INFORMATION TECHNOLOGY SERVICES

STRATEGIC ROADMAPS

2023 - 2026

WASHINGTON STATE UNIVERSITY
Information Technology Services

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Advancing WSU's Technology Initiatives

As we look ahead to the coming years, I am excited about the strategic roadmaps that ITS (Information Technology Services) has in place to support WSU's mission and vision. These initiatives promise to elevate our technology services across the entire system for years to come.

Prioritizing Accessibility and Student Success
Our current ITS initiatives are driven by a commitment to accessibility and student achievement. Two key projects exemplify this focus:

- **Reduced-Cost Wireless:** We're implementing a reduced-cost wireless service, enhancing access and performance in student-centric areas. This move directly contributes to academic success at WSU.
- **Mobile Application Upgrade:** The university's mobile application is getting an overhaul. The goal is to provide a more reliable, user-friendly tool that offers instant access to essential academic resources.

Embracing Innovation
In the months ahead, ITS will undergo several migrations to new or evolving platforms. These include:

- **Office 365 Changes:** We're adapting to Office 365 updates to enhance productivity and collaboration.
- **University Process Scheduling:** Streamlining scheduling functionalities to improve efficiency.
- **Identity Access Management:** A comprehensive revamp of our identity management system, automating critical processes related to security, HR support, and customer service.

Strengthening University Infrastructure Security
Our unwavering focus on security involves:

- **Legacy Service Updates:** We're addressing cybersecurity vulnerabilities associated with dormant accounts and aging systems.
- **National Standards and Expertise:** Guided by industry best practices, we're developing robust IT management, risk, and security policies.
- **Effective Governance:** Establishing governance structures to support the expansion and implementation of technology resources.

Leveraging Data for Institutional Goals

We're committed to optimizing organizational capabilities, structures, and resource utilization. By harnessing information technology data, we will develop actionable strategies aligned with WSU's mission.

Guided by the goals outlined in this report, ITS remains steadfast in supporting and advancing WSU's research, infrastructure, business, and academic endeavors.

Thank you for your dedication to our shared vision.

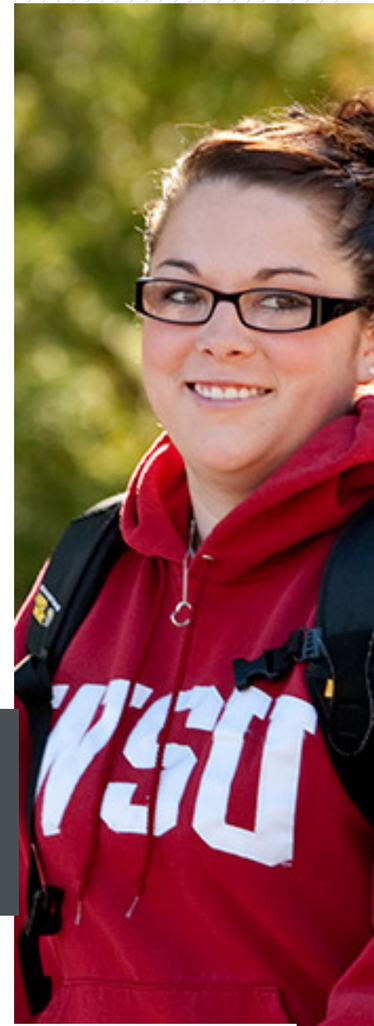
Tony Opheim
Vice President & Chief Information Officer

Mobile Application

Information Technology Services (ITS) remains committed to supporting the university's student population by improving WSU's mobile application. "Because we're seeing students and applicants rely on handheld devices as their primary online tool more and more, it's important that our mobile app provides reliable access to all the information a student needs to succeed in each stage of an academic term," says Gary Saunders, ITS director.

To successfully meet students' needs in the mobile environment, ITS will conduct a thorough assessment of community needs to expand the functionality of the mobile application and ensure that the application establishes itself as a comprehensive, accessible resource. Maintaining consistent access to information will foster a more intelligent and customized mobile application that enhances the overall user experience for students and enables the university to better support both academic and business processes through a user-friendly mobile platform.

"It's important that our mobile app provides reliable access to all the information a student needs to succeed in each stage of an academic term," says Gary Saunders, ITS director.



Mobile Application Roadmap

Goals

- Evaluate university needs and requirements for mobile applications
- Select a platform that meets the most needs and requirements identified by the community
- Implement the mobile application or release development toolkit to the university
- Develop governance structure and development pipeline to enable university departments to leverage the mobile application

FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
Advisory Committee						Develop Governance		Governance in place	Select tools/application to implement		Implementation	Mobile Application go live	Review

Student Information System

Information Technology Services (ITS) continues to prioritize improving the myWSU experience. “myWSU is central to so much that we do at WSU and going forward over the next several years, the institution’s goal of improving infrastructure for all services for ITS includes enhancing myWSU’s ability to support everyone at the university, college, and department levels,” says Gary Saunders, ITS director. ITS is enhancing existing features and introducing new tools and applications targeted to stakeholder needs, ensuring myWSU supports academic excellence and administrative operations at any level.

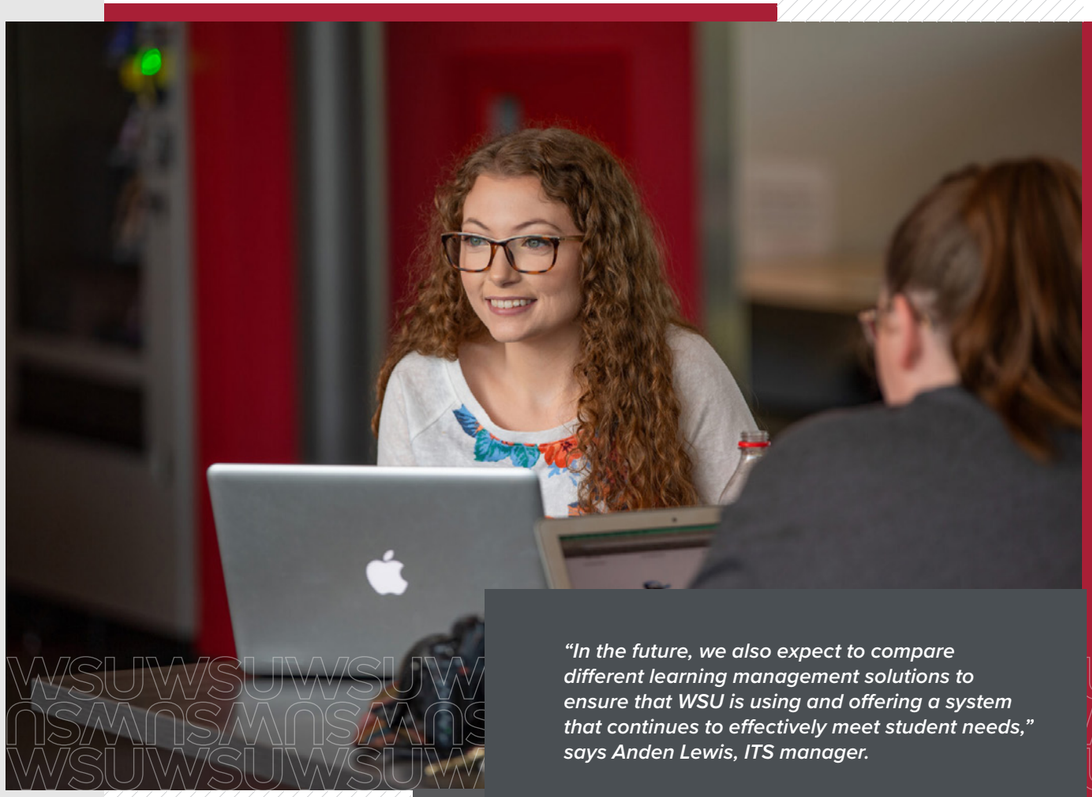
“Over the next several years, the institution’s goal of improving infrastructure for all services for ITS includes enhancing myWSU’s ability to support everyone at the university, college, and department levels,” says Gary Saunders, ITS director.

Student Information System Strategic Roadmap

Goals

- Lead Student Information System (SIS) operational, developmental and configuration efforts by introducing and integrating new enterprise tools and applications
- Link SIS technology changes to institutional goals with measurable objectives
- Leverage digital-outcome-driven metrics framework for higher education to identify value of investments
- Continue to Decouple the SIS by introducing new enterprise business capabilities using point solutions specific to stakeholder business models and practices

FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4	FY 27	FY 28
Evaluate My Transfer Credit for guest users	SLATE integration for undergrad/international	SLATE integration for MBA								Review/Renew support contract with Burqundy	Review/Renew product license with Oracle				Check Campus Solutions End-Of-Life
GradCAS for guest users	Degree Recommender Go-Live	PeopleSoft Update Manager (PUM) 31	PUM 32	PUM 33	Investigate SIS Cloud Solutions	PUM 34	PUM 35	PUM 36 and PeopleTools Upgrade		PUM 37	PUM 38	PUM 39 and PeopleTools Upgrade			
Electronic 1098-T via Touchnet		Grad/Engr Centralized Application Service (CAS) Rollover			Grad/Engr CAS Processing										
PeopleTools Upgrade															
Investigate SIS Cloud Solutions	Free Application for Federal Student Aid (FAFSA) Simplification														
Self Service Redesign for Financial Aid															



“In the future, we also expect to compare different learning management solutions to ensure that WSU is using and offering a system that continues to effectively meet student needs,” says Anden Lewis, ITS manager.

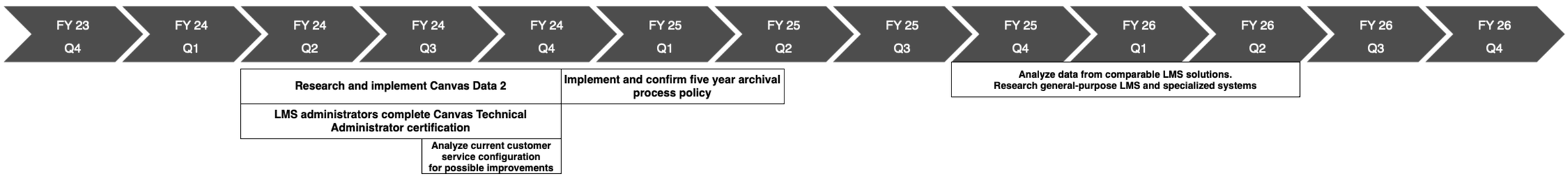
Learning Management System

Information Technology Services (ITS) is implementing the Canvas Data 2 service, decreasing data latency to just a few hours and offering quick access to course metadata for effective semester start preparations. With this service, faculty can better determine course space engagement and communicate with students needing additional academic support. In partnership with Academic Outreach and Innovation (AOI), ITS is also revamping the Canvas self-service Knowledge Base documentation, ensuring Canvas users and administrators maintain uninterrupted access to up-to-date resources for existing and new tools. With a central resource for independent Canvas support, ITS is empowering faculty to promptly resolve Canvas-related questions at any hour.

“In the future, we also expect to compare different learning management solutions to ensure that WSU is using and offering a system that continues to effectively meet student needs,” says Anden Lewis, ITS manager, highlighting the university’s commitment to using industry-best applications to support student success.

Learning Management System Roadmap

Goals • Empower student learning and instructional tools through providing a proficiently administrated industry-leading Learning Management System (LMS)



Course Evaluation

Information Technology Services (ITS) is advancing the efficiency of WSU's course evaluation service by working toward implementing automation. Through automation, ITS will not only improve the system's backend functionality but also see a significant reduction in the manual efforts required to administer course evaluations for students and instructors. ITS Director Gary Saunders notes, "If we can reduce and simplify the time and hands-on work that we contribute to technically supporting course evaluations, we will become more available to support other institutional projects and initiatives." Automating support processes for course evaluations and reducing manual workload is also expected to offer significant cost savings for the university while ensuring course evaluations continue to benefit faculty and students.

ITS Director Gary Saunders notes, "If we can reduce and simplify the time and hands-on work that we contribute to technically supporting course evaluations, we will become more available to support other institutional projects and initiatives."

Course Evaluation Roadmap

Goals

- Move toward Full Automation
- Improve Response Rates
- Develop Quality Insights
- Evaluate the value proposition of Bluepulse

FY 23 Q1	FY 23 Q2	FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
Continue Development of custom dashboards for Colleges and Departments				Develop toolset to enable staff to generate custom reports based on specialized needs				Provide automated, scheduled, customizable reporting							
Enhance integration between Student Information System (SIS) and Course Evalutation System (CES) to eliminate post-integration processing				Implement Deep integration with Canvas				Review system for future improvements							
Enable automated and ad-hoc distribution/reallocation of reports based on institutional hierarchy				Setup of grade and/or course registration pathways with SIS											
Automate the release and availability of course reports and evaluations				Ensure automated handling of late withdrawals and registrations											
Evaluate delivered options for closing the feedback loop															

“We see a need to simplify access management and data application based on an individual’s affiliation with WSU, and one of our goals for accomplishing this is by directly connecting our system directories to Okta,” says Geoff Allen, ITS manager.

Identity and Access Management

By further adopting Okta’s versatile tools, Information Technology Services (ITS) aims to better manage online access and align identity management with university processes and security protocols. “We see a need to simplify access management and data application based on an individual’s affiliation with WSU, and one of our goals for accomplishing this is by directly connecting our system directories to Okta. This will make onboarding and separating from WSU a much more efficient process for both supervisors and employees,” says Geoff Allen, ITS manager.

Automating procedures for adding or removing access will not only improve process reliability and ensure WSU data is accessed by appropriately authorized users, but it will also streamline identity and access management to facilitate prompt and secure resource access for new students and employees.

Identity and Access Management Roadmap

Goals

- Directly connect Okta to myWSU, Active Directory, and Workday directories using Advanced Sourcing
- The new integrations replace the existing Microsoft Identity Manager (MIM) and script based integrations
- Generate artifacts documenting work performed, best practices, test plans, and procedures for use by WSU Information Technology (IT) staff going forward

FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
Roadmap Development				Integrate Workday as Directory Source		Streamline Hire Process		Identity Improvements (To Be Determined)					
				Integrate Peoplesoft as Directory Source		Retire MIM & Forefront Identity Manager (FIM)							
			Procurement										
							Retire Grouper						

Cloud Services

Information Technology Services (ITS) continues to migrate numerous WSU services to cloud host, Amazon Web Services (AWS). With AWS' pay-as-you-go model, ITS can be highly selective with support needs, leading to significant cost savings as WSU only pays for resources when needed.

AWS offers advanced tools for modernizing technical infrastructure that ensures service downtime experienced on one campus does not affect service functionality at other campuses, improving service reliability and delivery across the system. "AWS has global data centers and dedicated infrastructure management teams, and with this available to us, we'll be able to stabilize our work and refine our processes which will ultimately allow us to better support our university groups," says Geoff Allen, ITS manager.

"With [Amazon Web Services] available to us, we'll be able to stabilize our work and refine our processes which will ultimately allow us to better support our university groups," says Geoff Allen, ITS manager.

Cloud Services Roadmap

Goals: Use Okta for Amazon Web Services (AWS) Console access
Improve AWS billing and invoicing

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
Establish AWS training for distributed information technology (IT) staff		Okta for AWS Console access									
Improve AWS billing and invoicing											
		Further develop AWS training									

“With alternative cloud solutions, we’re both saving costs and strengthening WSU’s security measures,” emphasizes ITS Director Bill Rivers.

Office 365 and Active Directory

Information Technology Services (ITS) is transforming WSU’s authentication process within the active directory (AD) system by shifting from on-premise to cloud-based servers. With daily system operations managed off-site, ITS can minimize physical system upkeep and focus on advanced system configuration and data extraction. Transitioning to the cloud not only enables ITS to better serve the community through increased support availability, but it also improves system security, offers advanced features, and facilitates quicker service delivery.

As expected with automating the provisioning and deprovisioning of alumni email accounts to reduce opportunities for cyber attackers to access WSU’s Office 365 system, retiring legacy services and embracing cloud solutions secures the university against potential cyber threats. “It is important that we balance stakeholder needs and security concerns when we reduce legacy services... With alternative cloud solutions, we’re both saving costs and strengthening WSU’s security measures which protects us against potential vulnerabilities and keeps our systems’ integrity,” emphasizes ITS Director Bill Rivers.

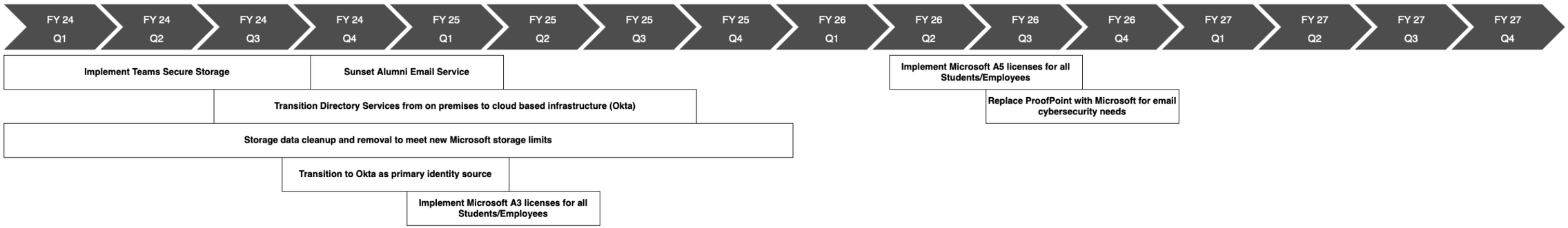
Office 365/Active Directory Roadmap

Goals

- Migrate existing service functions to modern cloud services and align services with direction of other enterprise services
- Enable institution to manage endpoints from cloud-based services
- Enable areas and colleges to manage their own resources in accordance with WSU policy and state requirements
- Retire services that are legacy in nature or underutilized
- Improve service offerings with modern cloud solutions

New Capabilities

- Role Based Access Control in Azure Active Directory (AD), Office 365, and cloud Software as a Service (SaaS) AD Domain Services (DS) originating from Okta
- Automated provisioning and deprovisioning of licenses
- More robust, discreet, and customizable service management and entitlement
- Greatly improved security in functionality, features, and reduced attack surface
- Identity based data management and removal



Control-M, A BMC Solution

Information Technology Services (ITS) is planning to transition support for Control-M, WSU's primary scheduling application for business and administrative staff, to a cloud-based server. Offering a more stable data environment, cloud support improves Control-M operations by ensuring unexpected service outages and scheduled maintenance do not delay batch job processes. ITS Associate Director Jen Steffan emphasizes, "Moving batch job dependency to an automated support server in the cloud will mean less downtime for Control-M processing and less need for manually monitoring systems to prevent community impact, which will improve our team's efficiency." "Routine server upgrades and application patches being managed by a cloud provider will allow us to continue improving other parts of the batch job process and job execution," adds Monica Burleson, ITS system administrator.

"Moving batch job dependency to an automated support server in the cloud will mean less downtime for Control-M processing and less need for manually monitoring systems to prevent community impact," says ITS Associate Director Jen Steffan.

Control-M, BMC Roadmap

Goals

- Move toward hosted solution for Control-M (CTM) Servers vs. having on WSU campus, thereby reducing downtime experienced due to WSU maintenance schedules.
- Ability for external areas to have their own process flows to monitor and run as desired. With that comes training, security settings established and active monitoring.

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
Discuss moving CTM from on-premise to be hosted by Amazon Web Services (AWS)											
Review contract renewal due Dec. 14, 2024				2024 contract renewal							

Integration Services

Information Technology Services (ITS) is refining its approach to software, solutions, and data integration with WSU enterprise systems by adopting more structured and streamlined processes. This involves limiting repetition in the methods ITS offers for delivering solutions, along with basing services on standards and tools that establish cohesive processes. “Implementing integration standards will also ensure WSU security remains at the forefront when collaborating with multiple service vendors,” says Justin Hughes, ITS director.

“Implementing integration standards will also ensure WSU security remains at the forefront when collaborating with multiple service vendors,” says Justin Hughes, ITS director.

ITS is also developing a catalog of various integration processes and their corresponding data elements, providing a central resource that not only informs departments about existing services that meet their needs but also promotes data transparency and institutional effectiveness by offering simplified access to service information.

Integration Services Roadmap

Goals

- Engage with university community to understand gaps and challenges departments face integrating software and solutions at WSU
- Implement and engage in a practice of continuous improvement to our integration services
- Deliver solutions and services that allow integrations and implementations to be based on standards and tools rather than a design to implementation solution

FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
			Migrate Integration Hub to Amazon Web Services (AWS)	Evaluate oAuth2 and Authentication Standards	Publish Connectors and Tools Available		Implement Standards for Web Services			Publish API Documentation		Communicate API Catalog	
			Security Assessment Review	Evaluate Application Programming Interface (API) Needs	Create API Development Plan		Execute API Development Plan						
					Plan and Communicate Standard Changes								

Reporting and Analytics

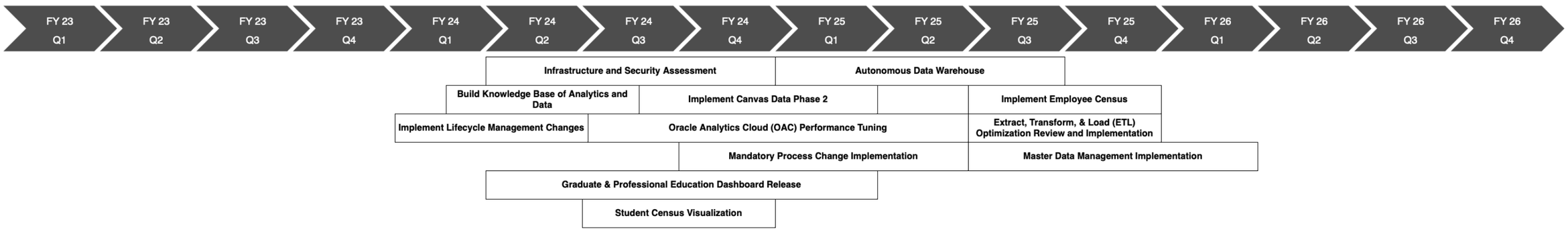
With a focus on technical upgrades and security enhancements for Oracle Analytics Cloud (OAC), Information Technology Services (ITS) is revamping WSU's data management system service offerings to facilitate increased security for critical system data and access to new reporting features. By evaluating data management tools, identifying user needs, and expanding user training, ITS is establishing a central resource bank and information source for OAC's extensive dashboards and data sets. Improving the distribution of data management system information from informal knowledge sharing, the new resource better educates WSU OAC users on platform capabilities and improves the user experience. "Maintaining a central repository for university analytics represents a mature strategy we're adopting for better managing the system and effectively communicating its existing value, while also exploring potential support enhancements for the future," says ITS Director Justin Hughes.

"Maintaining a central repository for university analytics represents a mature strategy we're adopting for better managing the system and effectively communicating its existing value," says ITS Director Justin Hughes.

Reporting and Analytics Roadmap

Goals

- Information Security: Provide comprehensive security and privacy controls for ITS' Analytics Services and Data Warehouse
- User Experience: Deliver enhanced user experiences through optimization of warehouse architecture, dashboards, and data model design while building community of practice to empower data users
- Trusted source of Truth: Enhancing and maintaining a central repository of truth for university analytics and warehousing



Atlassian Data Center

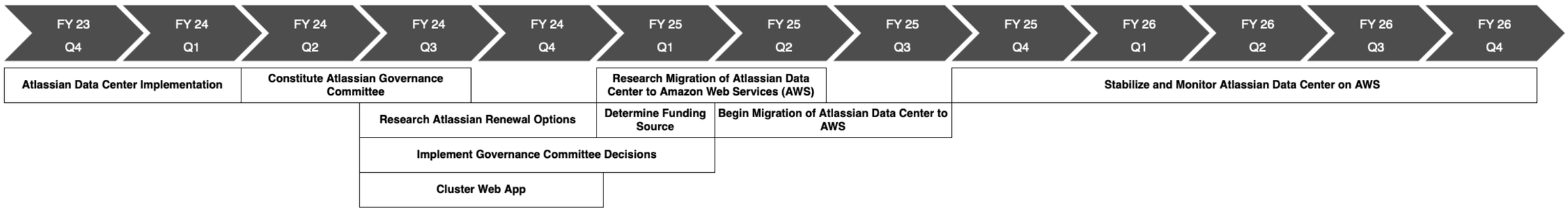
Information Technology Services (ITS) is reshaping Data Center services using modern technical practices and a new governance framework that defines best practices for building and implementing new processes and tools in Jira and Confluence. ITS' governance framework not only encompasses utilizing resources effectively, managing risks, ensuring system security, and meeting user expectations, but it also represents WSU's ongoing effort to clearly define how university systems are monitored, used, and altered. ITS is also exploring the benefits of supporting the Atlassian Data Center in a cloud environment. "We want to optimize the durability, availability, and serviceability of the systems that ITS provides for the university while balancing factors such as cost, time, and resources. By identifying where the Data Center is best supported so that it can be as available and functional as possible for everyone who needs it, we can offer reliable systems that meet the diverse needs of WSU Atlassian users," says ITS Director Justin Hughes.

"We want to optimize the durability, availability, and serviceability of the systems that ITS provides for the university while balancing factors such as cost, time, and resources," says ITS Director Justin Hughes.

Atlassian Data Center Roadmap

Goals

- Upgrade License to Data Center and quickly take advantage of additional functionality available through this license
- Strengthen our overall Atlassian support model through professional training and certification
- Develop a more formal Atlassian community, including a governance model, Steering Committee, User Community, etc.



Project Management Services

With a focus on efficient project completion, Information Technology Services (ITS) is establishing clear guidelines for project support and implementing structured review processes for improved request management. Promoting timely task progression within new projects, ITS is increasing project management certifications and enhancing awareness of ongoing projects among support teams.

Anden Lewis, ITS manager, notes, “We are always working to support the successful implementation of projects and initiatives to ultimately support a better application or system experience for the university community.” To achieve this, ITS is not only developing policy documentation to effectively manage and track project work, but is also working to establish a refined project management framework through effective stakeholder communication, timely updates, and enhanced risk management.

Anden Lewis, ITS manager, notes, “We are always working to support the successful implementation of projects and initiatives to ultimately support a better application or system experience for the university community.”

Project Management Services Roadmap

Goals

- Efficiently and effectively provide project management services to high impacting ITS projects.

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4
	Finalize and document project management offering		Enterprise Projects & Implementation (EPI) Team members complete Project Management Professional (PMP) certification		Finalize and provide Service Level Agreement (SLA) level project management services to WSU		Reevaluate project management services offering				
	Implement Confluence templates integrated into Jira project template										
		Integrate project request process with technical Requests for Change (RFCs) and Roadmap Planner tool									

Endpoint Management

Information Technology Services (ITS) is improving user access and application installation on university-owned devices with Intune, a central endpoint management solution. Expanding access to device and application management services to additional WSU Pullman support areas furthers the protection of university data stored on various devices. ITS is also working to offer services that allow departments to implement security products that simplify administrative access on computer devices, providing greater risk management and data protection for all WSU users and systems. “Improved management over university-owned systems across campus will allow us to understand where WSU data is, who has access to it, and what users can do with it. We’re really focusing on reducing risk to university data by reducing the risk of users accidentally exposing important data,” says Bill Rivers, ITS director.

“Improved management over university-owned systems across campus will allow us to understand where WSU data is, who has access to it, and what users can do with it,” says Bill Rivers, ITS director.

Endpoint Management Roadmap

Goals

- Develop and maintain system wide endpoint baselines and software for consistency of risk management
- Expand customer base as requested across Pullman Campus
- Provide additional centrally managed, automated services for the management of endpoints across WSU

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4
Continuously implement an updated managed care support services model to meet the changing technologies and business environments.															
Continuously add to the endpoint software services that are centrally managed for system consumption as technologies change															
Implement Intune managed mobile application management (MAM)	Revise and improve system onboarding processes model.														

Information Security Program Policies and Compliance Program Development

Information Technology Services (ITS) is proactively improving the university's information security program through extensive review and development of official WSU policy. Using the National Cyber Security Review (NCSR) and the National Institute of Standards and Technology (NIST) 800-53 standard as the foundation for WSU's information security policy, ITS is identifying opportunities to improve existing and develop new policies to establish improved governance to better prepare the university for security audits and addressing potential risks. "It is our intent to create a mechanism that informs business and technical users not only of the security policy, but also the steps they need to take to comply with the policy, ultimately helping our units better understand where they stand in terms of security maturity and identify opportunities for improvement with their future initiatives," says Chief Information Security Officer (CISO) Michael Walters. This approach promotes transparency and clarity for business units and emphasizes the importance of risk assessment and collaboration to enhance security measures at WSU.

"It is our intent to create a mechanism that informs business and technical users not only of the security policy, but also the steps they need to take to comply with the policy," says Chief Information Security Officer (CISO) Michael Walters.

Information Security Program Policies & Compliance Program Development

Goals

- Alignment with National Institute of Standards and Technology (NIST) Standards: Ensure that all policies and standards are in sync with NIST 800-53, incorporating the latest security controls and guidelines
- Enhanced Security Posture: Strengthen the organization's security posture by addressing gaps, vulnerabilities, and emerging threats
- Risk Mitigation: Identify and mitigate risks by updating policies to reflect current security challenges
- Consistency and Clarity: Provide clear, consistent, and actionable guidance to employees, contractors, and stakeholders. Updated policies ensure everyone understands their roles and responsibilities.

FY 23 Q2	FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2
Executive Policy (EP)/Business Policies and Procedures Manual (BPPM) Gap Analysis				Revisions and New Policy			Stakeholder Review & Procedure, Records and Forms Development	Publish and Implement				
					System Control Standards Development		Stakeholder Review & Publish and Implement	Functional Area Risk Assessment - Continuous				

System Information Technology Vulnerability Management Program Development

To improve education on information technology risk and ownership, WSU and Information Technology Services (ITS) are "...creating a mechanism for the business decision makers, executives, signature authorities, and people involved in larger institutional strategies to know what their accountability and responsibility is with respect to data and security. The flow of information about data, where data is, and who is ultimately responsible for making decisions with respect to data needs to become clearer," says Chief Information Security Officer (CISO) Michael Walters. As leadership and leadership collaboratives across the system receive risk information, "this will get people to start seeing the connection to where risk is actually being created and present them with options for how to mitigate that risk. We will be making significant progress to more streamlined, effective decisions with respect to IT and data security," continues Walters. Data owners will be able to apply improved risk management principles to their decisions by considering the likelihood that harm may occur and, if it does, what the impact on a system, service, college, or the university is.

"The flow of information about data, where data is, and who is ultimately responsible for making decisions with respect to data needs to become clearer," says Chief Information Security Officer (CISO) Michael Walters.

System Information Technology Vulnerability Management Program Development

Goals:

- Minimize Response Time: The program strives to reduce the time it takes to respond to critical security situations. Swift action ensures that vulnerabilities are addressed promptly and potential threats are mitigated.
- Prevent Breaches: By identifying, assessing, and addressing potential security weaknesses, the program aims to minimize the likelihood of breaches. Proactive vulnerability management helps prevent unauthorized access and data compromise.
- Maintain Compliance: Organizations use vulnerability management to maintain compliance with security standards and regulations. Regular assessments and remediation efforts ensure alignment with industry best practices and legal requirements.
- Reduce Attack Surface: The program seeks to minimize the overall attack surface by prioritizing vulnerabilities based on risk and exposure. By addressing known vulnerabilities, organizations can enhance their security posture and protect critical assets.

FY 23 Q2	FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2
Define Requirements for System Vulnerability Management Service			Request for Proposal		Proof of Value		Implementation		Integrate Functional Area Risk with System IT Risk Management Program (Governance, Risk, & Compliance [GRC] - Continuous)			

System Information Technology Risk Management

Information Technology Services (ITS) is developing an automated enterprise vulnerability management program to improve WSU's current information technology vulnerability practices. Alongside expanding security capabilities for robust threat detection and broader university coverage, ITS will implement a proactive approach to identifying risks by increasing the frequency of scanning environments and services. As the program matures, ITS will refine response strategies to identify vulnerabilities, determine treatment plans for critical vulnerabilities, specify timelines for remediating vulnerabilities, define reporting structures for vulnerability remediation, and properly assign accountability. "This effort aligns with the primary directive of WSU's Chief Information Officer to build and deploy an enterprise vulnerability management program for ITS that can be immediately scalable to other campuses across the system. With ITS serving as the principal model for a true automated vulnerability program, we will partner with numerous technical staff at WSU to ensure that risk is mitigated to the fullest extent," says Chief Information Security Officer (CISO) Michael Walters.

"This effort aligns with the primary directive of WSU's Chief Information Officer to build and deploy an enterprise vulnerability management program for ITS that can be immediately scalable to other campuses," says Chief Information Security Officer (CISO) Michael Walters.

System Information Technology Risk Management

Goals:

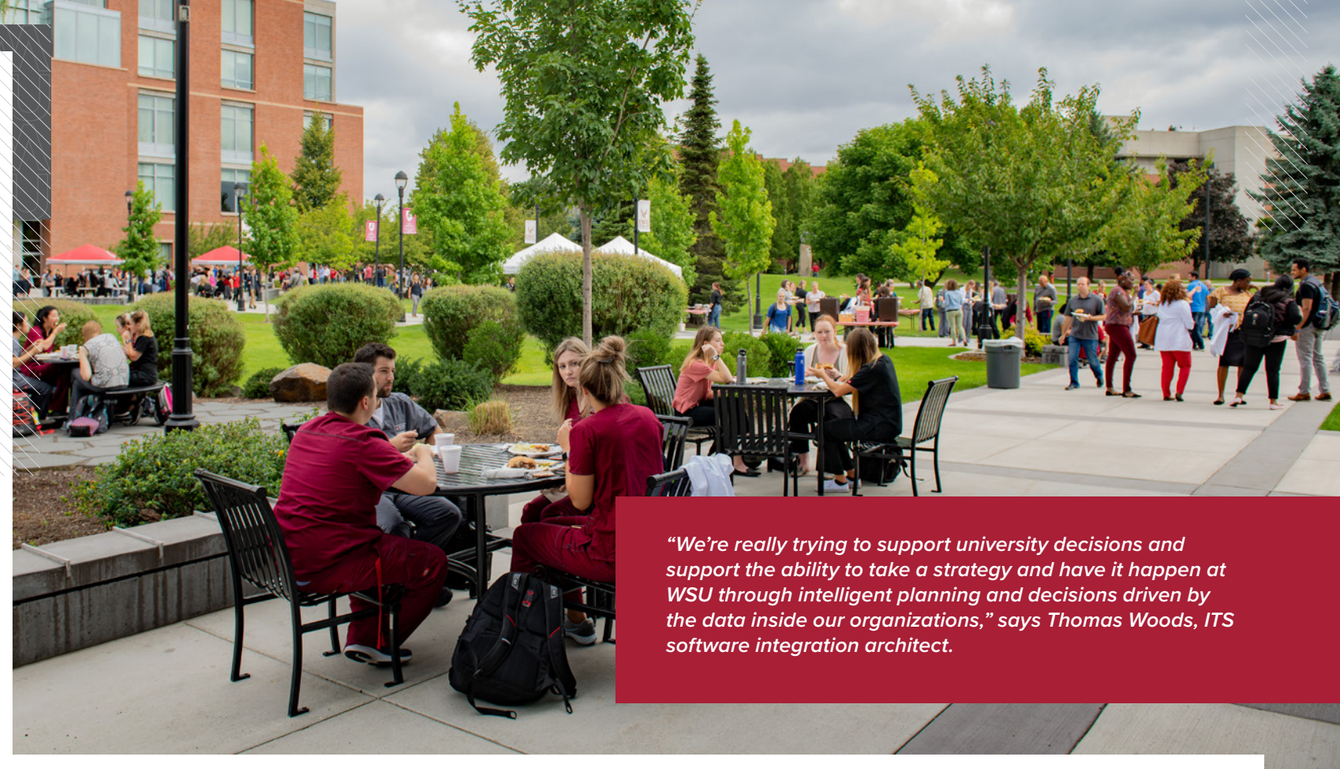
- Control and Protection: To manage, control, and protect the information technology (IT) environment, ensuring the security and stability of systems and data
- Integrity, Confidentiality, and Availability: To maintain the integrity, confidentiality, and availability of IT services. This involves safeguarding sensitive information, preventing unauthorized access, and ensuring uninterrupted service delivery.
- Effective Risk Identification and Management: The program aims to identify and manage risks effectively, ensuring that potential threats are addressed proactively. This includes assessing vulnerabilities, analyzing impact, and implementing risk mitigation measures.

FY 23 Q2	FY 23 Q3	FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2
Identify Top Level IT Risks	Define Requirements for System Governance, Risk, & Compliance (GRC) Service						Request for Proposal	Proof of Value	Implementation		Integrate Functional Area Risk with System IT Risk Management Program (GRC - Continuous)	

Enterprise Architecture Project

Information Technology Services' (ITS) enterprise architecture efforts involve aligning WSU's strategic plan with university capabilities that represent internal processes for providing services to faculty, staff, and students. This includes evaluating the performance and maturity of approximately 200 capabilities across more than 200 WSU organizations. Through rationalization and consolidating redundant services and licenses based on capability maturity, ITS can identify areas for improvement to allow for more efficient resource use. ITS is also using enterprise architecture frameworks and languages for modeling organizational structures to ultimately automate the flow of organizational data and build a resource for viewing up-to-date WSU capabilities and structure.

Enterprise architecture introduces structure for managing complex organizational relationships and resources, ensuring strategic initiatives become actionable plans. ITS Manager Thomas Woods adds, "We're really trying to support university decisions and support the ability to take a strategy and have it happen at WSU through intelligent planning and decisions driven by the data inside our organizations," says Thomas Woods, ITS software integration architect. With improved process maturity, enterprise architecture offers a new method for accomplishing WSU strategic goals.



"We're really trying to support university decisions and support the ability to take a strategy and have it happen at WSU through intelligent planning and decisions driven by the data inside our organizations," says Thomas Woods, ITS software integration architect.

Enterprise Architecture Project

Goals :
- Solve the model for WSU Organizational Structure.
- Addressing Silos, what does information technology (IT) look like at WSU?

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4	FY 27 Q	FY 28 Q	FY 29 Q	FY 30 Q1
IO	Europa	Ganymeade	Callisto	Amalthea	Himalia	Elara	Pasiphae	Sinope	Lysithea	Carme	Ananke	Metis	Taygete	Iocaste
Research Org Theory & IT Org Membership	Integration: Workday Suporgs Phase 1: Manual import	Live Model Graph DB									Leda	Callirrhoe	Chaldene	
Set up project tools (Jira, Confluence, Git Setup)	Model Import Tooling (Eclipse) ADCON Import	Research: Additional Systems Additional Orgs									Thebe	Themisto	Harpalyke	
Model Development: ADCOM Building Blocks (BB)	Research: WSU, FADM, IT, Other Strategic plans Data Call System Analysis OPCIB/TACON by IT Org College IT ADCON capabilities	Integration: Workday Suporgs Phase 2: Transactional Sync									Adrastea	Megaclite	Kalyke	
Modeling Processes		Model Building: - Collaboration Projects - ADCON as Suporgs - OPCON, TACON for IT orgs - Modified Organization decomposition diagrams - Capability Modeling												
Model Building: Collaboration Projects ADCON IT orgs Oganization decomposition diagrams for IT Orgs	Model Building: - Collaboration Projects - ADCON as Suporgs - OPCON, TACON for IT orgs - Modified Organization decomposition diagrams - Systems from Data Call - Strategy Modelin - Capability Modeling													

Network Engineering

Information Technology Services (ITS) is enhancing WSU Pullman's DataCenter. Introducing significant advantages, "the new Pullman DataCenter fabric gives us increased redundancy, streamlined network management, and improved network offerings to the community that will elevate the university's technology capabilities," says ITS Manager Steve Rathbun. This upgrade ensures improved performance and better scalability for new equipment with the guarantee of zero downtime, benefitting university partners that host services within the DataCenter across the system.

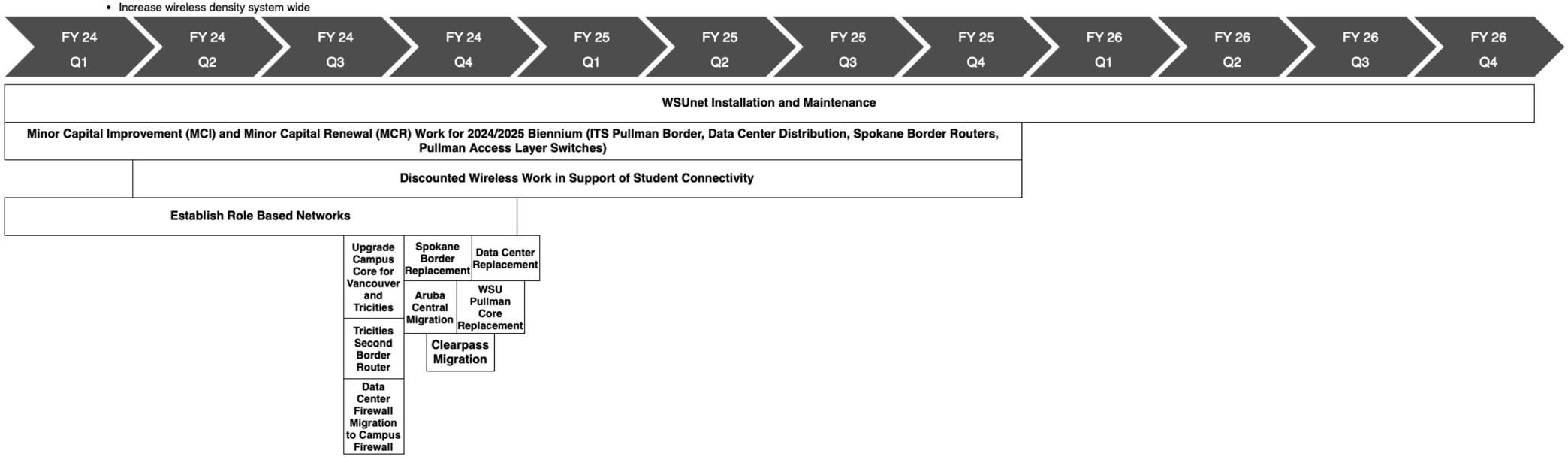
ITS is also transitioning Pullman network access switches to new Juniper infrastructure: MIST Wireless and MIST Wired Assurance. Juniper's MIST systems offer simplified wireless component access and management from a single location, real-time visibility and health performance monitoring, and access to MIST AI for enhanced predictability, reliability, and measurability of WSU's network infrastructure. Further improving the university's wireless experience, ITS continues to expand WSUnet's capabilities to offer increased redundancy and security, ensure better performance for cross-campus traffic, and establish a world-class wireless environment for the WSU community.

"The new Pullman DataCenter fabric gives us increased redundancy, streamlined network management, and improved network offerings to the community," says ITS Manager Steve Rathbun.

Network Engineering Roadmap

Goals

- WSUnet installation and maintenance
- Role based network implementation
- Discounted Wireless to the departments in support of the students
- Migration to Mist Wireless and Mist Wired Assurance
- Increase wireless density system wide



"As large of a campus as we are, we are continually acting to refresh and maintain our network gear. It's a constant churn of maintenance and enhancement," says Kevin Ring, ITS manager.

Designers and Technicians

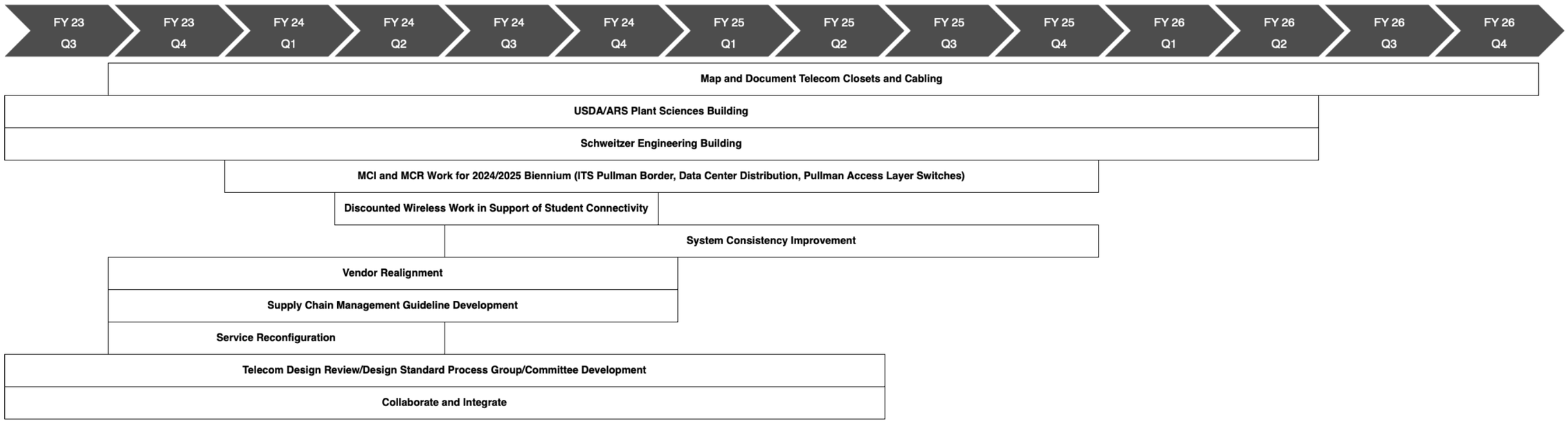
Information Technology Services (ITS) introduced a new initiative that reduces the cost of wireless services for WSU departments seeking wireless improvements in areas designated for student life and learning. With the increased affordability of wireless upgrades, departments can now improve connectivity in locations where students have expressed concerns about wireless coverage and performance. Offering state-of-the-art infrastructure in partnership with the United States Department of Agriculture (USDA), ITS is also designing and maintaining the network capabilities within Pullman's new plant sciences building, ensuring robust performance and reliability that will facilitate significant research for WSU and USDA Agricultural Research Service (ARS) scientists in the coming years.

"As large of a campus as we are, we are continually acting to refresh and maintain our network gear. It's a constant churn of maintenance and enhancement with the end goal being giving our students access to necessary resources like improved performance and wireless coverage for their academic growth and success," says Kevin Ring, ITS manager.

Designers/Technicians Roadmap

Goals

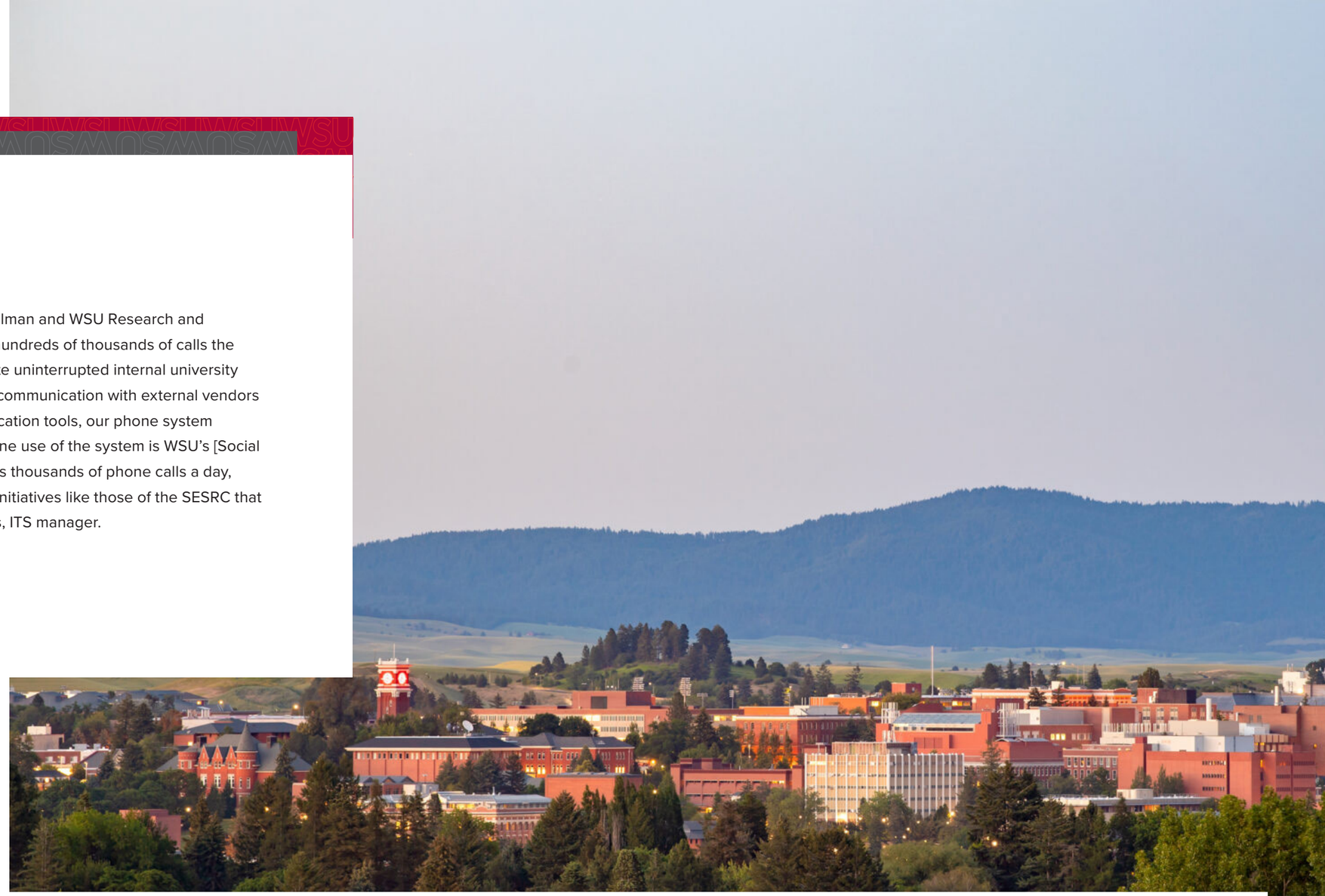
- Discounted Wireless to the departments in support of the students
- United States Department of Agriculture (USDA)/Agricultural Research Service (ARS) Plant Sciences Building
- Minor Capital Improvement (MCI)/Minor Capital Renewal (MCR) Work



Telecommunications

Information Technology Services (ITS) is upgrading WSU Pullman and WSU Research and Extension Units' (REU) phone system to better support the hundreds of thousands of calls the campuses receive. This upgraded phone system will facilitate uninterrupted internal university communications and offer stable connections for improved communication with external vendors and community members. "Even with other digital communication tools, our phone system generates over 100,000 calls a month. In fact, our number one use of the system is WSU's [Social and Economic Sciences Research Center]. This center makes thousands of phone calls a day, and with an upgraded system, we can continue supporting initiatives like those of the SESRC that promote the success of the university," says Randolph Cross, ITS manager.

"With an upgraded system, we can continue supporting initiatives like those of the [Social and Economic Sciences Research Center] that promote the success of the university," says Randolph Cross, ITS manager.



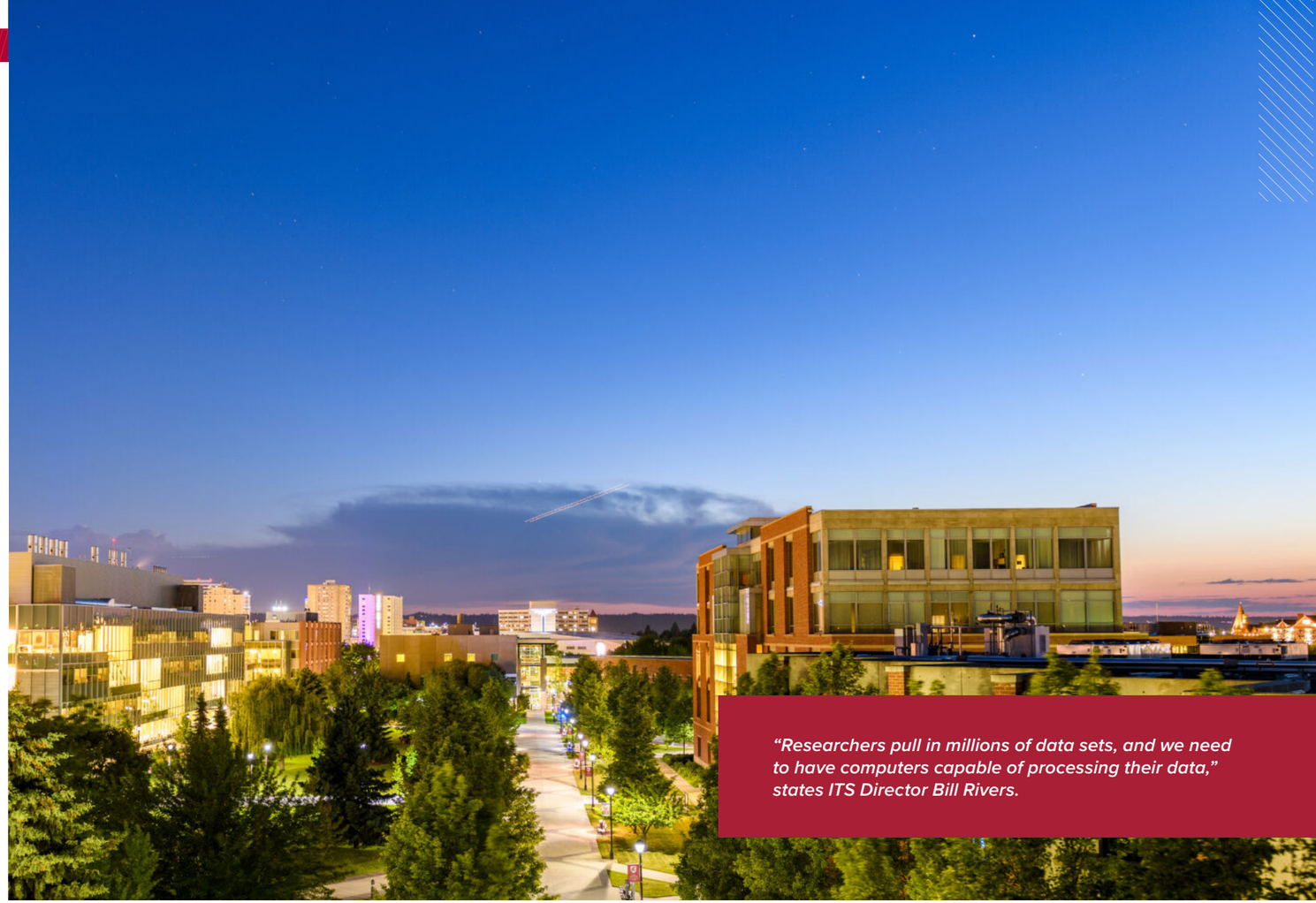
Telecommunications Roadmap

Goals:
- Maintain Pullman & Everett Telecom services as required
- Offer centralized Phone services to other campuses as requested

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4
Cloud Voice over Internet Protocol (VoIP) Proof of Concept		Replace gateways/servers for Pullman VoIP/Analog Refurbishment Project	Upgrading VOIP to Version 14												

High-Performance Computing and Service Level Agreement Uninterruptible Power Supplies

Information Technology Services (ITS) plays a significant role in maintaining high-performance computing (HPC) for researchers to compress and analyze extensive data sets by providing uninterrupted power supplies, supporting backup power needs, purchasing equipment, and offering Kamiak hardware management. Recognizing an increasing demand for electrical loads, ITS expects to upgrade and modernize the system's infrastructure and electrical supply capabilities. ITS Director Bill Rivers states, "It is critical we align electrical power with any new equipment. In knowing the energy and heat our HPC supercomputers use, we need to make sure WSU systems dissipate power correctly to allow the service and its backup functions to operate without interruption." Redesigning the electrical capabilities and downtime in ITB will also enhance Kamiak's efficiency. "As Kamiak grows, we have to grow with it. Researchers pull in millions of data sets, and we need to have computers capable of processing their data. With improved Kamiak support, we'll see faster data analysis and handling of larger data sets which will contribute to heightened research capabilities," says Rivers.



"Researchers pull in millions of data sets, and we need to have computers capable of processing their data," states ITS Director Bill Rivers.

High Performance Computing/Service Level Agreement Uninterruptible Power Supply Roadmap

Goals

- Redesign and upgrade the electrical supply capabilities and replace aging infrastructure in Information Technology Building (ITB) 1010 as necessary
- Continue to support the backup power needs and expansion of High Performance Computing (HPC) and Service Level Agreement (SLA) customer's equipment
- Consolidate four Uninterruptible Power Supplies (UPS') down to two modular and more efficient UPS' and provide redundant power to all racks
- Replace old circuit breaker panels with modular Power Distribution Racks

FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4	FY 27 - 28	FY 29 - 30
Expect and provide support for yearly 5% growth of needed HPC resources																	
Design plan to replace oldest major UPS in ITB 1010			Replace oldest major UPS in ITB 1010 along with required Power Distribution Racks and Balance Electrical Workloads					Design ITB 1010 Renovation			Renovate ITB 1010 to become open use Data Center						

"We are constantly working to maintain the current needs of the university and make sure that we're available to upgrade aging equipment to avoid any failures and interruptions to students or staff," Jeremy Movius, ITS manager, notes.

Data Center Operations

Information Technology Services (ITS) is making more changes to improve infrastructure use and support, in addition to planned high-performance computing (HPC) work. ITS is adopting new server backup software that protects against ransomware by securing backups from deletion or alteration, ensuring data integrity. To better address the increasing demand for centralized, large-scale storage solutions from university departments, ITS is expanding service level agreement (SLA) file server capacities. ITS is also upgrading sensors and cameras in ITS' primary DataCenter and major communications facilities across campus to better monitor environmental conditions and offer improved security. Jeremy Movius, ITS manager, notes, "Our overall mission is to keep operations running as smoothly as possible. The work on this roadmap is being done to support all of the underlying infrastructure for ITS, but also our SLA customers or our partners on other campuses. We are constantly working to maintain the current needs of the university and make sure that we're available to upgrade aging equipment to avoid any failures and interruptions to students or staff."

Data Center Operations Roadmap

Goals

- High Performance Computing (HPC)/Service Level Agreement (SLA) Project
- Minor Capital Improvement (MCI)/Minor Capital Renewal (MCR) Work for 2024/2025 Biennium

FY 23 Q4	FY 24 Q1	FY 24 Q2	FY 24 Q3	FY 24 Q4	FY 25 Q1	FY 25 Q2	FY 25 Q3	FY 25 Q4	FY 26 Q1	FY 26 Q2	FY 26 Q3	FY 26 Q4	FY 27 - 28	FY 29 - 30
HPC/SLA Uninterruptible Power Supply (UPS) Project														
	MCI and MCR Work for 2024/2025 Biennium (Disaster Recover Backup and Everett Virtual Storage Area Network [vSAN] Host Replacement)								Data Center Upgrade ($1,500,000 required from FY26/27 MCR Funds)					
									New UPS for Information Technology Building (ITB) 1010 ($750,000 required from FY26/27 MCR Funds)					
									University File Server ($300,000 required from FY26/27 MCR Funds)					
									ITS Data Center and Major Communications Facilities (MCF) Monitoring ($60,000 required from FY26/27 MCR Funds)					
									Security and Network Operation Center (SNOC) Video Wall ($60,000 required from FY26/27 MCR Funds)					

Our Mission & Vision

Information Technology Services (ITS) is dedicated to providing innovative and reliable technology that supports the academic, research, and administrative needs of our diverse community.

Our mission is to empower faculty, staff, and students with accessible technology and systems, excellent customer support, and secure solutions which advance knowledge in a rapidly changing world.

Our vision is to be a leading IT organization within the land grant public university sector, known for our commitment to collaboration, excellence and innovation. We strive to create a culture of continuous improvement, seamlessly integrating technology into all aspects of campus life from teaching and learning to research and administration.

To achieve this vision, we will focus on the following areas:

- **Infrastructure and Security:** Ensure that our IT infrastructure is secure, reliable, and adaptive, supporting the ever-expanding needs of the community.
- **Data Management and Analytics:** Develop and implement data management and analytics solutions which enable informed decision-making, that supports student success.
- **User Experience:** Enhance the user experience by providing intuitive, responsive, accessible technology tools and resources for all members of our community.
- **Technology Integration:** Incorporate technology into all aspects of campus life, from teaching and learning to research and administration, to create a seamless, integrated technology ecosystem supporting collaboration and innovation.
- **Continuous Improvement:** Foster a culture of continuous improvement by regularly reviewing and updating our IT strategies and plans, and by seeking feedback and input from stakeholders across the university.

By dedicating our efforts to mastering these key areas, we ensure that ITS meets the evolving needs of our community and grows into a leading IT organization within the land grant public university sector.

Our Values

We prioritize transparency and partnership to enhance the educational and business experience. As part of our commitment, we live out these values:

- **Respect:** consideration and acceptance of all differences and capabilities
- **Personal integrity:** behaviors and actions align with our personal values, principles, and ethics which are focused on transparency and accountability
- **Collaboration:** working together as equals across the system to facilitate excellence in all areas
- **Inclusiveness:** equitable access to opportunities and resources for all individuals, regardless of their background, identity, or circumstances
- **Responsiveness:** quick, reliable, positive action in support of customer needs
- **Empowerment:** equipping the community with technology tools and support to meet academic and business goals
- **Creativity:** exploring innovation through technologies and partnerships

WASHINGTON STATE UNIVERSITY

Information Technology Services