



FSU Technical Architecture Principles Draft

Technical architecture consists of the selections, arrangements, interactions, and interdependencies of the communication networks, hardware, and software used by the University. The principles below are intended to promote analysis and informed decision making, particularly during periods of change such as the adoption and replacement of technology, so the results of principled efforts provide the greatest value to the University and its mission. These principles, and resulting best practices, guidelines, and standards, should apply equally across all areas in order to meet University goals through the effective use of technology.

Technical architecture solutions should be . . .

Principle: Standards Based

Statement: Florida State University embraces industry and community standards in developing and managing technical architecture. Open standards, architectures, and systems are preferred over closed, proprietary models.

Rationale: Using a standards-driven approach to technical architecture reduces excessive complexity and resource use. Standards allow the organization to better control technological diversity in order to minimize the cost of maintaining expertise in and connectivity between multiple processing environments. The University is able to more efficiently meet accessibility and usability requirements through a standards-based approach, including compliance with all relevant laws, policies, and regulations.

Principle: Strategic

Statement: Florida State University aligns technical operations and architecture with the mission, vision, values, and strategic planning of the University.

Rationale: The University's strategic planning activities should drive IT initiatives, goals, and funding in order to provide a robust and responsive IT environment for instructors, students, and staff to teach, learn, and conduct research. Decisions should consider implicit operational needs such as support, training, information assurance, business continuity, expected lifecycle, and financial model. Development of strategic architecture for use across the entire enterprise should be prioritized over limited access, specialized, or duplicative solutions. Strategic decisions for information systems should always strive to provide maximum value to the institution while balancing the long-term costs and risks.

Principle: Scalable

Statement: Florida State University ensures technical architecture that both meets the current needs of the institution and provides the ability to scale for future growth and development.

Rationale: Scalability is a necessary consideration for technical infrastructure to ensure that implemented technologies and solutions can provide maximum utility to the organization throughout the complete lifecycle of the solution. Scalability should be addressed at the start of all technology procurement activities to determine viability to meet business operations needs during the period of expected use. Technologies with reusable or extendable components, as well as those that minimize internal redesign over the life of the solution, are preferred.

Principle: Reliable

Statement: Florida State University ensures technical architecture that provides appropriate levels of availability, configurability, resiliency, and recoverability.

Rationale: Technical architecture must be designed for appropriate reliability and continuity of access to meet the needs of the organization. Solutions must consider potential disruptions to service availabilities, such as hardware failures or natural disasters, with redundancies and/or mitigation strategies to ensure continued operations of the organization.

Principle: Usable

Statement: Florida State University ensures technical architecture that considers the user experience and provides intuitive, understandable, and accessible interfaces.

Rationale: Software and hardware should conform to defined standards that promote seamless integration and interoperability. They should function in coordination with other University technology platforms to maximize accessibility and should provide clear documentation and instructions for users. Training and support should be available to end users across the life of the architecture.

Principle: Maintainable

Statement: Florida State University designs technical architecture with open, documented structures that utilize readily accessible skills or knowledge to maintain.

Rationale: Technical solutions can become dependent on specialized knowledge or resources when solutions are developed in a closed, non-collaborative environment. There is a risk that long-term maintainability can be negatively impacted due to scarcity of necessary technical knowledge, skills, and resources. The University implements solutions through a collaborative, peer-assessed process to help ensure that all aspects of the solution are understood by those responsible for maintaining and supporting the architecture. Technological solutions are fully documented, and the knowledge required to support and maintain them is easily transferrable within the organization.

Principle: Secure

Statement: Florida State University ensures technical architecture that provides appropriate levels of confidentiality, integrity, and availability of information.

Rationale: Inappropriate or unauthorized use of University data or capabilities includes the possibility of loss, injury, or other adverse or unwelcome circumstance. In response, the University uses a risk assessment-based approach to information security to achieve an appropriate, careful balance between access necessary to achieve University goals and the privacy and protection of personal information, intellectual property, and other data. Security policies should be fully embraced, and resulting guidelines, standards, and best practices should be strategically implemented throughout the organization's systems, processes, and daily operations, emphasizing practicality and usability (augmented through documentation and training) to ensure continued compliance. Security should be contemplated across the University's entire technical architecture, and its implementation reassessed throughout the lifecycles of its constituent elements to ensure that additional risks have not been introduced through subsequent changes.