

Executive Summary: Technology Refresh Plan

Texas Southern University's Technology Refresh Plan presents a strategic roadmap to modernize the organization's computing environment, ensuring it can meet current operational demands while positioning for future growth in an increasingly AI-driven landscape. Reliable, high-performing devices are now foundational to productivity, cybersecurity, and the effective adoption of advanced digital tools.

A review of the current device inventory indicates a growing percentage of systems operating beyond their recommended lifecycle. These aging computers contribute to reduced system performance, increased downtime, and higher support costs. Users on older devices experience slower boot times, application lag, collaboration issues, and limited ability to effectively run modern cloud-based and AI-enabled applications—directly impacting efficiency and user satisfaction.

Impact in the AI Era

The shift toward AI-enabled tools introduces new hardware expectations. Older computers:

- Struggle with AI-enhanced applications (e.g., copilots, real-time analytics, automation tools)
- Lack sufficient RAM, CPU cores, and high-speed storage
- Cannot support emerging on-device AI capabilities (e.g., NPUs/GPUs)
- Experience latency when relying on cloud-based AI services

This results in inconsistent user experiences and limits the organization's ability to fully leverage AI investments.

Technical Risks of Aging Devices

- **Security Exposure:** Increased vulnerability due to unsupported systems and patching gaps
 - **Hardware Degradation:** Higher failure rates beyond 4–5 years
 - **Software Incompatibility:** Limited ability to support modern applications and security tools
 - **Operational Burden:** Increased help desk demand and reactive maintenance
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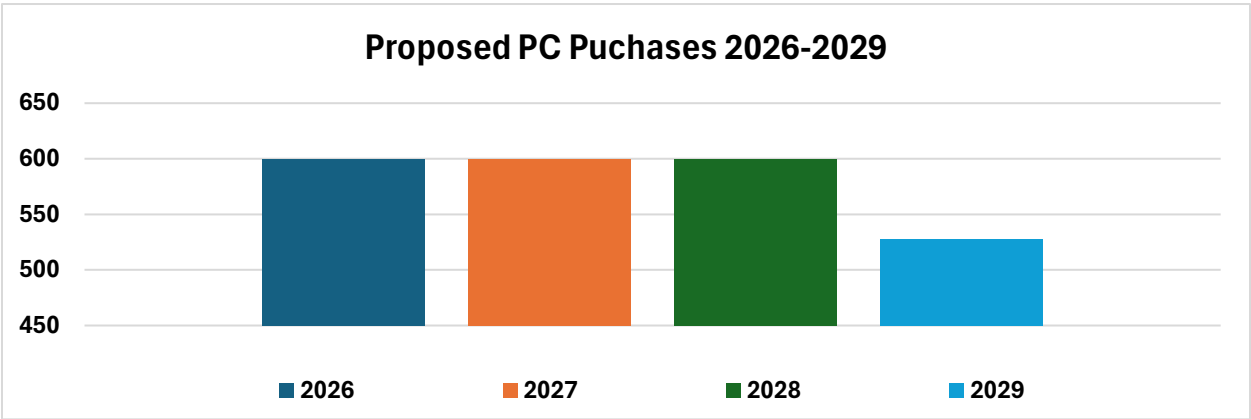
Device Age Distribution

Based on the current inventory completed for the state audit the recent purchase history is as follows:

Purchase Year	Number of Devices	Age (Years)	Risk Level	Notes
2026	50	0	Low	New / Current Standard
2025	449	1	Low	Fully Supported
2024	679	2	Low	Optimal Performance
2023	50	3	Moderate	Monitor Performance
2022	1150	4	Moderate	Plan Refresh



OIT suggests an effort to more evenly distribute the refresh cycles so they are more similar year-over-year providing clearer financial planning and expenditure:



Budgetary Commitments and Funding Strategy

Sustaining a modern, secure, and AI-ready computing environment requires consistent and predictable financial investment. Rather than relying on sporadic, large-scale capital infusions, the organization has adopted a lifecycle-based budgeting model that aligns annual funding with our defined device replacement cycle. This approach enables the

institution to smooth expenditures over time, reduce the risk of widespread device obsolescence, and ensure that technology capabilities evolve in step with organizational needs.

Failure to adequately fund a refresh strategy results in compounding technical debt, where aging devices degrade performance, increase support costs, and introduce security vulnerabilities. In the context of AI adoption, underinvestment in endpoint technology creates a structural barrier to innovation—preventing users from effectively leveraging modern tools and limiting the return on broader digital investments. By contrast, a well-planned funding model—supported by accurate asset data from systems like ServiceNow Hardware Asset Management—allows leadership to forecast replacement needs, align procurement with budget cycles, and make informed decisions based on total cost of ownership.

Establishing a dedicated, recurring refresh budget ensures that technology remains an enabler rather than a constraint, supporting productivity, security, and long-term institutional competitiveness.

IT Asset Management Considerations

A successful technology refresh strategy depends on strong asset lifecycle management. Leveraging ServiceNow Hardware Asset Management enables the organization to transition from reactive replacement to a proactive, data-driven model. Our recent investment in this tool will allow us better control of our IT assets and visibility of our environment.

Key capabilities include:

- **Comprehensive Asset Visibility**
Maintain a centralized system of record for all hardware assets, including purchase date, warranty status, configuration, location, and assigned user. This ensures accurate lifecycle tracking and supports audit readiness.
- **Lifecycle and Refresh Planning**
Automate lifecycle tracking with defined refresh thresholds (e.g., 4–5 years), enabling IT to forecast replacement needs, align budgeting cycles, and avoid large-scale, unplanned capital expenditures.
- **Procurement and Inventory Integration**
Integrate procurement workflows to ensure all new devices are properly tagged, recorded, and deployed with standardized configurations. This reduces asset loss and improves inventory accuracy.

- **Contract and Warranty Management**
Track vendor warranties and support agreements to minimize repair costs and inform decisions on repair vs. replacement.
 - **Risk and Compliance Monitoring**
Identify aging or non-compliant devices (e.g., unsupported OS, missing patches) and prioritize them for remediation or replacement, strengthening the organization's security posture.
 - **Automation and Workflow Efficiency**
Streamline device onboarding, reassignment, and retirement through automated workflows, reducing manual effort and improving consistency across IT operations.
 - **Financial Management and Total Cost of Ownership (TCO)**
Provide visibility into the full lifecycle cost of devices—including acquisition, support, and disposal—supporting more informed investment decisions.
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Strategic Recommendation

Implement a **lifecycle-driven refresh model** supported by asset management tooling:

- Enforce a **4–5 year standard refresh cycle**
 - Prioritize replacement of high-risk (5+ year) and moderate (4 year) aged devices
 - Establish **AI-ready hardware standards** (modern CPU, 16GB+ RAM, SSD, optional GPU/NPU)
 - Utilize asset data from ServiceNow to drive **forecasting, budgeting, and compliance**
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Conclusion

Modernizing the computing environment is a critical investment in productivity, security, and innovation. By combining a structured refresh strategy with robust asset management capabilities through ServiceNow, the organization can reduce risk, optimize spending, and ensure it is fully equipped to support AI-driven and digitally enabled operations well into the future.