INFORMATION TECHNOLOGY SERVICES

STRATEGIC ROADMAPS

—

2023 - 2026

WASHINGTON STATE UNIVERSITY
Information Technology Services

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Advancing WSU's Technology Initiatives

Information Technology Services' (ITS) continuing technology and cybersecurity efforts easily align with the newly defined strategic pillars for years to come. Centered on student success, academic excellence, innovation, and more, WSU's updated strategic pillars serve as the foundation for our technology roadmaps.

Prioritizing Accessibility and Student Success
ITS is committed to an excellent student experience, as exemplified by two key projects:

- **Mobile Interface Upgrades:** A redesign of the mobile interface for the university's primary student information system, MyWSU, to provide a more accessible experience for essential resources.

- **Improved Evaluations:** Streamlining the course evaluation system to foster engagement and improve feedback opportunities for students and university leadership.

Embracing Innovation
ITS is modernizing technology infrastructure to improve scalability, standardization, and governance across various services, as detailed in the planned work:

- **Migrating to the Cloud:** Moving core services to cloud environments to redefine infrastructure and enable scalable, secure, and cost-effective technology solutions.

- **Identity Access Management:** Reimagining identity access administration, automating provisioning, and online user access for strengthened security.

Strengthening University Infrastructure Security
ITS prioritizes protecting institutional assets and reducing risk via multiple initiatives, including:

- **Legacy Service Updates:** Diminishing cybersecurity vulnerabilities due to dormant accounts and aging processes in our Microsoft 365 environment.

- **National Standards and Expertise:** Enhancing IT management, risk, and security policies and practices for the institution guided by industry-best standards.

Leveraging Data for Institutional Goals
By optimizing existing information structures, we are harnessing data to align teaching and learning resources with WSU's strategic expectations.

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

Course Evaluation

Information Technology Services (ITS) is working to transition the course evaluation system away from the multi-instrument implementation currently in use to a standardized and consolidated service. Future work aims to improve and standardize the course evaluation system through enhanced procedures and established policies. "Years and years ago, the course evaluation system was a homegrown, in-house hosted solution," states Gary Saunders, ITS director. "Our future work is what will take it from that to an enterprise level application, providing enterprise level data."
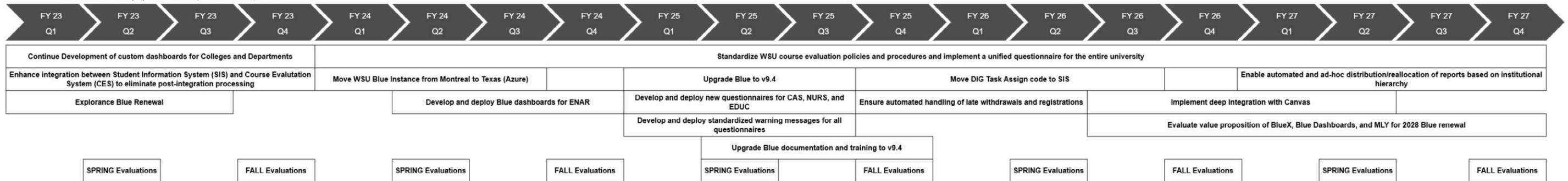
Introducing integrated dashboards and advanced AI tools will assist with analyzing qualitative feedback for complex, intricate response insights. Deeper integration with Canvas is also expected to improve response rates and foster a stronger feedback culture. "This work gets us a clean capability for students to give us their feedback, to talk to us about what is important to them, and for us to analyze and disseminate that feedback in a meaningful way. It also puts us on par with some of the best universities in the world," asserts Sam Carpenter, ITS manager.

"This work gets us a clean capability for students to give us their feedback [and] puts us on par with some of the best universities in the world," asserts Sam Carpenter, ITS manager.

Course Evaluation Roadmap

Goals
- Standardize WSU Course Evaluations
- Improve Response Rates
- Develop Quality Insights
- Evaluate the value proposition of BlueX, Blue Dashboard, and MLY

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	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4

- Continue Development of custom dashboards for Colleges and Departments
- Standardize WSU course evaluation policies and procedures and implement a unified questionnaire for the entire university
- Enhance integration between Student Information System (SIS) and Course Evaluation System (CES) to eliminate post-integration processing
- Move WSU Blue Instance from Montreal to Texas (Azure)
- Upgrade Blue to v9.4
- Move DIG Task Assign code to SIS
- Enable automated and ad-hoc distribution/reallocation of reports based on institutional hierarchy
- Explorance Blue Renewal
- Develop and deploy Blue dashboards for ENAR
- Develop and deploy new questionnaires for CAS, NURS, and EDUC
- Ensure automated handling of late withdrawals and registrations
- Implement deep integration with Canvas
- Develop and deploy standardized warning messages for all questionnaires
- Evaluate value proposition of BlueX, Blue Dashboards, and MLY for 2028 Blue renewal
- Upgrade Blue documentation and training to v9.4

SPRING Evaluations | FALL Evaluations | SPRING Evaluations | FALL Evaluations | SPRING Evaluations | FALL Evaluations | SPRING Evaluations | FALL Evaluations | SPRING Evaluations | FALL Evaluations

Student Information System

Information Technology Services (ITS) continues to prioritize improving the myWSU experience. "myWSU is central to nearly everything we do at WSU, and it plays a critical role in connecting students, faculty, and staff. Going forward over the next several years, our commitment to improving infrastructure for all ITS services includes strengthening myWSU's ability to support the entire WSU community across the university, college, and department levels," stresses Gary Saunders, ITS director.

Alongside enhancing existing features and introducing new tools tailored to stakeholder needs, ITS is consistently refreshing the myWSU mobile interface as vendor-driven updates become available. Frequent updates create a more accessible experience across a wide range of devices, ensuring myWSU supports academic excellence and administrative operations at all levels for all individuals.
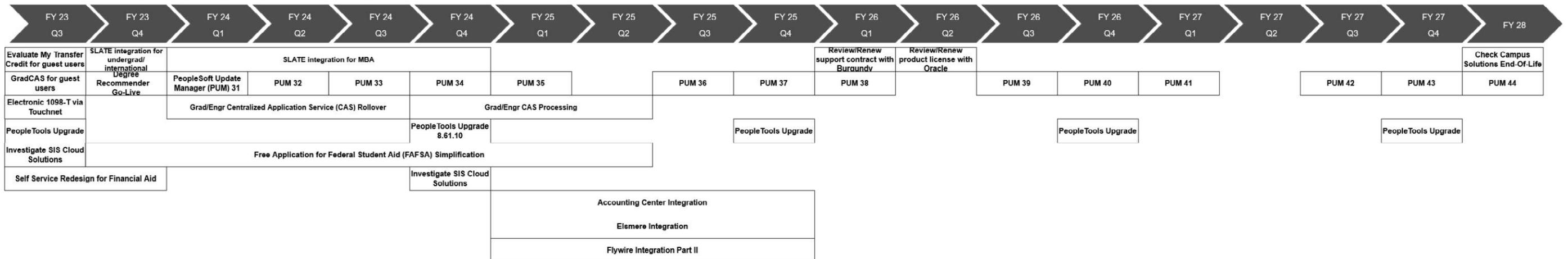
"myWSU is central to nearly everything we do at WSU, and it plays a critical role in connecting students, faculty, and staff," stresses Gary Saunders, ITS director.

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 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4	FY 28
Evaluate My Transfer Credit for guest users	SLATE integration for undergrad/international	SLATE integration for MBA								Review/Renew support contract with Burgundy	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	PUM 34	PUM 35		PUM 36	PUM 37	PUM 38		PUM 39	PUM 40	PUM 41		PUM 42	PUM 43	PUM 44
Electronic 1098-T via Touchnet		Grad/Engr Centralized Application Service (CAS) Rollover			Grad/Engr CAS Processing													
PeopleTools Upgrade				PeopleTools Upgrade 8.61.10					PeopleTools Upgrade				PeopleTools Upgrade				PeopleTools Upgrade	
Investigate SIS Cloud Solutions		Free Application for Federal Student Aid (FAFSA) Simplification																
Self Service Redesign for Financial Aid				Investigate SIS Cloud Solutions														
				Accounting Center Integration														
				Elsmere Integration														
				Flywire Integration Part II														

Learning Management System

Information Technology Services (ITS) is focusing on strategic improvements to WSU's Learning Management System (LMS). In the coming years, ITS will formalize access for non-WSU students enrolled in credit-bearing courses, streamline integration accessibility reviews, and implement a five-year archival policy for course content. These efforts aim to reduce manual workloads, improve compliance with university policies, and ensure continuous access to the learning and instructional tool.

ITS also plans to evaluate leading LMS platforms and emerging technologies. "WSU is strongly committed to providing the best for students and faculty, and is always looking out for any new,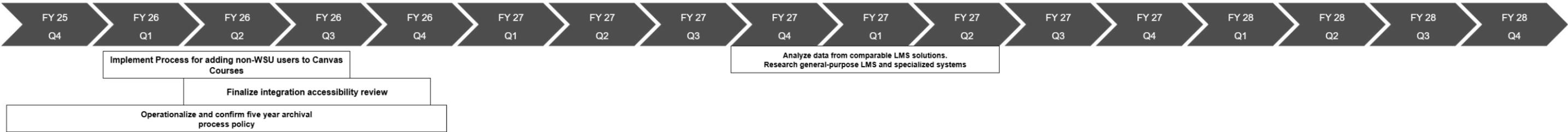 cutting-edge technology," affirms Anden Lewis, ITS manager. With a forward-looking approach, ITS is working closely with academic and administrative stakeholders to ensure that future changes properly address the needs of faculty and students.

"WSU is strongly committed to providing the best for students and faculty, and is always looking out for any new, cutting-edge technology," affirms Anden Lewis, ITS manager.

Learning Management System Roadmap

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

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 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4	FY 28 Q1	FY 28 Q2	FY 28 Q3	FY 28 Q4

Implement Process for adding non-WSU users to Canvas Courses

Finalize integration accessibility review

Operationalize and confirm five year archival process policy

Analyze data from comparable LMS solutions. Research general-purpose LMS and specialized systems

Mobile Application

Recognizing the growing reliance on mobile technology among students in higher education, Information Technology Services (ITS) remains focused on completing quarterly security patching for the Mobile WSU application.

Following a consistent process for improving the application's backend technology ensures ITS complies with evolving mobile standards and user expectations. "With students and applicants now relying on handheld devices as their primary means of engagement, our mobile app must serve as a dependable gateway to the academic experience. Our goal is to ensure it offers timely, reliable access to the information that supports their success," emphasizes Gary Saunders, ITS director. Mobile WSU application updates reflect ITS' ongoing commitment to maintaining systems that meet trusted standards for security, performance, and accessibility.

> *"Our mobile app must serve as a dependable gateway to the academic experience," emphasizes Gary Saunders, ITS director.*

Mobile Application Roadmap

Goals
- Develop governance structure and development pipeline to enable university departments to leverage the mobile application

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 28 Q1

Mobile Application Live	Quarterly Security Patching

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 clear need to simplify access management and data applications across the university. Through deeper integration with Okta, we can continue to create new processes that make transitions like onboarding and separation significantly more efficient and secure for supervisors and employees alike," reports Geoff Allen, ITS manager.
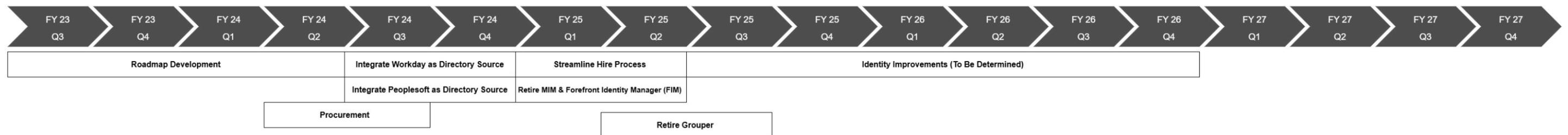
Automating procedures for adding or removing access will not only improve process reliability and ensure WSU data is accessed by appropriately authorized users, but it will also streamline identity and access management to facilitate prompt and secure resource access for new students and employees.

"Through deeper integration with Okta, we can continue to create new processes that make transitions significantly more efficient and secure," reports Geoff Allen, ITS manager.

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	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 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

The migration to Amazon Web Services (AWS) enables Information Technology Services (ITS) to redefine cloud service infrastructure and support at WSU. ITS is restructuring AWS organizations to follow a standardized model that automatically configures permissions and resource allocations based on predetermined standards. Required for high-level research contracts and funding eligibility, ITS is also prioritizing compliance with the federal Cybersecurity Maturity Model Certification (CMMC). Geoff Allen, ITS manager, highlights, "AWS provides an industry-leading infrastructure and security foundation that enables WSU to scale and meet complex requirements that are critical for supporting operations across countless business and technical areas of the university."
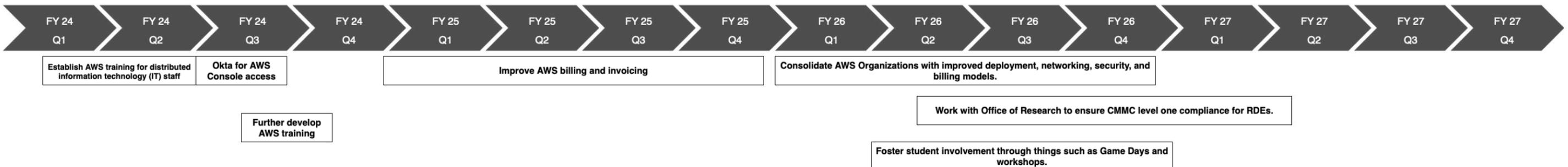
Beyond infrastructure, ITS is serving as a liaison between AWS and the campus community, facilitating support for student-led initiatives that emphasize hands-on experience with cloud technologies. Standardizing AWS, supporting federal compliance, and connecting students with real-world experience ensures WSU cloud infrastructure continues to evolve with institutional priorities.

Geoff Allen, ITS manager, highlights, "AWS provides an industry-leading infrastructure and security foundation that enables WSU to scale and meet complex requirements."

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	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4

Establish AWS training for distributed information technology (IT) staff

Okta for AWS Console access

Improve AWS billing and invoicing

Consolidate AWS Organizations with improved deployment, networking, security, and billing models.

Further develop AWS training

Work with Office of Research to ensure CMMC level one compliance for RDEs.

Foster student involvement through things such as Game Days and workshops.

"*By adopting alternative cloud solutions, WSU can both save costs and strengthen the university's security posture,*" states ITS Director Bill Rivers.
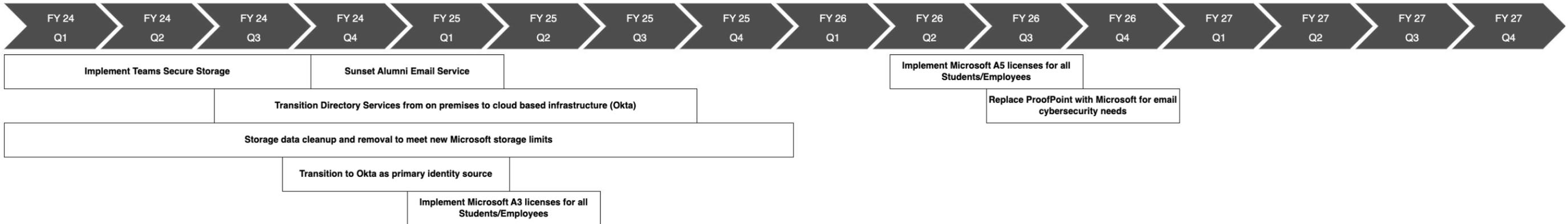
Office 365 and Active Directory

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. "Balancing stakeholder needs with security considerations is critical as we move forward with retiring legacy services. By adopting alternative cloud solutions, WSU can both save costs and strengthen the university's security posture, safeguarding our systems against vulnerabilities and ensuring their integrity," states 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

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

- Implement Teams Secure Storage
- Sunset Alumni Email Service
- Implement Microsoft A5 licenses for all Students/Employees
- Transition Directory Services from on premises to cloud based infrastructure (Okta)
- Replace ProofPoint with Microsoft for email cybersecurity needs
- Storage data cleanup and removal to meet new Microsoft storage limits
- Transition to Okta as primary identity source
- Implement Microsoft A3 licenses for all Students/Employees
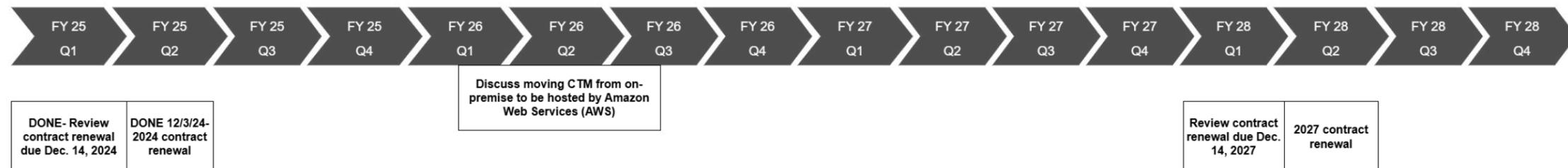
Control-M, A BMC Solution

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 clarifies, "Transitioning batch job dependencies to an automated support server in the cloud will reduce system downtime, lessen manual monitoring requirements, and improve our team's efficiency. Moving to the cloud will ultimately introduce smoother operations to minimize impact on the WSU community." "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.

ITS Associate Director Jen Steffan clarifies, "Moving [batch job dependencies] to the cloud will ultimately introduce smoother operations to minimize impact on the WSU community."

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 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 28 Q1	FY 28 Q2	FY 28 Q3	FY 28 Q4

DONE- Review contract renewal due Dec. 14, 2024 — **DONE 12/3/24- 2024 contract renewal**

Discuss moving CTM from on-premise to be hosted by Amazon Web Services (AWS)

Review contract renewal due Dec. 14, 2027 — **2027 contract renewal**

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 aim to optimize the durability, availa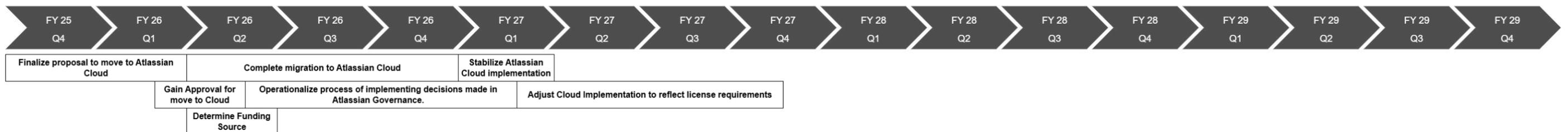bility, and serviceability of ITS systems while carefully balancing cost, time, and resources. By identifying how best to support the Data Center so that it can be as available and functional as possible for everyone who needs it, we can provide reliable systems that effectively serve the diverse needs of WSU Atlassian users," states ITS Director Justin Hughes.

"We aim to optimize the durability, availability, and serviceability of ITS systems while carefully balancing cost, time, and resources," states ITS Director Justin Hughes.

Atlassian Data Center/Cloud Roadmap

Goals :
- Upgrade Jira/Confluence to Atlassian Cloud for a more cost effective implementation
- Strengthen our overall Atlassian support model through professional training and certification

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 28 Q1	FY 28 Q2	FY 28 Q3	FY 28 Q4	FY 29 Q1	FY 29 Q2	FY 29 Q3	FY 29 Q4

Finalize proposal to move to Atlassian Cloud

Complete migration to Atlassian Cloud

Stabilize Atlassian Cloud implementation

Gain Approval for move to Cloud

Operationalize process of implementing decisions made in Atlassian Governance.

Adjust Cloud Implementation to reflect license requirements

Determine Funding Source

Information Security Program Policies and Compliance Program Development

Information Technology Services (ITS) is proactively improving the university's information security program through extensive review, development, and implementation 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 refine governance and better address potential security risks. "It is our intent to create a mechanism that gives researchers, technical users, and business units clear guidance on security policies and compliance actions. With clear steps on how to comply with policy, ITS can help university members understand their current security maturity and identify opportunities to improve future initiatives," states Chief Information Security Officer (CISO) Michael Walters. This approach promotes transparency and emphasizes the importance of risk assessment and collaboration to enhance security measures at WSU.

"With clear steps on how to comply with policy, ITS can help university members understand their current security maturity," states 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	FY 26 Q3	FY 26 Q4	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4

Executive Policy (EP)/Business Policies and Procedures Manual (BPPM) Gap Analysis	Revisions and New Policy	Stakeholder Review & Procedure, Records and Forms Development	Stakeholder Review & Publish and Implement	Functional Area Risk Assessment - Continuous
	System Control Standards Development			Publish and Implement

System Information Technology Vulnerability Management Program Development

Information Technology Services (ITS) is implementing an automated enterprise vulnerability management program to improve WSU's current information technology vulnerability practices. ITS is refining response strategies to identify vulnerabilities, treatment plans for critical vulnerabilities, and timelines for remediating vulnerabilities to enhance WSU's security posture. "With ITS serving as the principal model for a true automated vulnerability program, it is our goal to deploy an enterprise vulnerability management program that ensures risk is mitigated to the fullest extent," emphasizes Chief Information Security Officer (CISO) Michael Walters.

"It is our goal to deploy an enterprise vulnerability management program that ensures risk is mitigated to the fullest extent," emphasizes Chief Information Security Officer (CISO) Michael Walters.
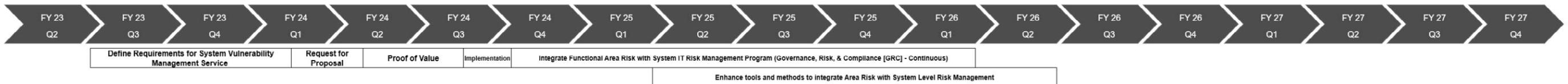
ITS is also expanding its program focus to include the capture, measurement, and reporting of functional security metrics for vulnerability management and extended security intelligence and monitoring. By aligning these efforts with the top risks facing higher education, WSU is better equipped to evaluate whether its security tools, investments, and methods are individually and cohesively effective.

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.
- Integrate Functional Area Risk with IT Risk Management, focusing on collaboration across TVM, XSIAM, SOC, and GRC to capture and report security metrics, ensuring alignment with top higher ed risks.
- Integrate Quantitative Methods (FAIR) to identify and manage WSU's Top Level IT Risks.

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	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4

- 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)
- Enhance tools and methods to integrate Area Risk with System Level Risk Management

System Information Technology Risk Management

Information Technology Services (ITS) is advancing how information technology risk is identified, evaluated, and managed at WSU. Ensuring the integrity and confidentiality of WSU systems and data, ITS is adopting a new quantifiable risk framework for a transparent and defensible approach to cyber risk management. "The FAIR [Factor Analysis of Information Risk] cyber risk quantification framework allows ITS and WSU to respond more effectively to evolving regulatory pressures, complex threat landscapes, and leadership demand for risk-based decision-making," explains Steven Conover, ITS team member.

ITS is creating a mechanism for business decision-makers, executives, signature authorities, and those involved in institutional strategy "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 is becoming clearer," says Chief Information Security Officer (CISO) Michael Walters. As leadership, leadership collaboratives, and data owners across the system receive risk information, WSU can apply improved risk management principles to decisions by evaluating the potential impact on systems, services, colleges, or the university.

"The flow of information about data, where data is, and who is ultimately responsible for making decisions with respect to data is becoming clearer," 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.
- Transition from a traditional compliance-first model to a quantifiable, transparent, and defensible approach to cyber risk management.

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	FY 27 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4

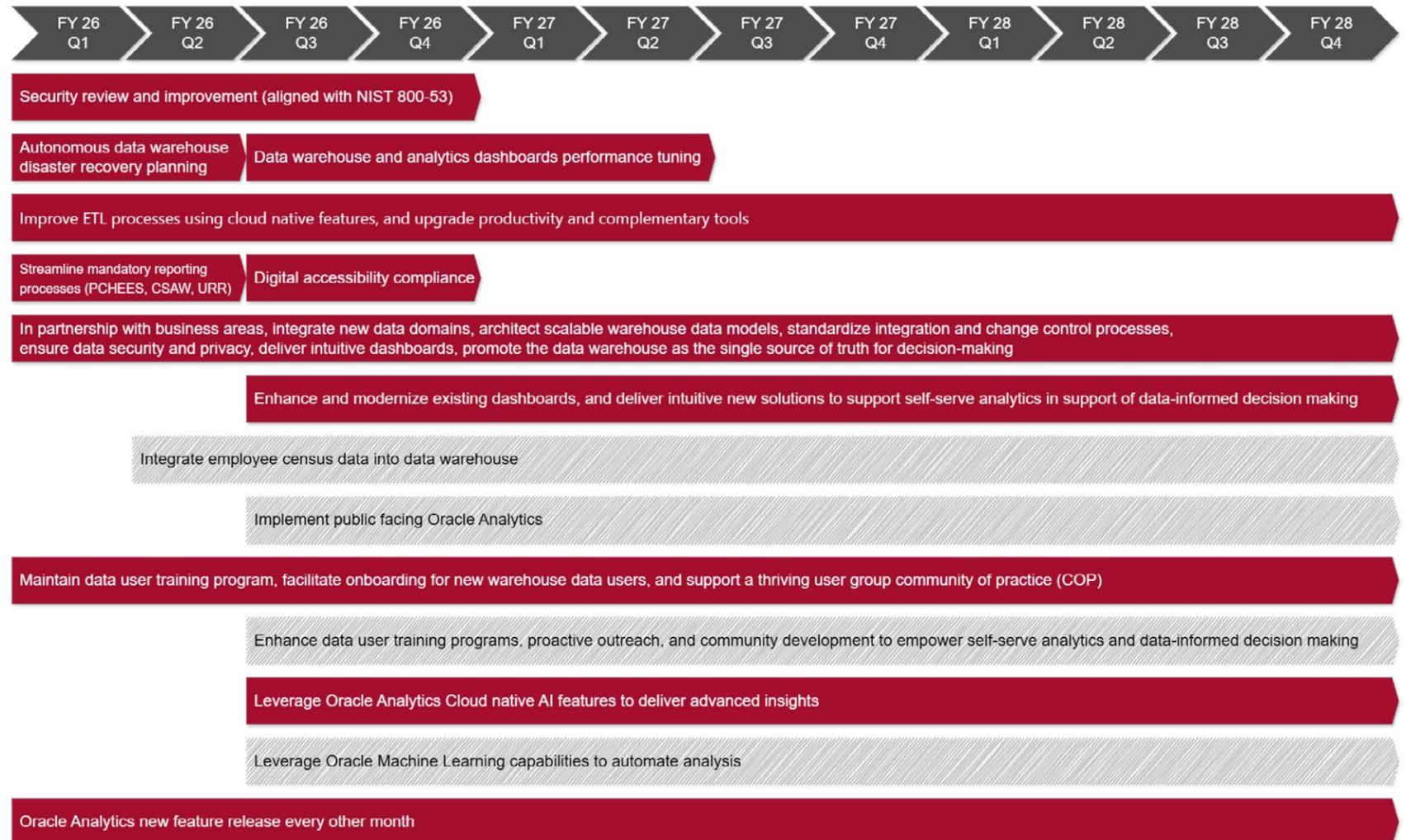| Identify Top Level IT Risks	Define Requirements for System Governance, Risk, & Compliance (GRC) Service	Migrate to Quantitative Model	FAIR Proof of Value	Implementation	Integrate Functional Area Risk with System IT Risk Management Program (GRC - Continuous)

Reporting and Analytics

Information Technology Services (ITS) is improving data management and analytics services at WSU to meet a growing demand for secure, accessible, and actionable data. To protect institutional data, ITS is continuing disaster recovery planning and implementing a comprehensive security review aligned with federal standards. ITS is also optimizing workflows for improved reliability and streamlining processes to ensure consistency and trust in university data.

Central to this work is a commitment to position the data warehouse and analytics services as the university's trusted source of truth. "Our goal is to provide a secure, reliable platform that empowers the WSU community to access trusted data and perform meaningful analysis in a self-service way," asserts Corinna Lo, ITS manager. By enhancing dashboard usability, expanding training resources, and advancing analytics tools, ITS ensures the community can use accurate data with confidence to support projects, research, and strategic initiatives across WSU.

"Our goal is to provide a secure, reliable platform that empowers the WSU community to access trusted data," asserts Corinna Lo, ITS manager.

Analytics Roadmap

| 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 28 Q1 | FY 28 Q2 | FY 28 Q3 | FY 28 Q4 |

Security review and improvement (aligned with NIST 800-53)

Autonomous data warehouse disaster recovery planning

Data warehouse and analytics dashboards performance tuning

Improve ETL processes using cloud native features, and upgrade productivity and complementary tools

Streamline mandatory reporting processes (PCHEES, CSAW, URR)

Digital accessibility compliance

In partnership with business areas, integrate new data domains, architect scalable warehouse data models, standardize integration and change control processes, ensure data security and privacy, deliver intuitive dashboards, promote the data warehouse as the single source of truth for decision-making

Enhance and modernize existing dashboards, and deliver intuitive new solutions to support self-serve analytics in support of data-informed decision making

Integrate employee census data into data warehouse

Implement public facing Oracle Analytics

Maintain data user training program, facilitate onboarding for new warehouse data users, and support a thriving user group community of practice (COP)

Enhance data user training programs, proactive outreach, and community development to empower self-serve analytics and data-informed decision making

Leverage Oracle Analytics Cloud native AI features to deliver advanced insights

Leverage Oracle Machine Learning capabilities to automate analysis

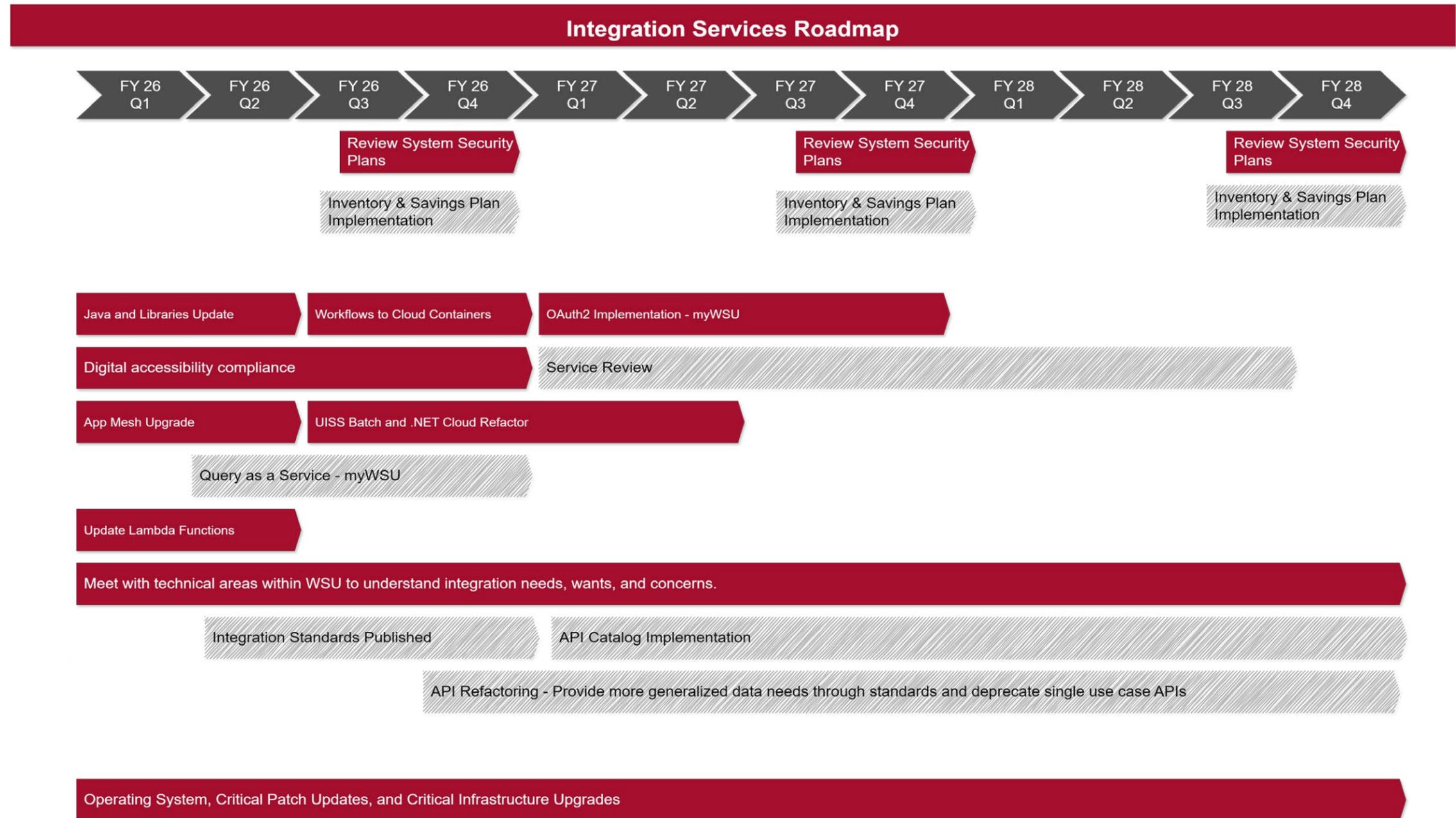Oracle Analytics new feature release every other month

Integration Services

With a listening-first approach, Information Technology Services (ITS) is refining integration services at WSU through active engagement with colleges and departments to better identify needed services and opportunities for improvement. Justin Hughes, ITS director, underscores, "Our biggest objective is to align and deliver integration services based on what users really need. Focusing on solutions that matter most to our stakeholders instead of relying on what we assume is necessary is our priority."

Recent infrastructure improvements have also created new opportunities to modernize and optimize integration architecture. To support scalable, efficient, and secure integrations, ITS is reviewing security and savings plans, exploring new technologies, and expanding operational tooling. With nearly every university system relying on timely data exchange, integrations are critical for ensuring WSU services remain connected, resilient, and capable of supporting institutional initiatives.

Justin Hughes, ITS director, underscores, "Focusing on solutions that matter most to our stakeholders instead of relying on what we assume is necessary is our priority."

Integration Services Roadmap

| 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 28 Q1 | FY 28 Q2 | FY 28 Q3 | FY 28 Q4 |

Review System Security Plans

Inventory & Savings Plan Implementation

Review System Security Plans

Inventory & Savings Plan Implementation

Review System Security Plans

Inventory & Savings Plan Implementation

Java and Libraries Update

Workflows to Cloud Containers

OAuth2 Implementation - myWSU

Digital accessibility compliance

Service Review

App Mesh Upgrade

UISS Batch and .NET Cloud Refactor

Query as a Service - myWSU

Update Lambda Functions

Meet with technical areas within WSU to understand integration needs, wants, and concerns.

Integration Standards Published

API Catalog Implementation

API Refactoring - Provide more generalized data needs through standards and deprecate single use case APIs

Operating System, Critical Patch Updates, and Critical Infrastructure Upgrades

Network Engineering

Information Technology Services (ITS) continues to strengthen WSU's network infrastructure through a series of strategic upgrades and systemwide improvements. Ongoing efforts include the housing network refresh, which supports student connectivity and is coordinated in partnership with Student Affairs, along with planning for a distribution infrastructure refresh at WSU Pullman. ITS Manager Steve Rathbun asserts, "The purpose of completing infrastructure refreshes is to proactively anticipate and prevent system failures. All equipment has a lifespan, and we must get ahead of that to ensure our campus systems remain resilient and reliable."

Firewall replacements at WSU Pullman, Spokane, Vancouver, Everett, Tri-Cities, and the Seattle TierPoint site, along with the replacement of Splunk infrastructure with the Palo Alto XSIAM platform, are projected to save the university $2.5 million over the next five years while improving risk assessment and protecting confidential data. Additional efforts include out-of-band network upgrades, which enable remote access to critical systems during outages, and wireless infrastructure improvements. Together, these initiatives establish a secure, high-performing network environment across the WSU system.
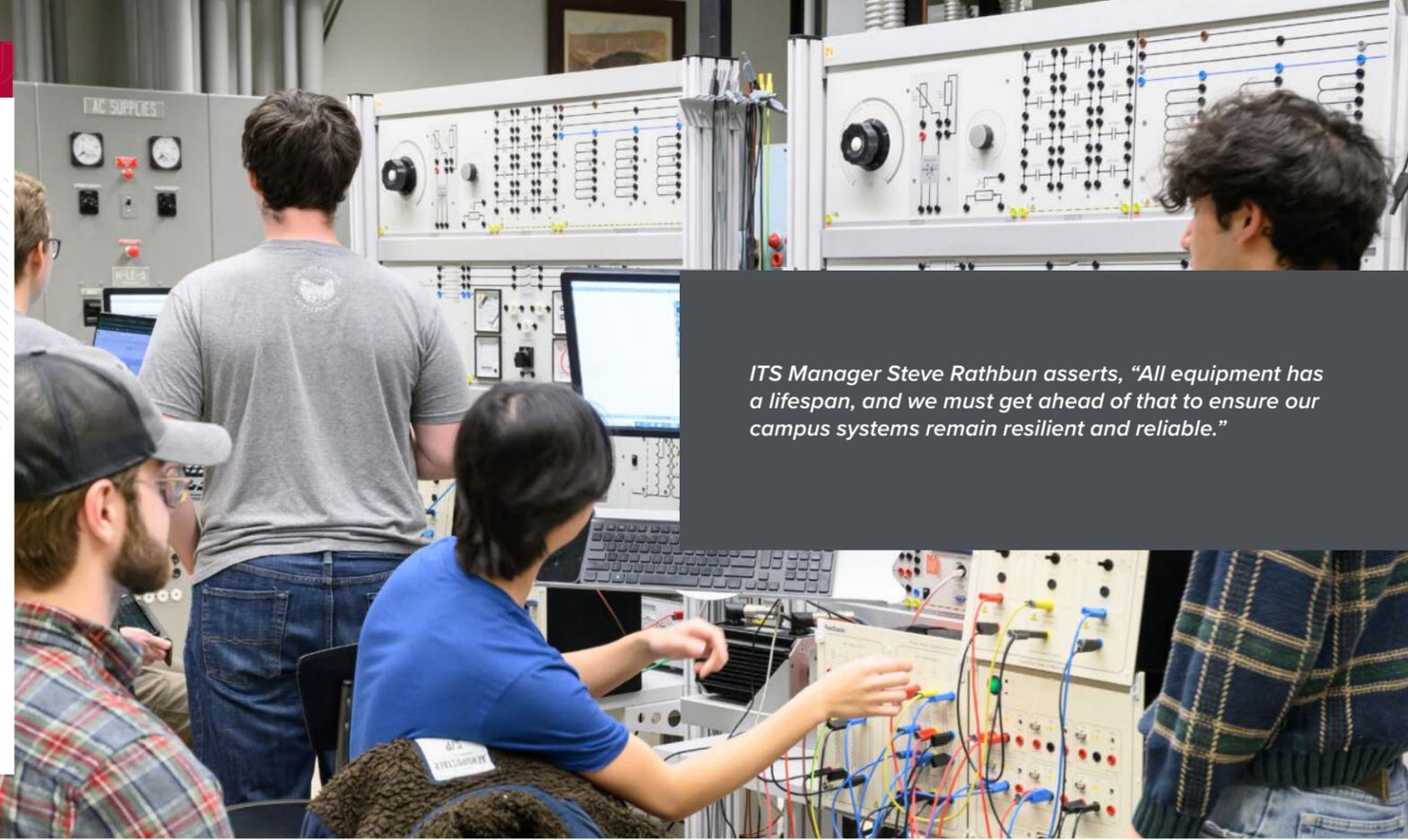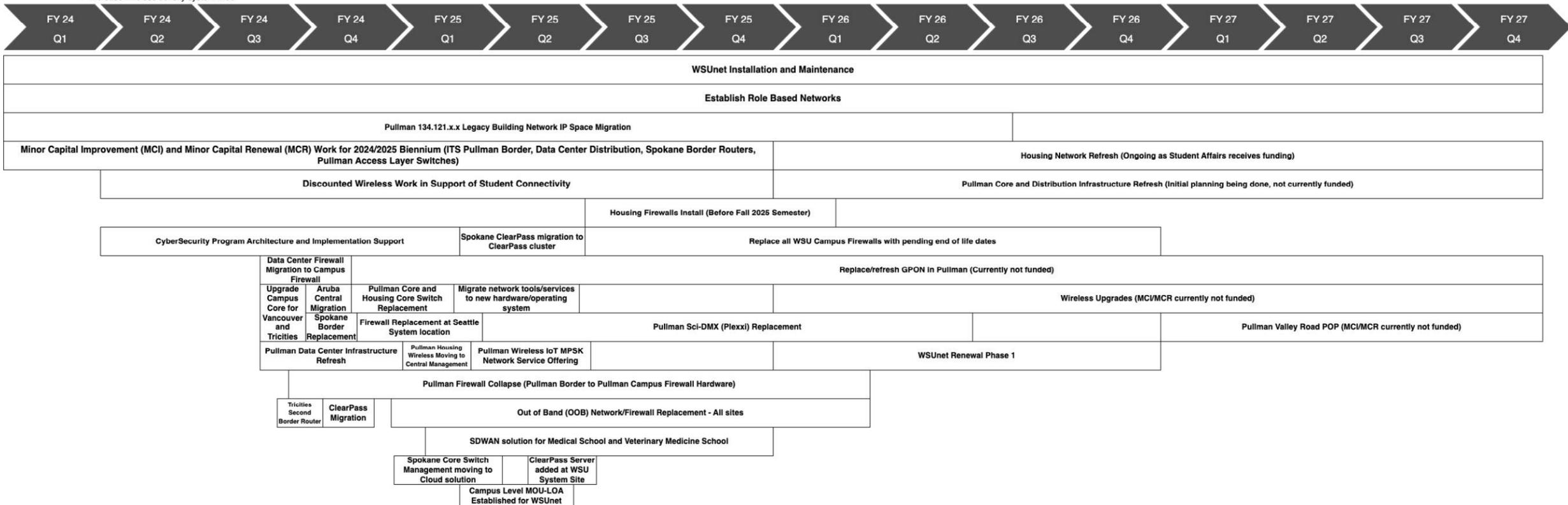
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Network Engineering Roadmap

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

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

WSUnet Installation and Maintenance

Establish Role Based Networks

Pullman 134.121.x.x Legacy Building Network IP Space Migration

Minor Capital Improvement (MCI) and Minor Capital Renewal (MCR) Work for 2024/2025 Biennium (ITS Pullman Border, Data Center Distribution, Spokane Border Routers, Pullman Access Layer Switches) — Housing Network Refresh (Ongoing as Student Affairs receives funding)

Discounted Wireless Work in Support of Student Connectivity — Pullman Core and Distribution Infrastructure Refresh (Initial planning being done, not currently funded)

Housing Firewalls Install (Before Fall 2025 Semester)

CyberSecurity Program Architecture and Implementation Support — Spokane ClearPass migration to ClearPass cluster — Replace all WSU Campus Firewalls with pending end of life dates

Data Center Firewall Migration to Campus Firewall — Replace/refresh GPON in Pullman (Currently not funded)

Upgrade Campus Core for Vancouver and Tricities — Aruba Central Migration — Pullman Core and Housing Core Switch Replacement — Migrate network tools/services to new hardware/operating system — Wireless Upgrades (MCI/MCR currently not funded)

Spokane Border Replacement — Firewall Replacement at Seattle System location — Pullman Sci-DMX (Plexxi) Replacement — Pullman Valley Road POP (MCI/MCR currently not funded)

Pullman Data Center Infrastructure Refresh — Pullman Housing Wireless Moving to Central Management — Pullman Wireless IoT MPSK Network Service Offering — WSUnet Renewal Phase 1

Pullman Firewall Collapse (Pullman Border to Pullman Campus Firewall Hardware)

Tricities Second Border Router — ClearPass Migration — Out of Band (OOB) Network/Firewall Replacement - All sites

SDWAN solution for Medical School and Veterinary Medicine School

Spokane Core Switch Management moving to Cloud solution — ClearPass Server added at WSU System Site

Campus Level MOU-LOA Established for WSUnet
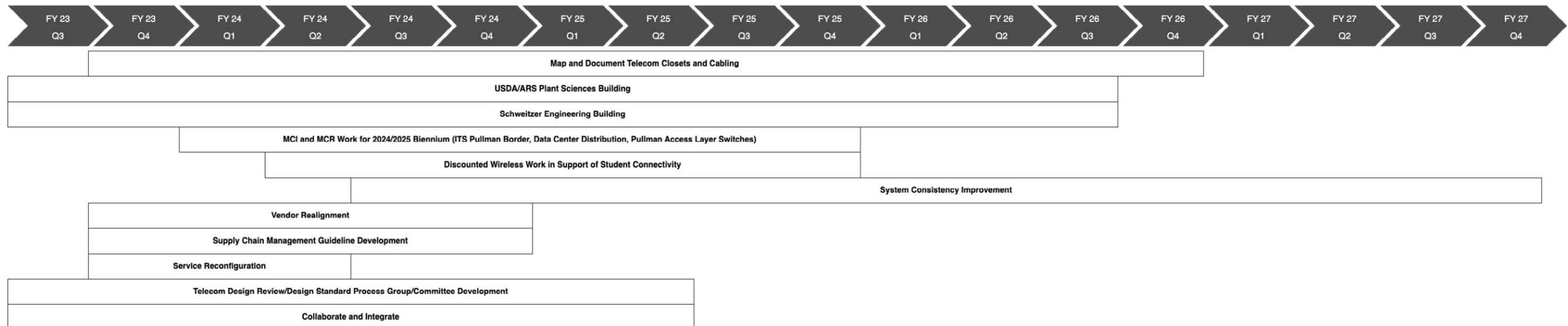
Designers and Technicians

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.

"Even as a large campus, we are continuously working to refresh and maintain our network infrastructure. It's a constant cycle of maintenance and enhancement, all aimed at giving our students access to the resources they need—improved performance, wireless coverage, and connectivity that supports their academic growth and success," points out Kevin Ring, ITS manager.

"We are continuously working to refresh and maintain our network infrastructure [to give] our students access to the resources they need," points out 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
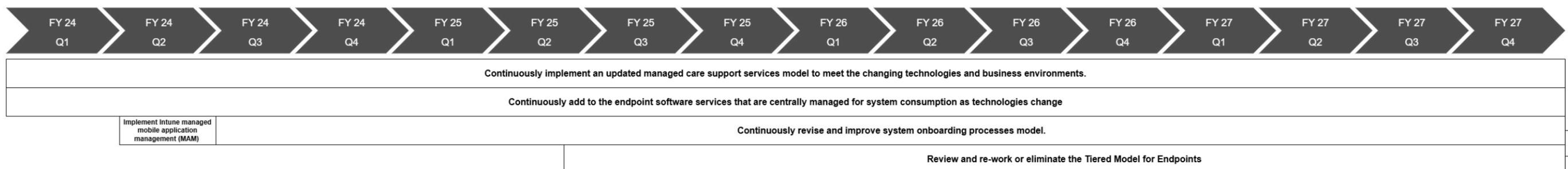- Minor Capital Improvement (MCI)/Minor Capital Renewal (MCR) Work

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 Q1 | FY 27 Q2 | FY 27 Q3 | FY 27 Q4

Map and Document Telecom Closets and Cabling

USDA/ARS Plant Sciences Building

Schweitzer Engineering Building

MCI and MCR Work for 2024/2025 Biennium (ITS Pullman Border, Data Center Distribution, Pullman Access Layer Switches)

Discounted Wireless Work in Support of Student Connectivity

System Consistency Improvement

Vendor Realignment

Supply Chain Management Guideline Development

Service Reconfiguration

Telecom Design Review/Design Standard Process Group/Committee Development

Collaborate and Integrate

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 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 of university-owned systems across campuses will allow us to better understand where WSU data resides, who has access to it, and what users can do with it. Advanced system management enables us to focus on reducing risk to university data and preventing the accidental exposure of sensitive information," explains Bill Rivers, ITS director.

"Advanced system management enables us to focus on reducing risk to university data and preventing the accidental exposure of sensitive information," explains 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)

Continuously revise and improve system onboarding processes model.

Review and re-work or eliminate the Tiered Model for Endpoints
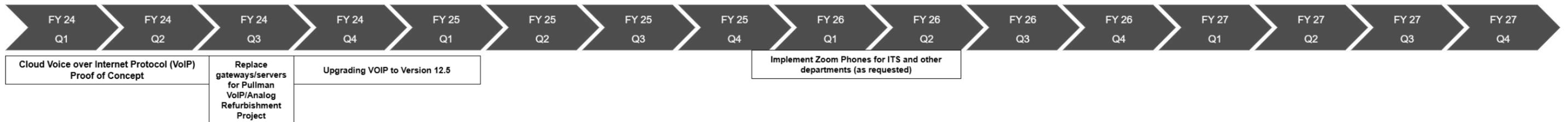
Telecommunications

Information Technology Services (ITS) is upgrading WSU phone systems to better support the hundreds of thousands of calls the campuses receive. Upgraded phone systems 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," underscores 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," underscores 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 12.5

Implement Zoom Phones for ITS and other departments (as requested)

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 explains, "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 must grow with it. Researchers are working with millions of data sets, and it is critical for WSU to have computers capable of processing that scale of information. With improved Kamiak support, we will enable faster data analysis and the handling of larger data sets, directly heightening our research capabilities," adds Rivers.
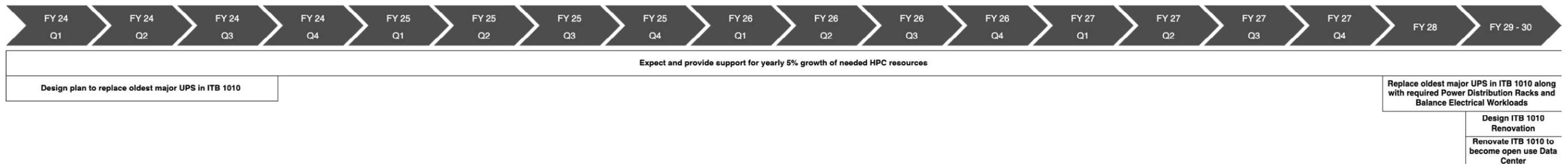
"With improved Kamiak support, we will enable faster data analysis and the handling of larger data sets, directly heightening our research capabilities," says ITS Director Bill Rivers.

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 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

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, asserts, "Our mission is to keep operations running as smoothly as possible and to ensure our work supports all of the core infrastructure for ITS, our SLA customers, and our partners across other campuses. We are constantly working to maintain the current needs of the university while proactively upgrading aging equipment to prevent failures and avoid service interruptions for students and staff."

Jeremy Movius, ITS manager, asserts, "We are constantly working to maintain the current needs of the university while proactively upgrading aging equipment to prevent failures."

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 Q1	FY 27 Q2	FY 27 Q3	FY 27 Q4	FY 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 FY28/29 MCR Funds)

New UPS for Information Technology Building (ITB) 1010 ($750,000 required from FY28/29 MCR Funds)

University File Server ($300,000 required from FY28/29 MCR Funds)

ITS Data Center and Major Communications Facilities (MCF) Monitoring ($60,000 required from FY28/29 MCR Funds)

Security and Network Operation Center (SNOC) Video Wall ($60,000 required from FY28/29 MCR Funds)
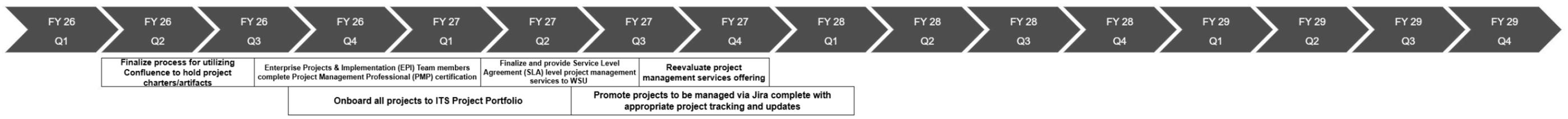
Project Management Services

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, affirms, "We are committed to supporting the successful implementation of projects and initiatives to deliver a better application and system experience for the entire 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, affirms, "We are committed to supporting the successful implementation of projects and initiatives to deliver a better application and system experience."

Project Management Services Roadmap

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

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 28 Q1	FY 28 Q2	FY 28 Q3	FY 28 Q4	FY 29 Q1	FY 29 Q2	FY 29 Q3	FY 29 Q4

- Finalize process for utilizing Confluence to hold project charters/artifacts
- 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
- Onboard all projects to ITS Project Portfolio
- Promote projects to be managed via Jira complete with appropriate project tracking and updates

Our Mission & Vision

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

Dedicated to providing innovative and reliable technology that supports the academic, research, and administrative needs of our university community.

WASHINGTON STATE UNIVERSITY
Information Technology Services