

1. IT GUIDING PRINCIPLES

Guiding principles were developed in order to guide SFA to achieve its vision and objectives. Guiding principles assist decision makers chart a unified and logical course of action when faced with a volatile operating environment of changing legislation, budgetary constraints, competing resources and condensed delivery timeframes. They also provide a set of guidelines to assist in decision-making in an environment where decision-makers may be changing. Guiding principles attempt to impose some level of consistency across the organization.

Information Technology Guiding Principles differ in the level of detail to development standards or even structured tools in that they do not provide a step by step recipe for development or implementation. Rather a set of high level principles which are intended to channel the efforts of the IT organization in a consistent and intentional direction with respect to the documented business needs at SFA. Guiding principles in an environment dominated by multiple standards, competing resources and complicated contractual obligations and partners will allow the SFA to steer IT projects in a uniform and consistent direction.

The Guiding Principles state that SFA will:

1. Base IT decisions upon sound business benefits clearly tied to business drivers and customer impact;
2. Ensure that 75% of an IT working group will comprise of representatives from major business initiatives and/or projects;
3. Design all IT decision-making processes with a bias towards action;
4. Manage information and data as enterprise-wide assets;
5. Support an integrated enterprise-wide IT architecture;
6. Use guidelines consistent with the Federal ITA framework;
7. Unify planning, management and alignment of Business and Information Technology;
8. Typically use technology that has been generally accepted in the market place;
9. Promote and facilitate reusability of application software and infrastructure components;
10. Use commercial/government off-the-shelf solutions, typically using open systems standards;
11. Leverage enterprise-wide licensing of vendor products and services;

IT Guiding Principles - Details

Guiding Principle:

Base IT decisions upon sound business benefits clearly tied to business drivers and customer impact.

Description:

IT investments are made to support SFA business operations. Choices need to be made on apportioning investments among the various functions, discretionary and non-discretionary needs. Appropriate mechanisms help ensure that these investments reflect the relative priorities of the business functions and the overall SFA business direction.

Rationale:

Adherence to this principle will enable SFA to:

- Increase business ownership and buy-in of solutions
- Help ensure that IT evolves and supports the business as business conditions and priorities change
- Harvest value from its investments in IT

Implications:

Adhering to this principle requires that SFA:

- Business executives actively participate in and take ownership of activities needed to align IT with business, e.g. development of an IT Strategy, and operations of Business-Technology Alignment (BTA) processes;
- Implement appropriate processes and tools to drive IT investment decisions based directly on business priorities;
- Implement appropriate organization (IT) structure and processes to enable effective business-IT interactions;
- Make technology and architecture decisions in the context of overall benefit to SFA and its business partners;

Guiding Principle 2:

Ensure that 75% of an IT working group comprises of representatives from major business initiatives and/or projects.

Description:

A number of groups are involved in decision-making and performing analytical activities for business-technology alignment processes. Significant participation by appropriate business staff helps to ensure the activities and decisions of these groups directly support current business activities and priorities.

Rationale:

Adherence to this principle will enable SFA to:

- Focus IT investment and activities that directly support the current business priorities;
- Provide perspectives, raise issues relevant to, and incorporate the needs of, the different functions and major business projects;
- Relate the IT organization more closely to the business and improve communications between them;

Implications:

Adhering to this principle requires that SFA:

- Business leadership make available appropriate, knowledgeable staff to take part in the working group(s);
- IPTs budget-in time of appropriate staff for participation in IT working group(s);

Guiding Principle 3:

Design all IT decision-making processes with a bias towards action.

Description:

Delay in an initiative moving forward can result in not achieving the full benefits of that initiative. In some cases, sufficient delay can change the underlying assumptions for the business case of the initiative, resulting in the initiative not being successful or being cancelled partway, and in lost investment.

Rationale:

Adherence to this principle will enable SFA to:

- Ensure that the momentum of the initiative is not dissipated through inaction;
- Ensure that decisions are made within time so as not to adversely affect the initiative;
- Ensure that ideas and initiatives are able to achieve the full benefits associated with it;

Implications:

Adhering to this principle requires that SFA:

- Understand the potential impacts of delay and indecision on important processes and activities;
- Develop a schedule and discipline for key decision points within important processes and activities;
- Clearly identify the available time-windows at key decisions points and ensure compliance;
- Implement mechanisms for escalation and resolution of indecision within important processes and activities;

Guiding Principle 4:

Manage information and data as enterprise-wide assets.

Description:

SFA program operations produce vast amounts of data that must be managed. This massive data collection effort provides the raw material for creating valuable information to support a variety of management, analytical and research needs throughout the enterprise. Managing information and data as enterprise-wide assets places greater significance on cooperative strategies for satisfying the common information needs of multiple business units across the enterprise, rather than exclusively satisfying parochial component requirements.

Rationale:

Adherence to this principle will enable SFA to:

- Foster the sharing, timeliness and integrity of information and data;
- Increase the security and protection of sensitive information and data;
- Optimize resource utilization while eliminating redundant data management cost;
- Increase the quality and consistency of data and information used to support our programs.

Implications:

Adhering to this principle requires that SFA:

- Clarify management policies and procedures for identifying and classifying enterprise information and data, as well as standardizing access and security;
- Clarify the roles and expectations for stewards of enterprise information and data;
- Encourage the cultural changes necessary for evolving to an enterprise-wide information and data management environment;
- Integrate the infrastructure to permit authorized access to information and data by enterprise-wide users;
- Establish an enterprise information resource catalogue of formal data assets;
- Employ aggressive safeguards to protect information and data security and privacy;
- Plan and budget for potentially increased costs for establishing an enterprise-wide data management infrastructure.

Guiding Principle 5:

Support an integrated enterprise-wide Information Technology Architecture (ITA).

Description:

Enterprise-wide, within the context of SFA 's Information Technology Architecture, includes all IT capital assets (hardware, software, licenses, interfaces, etc.) and services existing within the boundaries of SFA 's enterprise. This also includes interfaces internally with SFA trading partners and externally with other state and federal agencies.

Rationale:

Adherence to this principle will enable SFA to:

- Have an SFA-wide, business-aligned and integrated ITA to help fulfill its mission;
- Increase interoperability, standardization and operational effectiveness;
- Help reduce long-term IT costs;
- Link information technology to the business functions as required by the Clinger-Cohen Act of 1996;
- Provide easier access to enterprise data with improved quality.

Implications:

Adhering to this principle requires that SFA:

- Senior management are fully committed to this approach;
- Implement awareness building program(s) and processes to instil the necessary cultural changes;
- Establish an enterprise-wide governance (BTA*) process to institutionalize policy and standards activities;
- Design for flexibility to accommodate changing business requirements;
- Include business partners more in decision making processes;
- Set appropriate interface standards, but not dictate the internal IT infrastructure of our business partners;

Increase the sharing of hardware and software infrastructure resources;

* Business-Technology Alignment

Guiding Principle 6:

Use Guidelines Consistent with the Federal IT Architecture (ITA) Framework.

Description:

SFA's ITA will be developed and maintained consistent with the guidelines established by the Federal CIO Council Information Architecture Conceptual Model .

Rationale:

Adherence to this principle will enable SFA to:

- Ensure interoperability between the departmental/agency architectures as required by the Federal CIO Council;
- Increase information and data sharing.

Implications:

Adhering to this principle requires that SFA:

- Implement program(s) for awareness building of the ITA, its use, benefits and implications;
- Implement processes and organization that enable and encourage adherence to ITA guidelines, address exceptions and continue to support business priorities and needs;

Guiding Principle 7:

Unify planning, management and alignment of Business and Information Technology.

Description:

Establishing a common vision among the business and IT components across the enterprise necessitates unifying the planning, management and alignment of the ITA.

Rationale:

Adherence to this principle will enable SFA to:

- Ensure business unit leadership and direction in evaluating and making IT investment decisions using consistent criteria;
- Share responsibility of deployment, operations and management of technology, and harvesting its anticipated benefits with the business and other stakeholders;
- Ensure operational effectiveness through investing in IT in a manner consistent with requirements of the Clinger-Cohen Act and OMB guidance (managing IT assets and expenditures at the enterprise level);
- Share data, training and tools across the enterprise, thereby limiting potential duplication of effort;
- Maximize the use of valuable business and IT resources across the enterprise;
- Support the principle for having an integrated enterprise-wide ITA;

Implications:

Adhering to this principle requires that SFA:

- Engage senior business and IT management, as well as stakeholders, across the enterprise in key decisions that affect development and maintenance of the ITA;
- Re-focus our IT functions to emphasize establishing policy, standards and guidance based on business value;
- Implement appropriate processes to routinely review policies and standards for continuous evolution with business changes – BTA processes;
- Institutionalize enterprise-wide processes to maintain the ITA and support adherence to policy and standards;
- Impose reasonable constraints on system designs in order to evolve to an enterprise-wide ITA;

Guiding Principle 8:

Typically use technology that has been generally accepted in the market place

Description:

IT organizations are required to make choices among a multitude of technologies, which continuously evolve and leap-frog each other in their capabilities. Additionally, new technologies enabling totally new capabilities and economics are regularly introduced into the market. Introduction into the business of each new version of technology carries with it certain trade-offs, risks, investment needs, and business disruption. Newer technologies generally carry higher business and technical risk for an organization.

Rationale:

Adherence to this principle will enable SFA to:

- Reduce risk of business disruption due to technology instability or skills shortages
- Make use of larger pool of available skills and vendor services, generally at lower cost

Implications:

Adhering to this principle requires that SFA:

- Implement appropriate processes to evaluate introduction of new technologies and the business benefits, risks, and costs in a disciplined manner
- Use leading edge technology only when the risks and tradeoffs are clearly understood;
- Business executives are appropriately represented in the processes/discussions evaluating introduction of new technologies and their implications for the business;

Guiding Principle 9:

Promote and facilitate reusability of application software and infrastructure components.

Description:

This principle emphasizes two main characteristics of open systems standards: designing application software as components of an overall system; and designing components for reusability. Together, these concepts constitute the minimum requirements for designing and deploying adaptable IT solutions that are capable of evolving with the business needs.

Rationale:

Adherence to this principle will enable SFA to:

- Promote interoperability;
- Promote applications development productivity and responsiveness to business needs among its partners;
- Reduce complexity and enhance functional and technical systems integration by promoting the use of modular design components;
- Reduce costs;
- Promote consistency and stability of deployed systems.

Implications:

Adhering to this principle requires that SFA:

- Establish policies, standards and procedures for promoting and facilitating sharing and reuse, to include source code, application designs, tools, documentation, etc. within and among its partners;
- Develop an architecture model that specifies a layered, modular application design structure:
 - Identify the reusable portions of application logic as distinct from logic specific to particular business processes;
 - Establish and enforce logical partitions between applications, data management and systems services within application designs
 - Establish interface standards for sharing reusable components;
- Establish and maintain a library of reusable, shareable components;

Guiding Principle 10:

Use commercial/government off-the-shelf solutions, typically using open systems standards.

Description:

Preference will be given to acquiring Commercial off-the-shelf (COTS) or Government-off-the-shelf (GOTS) software products in lieu of developing custom application solutions to business requirements. COTS and GOTS products can range in size and functionality from component functions that plug into existing systems infrastructure, to entire application systems, to enterprise resource systems (e.g., products like SAP, Peoplesoft, BAAN, etc.). Industry trends toward increased software development costs are likely to continue, instead of abate. Appropriate use of COTS and GOTS products is one way to acquire needed IT capabilities in a cost-effective manner. Where using existing components is both possible and feasible, it is no longer acceptable for Federal agencies to specify, build and maintain comparable custom solutions.

Rationale:

Adherence to this principle will enable SFA to:

- Enhance our business and mission effectiveness by exploiting technology solutions that are widely available to customers, partners and stakeholders;
- Leverage previous and future investments of public and private sector resources that is committed to sustaining working IT solutions to common business needs;
- Ease our applications software maintenance burden;
- Reduce applications software development risk and cost with its partners;
- Benefit from the continually expanding variety of COTS and GOTS technology solutions becoming available to all users.

Implications:

Adhering to this principle requires that SFA:

- Incorporate development methods and practices in the Solution Life Cycle (SLC) to address COTS and GOTS considerations;
- Define IT investment decision criteria to weight more favorably the funding for IT projects that employ COTS or GOTS solutions;
- Promote those COTS and GOTS products that incorporate open systems standards compliant interfaces, interoperability and reuse features;
- Avoid increased risk and costs of using purchased products that require changing the source code in order to be implemented;
- Participate in user groups to influence product enhancements and priorities;
- Give up a measure of control and accept the risk of product changes by the vendor;
- Build awareness/ educate business in tradeoffs associated with COTS/GOTS solutions: less than 100% fit for significantly lower purchase and maintenance costs;

Guiding Principle 11:

Leverage enterprise-wide licensing of vendor products and services.

Description:

Procuring IT products and services from vendors by negotiating enterprise-wide licensing is a cost-effective strategy that leverages the purchasing power of organizations, resulting in a win-win for both parties. Customers benefit from enterprise-wide licensing by paying a lower per-unit cost for products and services and spending less time on procurement actions as compared to piece-meal acquisitions. Vendors prefer enterprise license purchases by their customers because such purchases often result in higher revenue per sale and a more substantial commitment to the vendor's product by the customer. Recent reforms in Federal procurement guidelines permit more flexibility to negotiate IT acquisitions to advantage the Government, of which the public is the ultimate benefactor. Without an enterprise-wide approach, groups within mid- to large-size organizations often purchase IT products piece-meal, in isolation, unaware that other parts of the organization either already use or require the same product. Where feasible, SFA will acquire new IT through enterprise-wide license negotiations, as well as consolidate multiple group and individual licenses into enterprise-wide licenses.

Rationale:

Adherence to this principle will enable SFA to:

- Benefit from cost sharing across organizational components;
- Lower overall IT costs by leveraging our buying power;
- Increase our negotiating leverage with vendors;
- Benefit from economies of scale;
- Simplify and enhance our vendor relationships and interactions; and
- Satisfy our IT product and service requirements as a whole.

Implications:

Adhering to this principle requires that SFA:

- Establish guidelines and metrics for assessing the benefits of enterprise license opportunities;
- Identify and adopt best practices for enterprise IT acquisitions;
- Improve our understanding, oversight and management of IT product and service licenses;
- Focus responsibilities and improve procedures for coordinating technology acquisitions.

