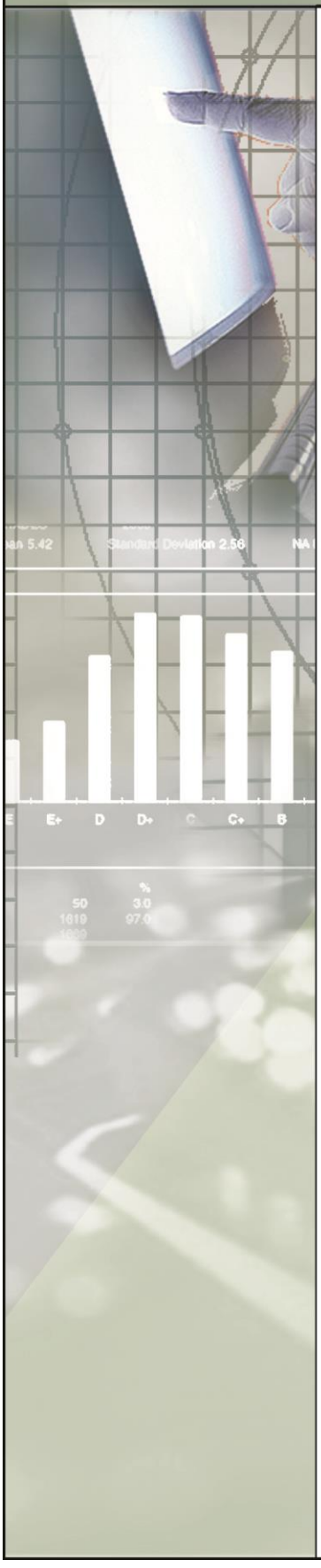
State of Arizona
Government Information Technology Agency



MAY 2005

STATEWIDE STRATEGIC IT PLAN

Note from Director Cummiskey:

In FY 2006, GITA will continue its efforts to coordinate and guide the development of information technology in State government by setting standards, reviewing, approving, and monitoring IT projects in the State.

The 2006 Plan builds on the strategic vision articulated by Governor Napolitano that has been outlined in prior plans. The plan includes goals and performance measures to guide the state toward silo reduction and consolidated IT infrastructure where data sharing between State agencies is streamlined. It also summarizes the individual agency IT plans to provide more useful information regarding IT in Arizona.

Finally, GITA has involved many stakeholders from ITAC, CIO Council, and other groups in the development of this year's plan to ensure that strategic IT development is aligned with the business needs of the state.

Chris Cummiskey
Director, State CIO
Government Information Technology Agency

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EXECUTIVE SUMMARY

The truest measure of a government's success is the value created for its citizens, **communities and businesses.** Now, more than ever, government agencies rely on Information Technology (IT) to help maximize that value by making their services more efficient, useful, responsive and accessible. E-government is driving changes within Arizona state operations forward by providing online access to government information and services. The Internet allows citizens to interact directly with government; bypassing frustrating bureaucracy, much red tape and many delays.

In her 2005 State of the State address, Governor Janet Napolitano declared, "In Arizona we are showing what matters is smart government, efficient government, and effective government. We're changing the way state government works…shifting resources from government waste and inefficiency to **government productivity**". Her message sets forth a vision for improving the quality of life and business climate in Arizona.

While in the past, agency personnel and business organization were the customers, now the state's definition of customer has expanded to include citizenry…

The **21st century demands a high level of service from State government** and has initiated a new era in secure information technology. State agencies not only directly serve citizens through their websites but are starting to **consolidate and share resources among agencies** by aggregating networks and consolidating web sites through web portals. In addition, directly serving citizens changes the notion of 'customer'. While in the past, agency personnel and business organizations were the customers, now the state's definition of customer has expanded to include its citizenry. The intent is to provide connections throughout the state where information access is just a click away… where information services are streamlined and secure, and where citizens have an immediate voice in an open and energetic public forum.

Communications across the state are being enhanced through the use of broadband. Furthermore, the sophistication and sheer numbers of Internet users necessitates increased capability and intelligence at the website interface. This **growing computer knowledge on the part of the public influences government** by affecting the move toward a paperless society. More than information is being transmitted…financial transactions are now on the Internet. Both procurement and payment using electronic means are being used today

between state agencies and with citizenry. This introduces the **important element of secure communications**.

Viruses and worms can bring the Internet, and business with it, to its knees, and identity theft and privacy concerns are now every citizen's concern. Technology has become a strategic resource but can be a tactical vulnerability. Efforts are being focused on IT security and, specifically business continuity planning, in 2005 to address these issues.

Plans, strategies, and good intentions never produce the intended results unless the responsible parties take action.

Indeed, **timely communication of critical information plays an integral part in keeping Arizona safe** from both natural and man-made disasters. When such disasters do occur, communication plays an even greater role in mitigating the impact of the disasters. The State is leading efforts to prevent and respond to threats against Arizona citizens, employees, and assets.

This statewide plan identifies and elaborates on the strategic IT goals for 2005, based largely on an extraction of executive agency IT goals from past years combined with the Governor's statewide goals, an acknowledgement of existing trends in technology as well as those standards being promoted within the industry and by GITA in its oversight role. Discussions with stakeholders also revealed concerns, issues and suggested directions for the future. Furthermore, state core values and guiding principles have laid the foundation for the overall focus and emphasis of the five adopted goals.

State executive agencies' FY 2002 – 2004 IT plans have been summarized in terms of trends, issues, goals and objectives in the formulation of this document. The statewide strategic IT plan consolidates statewide trends and identifies strategic IT goals for the next three years. Reordering of last year's statewide IT goals was the result of the preponderance of agency goals dealing with the Internet and e-government. Recommendations are also made based on review of the agencies' IT plans at the end of this document. Through successful IT planning, the State will reap the benefits of agency IT programs that play a more cohesive role in agencies' fulfilling their missions and future visions.

STATE OF ARIZONA'S INFORMATION TECHNOLOGY VISION

"To expand opportunity, we must focus on economic growth. As we widen the pool of highly skilled workers, we should encourage businesses to create high wage jobs. These jobs can be in many fields – from tourism to small business to high-tech companies." *Governor Janet Napolitano, State of the State speech January 2005*

Arizona's IT Vision is based on the use of technology as a tool…a tool to improve processes, share information, and deliver timely services. As Governor Napolitano stated in her 2005 State of the State speech, economic growth expands opportunities. With government services leveraged off information technology resources, sharing of IT resources enables agencies with finite time, money, and personnel to deliver services more efficiently and more effectively. Technology services and initiatives must be driven by demonstrating a maximization of benefits through the resulting economies of scale.

Arizona's Core Values

Integrity
Right to privacy
Freedom of access
Cooperation
Respect

Accomplishing the goals of Arizona's IT Vision will require effective planning, both short-term and strategic, based upon defined standards and processes and entailing meaningful metrics. Plans, strategies, and good intentions never produce the intended results unless the responsible parties take action. This Statewide Strategic Information Technology Plan communicates key goals for guiding Arizona State government's IT future.

ARIZONA'S CORE VALUES

Values influence how decisions are made…reflecting which qualities are held important, how the world is viewed and what beliefs are significant.

Integrity – a belief in honesty, fairness, and accountability.

Right to privacy – the knowledge that since State government holds information, which is private; unauthorized release of that data is a violation of the public trust.

Freedom of access – a view that citizens have a right to ease of access to public information within the constraints of privacy and confidentiality.

Cooperation – the expectation that cooperation between political entities and the private sector are fundamental to effective use of technology.

Respect – a conviction that all individuals deserve of respect.

GUIDING PRINCIPLES

Core values provide the basis for these guiding principles which enable the State to accomplish the statewide IT Vision:

Customer Service: Improve business processes to make them more customer-oriented.

Cooperation & Sharing: Develop strategic alliances to meet objectives. Leverage State IT resources and information. Coordinate resources and information among agencies.

Continuous improvement *through feedback and metrics*: Use of metrics and customer feedback to improve the planning and oversight processes to make the State's IT program more customer-oriented and accountable.

Staying current with technology: Remain familiar with emergent technologies in order to assess potential impact on State systems. Recruit, retain, and train highly qualified professional personnel.

Quality: Ensure quality assurance processes are built into agencies' IT programs. An emphasis on lifecycle analysis in project justifications as well as strengthening standard project management practices. Implementation of technical, management, and security policies and standards based on commonly-accepted best practices and industry standards.

Business Continuity: Ensure that government will continue to function, through coordinated disaster recovery plans, after natural or man-made disasters.

Arizona's Guiding Principles

Customer service
Cooperation & sharing
Continuous improvement
Staying current with technology
Quality
Business continuity

ARIZONA STATEWIDE INFORMATION TECHNOLOGY GOALS

The information technology goals promulgated in 2004 reflect the desired end result of using IT in targeted areas over the next two to three years; thereby setting the strategic direction for the State of Arizona in 2005 and years to come. Agency IT plans have reflected these goals to one extent or another as summarized above. Each year the IT goals are derived from the

Governor's State of the State plan for the coming year and the trends, issues and agency goals and objectives as reported in their annual IT plans. For 2005, Governor Napolitano has emphasized five long-term issues; namely, building the new Arizona economy, supporting children and education, assisting seniors, ensuring homeland security and enhanced efficiency of government affecting budget.

For FY 2006, GITA is envisioning five statewide strategic IT goals; namely:

1. **Government Accessibility**: *making services more accessible to citizens and state agencies by providing convenient access to information and services using e-government solutions.*

2. **Economic growth**: *enhancing economic development for the State of Arizona through exploitation of information technology.*

3. **Information security**: *increasing both privacy and security for Arizona citizens by protecting state government information, strategic assets, and personnel.*

4. **Efficiency:** *sharpening efficiencies and augmenting quality of life for Arizona citizens through leveraged common IT resources and infrastructure employing an enterprise perspective.*

5. **Effectiveness**: *heightening quality products and faster services by improving internal government effectiveness.*

Working in concert with the Executive Branch agencies and other stakeholders in the State, GITA is committed to achieving these goals by adhering to the objectives and initiatives outlined in this strategic plan. Information technology support for the Executive branch of Arizona will operate as a seamless enterprise, delivering consistent, cost-effective, reliable, accessible and secure services that satisfy the needs of its diverse public and private customers, including its citizenry, its business communities and its public sector agencies.

GOAL 1: GOVERNMENT ACCESSIBILITY: making services more accessible to citizens and state clients by providing convenient access to information and services using e-government solutions.

E-government increases the public's accessibility to government and enables it to run more efficiently. Government services must be made widely available through multiple delivery channels. The State's goal is to provide accessible, reliable, and cost-effective government services to Arizona's citizens electronically. As mentioned in a majority of the agency IT plans, improved information accessibility through the Internet is the primary vehicle envisioned for improving customer service. Sharing data and services using the Internet indicates a healthy trend towards collaboration among state agencies. The following five ongoing activities are promoting Internet accessibility:

"Ultimately, the State will provide citizens and businesses with 'one face' to Arizona government."

- Promoting collaboration and communication among agencies and municipalities.
- Assessing State agency e-services requirements
- Architecting the framework to support both enterprise and distributed e-services delivery
- Developing statewide standards for web-related initiatives
- Obtaining, developing, and implementing an e-services framework

In 1998 the State of Arizona successfully developed a leading-edge web portal offering Arizona citizenry improved access to government agency information and services over the Internet; namely Arizona @ Your Service (AAYS) Web Portal. The AAYS Portal is now the center of the state's e-government initiative providing citizens access to Arizona's government organizations from a single web site. Currently, more than 150 Arizona state, county, and municipal agencies leverage the capabilities of the Arizona Web Portal.

Agencies' business functions are being reviewed to determine the feasibility of migrating selected functions to the Internet. Many of these agencies save money and provide better service by utilizing the proven web application development expertise and infrastructure of the Portal. GITA provides the services of its webmaster to state executive agencies both for

training and website enhancement services.

The intent is to promote efficiency through the practical application of technology in support of the Governor's directive to reduce costs and improve service delivery to the public. One of the state agencies leading trends was the use of the Internet to provide information and services along with infrastructure improvement. Sharing data with other agencies was another frequently identified trend as well as the growing recognition of e-government.

One of the state agencies leading trends was the use of the Internet to provide information and services…

Statewide Objectives

- Encourage agency use of the State Web Portal.
- Provide a sound business model for online service delivery.
- Improve the look and feel of the navigation and search capabilities of State websites.
- Enable agencies to utilize online E-Licensing services.

Statewide Performance Measures

- Number of transactions accessible on the Internet via the web portal. The goal for FY 2006 is to have at least 55 transactions available on the Internet with an increase of ten transactions for each succeeding fiscal year. By June of 2004, there were 53 transactions available on the state web portal.
- Support agencies in development of web initiatives. The goal for FY 2005 is to have at least 10 agencies adhering to web standards. In succeeding years, an increase of two agencies each year is desired. In 2004, there were 8 agencies using web standards on their websites.
- Deliver a common entry point for a positive experience with online services for citizens by promoting the use of a standard web design style guide look-and-feel. The goal for FY 2006 is to have 65 agencies using the standard web design style guide with an increase of ten agencies in each succeeding fiscal year. There were 55 of over 100 state agencies using the standard web design style guide.

- Improve access for citizens to government by increasing the average number of inquiries to 'Contact Arizona' to 75 per month in FY 2006 and an increase of an average of ten inquiries per month in succeeding fiscal years. The average number of inquiries per month in all of 2004 was 67.

- Number of agencies having changed their Internet designations to the .gov format.

Activities Underway

Notice of Intent (NOI): Governor Janet Napolitano has directed all agencies to coordinate web development initiatives through GITA. The process of informing GITA of the web development or maintenance effort is done through a NOI. This directive is intended to ensure that agencies are:

- Evaluating and expanding the services offered through the AAYS Portal,
- Adhering to published statewide standards,
- Maintaining a consistent look-and-feel in the website designs.
- Employing cost efficient means in deploying all web-related services,

"The Web Portal assists citizens by improving their access to web-enabled services."

E-gov assessment tool: Since e-government initiatives should be based upon principles of convenience, efficiency, security, accessibility, and innovative investment, an assessment tool has been developed by GITA to help agencies prioritize and objectively compare potential e-government transactions. The assessment is based upon anticipated benefits of the transaction and the agency's readiness to deliver such services. Readiness is determined by interviewing key personnel, gathering information on mission-critical functions, and evaluating the adequacy of agency resources.

Web Portal: The State of Arizona selected a business partner to assist in developing the Web Portal following a competitive procurement process in 2000. The current Web Portal assists citizens by improving their accessibility to web-enabled services; however, additional benefits will be derived as reengineering and streamlining of the business processes occurs behind these transactions. Often an IT project attempting to simply place a paper form online

discovers that a full-scale rethinking of the requirements behind the form results in a far more efficient, cost-effective process.

Intra-agency efficiencies: In addition to increasing citizenry access, e-government initiatives enable online transactions among agencies. As intra-governmental functions are administered online, governmental services will become even more integrated and efficient in Arizona. One example is the efficiency achieved by an agency passing data electronically to another agency instead of using a paper transmittal. This type of electronic conversion yields higher accuracy as well as faster responses. These efficiencies start with data/information content and common data formatting discussions among communities of interest.

"A common approach to online licensing will truly enhance government efficiencies."

Agency E-mail Naming standards: Governor Napolitano has encouraged standardization within the government. The use of standard naming conventions for agency addresses is an example of making access easier for citizenry. The .gov appellation is recommended for all Arizona State agencies, boards and commissions to standardize web address and e-mail, giving citizens the assurance that they are accessing an official state government website. To preserve the integrity of the .az.gov name space, .az.gov domains are limited to Arizona government organizations at the state and local level. In the future, az*agencyname*.gov will be the standard for all state agencies.

Online Licensing: Bolstered by the success of the Real estate online license renewals, embraced by 67,000 realtors when it went online in February; the Department of Insurance, Registrar of Contractors and others are now adding online licensing. The state is also exploring a common approach for small agencies for online licensing at a single web site. A common approach to online licensing will truly enhance government efficiencies.

GOAL 2: ECONOMIC GROWTH: *enhancing economic development for the State of Arizona through exploitation of information technology.*

Governor Janet Napolitano has identified economic development, especially rural economic development, as one of her top priorities in 2005. Information technology infrastructure is critical for economic development in Greater Arizona. Broadband capabilities help to break

down time and distance barriers in conducting business and are essential for job creation outside the metropolitan areas. Treating telecommunications as a critical state infrastructure is the first step in support of the Governor's Council efforts to expand broadband throughout the State and foster job growth in Arizona's rural communities. Such ventures as the Telecommunications Privatization Program, wherein state agencies will use a common telecommunications infrastructure, and the CANAMEX Corridor WiFi Implementation are two initiatives already begun in this area.

In terms of attracting higher wage jobs to Arizona, information technology is itself a high-tech industry. Arizona must continue to innovate in the area of IT and adopt industry-wide best practices and standards if it is to continue to lure businesses to our state. In addition, education in key areas of information technology has been identified repeatedly by state agencies in their IT plans. In fact, "keeping ahead of the technology curve" was mentioned as a goal in FY 2005 in 53% of the plans.

IT infrastructure is critical for economic development in Greater Arizona…

Statewide Objectives

- Promote sharing and consolidation of telecommunication networks.
- Aggregate cross-jurisdictional government needs for broadband services.
- Solicit demand through community activism to speed broadband deployment.
- Foster competition to encourage better services at lower prices to under-served areas of Arizona.
- Improve funding for K-12 education and libraries by increasing State's use of E-rate subsidies to fund both Internet connectivity and network infrastructure within Arizona's schools.
- Educate and expose IT personnel and businesses to newer technology and improved IT processes.

Statewide Performance Measures

- Percentage of participation of school districts and libraries in application for E-rate subsidies within Arizona. Once education officials have filed proper federal forms for obtaining subsidies, it is anticipated that success would be more than 80% participation in 2005.

- Total amount of Federal grant monies obtained during 2005 for broadband deployment. A tentative goal of $1M in Federal grant monies is the metric for this year as $500K was obtained in 2004.

- Number of successful broadband infrastructure projects underway or implemented in Arizona. At least one successful broadband implementation is the measure of success of economic growth for 2005.

"There are numerous projects underway…to provide broadband services for the citizens of Arizona."

Current Initiatives Underway

Prioritization of Federal Funds and Resources: Broadband deployment is a national, state, and local community issue. Increased effort to secure dollars earmarked for infrastructure deployment has resulted in a $500K Federal grant to implement broadband along segments of the CANAMEX Corridor within the state of Arizona. Although Arizona has lagged behind other states in the acquisition of federal grants, subsidies, and loans directed at broadband deployment, efforts are underway to close this gap.

In the future, the State of Arizona will identify, qualify, and help communities-of-interest apply for such grants, subsidies, and loans. The Arizona Telecommun-ication and Information Council as well as regional planning councils are key players in the effort to develop an effective statewide telecommunications policy.

Statewide and Community Broadband Assessments: Although the Legislature appropriated $500K for community and regional telecommunication assessments in 2001, continuing appropriations need to be obtained and assessment activities funded. Most importantly, findings from previous assessments need to be acted upon in a coordinated and prioritized manner. Outcomes of these assessments are to be incorporated into a statewide telecommunications plan. The newly formed Telecommunication Infrastructure Sub-Committee

will provide the vision, framework and strategic plan for the development of telecom infrastructure within Arizona.

Deployment of broadband into a community requires two primary telecom services; namely, *middle-mile*…the high capacity trunk lines and associated infrastructure connecting Internet Service Providers (ISPs) to the Internet and *last-mile*…the Internet connection between the ISP and end users. Though an increasing number of companies have expressed interest in providing last-mile services in underserved or un-served rural areas, the lack of reasonably priced middle-mile connections serves as the present obstacle. Major barriers to middle-mile deployment are the length of time to achieve the return on investment for telecom providers, access to rights-of-way, and the serious lack of a coordinated statewide strategy.

Telecommunication Infrastructure Sub-Committee will provide the vision, framework and strategic planning for development of telecommunications infrastructure within Arizona

CANAMEX: CANAMEX, a strategic trade corridor connecting Mexico, the United States, and Canada, traverses Arizona starting at Nogales, passing through Wickenburg, and leaving the State at Hoover Dam. As part of Arizona's infrastructure enhancement, development of broadband connectivity along the corridor includes the deployment of a simple wireless fixed (WiFi) matrix. The current WiFi implementation is a proof-of-concept project funded by a Homeland Security grant. Currently underway, the implementation of wireless communication in 130 first responder vehicles follows a 30-mile corridor from Rio Rico to Green Valley near the Mexican border and is expected to be completed by July 2005. This proof-of-concept is a precursor to providing a wireless umbrella over the entire CANAMEX route. The next step will be filling in gaps with no communications at all between Wikieup and Congress along several 60-mile swatches of I-93.

The 1 Mbps wireless connection provides web-based availability of both video and audio as a demonstration of a 'smart corridor'. Although the initial connection will primarily serve as an emergency aid to victims of traffic accidents in this dangerous rural stretch of road, the 'smart corridor' will ultimately be used to benefit libraries and schools in the area allowing both secure and commercial communications.

E-rate Subsidies: The Federal E-Rate program allocates $2.25 billion annually to provide schools and libraries with high-speed Internet and telephone services. An alarming downward trend in E-Rate subsidies for Arizona schools and libraries was identified; i.e., from $68M to $40M in 2004. To maximize use of Federal subsidies at the local school district level, a task

force has been created to update school and library personnel on the E-rate application process as well as the importance of meeting the narrow annual application window. With the recent reinstatement of the E-rate funding through the Universal Service Administrative Company, it is anticipated that more of the targeted funding will reach Arizona schools and libraries in future years.

…a task force has been created to maximize use of Federal subsidies at local school districts and libraries…

GOAL 3: INFORMATION SECURITY: *Increasing both privacy and security for Arizona citizens by protecting state government information, strategic assets, and personnel.*

In her 2005 State of the State Address, Governor Napolitano identified Arizona's border security and homeland security as priorities for the state. Information security and privacy are key factors in quality of life for Arizona citizenry. Communication with the public in times of crisis is equally important. Recognizing this need, Governor Napolitano called for the creation of a statewide 2-1-1 system to assist in the dissemination of vital public safety information in early 2004. Seamless communication is central to any crisis response, whether that crisis is a terrorist attack or a wildfire.

Arizona is improving homeland security efforts by using technology for sharing critical information on physical and cyber threats, upgrading communications interoperability, and improving planning for business continuity, disaster recovery, and emergency response.

Statewide Objectives

- Improved IT security at state agencies based upon security awareness and training and adherence to statewide security standards
- Identification of alternative service delivery means, if a natural or man-made disaster disables regular service delivery, for every critical agency process throughout the state.
- Development of security standards relating to IT operations and architecture in alignment with Homeland Security initiatives.

- Generation of a statewide disaster recovery plan encompassing all state mission-critical systems.

Statewide Performance measures

Information security and privacy are key factors in quality of life for Arizona citizenry.

- Increased IT security standards compliance across state executive agencies from an overall average of 65 to 70 percent, measured through the application of the annual standards self-assessment survey.
- Improved business recovery from disaster through business continuity planning and identification of key, essential and critical processes. The goal is to have 100% of critical IT processes and functions identified and covered by a Disaster Recovery Plan by close of 2005.
- The goal is to have 60 percent of state executive agencies participating in Statewide Infrastructure Protection Center (SIPC) in 2005 with increasing percentages over the next five years. SIPC produces alerts on security threats and vulnerabilities through an online report and administration.
- Secure statewide IT infrastructure to protect privacy and data integrity. Assessment and audit of key agency systems to ensure security standards and procedures are in place. The goal is to self-assess 33 major agencies' IT processes in 25 different categories ranging from security plans to enterprise architecture.
- Successful disaster recovery testing of state agencies in simulated emergency situation.

Current Initiatives Underway

Business Continuity Planning (BCP): All Executive Branch agencies are required to submit Business Continuity Plans as well as test and maintain them. Arizona Department of Administration (ADOA), Department of Emergency and Military Affairs (DEMA), and GITA are working together to determine agency vulnerability gaps, data collection requirements and training needs in support of agencies' IT disaster recovery plans and IT security assessments.

The tri-agency team analyzes the IT security information collected online through agency self-assessment survey and reports overall readiness scores to the Governor's Office.

In conjunction with these efforts, State CIO Chris Cummiskey participated as a member of the Governor's Homeland Security Cabinet and has been instrumental in the creation of the IT Security Advisory Committee to identify and recommend IT security best practices to executive state agencies. A statewide Disaster Recovery Plan is also in the works following the preparation of the Business Continuity Planning Guide by DEMA.

"Arizona is improving homeland security efforts by using technology for sharing critical information…"

Statewide Infrastructure Protection Center (SIPC): Arizona has implemented a Statewide Infrastructure Protection Center to send alerts, collect vulnerability information for prevention efforts, and provide early warnings to state agency personnel and other government entities of cyber threats, including computer viruses and network intrusions. As part of the State's IT security policies, standards, and procedures, agency Chief Executive Officers and Chief Information Officers are responsible for reporting all cyber threats and intrusions to SIPC.

Furthermore, the CIO Council and ADOA, are developing a statewide incremental cyber security improvement plan, which includes clarification of roles and responsibilities for a computer emergency response team and the statewide security management function.

Communications Security: The need to communicate efficiently and securely, when preparing and responding to emergency situations, is extremely critical for first responders, state government, and its citizens. Due to the importance of communications interoperability to support statewide emergency response, the state is addressing both long-term microwave (radio and data) infrastructure enhancement requirements and tactical border radio communications gap closure needs. The intent is to find a common communications protocol allowing intercommunication between all of the state, local and other entities involved in an emergency response.

In collaboration with Homeland Security, DPS, DEMA, GITA, and local safety organizations, are providing consulting support services for three-digit N-1-1 "one call" resource centers; e.g., 2-1-1, 3-1-1, 5-1-1, and 9-1-1. Arizona State government recognizes that an efficient and interoperable information technology infrastructure is critical for sustaining viable continuity of

government capabilities and improving collaborative Homeland Security efforts for first responders, emergency management, safety, welfare, and transportation functions.

2-1-1 Project: The first phase of a 2-1-1 system has been defined, let-for-bid and procured by AHCCCS, in conjunction with the Governor's Office as well as the Departments of Economic Security and Health Services, and GITA. The contract for Phase I development of the 2-1-1 system was awarded to Terida, LLC representing the Terida/VisionLink consortium in January.

The 2-1-1 Project will support searches by information & referral as well as social service professionals using standard taxonomy categories and codes.

Arizona's 2-1-1 system uses the Tapestry 2-1-1 database system, currently in use by the Colorado 2-1-1 system and a host of other communities. Terida's Tapestry database will be customized to meet Arizona's unique requirements. The envisioned 2-1-1 system will enable easy web searching by the public to the provider database. It will also support searches by information and referral and social service professionals using standard Alliance of Information & Referral Systems taxonomy categories and codes. The emergency response components of the system will allow posting and searching of homeland security and bio-terrorism bulletins by county and by city throughout Arizona.

In Phase II, anyone in the state will be able to dial 2-1-1 to access a network of community-based call centers along with a web-enabled database providing timely information on health care as well as pertinent information in times of disaster. The first phase of this critical three phase system is planned for operation in early 2005.

Integrated Criminal Justice: Coordinated efforts with the Arizona Criminal Justice Commission between the State, local courts and law enforcement agencies are underway to leverage State assets and information in protection of the citizens of Arizona.

GOAL 4: EFFICIENCY*: Sharpening efficiencies and augmenting quality of life for Arizona citizens through leveraged common IT resources and infrastructure employing an enterprise perspective.*

Improvement in the process of information generation to support better, fact-based decisions is a vital key to government efficiency. Legacy systems, once considered moribund, are now in demand by today's fast-paced business world due to the evolution of 64-bit architectures, Linux and virtualization (the ability to have multiple copies of operating systems within a mainframe's memory thus creating virtual computers). This trend is largely driven by the rising maintenance costs of client/server farms.

Relevant information is often not available due to the lack of technical expertise required to access and compile the information from incompatible computer systems, and then manually manipulate the information for analysis and presentation to the ultimate user. Newer technologies enable people who are less technical to spend less time gathering data and more time analyzing information. A majority of state agency IT plans mentioned improved efficiency as an IT goal for FY 2005 in addition to their goals for staying ahead of the technology curve.

Newer technologies enable people who are less technical to spend less time gathering data and more time analyzing information.

Statewide Objectives

- Leverage IT resources across agencies.
- Enable interagency deployment of customer services.
- Decrease the complexity and improve the connectivity of the State's IT environment.

Statewide Performance Measures

- Promote open standards for hardware, software, and associated infrastructure yet drive the state infrastructure toward inter-communicating, interoperable enterprise architecture. Statewide IT standards in the areas of management practices, quality assurance, web development, enterprise architecture and security have been developed and published on the web. Arizona's enterprise architecture provides the "technology building code" for interoperable, enterprise IT solutions. Adherence to the five domains of enterprise architecture standards by state executive agencies will be measured in future years.

- Encourage agencies to buy target technologies when upgrading infrastructure. The goal is to have 100 percent of agencies using both the Target Technology standard and the questionnaire.

- Ensure all IT organizations follow the Enterprise Architecture through the Project Investment Justification (PIJ) process. The goal is to assess 100 percent of incoming PIJs to comply with Enterprise Architecture standard.

Arizona's Enterprise Architecture provides the "technology building code" necessary for interoperable, enterprise-wide information technology solutions.

Current Initiatives

Technology Building Code: Arizona's Enterprise Architecture provides the "technology building code" necessary for interoperable, enterprise information technology solutions. GITA, in partnership with the Arizona CIO Council, completed the initial development of white papers, policies, and standards that enable disparate systems to communicate and interoperate; thus providing more efficient, responsive government. Policy documents have been published at www.azgita.gov defining the overall architecture program and its approach to five domains. In addition, detailed requirements for software applications, productivity tools, database access, and data modeling have been produced. A fresh look at service delivery architecture models is underway.

Policies, Standards and Procedures (PSPs): The State's strategic perspectives are reflected in the statewide IT policies and standards that, in turn, provide a framework for individual agencies to establish their own policies, standards, and procedures. Development and updating of statewide policies, standards, and procedures continues, with immediate emphasis on those standards that support the goals in the State IT Vision. Policies, Standards, and Procedures (PSPs) are designed to improve the timeliness, quality, and efficiency of State government IT systems as well as providing direction on IT architectures, infrastructure, strategies, and operations.

Governor's Council on Innovation and Technology: The Governor's Council on Innovation & Technology has been tasked with identifying economic development strategies focussing on Arizona's knowledge-based economy. Telemedicine and broadband deployment are two current topics being discussed with cities and towns across the state in preparation for carrier services contract renewals.

Telecommunications Privatization Contract: A statewide contract eventually consolidating all state agencies' telecommunications has been formalized after several years of preparation. The ADOA initiative began with the January 2005 award of the contract to Accenture after months of negotiations. Privatization of telecommunications is expected to save the state of Arizona many millions of dollars in duplicated systems and upgraded services. The management of telecommunications services will be outsourced and upgraded, including the Capitol Mall fiber ring; thus laying the foundation for a single converged, statewide voice, video and data network.

"... large-scale and high-risk projects are monitored toward successful implementation using lifecycle analysis as well as quality assurance methodologies and industry best practices."

GOAL 5: EFFECTIVENESS: *Heightening quality products and faster services by improving internal government effectiveness.*

As business processes are reengineered to create the efficiencies necessary to preserve quality of service in the face of limited budgets, technology should play a major role in their implementation. Effective processes are necessary to create and maintain government efficiencies. Agencies, both small and large, are being educated and encouraged to manage their IT as an important resource through the annual state-mandated IT plans. The effectiveness of IT systems and procurement of quality IT products is also a measure of movement toward more productive government in Arizona.

Resource and information sharing is also a key ingredient in achieving effectiveness. The movement towards statewide enterprise architecture includes an associated technology table for support of agencies in assessment of new IT purchases. Agencies are strongly encouraged to use common products, not only for volume cost savings, but to permit interoperability and reduce overall maintenance costs. Communities-of-interest are in the early stages of identifying common data elements and store them in identical formats for future information sharing. The 2-1-1 project has been instrumental in initiation of this fundamental process.

Statewide Objectives

- Integrate the IT and business planning processes to ensure better alignment of IT with business goals.
- Ensure IT project success by providing increased project oversight for high-risk projects.
- Improve the closure of gaps in the process by including an Enterprise Architecture compliance review to the existing statewide standards.
- Advance use of quality assurance and project management methodologies statewide
- Promulgate use of industry best practices through increased use of standards and policies, especially in the areas of quality assurance and enterprise architecture. Follow the pattern of successful states in organization and management of telecommunication infrastructure development.

Throughout FY 2005, GITA monitored as many as 115 projects simultaneously, encompassing nearly half a billion dollars of total development costs.

Statewide Performance Measures

- Moving information technology toward the statewide enterprise architecture standard. The goal is to eventually have 100 percent of approved projects in alignment with statewide architectural technology targets. In 2004, 78 percent of reviewed IT projects were meeting published architectural technology targets.
- Agencies increasingly using planning and certified project managers for IT projects. The goal is to have 100 percent of executive agencies using the IT planning tool, PARIS on its website. Classes in effective project management are being held in various state agencies.
- Agencies tracking and accurately maintaining IT inventory. The goal is for all executive branch agencies to use the online IT inventory tool, ISIS (Information Services Inventory System) on the GITA website. In 2004 all agencies updated their inventory using the ISIS online tool.

Current Initiatives Underway

Project Investment Justifications: Agencies are required to submit a Project Investment Justification (PIJ) for all IT projects expending over $25,000. The PIJ is basically a business case supporting the benefits and plans for a specific IT project. Projects under $1 million dollars are reviewed by the GITA director, while those $1 million and over are approved by ITAC. Enterprise architecture compliance is a key part of the PIJ. Throughout FY 2005, GITA monitored as many as 115 projects at once, encompassing nearly half a billion dollars of total development costs.

IT Planning and Inventory: All state agencies are required to perform annual IT planning to promote more effective use of their IT resources, in addition to keeping an online IT inventory up-to-date. As such, an IT plan is required by state statute to be submitted by September 1st of each year. In years past, each IT plan identified the agency's business goals and associated IT goals along with objectives and performance measures to be met in the next three years. Major changes to this philosophy have been introduced in 2005 to provide a better measure of the effectiveness of the statewide IT standards. A revised emphasis on security standards also includes interoperability, data sharing and quality assurance components to further both awareness and advancement in these crucial areas. In addition, metrics will be collected to provide a definitive trend analysis among all agencies, large and small.

Major IT spenders and agencies possessing critical processes are now required to self-assess their percentage of planned progress in meeting security, enterprise architecture and quality assurance goals over the succeeding three years.

Project Oversight: IT projects are monitored and mentored toward successful implementation statewide by GITA. Additionally, large-scale and high-risk projects are given special attention encouraging use of successful implementation methodologies including life-cycle analysis and other best practices. Outstanding issues are reviewed by both GITA and ITAC and timely recommendations for improvements or corrections are provided.

Project management training increases professionalism, ensures that benefits are realized and improves the likelihood that projects are delivered on time and within budget.

Focal points of the review include project scope, management, roles, responsibilities, reasonable schedules, change control, cost containment, and effective utilization of resources. These reviews help ensure the projects are managed in an appropriate

manner and that sound business practices are being followed from both IT and financial perspectives. Finally, agencies are encouraged to integrate quality assurance into project development either by designating qualified staff or contracting for third party QA services.

Project Management: Project management training increases professionalism, ensures that benefits are realized, and improves the likelihood that projects are delivered on time and within budget. To that end, education of State agencies about the benefits of modern project management methods and techniques, including those developed by the Project Management Institute is underway. Both Departments of Transportation and Revenue have training programs underway for their project managers.

Since many of these projects involve millions of dollars and have great strategic importance within the state, a project missing its intended purpose or costing more than planned creates large financial and potential political problems for an agency. Throughout 2004, over 115 projects encompassing $489,000,000 of total development cost were being actively monitored. The currently active projects as of the first of May are listed in order of overall cost in Appendix B. Many of these projects are satisfying more than one of the state's strategic goals and some projects have been carried over from past years.

Quality Assurance: The importance of quality assurance (QA) for IT, including continuous feedback and measurement, cannot be overstated. Without these ingredients, timely and beneficial IT project outcomes will not be possible. A startup QA Advisory Group to identify first steps for statewide implementation of a QA program within state executive and judicial agencies has been formulated.

Furthermore, results of last year's QA survey, polling the agencies on their current and planned practices, show that the following:

- 33 percent have some interest and knowledge of QA methodology:
- 10 percent of state agencies are reviewing and evaluating QA methodologies,
- An additional 10 percent are in the process of implementing a chosen

"As one of the first states to create a state chief information officer, Arizona set the gold standard for best practices in government information technology planning."

methodology

- 10 percent have existing QA methodology in place.

Five methodologies dominate the current Arizona environment; namely,

1) Software Engineering Institute's Capability Maturity Model (CMM), or
2) Software Engineering Institute's Capability Maturity Model – Integrated (CMMI),
3) Information Technology Infrastructure Library (ITIL),
4) Motorola's Six Sigma
5) International Organization for Standardization's (ISO) 9000.

The intention is to enable state government to bypass these business inefficiencies by implementing strong quality assurance practices.

According to December 6, 2004 *Information Week*, businesses waste millions of dollars a year maintaining outdated and redundant applications, in part because they've failed to establish processes to evaluate the effectiveness of older software. Not only do most companies fail to manage software sprawl, but too few do anything to remedy the problem. Only a fifth of the business respondents say their companies have processes to retire outdated software. Six of ten respondents say their companies don't have processes to validate existing and new software. Two-thirds say their businesses can't benchmark and measure the return on investment of software purchases. Part of the problem could be that they're not viewed as strategic to business, which is a serious mistake.

GITA will provide thought leadership and focus to the State's quality assurance direction. This will be accomplished by raising awareness of the benefits that a robust QA program will provide. Examples of successful QA programs and lessons learned from other implementations will be used to leverage and supplement individual agency initiatives. In addition, GITA will convene a symposium featuring recognized experts to ensure the State capitalizes on industry best practices.

SUMMARY OF EXECUTIVE AGENCY IT PLANS

Last year, agency IT plans showed an increased level of maturity over previous years' plans. ***The biggest change has been customer focus***. This year, plans are even more business-oriented, yet customer service is only one of several business themes. Agency effectiveness, cost efficiencies, communications, security and other strategic topics have emerged.

Not only are agencies writing IT plans in business terms, but they are also providing insight into their future IT direction. The six major areas of emphasis mentioned are as follows:

1) Recognition of the evolving technology and the way business is being conducted;

2) Need for enhancing staff and their training, due to the above;

3) Improvement of the IT infrastructure along with software and hardware upgrades;

4) Provision of more information and services online to better serve customers;

5) Enhanced productivity being driven by budget constraints and limited resources through a variety of forms of automation while, at the same time, creating frustration due to rapid technology changes and costliness of retention and training of IT staff;

6) Increased need to interact with other agencies through collaboration and shared services.

Distinguishing between Goals & Objectives

The Governor's Office for Strategic Planning and Budgeting (OSPB) definitions of mission, vision, goals, and objectives for purposes of strategic IT planning are used by the executive agencies in their IT plans. In addition, the definition of small, medium and large agencies is also based upon OSPB definitions using employee count criteria. Appendix A lists the agencies by size.

- Mission addresses the organization's identity and, as such, is all encompassing and rarely changes. It is basically the ultimate rationale for

… Goals are more specific than the mission and address the desired 'to be' state of the agency whereas objectives are activity-oriented and reflect targets for achieving goals…

the existence of the agency, board or commission.

- Vision is the agency's compelling, conceptual image of the desired future and represents a global, continual purpose for the organization.

The organization's **goals** provide a framework for more detailed levels of planning and are more specific than the mission statement yet general enough to stimulate creativity and innovation. The goals describe the desired "to-be" state of the agency. An agency's strategic issues may lead to strategic planning goals. For example, a strategic issue may be a problem with dealing with rapid IT technology changes. The goal may be an IT training program. By contrast, **objectives** reflect the specific and measurable targets for accomplishing agency goals. As opposed to goals, objectives are specific, quantifiable and time-bound. The key word here is quantifiable as performance measures are typically associated with objectives in order to assess progress in achieving the overall goals. Objectives represent activities while goals are desired states.

SUMMARY OF EXECUTIVE AGENCY IT TRENDS

A new awareness on the part of State agencies seems to be moving them to ***collaboration and working across boundaries*** that will not only achieve shared services but improve efficiency. Communications, of course, fit into this equation as a key component. The growth of wireless and broadband has jump-started many new possibilities in this fertile area. The use of statewide enterprise architecture targets will also make these attempts more successful in the long run.

Recognition of the ***power of evolving technology and the influence of the Internet*** seems to have affected almost all agencies. Last year, when agencies' plans were focused on business issues, they were predominantly customer-service oriented. However, this year the business issues seemed to be broader. Fifty-five percent of agencies had goals about customer service while 53 percent of agencies list goals related to keeping ahead of the technology curve and 38 percent had goals concerning agency efficiencies.

… Sharing data and services is seen as the first step in moving towards operating the state as a true enterprise…

Agencies' infrastructures had been a prominent theme in previous years. However,

beginning in FY 2003 these goals were addressed in terms of bandwidth expansion and telecommunication improvements for wireless, PDAs, and remote telecommuting capabilities. The ***application of evolving technology to the rural regions of Arizona*** has also come to the forefront. Agencies see new ways of doing business using remote communications and laptops, making jobs more satisfying and staff more effective. The prominence of infrastructure seems to have been replaced with objectives related to connectivity and communications; e.g., 28 percent of agencies plan to enhance either their telecommunications or data networks or 14 percent of agencies report objectives dealing with connectivity.

In past years, Internet delivery of information and services has been an important theme. It was the most often mentioned trend in FY 2002 but seems to have been superseded in FY 2003 by system development and in FY 2004 by the underlying theme of customer service. Key IT trends across Arizona state agencies over the past four years include the following:

- 54 percent of agencies have objectives for web page or Internet application development
- 40 percent of agencies see the Internet as a positive trend in delivering information and services to customers
- 32 percent have goals to develop or improve online access to information and services
- 28 percent of agencies consider citizens' embracing new technologies as a positive influence for providing new service delivery methods.

During the planning process, agencies are asked to list any trends that they foresee impacting their IT program's ability to support the business of the agency. The **top IT trend categories for the last four years have been slowly evolving** from use of the Internet and remote connectivity to infrastructure improvement and the **recognition of a growing need for collaboration between agencies and with customers**.

According to Mark Forman, Associate Director of IT and E-Government, Office of Management and Budget, all future Federal grants to state and local governments for homeland security will require the state and local governments to demonstrate progress in achieving IT interoperability, that is, an enterprise architecture, specifically as it relates to emergency response efforts.

Infrastructure Improvement

The trend most often mentioned in past years dealt with the use of the Internet to provide information and services. However, in the last two years, the focus seems to have moved beyond the Internet alone to evolving technology. In general, this is seen by GITA as a broadened IT awareness on the part of the State agencies that the Internet is only part of a changing paradigm. The second most frequently mentioned trend in FY 2004 was evolving technology, perhaps recognition that more than infrastructure improvements are required to truly incorporate IT into the business process. GITA sees this trend as a growing awareness of the need to re-engineer business processes to better incorporate information technology.

A common thread of infrastructure improvement has also been seen. Infrastructure improvement was mentioned so few times in FY 2001 that the number of responses wasn't even reported. This was true again in FY 2004. An additional trend category that emerged in the past two years was that 28 percent of agencies saw citizens embracing new technologies as something positive to the agency. Agencies planned to leverage this adaptation to increase customer delivery methods using IT. Several state agencies mentioned that they were being driven by the Internet maturity and heightened expectations of their customers.

Remote connectivity to the agency network was the fourth most popular trend mentioned in past fiscal years. This year the overall percentage halved and its rank order fell to seventh place. This issue is often related to agencies' telecommuting programs; however, some agencies are also providing employees access to agency data and computing services, such as e-mail, from the field.

Sharing of both data and services indicates a healthy trend towards collaboration and recognition of the cost efficiencies of sharing among agencies.

Sharing Data and Services

Sharing data with other agencies moved from fifth place to fourth place in rank order. This indicates a healthy trend towards collaboration and recognition of the cost efficiencies of sharing among agencies. This trend is viewed as the first step in moving towards operating the state as a true enterprise, resulting from the establishment of IT architecture targets.

Fifth place is shared by the dual needs of e-government and enhanced IT training of staff. Although IT training has been a growing concern in the last few years, e-government has suddenly appeared on the horizon. This trend is viewed as a positive step towards acceptance

of IT as part of the business and acknowledgement of the movement towards a paperless society. The following table summarizes the IT trend categories within state agencies across the last four fiscal years:

Trend Category	FY 2001	FY 2002	FY 2003	FY 2004
Use of Internet to provide information and services	48%	56%	47%	50%
Infrastructure improvement	n/a	52	37	n/a
Citizens embracing new technologies	n/a	18	28	28
Remote connectivity to agency network	16	17	15	8
Sharing data with other agencies	19	15	20	18
Evolving technology	n/a	n/a	57	38
E-government	n/a	n/a	n/a	16
Enhanced staff & training needs	n/a	n/a	26	16

Not applicable as these factors were not mentioned with any frequency during this year.

SUMMARY OF EXECUTIVE AGENCY IT ISSUES

State agencies were asked to list issues having a negative impact on their IT program's ability to strengthen and support the business of the agency. The issues identified by each agency were then analyzed and categorized into six general concerns. Not surprisingly, many of the same issues emerged as in previous years. However, security and privacy issues now appear in the top six.

The top IT issue categories and response percentages identified by state agencies across the past four fiscal years are listed in the following chart:

Issue Category	FY 2001	FY 2002	FY 2003	FY 2004
Lack of funding	65%	57%	56%	52%
Lack of IT staff	47	37	37	32
Inadequate amount of IT training for employees	29	30	30	31
New technology	n/a	n/a	33	33

Inadequate IT funding was most often identified as having a negative impact on being able to support the agency's mission for all fiscal years. Surprisingly, there appeared to be an improvement over last year. Perhaps, there has been some recognition on the part of agency IT functions that funding will never be sufficient to do all that is desired. It's also possible that the payoffs of automation have been more fully realized.

Lack of qualified IT staff has been among the top three issues for agencies for the last four years.

In FY 2002, 48 percent of agencies identified some of their information technology infrastructure as being outdated and unable to adequately support the agency's business. This issue was still a concern in FY 2003 and 2004, though much less so. The realization of changes in technology and the possibility of business re-engineering seem to have supplanted mere replacement or refreshment of hardware.

Lack of qualified IT staff has been among the top three issues for the last four years. This category was often expressed in conjunction with problems in retention and recruiting qualified IT staff. Several medium and small agencies mentioned they did not even have positions for information technology. The fact that this issue has been prominent for the past four years suggests a need for some sort of shared pool of personnel in this area.

Need for adequate IT training was identified by 31 percent of agencies, very similar to the responses in past years. For some agencies, this means training their IT professionals on how to implement and support newer technologies. For others, it means training their business staff in using the information technology that has already been implemented.

AGENCY IT GOALS & OBJECTIVES

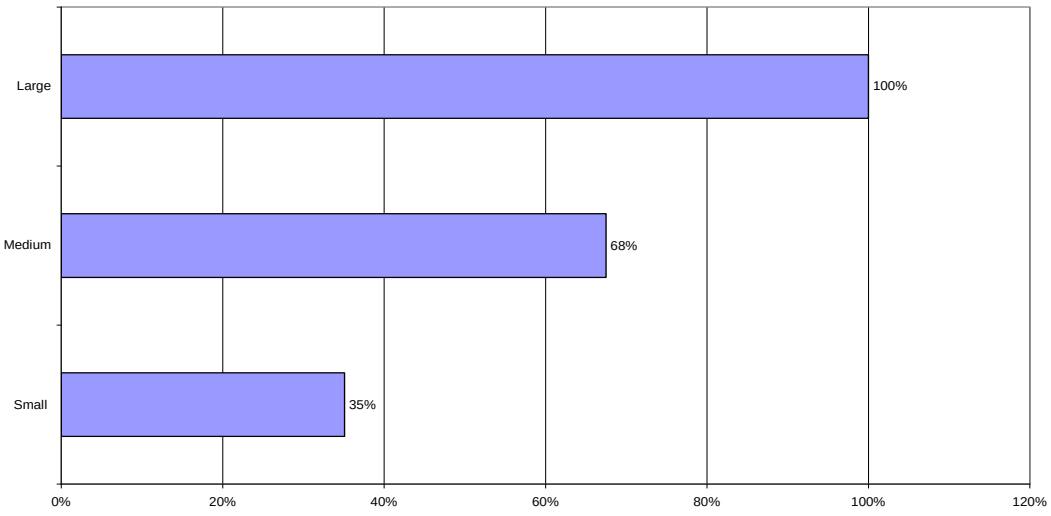
Summary of Most Frequently Cited Agency Goals in FY 2005:

- **55% of Agencies have Goals dealing with improving customer service**
- **53% list Goals related to keeping ahead of the technology curve**
- **38% of Goals are concerned with agency efficiency**

Recognition that IT requires Strategic planning not merely operational planning

Sixty-five percent of the agencies had a least one IT goal that was expressed in business terms, which tended to make the goals more strategic in nature. State agencies have been strongly encouraged to develop strategic IT plans as opposed to purely operational plans. In FY 2003, agency IT plans became increasingly customer-focused. FY 2004 brought even greater improvements. In particular, agencies grew better at articulating the business reason for doing IT. Also the larger the agency, the more likely they had at least one goal stated in business terms, as shown in the following chart:

Percent of Agencies, by Agency Size, with Goals Stated In Business Terms



Because small agencies don't have large IT resources to help them achieve business goals, their plans tend to focus on operational matters. Therefore, it was no surprise that only 35 percent of small agencies had at least one goal stated in business terms. Likewise, IT was seen as an important strategic resource to large agencies with 100 percent of them having at least one goal written in business terms. This trait is generalized across the board as illustrated by a graduated increase in scale between small, medium and large agencies.

As in the past, agencies set goals for the next three years. In addition, the process included identifying one or more objectives associated with each of these IT goals. The objectives were defined as activities necessary to achieve the goals and were required to be measurable. Performance measures for each of the objectives were defined for the current and next three fiscal years.

The following chart shows the top goal categories and percentage of agencies with at least one goal in those categories:

Goal Category	FY 2001	FY 2002	FY 2003	FY 2004
Improve customer service	n/a	n/a	34%	55%
Improve technical knowledge	68	49	52	53
Improve overall efficiency	n/a	n/a	25	38
Develop or improve online access to information and services	38	48	46	37
Improve communications	n/a	n/a	13	28
Enhance staff capabilities (training, retention and recruiting)	25	21	24	20
Enhance IT infrastructure	31	57	20	9

Some of the most popular goal categories have changed dramatically over the past few years, while others simply increased or decreased in prominence. One of the most significant differences from past years is that goals to enhance IT infrastructure, which had risen dramatically in the past, had almost no showing this year. These goals were often expressed as 'technology refresh' or 'implementing new hardware and software'. Perhaps, these goals have been achieved and now customer service has moved into prominence.

Enhancement of customer service, a business goal, is now mentioned by more than half of the agencies. GITA views this as a very positive trend, the statewide goal of government accessibility.

The goal category dealing with **improvement of technical knowledge** remained in second place, increasing slightly from past years after dropping in FY 2002, a low budget year.

Improving overall agency efficiency moved into third place this year, slightly outdistancing goals to develop or improve online access to information and services, which reverted to almost their former percentage, down to fourth place this year. Efficiency improvement is one way to make use of reduced funding. Perhaps the frequency of this goal is due to the focus of the governor and the fact that it is a statewide goal.

Improving communications was mentioned more frequently during the past two years indicating a highly desirable trend. Finally, goals to enhance staff capabilities, referring mainly to goals on training, retention, or recruitment, saw a small decrease but were often still mentioned, especially by the smaller agencies.

"...enhancement of customer service is now mentioned by more than half of the agencies as a goal.

AGENCY IT PLAN SYNOPSIS

As a national leader in information technology, Arizona was one of the first states to create a state chief information officer. Arizona set a gold standard for best practices in government information technology planning and has received multiple awards for its advanced thinking. The State's practices have become a model of efficiency and accountability. The benefits of these efforts have been felt in the State in the form of improved customer service, increased accessibility to State government, and greater access to information technology. National recognition has been achieved for Arizona's IT accomplishments including awards from the Center for Digital Government in Information Technology in 2002, and again in 2004.

Building on the foundation laid by seven years of planning and oversight, Arizona is focussing on streamlining government efficiency through e-government initiatives. IT planning and coordination will serve as the cornerstone of Arizona's homeland security and business

continuity efforts. A new strategic direction in IT planning should make the process more objective and measurable in the future thus facilitating progress.

Agencies are asked to incorporate goals and objectives set forth in this Statewide Strategic IT Plan into the development of their own business and IT plans. Although the direction of IT planning has been modified, agencies are encouraged to carry on the established process of IT planning started five years ago by GITA. These collaborative efforts will ensure that Arizona sets the standard for excellence in the delivery of government services to its people, enabled by optimal processes and technology.

The most important development shown in agency IT plans over the last two years is the growing ***awareness of the power of IT as a tool***…a tool with cost-reducing, efficiency-producing capabilities, especially when the business process can be re-engineered to take advantage of its full capability. Associated with the tool's power comes an inherent cost, also being recognized by agencies. With respect to IT, agencies are realizing that changing and upgrading hardware and applications implies increased costs. This is true of staff training and staying abreast of new developments as well. The new theme seems to be managing 'with' technology rather than trying to manage 'the' technology.

… the latest theme seems to be managing *<u>with</u>* technology rather than trying to manage *<u>the</u>* technology.

Based upon review of their IT plans, there seems to be a new recognition on the part of state agencies of the value of shared services moving them to collaboration and working across boundaries that will ultimately improve efficiencies. Communications fits into this equation as a key component. The growth of wireless and broadband has jump-started many new possibilities in this fertile area. The use of statewide enterprise architecture targets will make these attempts more successful in the long run.

Recognition of the ***power of evolving technology and the influence of the Internet*** seems to have affected almost all agencies. In the past, when agencies' plans were focused on business issues, they were predominantly customer-service oriented; however, this year the business issues seemed to be broader concentrating around three goals: customer service, keeping ahead of the technology curve and improving agency efficiencies.

In summary, information technology has moved from the sole domain of large firms to an integral part of almost every business in Arizona. Access to information will be at the heart of

economic development throughout rural Arizona. The importance of bringing information technology to rural Arizona has been recognized. Not only is more information about services and related links being provided to citizenry but the speed and power of the Internet is also driving more autonomy to the website.

There is a growing recognition on the part of many agencies that more than infrastructure improvements are required to truly incorporate IT into their business process.

FINDINGS FROM AGENCY IT PLANS

After careful review of the state agency's IT plans, the following findings highlight items that need to be addressed as part of their annual IT planning process.

- Growing recognition that more than infrastructure improvements are required to truly incorporate IT in the business process. This trend is viewed as an increased awareness of the need to re-engineer business processes to make better use of IT based on the ever-widening number of state agencies mentioning re-engineering.

- The use of new technologies by the state's citizens is viewed as positive by many agencies. These agencies plan to take advantage of this trend by automating more processes using the web. Several state agencies mentioned they were being driven by expanding Internet maturity and heightened expectations of their customers.
- Some agencies are providing employees access to agency data and computing services, such as email, from the field thus increasing the efficiency of state employees working at home or out of the office.

- Multi-agency integration of services is still an uncommon topic in agency IT plans, yet these kinds of projects have the largest potential for providing enhanced services to citizens at the same time reducing the costs and time to provide those services. Elimination of individual agency perspectives within government thinking is essential to efficient operations as an enterprise.

- Inadequate IT funding was most often identified as having a negative impact on being able to support agencies' missions over all fiscal years. However one improvement over past years could stem from recognition on the part of agencies that funding will never be sufficient to do all that is desired.

- Hiring and retention of qualified IT staff has been a prominent issue for the past four years on the part of both larger and small agencies. For the larger agencies, improvements in salary and staff education are necessary. This issue also suggests a need for some sort of shared pool of IT personnel for smaller agencies, boards and commissions.

- An emphasis on infrastructure seems to have been replaced with objectives relating to connectivity and communications.

- Many agencies' IT plans remain project-based, rather than business-results based. Although agencies should be measuring business outcomes, many agencies still measure only IT implementation.

- Consideration of providing shared IT consulting services for the smaller agencies would clearly be in the best interests of the state in terms of improving service delivery as well as the efficiency and effectiveness of many of the boards and commissions.

…the largest potential for providing enhanced services to citizens probably lies in the arena of multi-agency integration of services…

RECOMMENDATIONS BASED ON AGENCY IT PLANS

These recommendations are meant to guide future IT planning efforts on the part of the agencies, boards and commissions.

Agencies need to integrate IT planning with business planning processes. As mentioned previously, those agencies that link their IT plans in support of the business of the agency tend to have a tighter integration of their IT and business planning process. At a minimum, business planners should be included in the agency IT planning process and IT planners should be invited to the agency business planning process. Agencies should focus on the re-engineering of their business processes rather than simply infrastructure improvement.

Agencies must look for ways to share data and integrate services to better serve the public. A statewide standard for an enterprise IT architecture to promote consolidation of data and sharing of services has been in place in Arizona for three years. Additionally, the

State web portal has been established and provides opportunities to expand portal services among smaller boards and commissions. Agencies should consider the use of the Internet and e-government to improve more of their services.

Appendix A

AGENCIES BY SIZE

Large Agencies

Administration, Arizona Department of
Agriculture, Arizona Department of
AHCCCS
Attorney General, Arizona Office of the
Corporation Commission, Arizona
Corrections, Arizona Department of
Deaf and Blind, Arizona School for the
Economic Security, Arizona Department of
Education, Arizona Department of
Environmental Quality, Arizona Department of
Game & Fish Department, Arizona
Health Services, Arizona Department of
Industrial Commission, Arizona
Juvenile Corrections, Arizona Department of
Parks, Arizona State
Public Safety, Arizona Department of
Revenue, Arizona Department of
Transportation, Arizona Department of
Veterans' Service Commission, Arizona

Medium Agencies

Banking Department, Arizona
Building & Fire Safety, Arizona Department of
Commerce, Arizona Department of
Emergency and Military Affairs, Arizona Department of
Exposition and State Fair, Arizona
Gaming, Arizona Department of
Historical Society, Arizona
Insurance, Arizona Department of
Land, Arizona Department of
Liquor Licenses and Control, Arizona Department of
Lottery, Arizona
Medical Board, Arizona
Nursing, Arizona Board of
Pioneers Home, Arizona
Racing, Arizona Department of

Medium Agencies (cont'd)

Real Estate, Arizona Department of
Registrar of Contractors, Arizona
Retirement System, Arizona State
Secretary of State, Arizona
Treasurer, Arizona State
Water Resources, Arizona Department of
Weights and Measures, Arizona Department of

Small Agencies

Accountancy Board, Arizona
Acupuncture Examiners Board
Administrative Hearings, Office of
Appraisal, Arizona Board of
Arts, Arizona Commission on the
Auditor General
Auto Theft Authority, Arizona
Barbers, Arizona Board of
Behavioral Health Examiners, Arizona
Charter Schools, Arizona State Board for
Chiropractic Examiners, Arizona Board of
Citizens Clean Election Commission
Cosmetology, Arizona Board of
Criminal Justice Commission, Arizona
Deaf and Hard of Hearing, Arizona Council for the
Dental Examiners, Arizona Board of
Disease Control Research Commission
Dispensing Opticians Board
Equalization, Arizona Board of
Executive Clemency, Arizona Board of
Funeral Directors & Embalmers Board
Geological Survey, Arizona
Government Information Technology Agency, Arizona
Governor, Office of the
Homeopathic Medical Examiners Board
Housing, Department of
Indian Affairs, Arizona Commission of
Mine Inspector
Mines & Mineral Resources
Naturopathic Physicians Examiners Board

Small Agencies (cont'd)

Navigable Stream Adjudication Commission
Nursing Care Examiners Board
Occupational Therapy Examiners Board
Optometry, Arizona Board of
Osteopathic Examiners, Arizona Board of
Personnel Board
Pest Control Commission Arizona Structural
Pharmacy Board, Arizona
Physical Therapy Examiners Board
Podiatry Examiners Board
Postsecondary Education
Postsecondary Education, Private
Psychologist Examiners Board
Radiation Regulatory Agency
Regents, Arizona Board of
Residential Utility Consumers Office
Respiratory Care Examiners Board
School Facilities Board
Tax Appeals Board, Arizona
Technical Registration, Arizona Board of
Tourism Office, Arizona
Veterinary Medical Examiners Board, Arizona

Appendix B

ACTIVE IT PROJECTS AS OF MAY 2005

Project Identifier	Project Title	Responsible Agency	Total Cost ($M)
RV01016	Business Reengineering/Integrated Tax Systems (BRITS)	Revenue, Arizona Department of	124,304.2
AD01005	Statewide HRMS Replacement	Administration, Arizona Department of	92,922.0
DC99007	LAN/WAN Infrastructure for ADC Prisons	Corrections, Arizona Department of	31,816.0
RT01001	Public Employee Retirement System Conversion	Retirement System, Arizona State	30,358.9
HC01005	System Modifications for HIPAA Compliance	AHCCCS	18,463.0
HC01003	Three-Year Equipment Refresh	AHCCCS	14,927.0
RT01002	ASRS Imaging System	Retirement System, Arizona State	14,246.0
DE01012	HIPAA Compliance Modifications	Economic Security, Arizona Department of	13,137.4
HS03001	Computer Hardware Strategic Replacement Plan	Health Services, Arizona Department of	9,213.0
DT01006	Intelligent Transportation System (ITS)	Transportation, Arizona Department of	8,392.5
PS99004	Statewide Mobile Data Computer / Computer-Aided Dispatch System	Public Safety, Arizona Department of	7,461.8
HC05001	Revision - Data Warehouse and Decision Support System (DW/DSS)	AHCCCS	7,018.7
AG04003	Case Management System	Attorney General, Arizona Office of the	6,528.1
HC04001	IP Telephony/Contact Center	AHCCCS	5,616.0
HC01001	AHCCCS Customer Eligibility (ACE)	AHCCCS	5,233.3
DE03007	ASA Case Tracking System (ACTS II)	Economic Security, Arizona Department of	5,087.0
DE04009	Multi-Year IT Equipment Replacement	Economic Security, Arizona Department of	4,834.0
RV04001	Arizona Property Assessment and Taxation System (APATS)	Revenue, Arizona Department of	4,169.0
HS03005	Office of Vital Records - Integrated Technology Project	Health Services, Arizona Department of	3,796.8
PS04005	Arizona Criminal Justice Information Systems Network Conversion to TCP/IP	Public Safety, Arizona Department of	2,678.0
HS05003	Laboratory Information Management System Implementation Project	Health Services, Arizona Department of	2,628.5
PS04007	Arizona Counter Terrorism Information Center - ACTIC	Public Safety, Arizona Department of	2,168.7
RT03001	ASRS Financial System	Retirement System, Arizona State	1,681.0
AD04005	Tri-Agency Disaster Recovery	Administration, Arizona Department of	1,500.0

DE04010	Division of Children Youth & Families (DCYF) 2004 CPS Special Session	Economic Security, Arizona Department of	1,166.5
DE05005	Active Directory Rollout & Exchange Migration	Economic Security, Arizona	1,139.6
EV04001	US Track/SAF AZURITE Conversion	Environmental Quality, Arizona Department of	1,023.3
DT03007	Document Imaging/ Retrieval System - MVD Records Section	Transportation, Arizona Department of	968.1
DE02014	Replacement Telephony	Economic Security, Arizona Department of	960.0
DC04003	1000 Prison Bed Expansion Telephony Upgrades	Corrections, Arizona Department of	954.9
HC04003	2-1-1 Community Service Link	AHCCCS	950.0
AD04001	PC Refresh Plan for FY 2004 thru FY 2007	Administration, Arizona Department of	916.0
IC00002	ICA Information System	Industrial Commission, Arizona	912.0
DT04005	Project Accounting and Time Accounting (PATA)	Transportation, Arizona Department of	883.7
DE05004	DCYF Business Intelligence Project	Economic Security, Arizona Department of	866.2
DE02002	Contract, Planning and Ledger system	Economic Security, Arizona Department of	864.0
LD03001	Enterprise Application Upgrade and Internet Version Development	Land, Arizona Department of	830.3
DT04009	FAST - Pen Redesign	Transportation, Arizona Department of	688.8
DT03002	Central Materials Testing Programs Redesign	Transportation, Arizona Department of	681.2
RG05004	ROC Online Licensing Renewal System (OLRS)	Registrar of Contractors, Arizona	613.8
GF03004	Infrastructure Upgrades	Game & Fish Department, Arizona	605.2
DE04002	OPE System Replacement	Economic Security, Arizona Department of	588.2
DE05002	Document Imaging - OnBase	Economic Security, Arizona Department of	583.4
PS01007	District Office Automation	Public Safety, Arizona Department of	573.0
AG04007	Continuous Server Availability	Attorney General, Arizona Office of the	568.0
TR03001	Information Systems and Infrastructure Emergency Refresh	Treasurer, Arizona State	557.0
GF05001	E-Commerce for Game & Fish	Game & Fish, Arizona Department of	500.0
GF03001	PC Replacement	Game & Fish, Arizona Department of	460.0
DE04008	FAA Central Appointment Registry (CAR)	Economic Security, Arizona Department of	426.4
DT04008	Address Standardization & Returned Mail Processing	Transportation, Arizona Department	424.6
AD04002	ATS FY 2005 Operations	Administration, Arizona Department of	410.0
HD04001	ADOH Paperless Automation System	Housing, Arizona Department of	383.9
PS05006	ASPEN Wireless Communications	Public Safety, Arizona Department of	365.0
ED05003	Education Storage Area Network	Education, Arizona Department of	336.1

DE04012	Encryption Software	Economic Security, Arizona Department of	331.1
ED04005	Teacher Certification Web System	Education, Arizona Department of	325.0
DJ05001	Computer Purchase for Replacement of Outdated Student Computers	Juvenile Corrections, Arizona Department of	310.0
DT02021	Customer Database Phase IV	Transportation, Arizona Department of	305.6
AD04003	ISD FY 2005 Call Center	Administration, Arizona Department of	300.0
DE05003	E-Gov Hardware and Software Architecture	Economic Security, Arizona Department of	293.6
AG04001	Network Security	Attorney General, Arizona Office of the	275.0
AG05001	CFP PC Addition and Replacement	Attorney General, Arizona Office of the	248.3
DT05012	Estimated Engineering Construction Cost (E2C2)	Transportation, Arizona Department of	247.5
DT03006	Intermodal Transportation Division Environmental Planning Group Project Tracking System	Transportation, Arizona Department of	235.6
DE04016	WEB Blocking Solution	Economic Security, Arizona Department of	235.0
PS04006	Licensing Software Justification	Public Safety, Arizona Department of	228.0
LD05001	Arizona Fire Map	Land, Arizona Department of	225.0
RC04001	Network Upgrade	Racing, Arizona Department of	204.3
SD05001	Assistive Learning Devices	Deaf & Blind, Arizona School for the	193.0
DE04017	UI Data Cross Match	Economic Security, Arizona Department of	187.7
EV04002	Arizona Emissions Inventory System	Environmental Quality, Arizona Department of	184.0
DT05010	Update Management	Transportation, Arizona Department of	179.8
GF03002	PC Hookups for Wildlife managers	Game & Fish, Arizona Department of	170.0
PS04009	Fleet Management Software	Public Safety, Arizona Department of	160.4
RG03002	Network Security	Registrar of Contractors, Arizona	151.1
CB03001	Cosmetology Electronic Online Licensing System	Cosmetology, Arizona Board of	131.3
DE05007	Quality Assurance Test Tool Software	Economic Security, Arizona Department of	131.0
HU01001	Web-Based Customer Service Project	Arts, Arizona Commission on the	119.0
DT02015	SPR #534: Digital Signatures	Transportation, Arizona Department of	107.0
ED04006	Food Distribution Program Enhancement	Education, Arizona Department of	100.0
DT05003	Project Central Database (PCDB)	Transportation, Arizona Department of	94.1
DC05001	Inmate Assessment	Corrections, Arizona Department of	89.9
CC05001	Docketing System Improvements	Corporation Commission, Arizona	85.0
GF03007	BoatQ System Upgrade	Game & Fish, Arizona Department of	78.5
EV03003	USTProgram Tier 2 RBCA Standard Calculation Software	Environmental Quality, Arizona Department of	77.0

LD05003	Complex Incident Management Team – IT Support	Land, Arizona Department of	75.3
SD04001	HRIS Interface	Deaf & Blind, Arizona School for the	75.0
DJ05002	Computer Purchase for Replacement of Outdated Teacher Computers	Juvenile Corrections, Arizona Department of	75.0
DT05004	EZ Dealer & EZ Interlock MVR	Transportation, Arizona Department of	67.1
DC05002	Emergency Operations Center	Corrections, Arizona Department of	61.9
AG05002	VoIP Preparation/Switch Upgrade	Attorney General, Arizona Office of the	59.6
PS05003	Driver Vehicle Examination Report Document Management System Conversion	Public Safety, Arizona Department of	53.0
GF03003	License Renewals	Game & Fish Department, Arizona	52.5
PM00500	Automation Project	Pharmacy Board, Arizona	51.2
JC05001	Arizona Revised Statute Conversion to XML	Criminal Justice Commission, Arizona	50.0
AG05003	Business Continuity Clustering	Transportation, Arizona Department of	48.0
DT05005	Statistical Reporting	Transportation, Arizona Department of	42.1

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