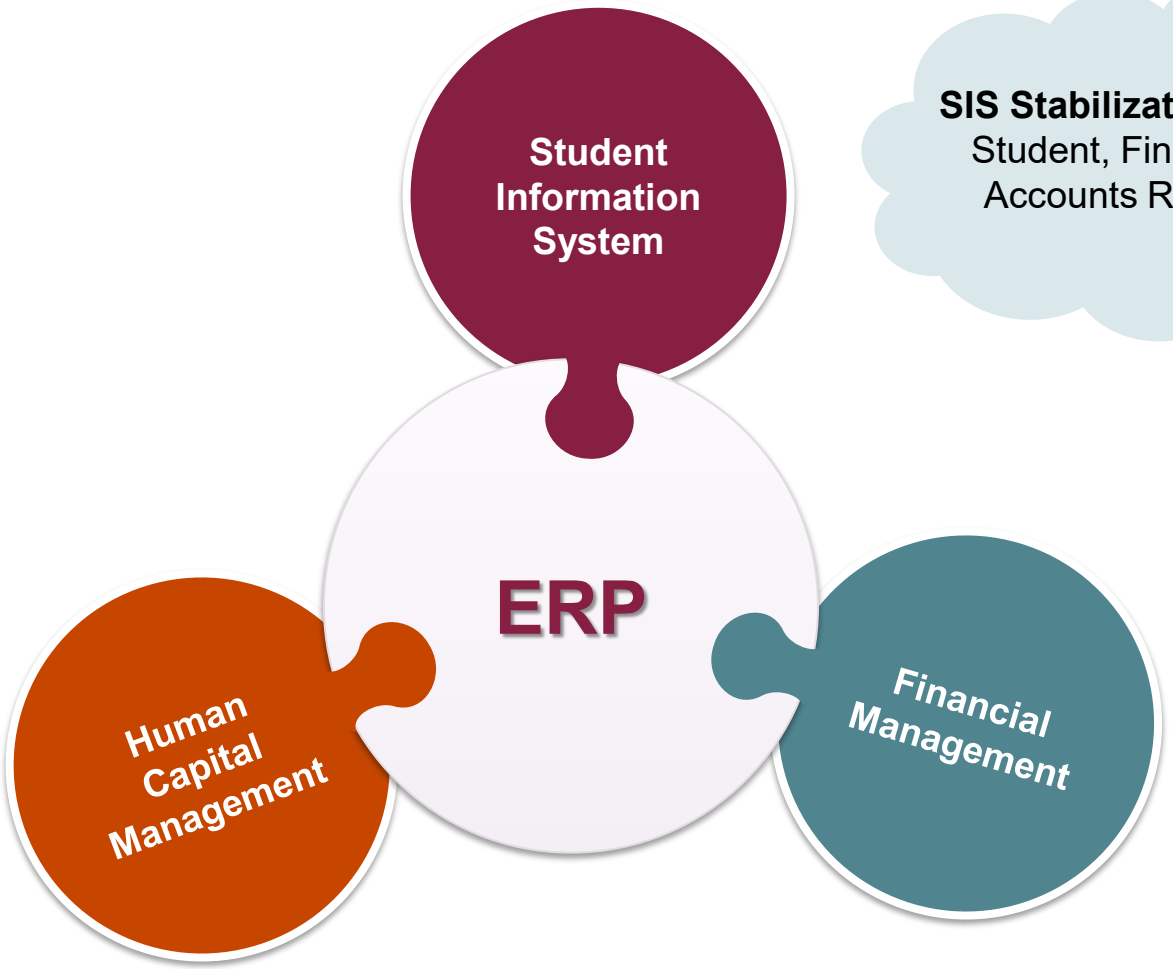
ERP Modernization Update

Division of IT Professional Development Days

Vicki Hall, ERP Program Manager

September 9, 2025

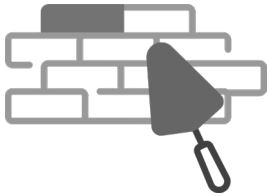
Enterprise Resource Planning Modernization Program



SIS Stabilization Project: Student, Financial Aid, Accounts Receivable

Finance and HCM: Readiness and Modernization

ERP Concepts



STABILIZATION

A project or program that adds new capabilities and features while addressing the lack of system, data, and/or infrastructure reliability, accuracy and security.

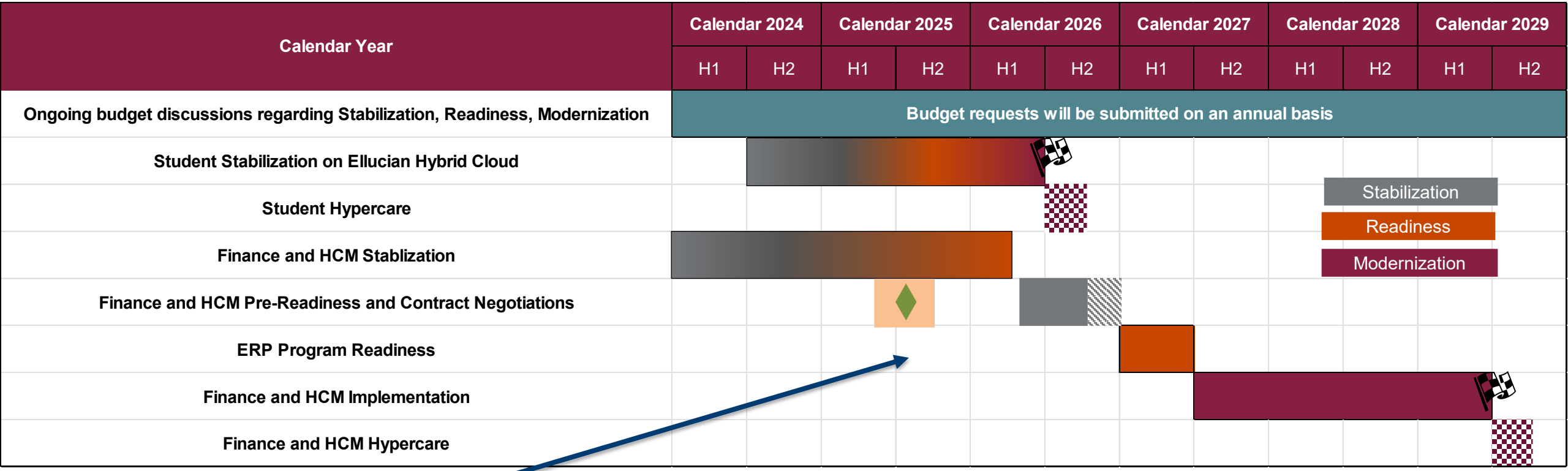
READINESS

A state of preparedness based on the thoroughness of the planning process; as well as the adequacy of funding, resources, organizational alignment, governing frameworks and technical frameworks.

MODERNIZATION

An integral component of VT's digital transformation efforts: an opportunity to reengineer functions in support of the user experience where the VT community can realize institution-wide operational efficiencies, enable innovation and reduce cyber vulnerabilities.

ERP Stabilization, Readiness, and Modernization DRAFT Timeline



We are here

Go-live

Total Cost of Ownership Model for HCM and Finance implementation. (~$80.4MM +/-10%).
Budget includes IT backfill and surge staffing positions.

ERP Gantt Charts Sept 2 2025.xlsx

Student Information System Benefits:

Stabilization of Student Ecosystem

- Improved reliability and stability
- Enhanced security and disaster recovery
- *New features*
  - Standardized curriculum
  - Course program of study
  - Personalized student experience
  - Unified data

Ellucian Conference April 6-9

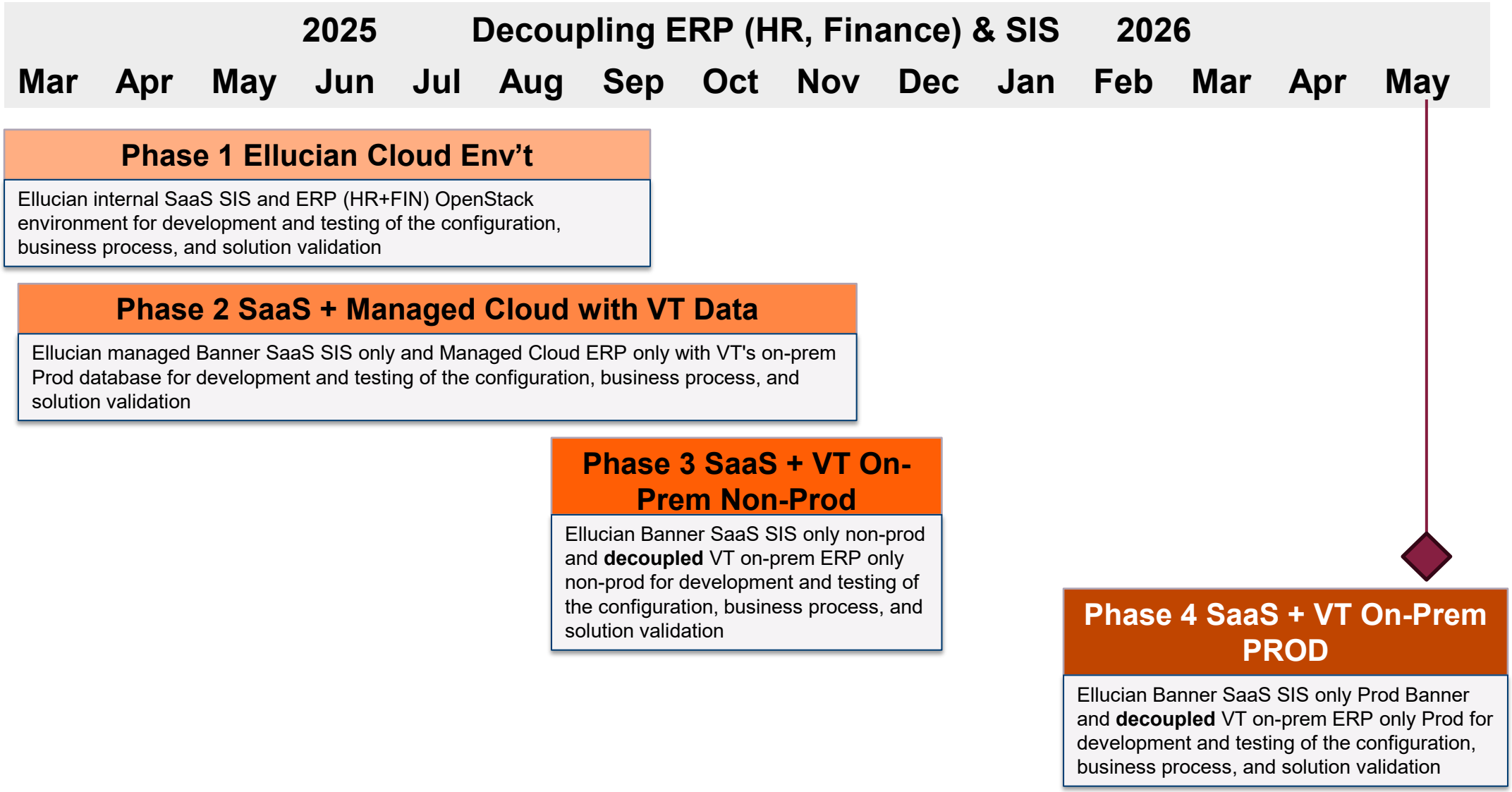
Student Hybrid Cloud Project

34 working weeks until go-live weekend beginning Thursday May 21 5pm

Strategic aspects of the project include

- ***Organizational Change Management***
- ***Identity First*** strategy for Identity and Access Management independent from current and future ERP solutions
- ***Decoupled architecture***: cloud-based Student Information System separated from on-prem Banner Finance and HR
- ***SaaS-safe access*** to cloud-based Student data
- ***SaaS-safe extensions*** to cloud environment for required VT functionality not part of Ellucian SaaS solution
- Continued adoption of ***Boomi integration platform***
- Deliverables for ***Enterprise, Business,*** and ***Solution Architectures,*** and ***Business Process Mapping***

Student Hybrid Cloud Project – infrastructure



Student Stabilization Project Aug 25/25 – Jan 30/26

20 working weeks to Student Stabilization Go-live Prep Feb 2	Start Week	Aug 29, 2025

Week	1	2	3	4	5	6	7	8	9	10	11	12	13		14	15	16			17	18	19	20	
Ending	Aug	Sep	Sep	Sep	Sep	Oct	Oct	Oct	Oct	Oct	Nov	Nov	Nov	Nov	Dec	Dec	Dec	Dec	Jan	Jan	Jan	Jan	Jan	Feb
	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6
Ellucian test migrations/validations (3 have been completed)		#4						#5						#6										#7
VT validation of data migrations																								
Ellucian SaaS connected to Managed Cloud with VT data																								
Ellucian SaaS connected to decoupled VT on-prem Non-Prod																								
58 Integrations (12 Ellucian "productized", 13 partner developed, 33 VT to develop)		56% progress*																						
41 extensions (11 baseline, 16 Ellucian to develop, 14 VT to develop		44% progress*																						
36 workflows (11 go-live, 7 go-live + 3 months, 18 go-live + 6 months) Ellucian to develop																								
VT Identity and Access Management - 10 deliverables		40% progress*																						
~167 Reports required for go-live		20% progress*																						
System is feature complete - see Note																							▲	

* complete in Planning, Development, or Validation

We are here

Note

Data migration process is stable and predictably reproducible
Data validation completed at least once following a successful test migration
All business processes affected by the migration tested at least once and validated
All features complete, including initial business testing
All integrations testing and functioning in development environment
All go-live required reports are complete in at least draft form
All functions of identity management tested and functional in development environment
All security and architectural reviews complete

Student Stabilization 17 Week Go Live Prep Phase

	Start Week	Feb 6, 2026

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Comments
Ending	Feb	Feb	Feb	Feb	Mar	Mar	Mar	Mar	Apr	Apr	Apr	Apr	May	May	May	May	May	
	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	
System completion - Note 1	Note 1																	
Develop and deliver functional training material		Development				Delivery												
Develop and deliver communications plan		Development						Delivery										
Develop and deliver Tier1 technical support training material						Development						Delivery						
Develop production support documentation										Development								
Data migrations			First complete migration test - Note 2		Triage and correct issues	Second complete migration test		Triage and correct issues	Third complete migration test	Triage and correct issues	Fourth complete migration test		Fifth complete migration test		Sixth and final migration test			
Initial decision for May 21 migration start*												◆						* There should be no substantial new issues from fourth migration test
Final decision for May 21 migration start**														◆				** There should be no new issues from fifth migration test and no remaining issues from fourth migration test
Go live - Note 3																Note 3		
Post Go-Live activities to be documented later																		

Note 1

Data migration process is stable and predictably reproducible

Data validation completed at least once following a successful test migration

All business processes affected by the migration tested at least once and validated

All features complete, including initial business testing

All integrations testing and functioning in development environment

All go-live required reports are complete in at least draft form

All functions of identity management tested and functional in development environment

All security and architectural reviews complete

Note 2

First complete migration test includes:

export of data from on-prem Banner

data conversion and import into SaaS environment

data validation

business process validation

report validation

integration validation

Note 3

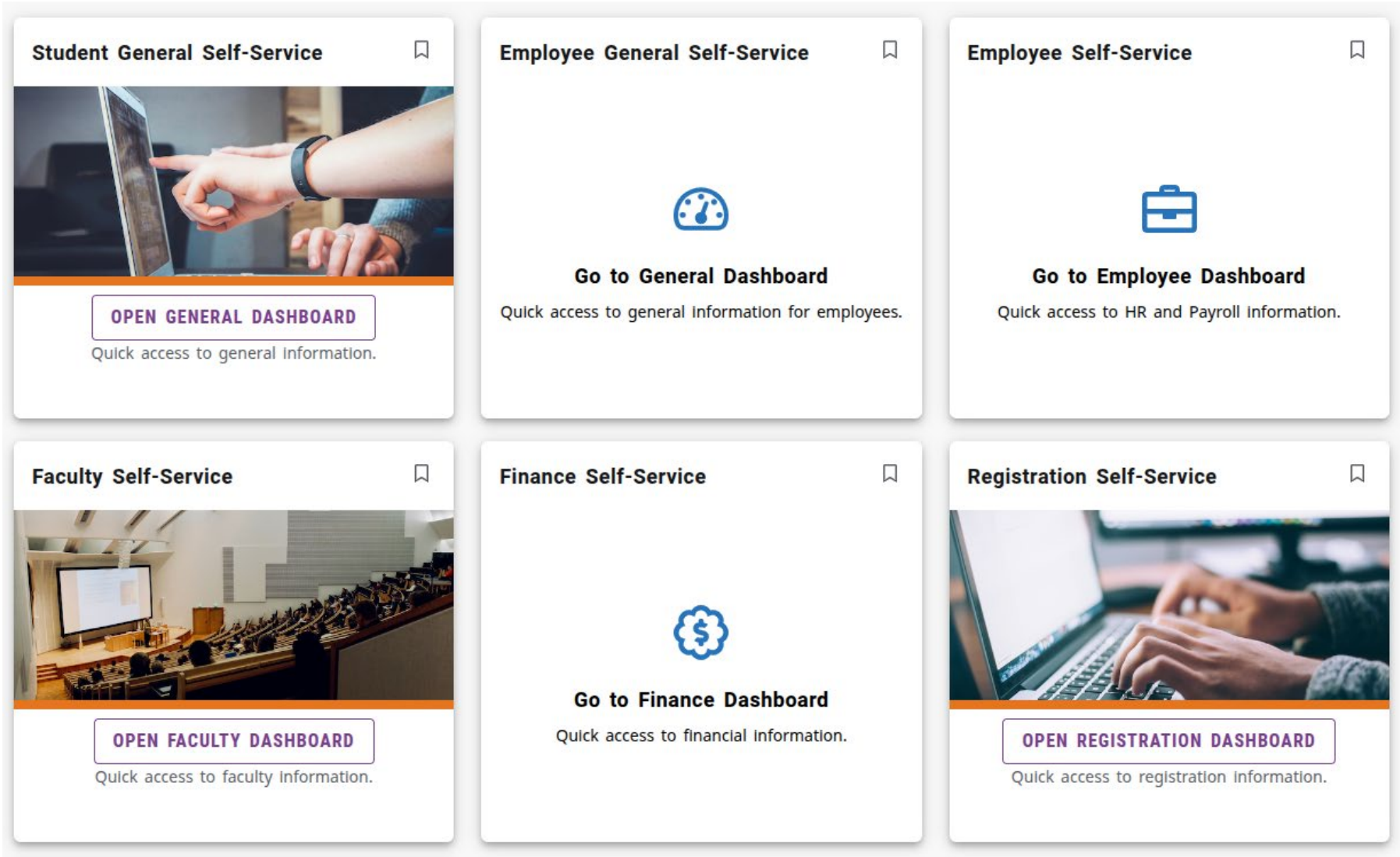
Migration begins; production on-prem Banner offline - Thursday May 21 5pm

Data validation Saturday May 23

Business and integration validation Sunday and Monday May 24-25

Student go live in SaaS and on-prem Banner online Tuesday May 26 8am

User Interface – Ellucian Experience Cards



Note: the stark contrast between the cloud-backed apps (with pictures) and the on prem-backed apps is for demonstration purposes only, showing the division between the SIS and ERP, and not representative of the final Experience card.

Student Information System Website Screenshot

Enterprise Resource Planning (ERP) Changes

Overview

Virginia Tech has been using Ellucian's Banner Enterprise Resource Planning (ERP) solution since 1997. Over time any gaps in the system were remedied through university software development and customizations. This has constrained the ability to be flexible in response to changing business requirements and advances in technology; take full advantage of vendor upgrades and new features; and provide an intuitive and modern user experience for students, faculty and staff who use the system.

INFORMATION FOR STUDENTS

INFORMATION FOR EMPLOYEES

TIMELINE

ERP Program (all projects) Governance Structure

IT Governance
Executive Committee

Working and Advisory Committees

Executive Sponsors
Cyril Clarke, Amy Sebring

Program Sponsors
Sharon Pitt, Chair
Bryan Garey, Juan Espinoza, Simon Allen, Michael Stowe, Frances Keene, other future members

Steering Committee
Sharon Pitt, Chair
Leisa Shelor, Beth Armstrong, Rick Sparks, Melinda West, Martha Glass, Dwane Sterling, other future members

Project Team
See next slide

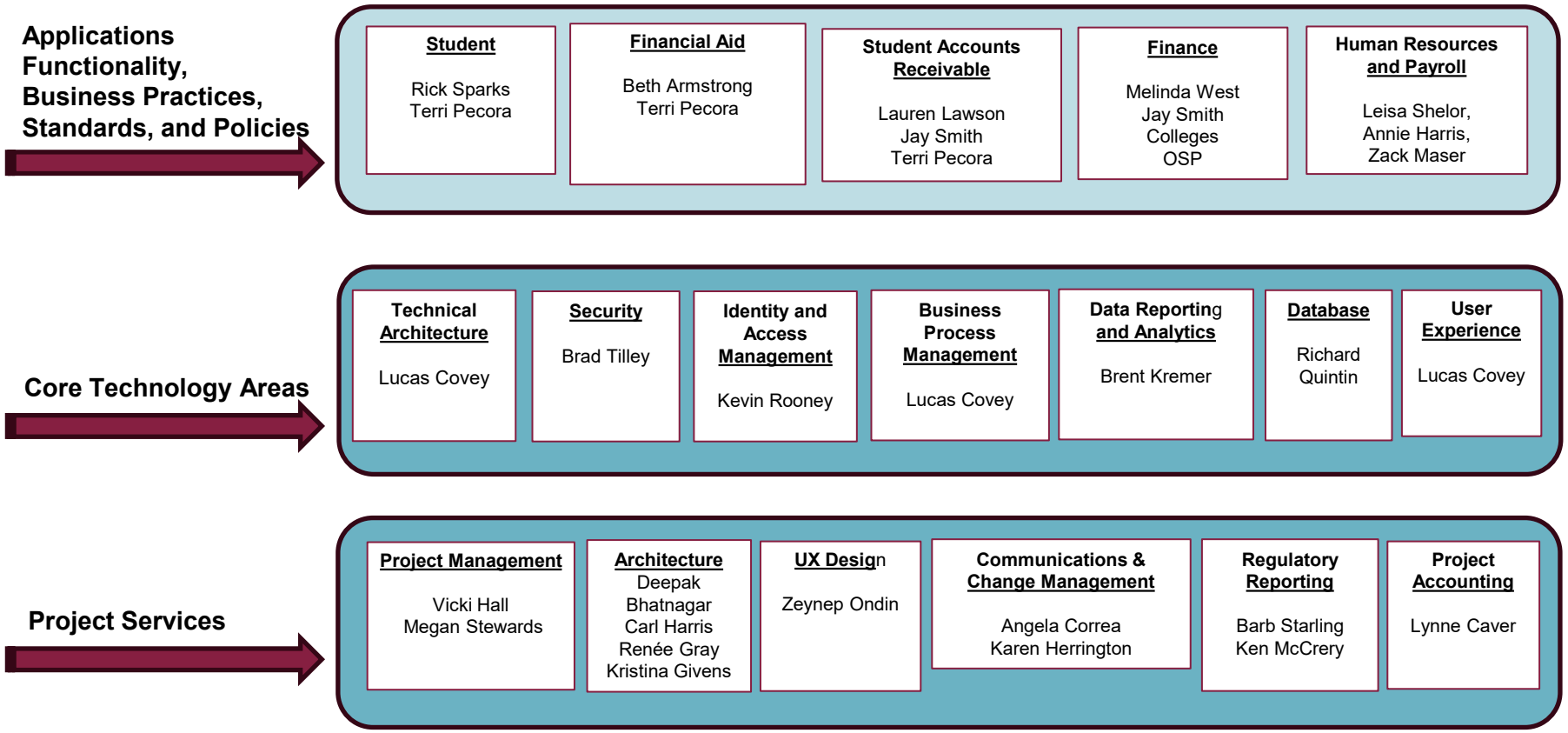
LEGEND

Executive leadership/stakeholders

IT Governance committees

ERP Modernization: Student SaaS Governance Structure

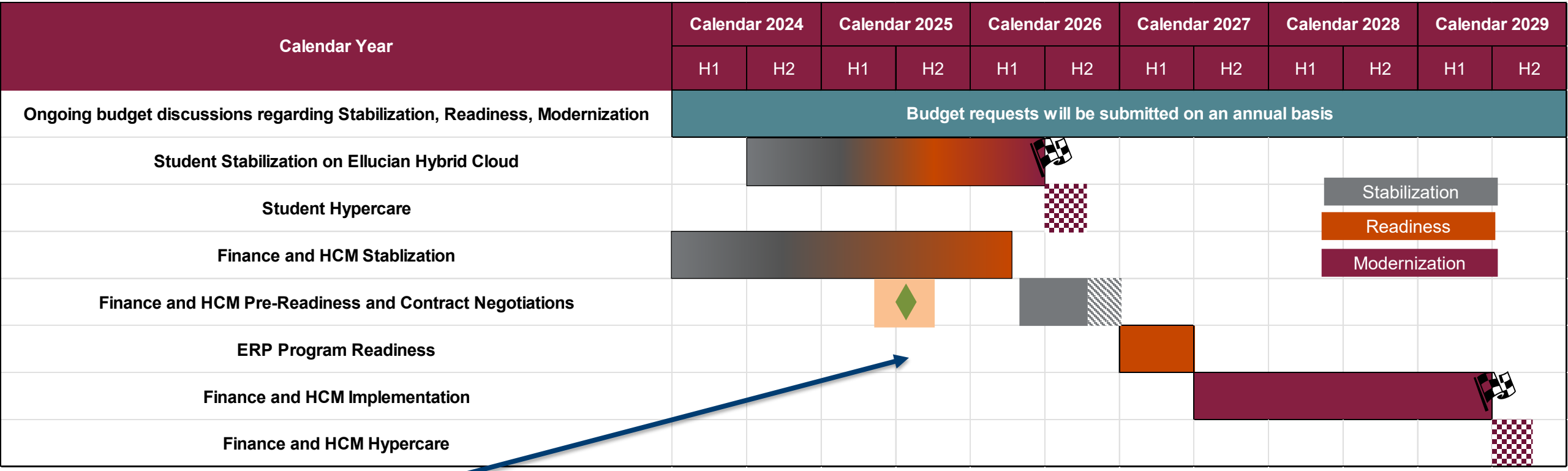
(Project Team, Applications and Technology Areas, Project Services)



ERP Readiness and Modernization

VIRGINIA TECH

ERP Stabilization, Readiness, and Modernization DRAFT Timeline



We are here

Go-live

Total Cost of Ownership Model for HCM and Finance implementation. (~$80.4MM +/-10%).
Budget includes IT backfill and surge staffing positions.

Thank you to the ERP Budget Model Working Group: Dwane Sterling, Melinda West, David Crotts, Leisa Shelor, Brennan Shepard, Kyle Johnson

ERP Gantt Charts Sept 2 2025.xlsx

ERP Pre-Readiness, Readiness, and Modernization Activities and Milestones

Pre-Readiness

- RFP / selection of Tool Selection Consulting Partner (TSC)
- Submit budget request(s)
- Draft scope and RFP(s) for ERP vendor and implementation partner
- Resource readiness *(i.e., identify core program team)*
- Identify Chart of Accounts design team
- Functional readiness *(e.g., outline HCM /FIN dept reporting structures)*
- Data readiness *(e.g., identify key reports and data tables)*
- Technical readiness *(e.g., IT landscape, integrations, etc.)*
- Outline change management strategy
- Define program governance

- Budget approval
- Selection of both the ERP platform and implementation vendors
- Execute contracts with software vendor and implementation partner

Readiness

- Continue any remaining functional and technical readiness efforts
- Develop high-level implementation project plan
- Define approach to integrations with selected software
- Finalize list of legacy / existing software to be replaced / incorporated into the ERP
- Reporting strategy drafted
- Virginia Tech resources/teams (e.g., PMO) ready for stand-up

- Straw Model for Chart of Accounts design completed
- Draft implementation plan, program governance, and change management all in-place and ready for Implementation kick-off

Implementation

- Complete functional design
- Definition of solution architecture
- Complete mapping of system integrations
- Configuration (for out-of-box functionality)
- Development (for integrations or functionality not included out-of-box)
- Testing and defect resolution
- Development of knowledge collateral, training materials and training / roll-out schedule in advance of Go-Live

- Go-Live
- Launch Hypercare

Hypercare

- End user support focused on customer support, data integrity and integrations, and system stability
- Stabilize and operate ERP and related platforms
- Continue providing end user support
- Host additional training sessions and complete any knowledge transfer
- Continued enhancement of ERP

- Hypercare concludes
- Training and knowledge transfer complete

● Activity ❖ Milestone

Questions?