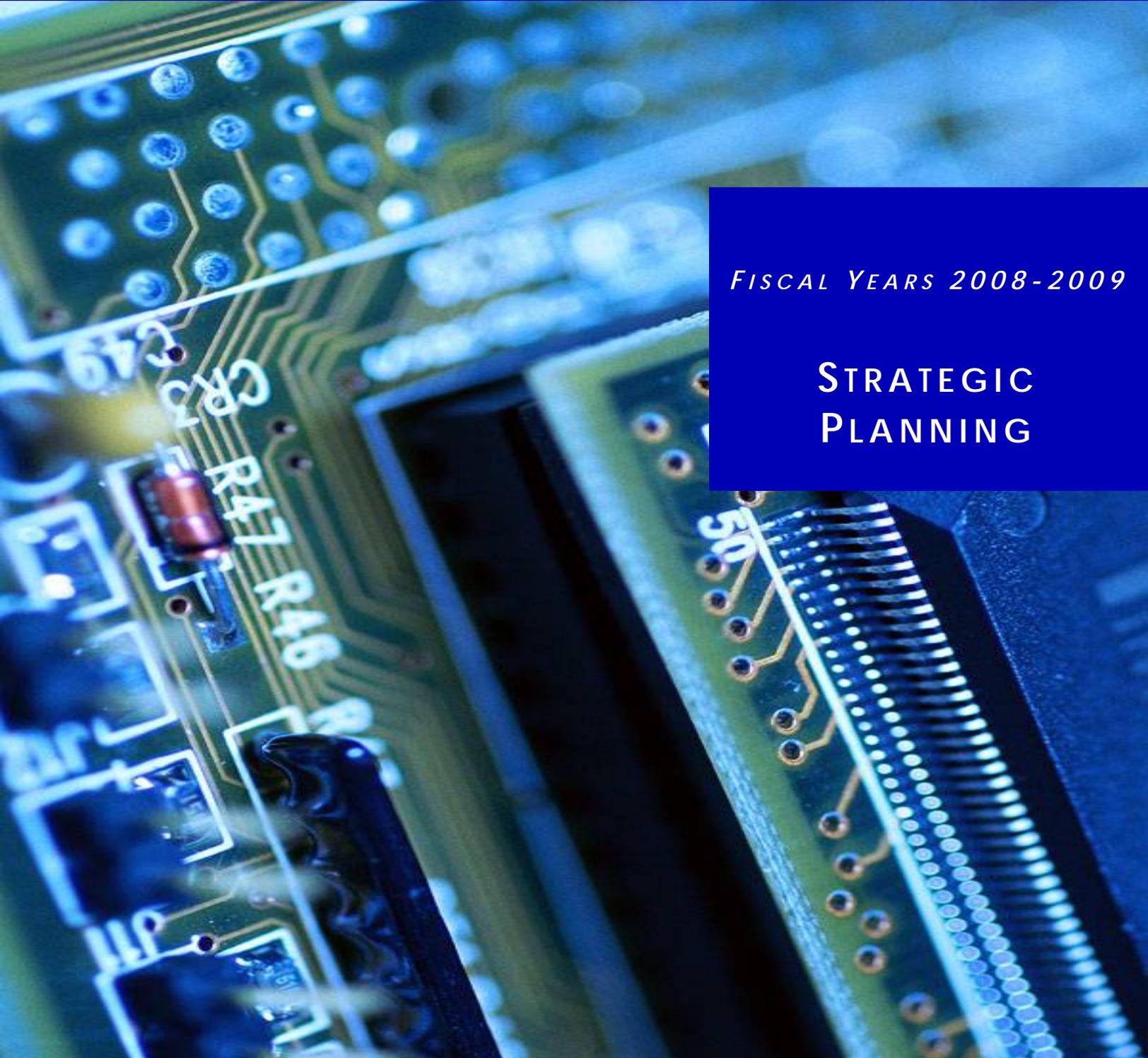




Statewide IT Investment Summary and Analysis

FISCAL YEARS 2008-2009

STRATEGIC PLANNING



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The data and observations contained in this report were made through the analysis of agency IT plans. We wish to express our thanks to these agencies, the Accountancy Board of Ohio, Board of Examiners of Architects, Bureau of Workers' Compensation, Industrial Commission of Ohio, Office of Information Technology, Ohio Arts Council, Ohio Arts and Sports Facilities Commission, Ohio Board of Dietetics, Ohio Board of Motor Vehicle Collision Repair Registration, Ohio Board of Nursing, Ohio Board of Regents, Ohio Board of Tax Appeals, Ohio Commission on Dispute Resolution and Conflict Management, Ohio Commission on Minority Health, Ohio Consumers Counsel, Ohio Counselor and Social Worker Marriage and Family Therapist Board, Ohio Department of Administrative Services, Ohio Department of Alcohol and Drug Addiction Services, Ohio Department of Aging, Ohio Department of Agriculture, Ohio Department of Commerce, Ohio Department of Development, Ohio Department of Education, Ohio Department of Health, Ohio Department of Insurance, Ohio Department of Job and Family Services, Ohio Department of Mental Health, Ohio Department of Mental Retardation and Developmental Disabilities, Ohio Department of Natural Resources, Ohio Department of Public Safety, Ohio Department of Rehabilitation and Correction, Ohio Department of Taxation, Ohio Department of Transportation, Ohio Department of Youth Services, Ohio Environmental Protection Agency, Ohio Ethics Commission, Ohio Legal Rights Services, Ohio Library Board, Ohio Liquor Control Commission, Ohio Lottery Commission, Ohio Occupational Therapy, Physical Therapy and Athletic Trainers Board, Ohio Office of Budget and Management, Ohio Office of Inspector General, Ohio Optical Dispensers Board, Ohio Personnel Board of Review, Ohio Public Defender, Ohio Public Works Commission, Ohio Rehabilitation Services Commission, Ohio Respiratory Care Board, Ohio School Facilities Commission, Ohio State Barber Board, Ohio State Board of Cosmetology, Ohio State Board of Embalmers and Funeral Directors, Ohio State Board of Optometry, Ohio State Board of Pharmacy, Ohio State Board of Proprietary School Registration, Ohio State Board of Psychology, Ohio State Board of Sanitarian Registration, Ohio State Chiropractic Board, Ohio State Dental Board, Ohio State Employment Relations Board, Ohio State Racing Commission, Ohio Tuition Trust Authority, Ohio Veterans' Home, Ohio Veterinary Medical Licensing Board, Public Utilities Commission of Ohio, State Board of Orthotics, Prosthetics and Pedorthics, State Board of Registration for Professional Engineers and Surveyors, and the State Medical Board of Ohio. Without their participation, this report would not have been possible.

Organization of the Statewide IT Investment Summary and Analysis Report

The biennial Statewide IT Investment Summary and Analysis Report for the planning period for fiscal years 2008-2009 consists of five sub-reports. These are:

Executive Summary
Enterprise IT Planning
Strategic IT Planning
Tactical IT Planning
IT Project Planning

A series of appendices contains supporting data and analysis. Appendices are listed under "Contents" for a particular sub-report.

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Appendix S-A	Detailed Business Strategy Analysis
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Overview

This sub-report of the Statewide IT Investment Summary and Analysis Report presents and analyzes information and concerns stated in the agency IT plans from a strategic planning perspective.

The strategic sections of agency IT plans provide the longer-term planning framework for IT decision-making by communicating the agency's mission, vision, external factors, and business goals and objectives. In addition, this sub-report addresses the alignment of IT projects to agency business direction.

The sub-report contains eight major sections, as follows:

- **Agency Planning Progress.** Agencies' self-assessments regarding their progress in planning activities.
- **External Factors.** Issues and factors that affect how the agencies conduct business in pursuit of their missions and visions.
- **Business Goals.** The major long-term accomplishments agencies strive for to achieve their missions and visions.
- **Business Objectives.** The performance targets that agencies have established to achieve their business goals.
- **Business Alignments.** Relationships among business goals, objectives and IT capabilities.
- **IT Organizational Assessment.** Agencies' self-assessments in the areas of IT administration, IT strengths and weaknesses, and project management process maturity.
- **Project Management Process Maturity Level.** The degree to which the agency uses project management best practices (documented, repeatable, proven processes) to manage their projects.
- **Consolidated Observations.** The more critical issues from a strategic perspective of agency plans.

1 Agency Planning Progress

This plan section contains information the agency considers significant enough to mention about their progress in planning activities and general IT use within the agency. In the field titled, "Progress Made Since Previous Planning Period, agency planners provided information they considered significant about their progress in planning activities and general IT use within the agency. Since agencies have varying levels of planning maturity, and progress is more difficult for some agencies than others, the topics agencies addressed cover a wide area.

Generally, improvements through recently implemented technology include improved customer/constituency service, improved internal operations, better citizen protection, and greater data and information accessibility.

1.1 Common Themes

The topics in Figure S-1 emerged from analysis of the information on progress. Topics are listed here if they appeared in multiple plans, or if the issue was represented as significant by a plan. The number of plans noting progress in each area is shown in parentheses. Some topics have breakdowns where additional patterns emerged; these are shown in italics.

Planning Progress – Common Themes	
Infrastructure improvements (29)	
Internet/Web environment	
	<i>Added services</i> (21)
	<i>Improved site appearance and usefulness</i> (12)
Implementation of enterprise-wide solutions (e.g., OAKS and CAVU e-licensing) (13)	
Implementation of new applications (12)	
Digitization of workflow and management of documentation (i.e., documents, forms, and mass e-mailings) (12)	
Security improvements (11)	
Better utilization of IT workforce (6)	
Technology platform migration and consolidations	
	<i>Hardware</i> (7)
	<i>Language</i> (4)
	<i>Database</i> (3)
	<i>Development</i> (1)
IT Management practices	
	<i>Planning practices</i> (5)
	<i>IT management practices (overall)</i> (4)
	<i>Project management practices</i> (4)

Planning Progress – Common Themes	
	<i>Disaster management practices (4)</i>
	<i>Application/Web development practices (4)</i>
Increased infrastructure capabilities (e.g., wireless) (3)	
Data management	
	<i>Improvements in data exchange between applications (e.g., using XML or EDI) (2)</i>
	<i>Improvements in data exchange between agencies and jurisdictions (federal and local) (2)</i>
	<i>Increased use of business intelligence capabilities (2)</i>
	<i>Improved data quality (1)</i>

Figure S-1. Planning Progress: Common Themes

The topics match many of the external factors that appear later in this report. Agencies appeared to be influenced by those external business forces as they executed their IT plans.

1.2 Leading Edge Efforts

Leading edge IT efforts being made in one or more agencies match the direction many are following in industry and in some progressive federal agencies. Other agencies in the state will be helped by the lessons learned from these pioneering efforts. The efforts are:

- Adoption of an Information Technology Infrastructure Library (ITIL) process framework.
- Movement towards Service-Oriented Architecture (SOA) and other modern software architecture standards.

Additional progress was noted in specific areas related to the mission of the agency, such as HIPAA compliance, citizen safety, and other business-related areas.

1.3 Comparison to Previous Biennium: Planning Progress

Specific data that could be used for a comparison with the previous biennium was not available. General differences between the two planning periods were noted, however, and include the following:

- Only two of the progress areas shown in Figure S-1 appear in more than 25% of the agency plans: *added online services* and *upgraded infrastructure*. Although progress was certainly made in more than those noted, the amount of progress was apparently not considered significant enough to mention.

- The *implementation of enterprise-wide solutions* was mentioned for the first time as a progress area this planning period, and exists as a change agent within agencies.
- Many agencies reported progress in the fielding of new online applications, while some agencies highlighted changes and improvements to their online presence (e.g., more information available, better navigation, etc.). A policy governing the Web environment, including guidance for information availability and protection, online service offerings, required updating standards, and archiving and storage of publicly disseminated information is probably needed.
- Enterprise-wide data management has not reached a critical mass for most agencies. As more information becomes publicly available and more data is shared in collaborative efforts, this will become a problem.

2 External Factors

External factors are outside forces that affect the agency over which the agency has little or no control. The agency mission is not an external factor, nor are internal policies developed by the agency external factors. External forces may come from the federal government, another state agency, citizens' groups, or any other source outside the agency.

The nature of external factors is such that:

- Some external factors cannot be affected by any agency action, but can only be responded to; for example, budgetary limitations.
- The force or impact of some external factors can be changed by an agency. For example, citizen expectations can be changed by a campaign to publish information to an agency portal.
- The Internet, from data access to digital government, has irrevocably changed the expectations of citizens for the provision of government services. Often, however, a single external force related to the Internet can pose multiple difficulties (e.g., the public's desire for more information balanced against the need for security and privacy).

2.1 Dominant External Factors

Each agency developed a list of external factors from a strategic analysis of issues that affect how it conducts business in pursuit of its mission and vision. Agency plans documented a total of 309 individual external factors, which is slightly above the number identified in fiscal years 2006-2007.

Some themes emerged that were common across many agency IT plans. Those that were included in more than 10% of agency IT plans are listed below. The percentage of agency plans in which the factor appeared is enclosed in parentheses. For a complete list of common external factors, see Part I of Appendix S-A, Detailed Business Strategy Analysis.

Citizen/Customer Service Expectations (43.5%). Change due to service expectations from citizens or customers about agency-provided services. Although this external factor does not specifically exclude

digital government (see *Digital Government* external factor below), it does include broader, less specific service expectations.

Legislative Changes (State) (43.5%). Response to laws and policies established by the state of Ohio legislature.

Budgetary/Cost Constraints (40.6%). Limitations due to budgetary or other economic conditions, allocations, etc.

Governing Body Actions (37.7%). Response to new requirements levied by a governing body of that agency (e.g., a board or federal agency). This includes a change in regulatory, accreditation, or certification issues specific to a profession or occupation (e.g., dentists or accountants).

Legislative Changes (Federal) (29%). Response to laws and policies established by the United States Congress (includes HIPAA and Sarbanes-Oxley influences).

Collaboration with Other Service Providers (24.6%). Limitations and responses due to interaction with other government agencies or service providers to citizens. For various reasons, the actions taken by an agency are constrained by existing relationships with these service providers.

Evolution of Service Delivery (24.6%). Change due to evolution of service delivery because the conditions the agency must respond to are changing. Examples include expansion of health risks due to terrorism, changes in transportation patterns, etc.

IT Change (24.6%). Response to the rate and amount of change in the IT environment. The change could be a generic force (e.g., increased use of technology to serve better) or a specific force (e.g., the need to implement wireless capabilities). Although not a classic external factor, it was listed by a number of agencies.

Digital Government (21.7%). Expectations of citizens/customers/partners for more government services available online. A distinction exists between more information (the *Data Access* external factor) and more services.

Data Access (11.6%). Pressure to provide greater accessibility to information managed by the agency.

Data/Information Exchange (10.1%). Pressure to exchange and move data and information easily from one application to another application, regardless of the application, agency, or jurisdiction.

Economic Conditions (10.1%). Impact of economic conditions on an agency.

Enterprise Requirements (10.1%). Response to enterprise-wide IT decisions (e.g., OAKS, CAVU e-licensing).

2.2 Emerging Trends

The following three external factors appeared in less than 10% of agency plans, yet are significant enough to warrant attention during the next planning cycle:

- **Outsourcing Considerations.** The cost of performing activities within an agency that can be more efficiently performed by another service provider (commercial or public) was a new external factor this planning period. In an age of collaboration and transparency, this factor will receive more attention.
- **IT Security and Privacy.** As more agencies publish information and data that historically was difficult to access, the management of security, safety, and privacy consequences will become more difficult.
- **Performance-Based Results.** This approach has been gathering momentum at the federal level for five years and is a high priority with the current state administration.

2.3 Comparison to Previous Biennium: External Factors

A detailed table of external factors in the two most recent planning periods appears in Appendix S-A. Only the external factor categories that changed by 10% or more are considered below.

2.3.1 INCREASES

The following external factor categories showed increases of 10% or more. They are listed according to the percentage of increase (FY06/07 -> FY08/09):

- Citizens'/Customers' Service Expectations (25% -> 43.5%)
- Collaboration with Other Service Providers (8.8% -> 24.6%)
- Governing Body Actions (26.5% -> 37.7%)
- Enterprise Requirements (0% -> 10.1%)

2.3.2 DECREASES

The following external factors decreased by more than 10% and are listed according to the percentage decrease (FY06/07 -> FY08/09):

- Data Access (32.4% -> 11.6%)
- Funding Stream Retention (19.1% -> 4.3%)

- Constituency Change (17.6% → 4.3%)
- Budgetary/Cost Constraints (52.9% → 40.6%)
- Support for Decentralized Services (14.7% → 2.9%)

2.3.3 CHANGES IN EXTERNAL FACTORS

The following observations about external factors can be made from the information presented above:

- The increase in *Citizen Expectations* (+18.5%) combined with the decrease in *Data Access* (-20.8%) indicates that a gap is likely to appear between citizen demand and citizen satisfaction due to desired/requested information.
- The significant increase in *Collaboration with Other Service Providers* indicates that agencies acknowledge this shift in business reality.

3 Business Goals

Business goals are the major long-term accomplishments an agency strives for to achieve its mission and vision. Business goals provide the foundation for effective strategic planning. The goals add clarity to the agency vision and should consider agency external factors as constraining factors. Internal forces (e.g., mission or policy) also drive business goals.

Business goals normally span multiple biennial planning periods. Using the agency mission, vision and external factors as a contextual backdrop, state agencies documented 273 unique business goals for the FY08/09 planning cycle.

3.1 Common Goals

Even though each agency created unique goals, common themes emerged which are shared by many agencies. A detailed list appears in Part II of Appendix S-A. The common business goals listed below appeared in more than 20% of the agency strategic plans.

Better Educate Constituency (43.4%). To provide information or training to a constituency that increases their understanding of available services or support.

Improve Public Services (42%). To take specific actions that improve services to Ohio citizens.

Provide Fiscal Responsibility (31.9%). To provide sound fiscal management and administration of agency resources and assets.

Improve Collaborations (27.5%). To work more effectively with other governmental agencies, business partners, and stakeholders.

Promote Excellence (27.5%). To establish a culture of excellence, examples of which include a continuous quality improvement mindset, the implementation of best practices, and the desire for innovation.

Secure Citizen Health and Safety (27.5%). To provide for the health and safety of Ohio's citizens.

Expand Digital Government (24.6%). To expand available online services. Distinct from data/information access in that digital government supports Web-based service, not just information publication or dissemination.

Manage Compliance (23.2%). To manage agency or constituency compliance with professional or regulatory requirements.

Streamline Processes/Functions (23.2%). To streamline the existing processes and functions in an agency to eliminate redundancies, inefficiencies and ineffectiveness.

Develop Workforce (21.7%). To improve the skill sets and culture of the existing workforce.

3.2 Comparison to Previous Biennium: Business Goals

The business goals created for the current planning period are more specific than for the previous planning period. Consequently, the portion of the current list selected for comparison includes only goals that appeared in at least 20% of the agency plans.

3.2.1 INCREASES

The following business goals increased by more than 20% in the agency plans for this planning period. They are listed according to the percentage of the increase (FY06/07 -> FY08/09):

- Better Educate Constituency (13.2% -> 43.4%)
- Secure Citizen Health and Safety (4.4% -> 27.5%)
- Improve Public Service (19.1% -> 42%)
- Provide Fiscal Responsibility (11.8% -> 31.9%)

3.2.2 DECREASES

The following business goals decreased by more than 10% and are listed by the amount of the decrease (FY06/07 -> FY08/09):

- Implement New Applications (16.2% -> 2.9%)
- Improve Data/Information Environment (14.7% -> 4.3%)
- Improve IT Management Practices (14.7% -> 4.3%)
- Integrate Business with IT (13.2% -> 2.9%)

3.2.3 CHANGES IN BUSINESS GOALS

The following differences between business goals for the two planning periods seem noteworthy:

- For a common business goal to appear in the first list in this section, a threshold of 20% was used. The threshold for fiscal years 2006-2007 was 10%. This indicates a convergence in priorities and thinking among agency planners.

- Several common business goals in fiscal years 2006-2007 dropped significantly in fiscal years 2008-2009. Some observations specific to this business goal group include:
 - Improve Data/Information Environment. This decrease in focus is likely to cause problems as more information becomes available on the Web.
 - Implement New Applications. This decrease should not be considered an issue, because new applications are still being planned and implemented; this action is just no longer seen as a business goal.
 - Integrate Business with IT. This decrease is a signal that the integration of business and IT is more reality than talk.
- Successful commercial companies and the federal government are pressing *Performance Management* hard within leadership circles. This influence is being felt at the state agency level now.
- *Workforce Development* continues to increase as a common business goal (21.7%). This is a positive sign and is aligned with one of the themes in the new state administration's Accountability Approach.
- One of the biggest increases in business goal themes is *Provide Fiscal Responsibility* (up from 11.8% to 31.9%). This change is aligned with the direction of the new administration.
- The three biggest increases reflect an evolution of thinking in how significantly changing agency business direction affects Ohio citizens (i.e., *Better Educate Constituency*, *Improve Public Service*, and *Secure Citizen Health and Safety*).

4 Business Objectives

Business objectives are performance targets an organization establishes to achieve its business goals. As such, business objectives are incremental and should be attainable within the planning period or the expected lifecycle of the IT projects. Achievement of objectives measures organizational success for the planning period.

Combined, agencies listed 992 unique business objectives. Almost half of this total consisted of objectives specific to the agency mission or were not aligned with or supported by IT projects or IT maintenance activities. These are not included in this report.

SMART criteria guided agencies in the development of their business objectives. SMART business objectives are **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime-bound. Using SMART criteria for business objectives improves the likelihood of meeting goals and provides the agency with measurable interim results.

Unfortunately, some agencies incorporated only two or three elements of the SMART criteria instead of all five. When this was the case, usually the business objectives were not time-bound and did not include measurable criteria.

4.1 Common Business Objectives

Business objectives were examined and grouped thematically to create an overview of the business objective focus in agency IT plans. The percentage of agency IT plans that included a particular objective appears in parentheses. Only objectives named by 20% or more of agencies are shown below. A detailed list appears in Part III of Appendix S-A.

- **Service Improvement (44.9%).** To improve the existing services available to citizens and customers (excludes digital government).
- **Digital Government (39.1%).** To implement or improve online services. This capability allows interaction with users and is not just a response to an information request.
- **Workforce Development (36.2%).** To train or otherwise improve the skill sets of the agency workforce.

- **Fiscal Responsibility (33.3%).** To be fiscally responsible in all actions. This included maximum use of limited resources, management of existing non-IT resources, budgeting activities, etc.
- **Constituency Education (31.9%).** To educate the agency constituency on information of value, such as the services available.
- **Collaboration (29%).** To cooperate and collaborate with another government organization, partner, or stakeholder.
- **Legislative Initiatives (23.2%).** To influence future legislation or policy change.
- **Performance Management (23.2%).** To measure, evaluate, and act on the performance of processes, services, the workforce, etc. Also, manage continuous improvement efforts.
- **Compliance and Governance Issues (21.7%).** To satisfy an existing regulatory, accreditation, certification, or other legal or professional requirement.
- **Data/Information Environment (21.7%).** To improve the data and information environment for an agency. This includes consolidating multiple and redundant data sources, improving data quality and integrity, implementing business intelligence and decision-making capabilities, etc.
- **Funding Stream Management (21.7%).** To manage existing funding streams and seek additional sources of funds and revenue.
- **Citizen Improvement (20.3%).** To improve the condition of citizens. Examples include self-fulfillment, self-advocacy, quality of life, etc.
- **Public Safety and Health (20.3%).** To provide for the health and safety of Ohio citizens.

4.2 Emerging Trends

The analysis described in section 4.1 above suggests that:

- Many agencies recognize that the public perception of their effectiveness is directly related to the quality of service they provide.
- Many agencies now see *Digital Government* activities as crucial to meeting their business goals.
- Many agencies believe *Workforce Development* to be an enabler of their business goals.

- Four of the more prominent business objectives appear in the new administration's Turnaround Ohio Plan (i.e., *Workforce Development, Collaboration, Fiscal Responsibility, and Performance Management*).
- The *Data/Information Environment* appeared in more than one-quarter of the agency plans. The frequency that this business objective appeared conflicts with the drop of the business goal, *Improve Data/Information Environment*, to less than 2% of agency plans.

4.3 Comparison to Previous Biennium: Business Objectives

The list of common business objectives created for the current planning period is more specific than the list created for the previous planning period. The most significant business objectives in the previous planning period were:

- Service Improvement (41.2%)
- Performance Management (35.3%)
- Digital Government (32.4%)
- Workforce Development (32.4%)

4.3.1 INCREASES

The following business objectives increased by more than 15% from fiscal years 2006-2007 to fiscal years 2008-2009. They are listed in order of the amount of the increase (FY06/07 → FY08/09):

- Constituency Education (11.8% → 31.9%)
- Fiscal Responsibility (14.7% → 33.3%)
- Legislative Initiatives (5.9% → 23.2%)
- Public Health and Safety (4.4% → 20.3%)

4.3.2 DECREASES

The following business objectives decreased by more than 10% from fiscal years 2006-2007 to fiscal years 2008-2009. They are listed in order of the amount of the decrease (FY06/07 → FY08/09):

- Application Implementation (27.9% → 14.5%)
- Performance Management (35.3% → 23.2%)
- Business-IT Integration (29.4% → 18.8%)

4.3.3 CHANGES IN BUSINESS OBJECTIVES

Significant changes and differences between the business objectives in the two planning periods included the following:

- Objectives to increase the use of the Web for existing services and information (e.g., *Digital Government* and *Constituency Education*) overcame the business objectives to move services and information from legacy platforms to the Web. This signals that agencies and citizens have made the transition to expecting a digital Ohio.
- The drop in focus on business integration with IT (more than 10%) is consistent with a similar drop in the related business goal.

5 Business Alignments

The topics discussed in the last three sections are closely interconnected. Business objectives are at the very center of how IT supports business direction. Business objectives provide direct support to business goals, which exist to some degree because of external factors. In addition, pertinent business objectives can be at least partially satisfied by an implemented IT project. The alignment of these three components — external factors, business goals, and business objectives — is examined below.

First, however, it should be noted that for each component, themes have been extrapolated from the planning information presented by the agencies. These themes do have some commonality among the various business components, but some nuances do exist. The definitions of these themes are documented in Appendix S-A.

5.1 External Factors to Business Goal Alignment

The first alignment examined is the external factor to business goal relationship. External factors are external forces, such as budgetary constraints and legislation, that often exert pressure across a broad spectrum of activities within an agency. Some external factors affect IT projects, business activities, service to constituents, and other business interests in a way that cannot be aligned to a specific business goal.

It should be kept in mind that business goals may exist in response to internal forces. Consequently, some business goals may not align with a common external factor in the comparison that follows.

In Figure S-2, the most common themes are used as a comparison baseline. The number in parentheses indicates the percentage of plans that documented that theme. Each of the three sections of the table shows different information, as follows:

- Section I shows the closest match between the themes for the two business components. The match is not always exact, but at least several aspects of the themes are aligned.

- Section II shows external factor themes with no apparent alignment to any business goal themes.
- Section III shows business goal themes with no apparent alignment to any external factor themes.

External Factors	Business Goals
Section I: Aligned external factors and business goals	
Citizen/Customer Service Expectations (43.5)	Improve Public Service (42)
Legislative Change (State) (43.5)	Manage Compliance (23.2)
Legislative Change (Federal) (29)	
Governing Body Actions (37.7)	
Budgetary/Cost Constraints (40.6)	Provide Fiscal Responsibility (31.9)
Industry Best Practices (5.8)	Promote Excellence (27.5)
Collaboration with Other Service Providers (24.6)	Improve Collaborations (27.5)
Evolution of Service Delivery (24.6)	Streamline Processes/Functions (23.2)
	Establish New Processes (2.9)
Citizen Safety (7.2)	Secure Citizen Health and Safety (27.5)
IT Change (24.6)	Upgrade IT Infrastructure (18.8)
	Establish IT Adaptability (1.4)
Staff Limitations (7.2)	Develop Workforce (21.7)
Outsourcing Considerations (4.3)	
Workforce Development (1.5)	
Data Access (11.6)	Improve Data/Information Environment (4.3)
Data/Information Exchange (10.1)	
Data Quality/Integrity (4.3)	
Enterprise Requirements (10.1)	Support Enterprise Solution (5.8)
Section II: These external factors are not specifically aligned, but the business goals are obvious responses to the external factors	
Not applicable	
Section III. These business goals are not specifically aligned, but many are obvious responses to external factors	
	Better Educate Constituency (43.4)

Figure S-2. External Factor and Business Goal Alignment

Some of the matches shown in Figure S-2 are loosely aligned. For example, the *Budgetary/Cost Constraints* external factor is matched to the *Provide Fiscal Responsibility* business goal. Obviously, many other business goals exist in response to the *Budgetary/Cost Constraint* external factor. Other highlights in Figure S-2 include the following:

- In Section I, significant mismatches between external factors and business goals (e.g., *Industry Best Practices* (5.8%) compared to *Promoting Excellence* (27.5%)) can be informative. In this example, if the only external factor driving an agency's promotion

of excellence is industry best practice, then time or budgetary constraints are more likely to override this goal.

- In Section II, the “Not applicable” entry indicates that every significant external factor had an obvious response at the business goal level.
- In Section III, the most prominent business goal this planning period (*Better Educate Constituency*, at 43.4%), has no obvious alignment to an external factor.

5.2 Business Objectives to Business Goal Alignment

Every agency IT plan documented business goals and business objectives. Although the alignment between external factors and business goals was assigned during data analysis, agency planners specifically aligned their business objectives to their business goals. Alignment of business objectives to business goals improves the selection and management of IT investments.

Agencies associated each business objective to the business goal or goals it directly supported or aligned with. Planners were advised that each business goal should have at least one business objective aligned with it, and each business objective had to be aligned with at least one business goal. Agencies also were given the option to weight the business objectives, which quantifies their priority. Summary results are as follows:

- **Business goals.** 273 stated.
- **Business objectives.** 992 stated.
- **Business objective-to-business goal alignments.** 1,538 alignments were identified between business objectives and business goals. The average number of business objectives per business goal was 6.1. More than 90% of all business goals were aligned with at least one business objective.
- **Weighted business objective-to-business goal alignments.** Of the 1,538 business objective-to-business goal alignments, 1,234 (80.3%) were weighted with a value of 1% or more. Conversely, almost 20% of all business objectives did not have a weighted value against a business goal.

In Figure S-3, the most common themes are used as a comparison baseline and the number in parentheses indicates the percentage of plans that documented that theme. The table has three sections:

- Section I shows the closest match between the themes for the two business components. The match is not always exact, but at least several aspects of the themes are aligned.
- Section II shows business goal themes with no apparent alignment to any business objective themes.
- Section III shows business objective themes with no apparent alignment to any business goal themes.

Business Goals	Business Objectives
Section I. Aligned business goals and objectives	
Better Educate Constituency (43.4)	Constituency Education (31.9)
Improve Public Service (42)	Service Improvement (44.9)
Provide Fiscal Responsibility (31.9)	Fiscal Responsibility (33.3)
Improve Collaborations (27.5)	Collaborations (29)
Promote Excellence (27.5)	Best Practices (15.9)
Expand Digital Government (24.6)	Digital Government (39.1)
Secure Citizen Health & Safety (27.5)	Public Health and Safety (20.3)
Manage Compliance (23.2)	Compliance & Governance Issues (21.7)
Streamline Processes/Functions (23.2)	Streamline Processes/Functions (15.9)
Develop Workforce (21.7)	Workforce Development (36.2)
Upgrade IT Infrastructure (18.8)	Infrastructure Upgrades (15.9)
Improve Citizen Quality of Life (13)	Citizen Improvement (20.3)
Improve Data/Information Environment (4.3)	Data/Information Environment (21.7)
Implement Performance-Based Concepts (13)	Performance Management (23.2)
Section II. These business goals are not specifically aligned, but the business objectives are obvious responses to these business goals	
No entries for this section.	
Section III. These business objectives are not specifically aligned, but many are obvious responses to business goals	
	Legislative Initiatives (23.2)
	Funding Stream Management (21.7)

Figure S-3. Business Goal and Business Objective Alignment

There are several items of note with reference to Figure S-3:

- In Section I, the biggest mismatch focused on the *Data/Information Environment* theme. Improving the data/ information environment was a business objective for more than 23% of the agencies; however, it was a business goal for less than 2% of the agencies. Either agencies consider this issue to be a short-term condition or long-term considerations are likely to be ignored.
- In Section II, the “Not applicable” entry indicates that every significant business goal had an obvious response at the business objective level.

- In Section III, the two entries (*Legislative Initiative* and *Funding Stream Management*) appeared in more than 20% of all agency plans. No similar themes appeared at the business goal level. It should be noted, however, that these two objectives exist as short-term responses to pressing realities rather than as an interim step toward a planned business goal.

5.3 Line-of-Sight Observations

A line-of-sight observation considers how a theme may change emphasis as it appears in the external factor-to-business goal-to-business objective planning chain. Of note in this respect are the following:

- Data and Information Environment – The prominence is up as an external factor, down as a business goal, and up as a business objective.
- Funding Stream Management – This theme has a lower external factor and business goal this planning period, while the business objective remains high.

5.4 IT Projects to Business Objectives Alignment

During this planning cycle, agencies identified 303 IT projects in their plans and were required to align each project to at least one business objective. Of the 1,032 unique business objectives, 305 had at least one project aligned with it. This means 29.6% of all business objectives had IT projects aligned with them. It should be noted that not all business objectives can or should be supported by IT.

6 Organizational Assessments

Agencies provided organizational self-assessments in the areas of IT administration, IT strengths and weaknesses, and project management process maturity. This section presents a high-level overview of the results.

6.1 Agency IT Strengths and Weaknesses

Awareness of an agency's IT organizational strengths and weaknesses provides key indicators for agency planners. These factors indicate opportunities to be leveraged and challenges to overcome.

IT organizational strengths indicate attributes that may help IT programs achieve success and may have a positive effect on IT efforts. IT organizational weaknesses, on the other hand, indicate attributes that may hinder IT programs (e.g., obsolete hardware assets) and have a negative effect on IT efforts.

Agencies can use this information in the planning process to capitalize on their strengths and develop mitigation strategies for their weaknesses. In the agency IT plans for fiscal years 2008-2009, the strengths and weaknesses listed in 6.1.1 and 6.1.2 emerged as common themes.

6.1.1 AGENCY STRENGTHS

An entry appears in this section for one of two reasons. First, a strength theme may appear here if it is mentioned frequently among the agencies. Second, a strength theme may appear here if an agency known for IT success notes the strength as a reason for that success.

- **Alignment of IT to Business.** Recognition that IT should be closely aligned with business functions and requirements.
- **Centralized IT Management.** Mentioned when centralized IT management is perceived to be more efficient than decentralized IT management is.
- **Effective IT Staff and Management.** The perceived effectiveness of the agency's IT staff and management.

- **IT Knowledge and Literacy.** The degree of knowledge of IT personnel and the technical literacy of the business personnel in an agency.
- **IT Staff Stability.** Length of tenure and low turnover among the IT staff; cited by many agencies.
- **Modern/Current IT Infrastructure.** The currency and stability of the supporting IT infrastructure.
- **Performance-Based Focus.** The existence of a performance-based focus; listed by some agencies. This theme includes the concepts of quality and best practices.
- **Shared Data Model.** The existence of a shared data model; listed by some agencies.
- **Strategic Partnerships.** Strategic collaboration with key service partners. This can be with functionally similar agencies, supporting service agencies, or vendors.
- **Strong Management Support.** The strong support of IT initiatives and solutions by senior management in the agency. Of additional note is the growing IT “literacy” among this group.

6.1.2 AGENCY WEAKNESSES

An entry appears in this section for the same reasons as those given for strengths in 6.1.1.

- **Aging/Retiring Staff.** Aging staff considered a weakness by some agencies, along with their imminent retirement.
- **Application Documentation.** The absence of documentation for legacy applications, mentioned in connection with the strain on IT resources and employee retention problems.
- **Application Maintenance Burden.** The need to continue application maintenance support, while support for Web applications adds to the support requirements.
- **Business Continuity Shortfalls.** Business continuity and disaster planning moved to the forefront of IT priorities during the current planning cycle, and combined with the need to adjust these practices for digital government, this weakness was exposed.
- **Funding Constraints.** Mentioned by many agencies, problems across many areas of the IT environment because of the unpredictability of the IT budget.
- **Insufficient IT Staff.** Mentioned by many agencies, the ability of the current IT staff to support traditional responsibilities along with

the added responsibilities associated with the Web and expanding digital services. The combination places a severe strain on the support environment.

- **IT Governance.** The absence of sufficiently documented IT practices; listed by some agencies as a continuing problem.
- **IT Skill Currency.** Lack of training on current technologies and related certifications, along with the need to address skill shortfalls across the IT staff; listed by some agencies.
- **Legacy/Submerging Technology.** The existence of legacy applications and outdated technology; listed by some agencies.
- **Retention/Hiring Problems.** The inability to retain or hire new IT staff; listed by some agencies.

6.2 Comparison to Previous Biennium: IT Strengths and Weaknesses

When strengths and weaknesses were compared with those reported in the previous biennium, a number of differences emerged. It should be kept in mind that in both planning periods, the strengths and weaknesses listed depend on agency self-reports.

6.2.1 STRENGTHS

- There has been a shift in thinking within agencies. Previously, more agencies mentioned the business savvy of the IT teams. Now, the IT savvy of the business teams is the more common thought.
- More agencies recognized the value of centralized IT management within the agency. It should be noted that fewer agencies recognize the value of centralized IT management across the state.
- An IT training policy helps retention and competency, and with collaboration among agencies less time is spent in technology transfer efforts.
- The alignment of business concerns with IT action and support was a prominent strength.
- A highly-tenured staff matched with low staff turnover was the most dominant theme among the agency strengths.

6.2.2 WEAKNESSES

- Funding constraints matched with insufficient infrastructure funds was the most dominant theme among the agency weaknesses.

Although not really an organizational weakness, this theme does reflect a barrier to organizational effectiveness.

- Business continuity shortfalls were mentioned by a number of agencies as a shortfall. It is unclear to what degree this weakness became clearer to agencies as a result of a statewide focus on the matter.
- Expansion to the Web has not been accompanied by an adequate IT staffing and support environment. Agencies are still struggling with supporting legacy environments plus the new 24x7, information intense Web environment.
- IT skill levels was an often mentioned agency weakness. The increased emphasis on workforce development (see business objective themes) reflects a proper agency response to this condition.
- Retention/hiring problems, matched with thin IT staffs, was another frequently mentioned weakness. This factor combined with the IT skill shortage may signal a looming crisis in IT support. Further, if new policy dictates movement away from vendor/contractor support toward more internal support, these weaknesses will be magnified.

7 Project Management Process Maturity Level

Part of the IT organizational self-assessment that agencies completed as part of their strategic plans included the identification of the maturity level of the agency's project management processes. The process maturity level indicates the degree to which the agency uses project management best practices (documented, repeatable, proven processes) to manage their projects.

By understanding its level of project management maturity, the agency can identify opportunities and develop criteria to facilitate improvements in its project management activities that will bring the greatest benefit to the agency. Agency planners selected the level of maturity from the following choices:

- Level 1 – Ad-hoc project management processes, no documentation
- Level 2 – Ad-hoc project management processes, some documentation
- Level 3 – Some project management processes, some documentation
- Level 4 – Sufficient project management process, all documented
- Level 5 – Monitors and improves project management processes
- Level 6 – Monitors, improves and trains project management processes

The higher the level, the higher the quality of planned deliverables, and the lower the overall project costs should be. Figure S-4 displays how the agencies responded to this self-assessment of their project management process maturity. Only 30% consider their project management process sufficient or better (response levels 4, 5 and 6), while 70% seem aware that there is room for improvement.

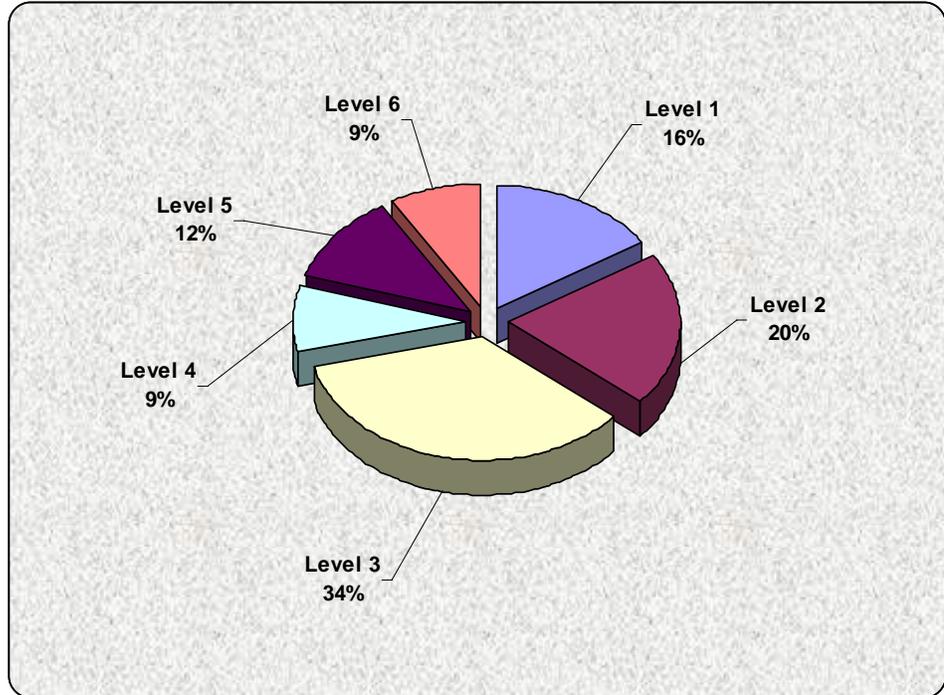


Figure S-4. Project Management Process Maturity Level

7.1 Comparison to Previous Biennium: Project Management Process Maturity Level

The project management process maturity self-assessment from the last three planning periods is available for analysis. Figure S-5 presents the data from a comparison of responses for the three periods.

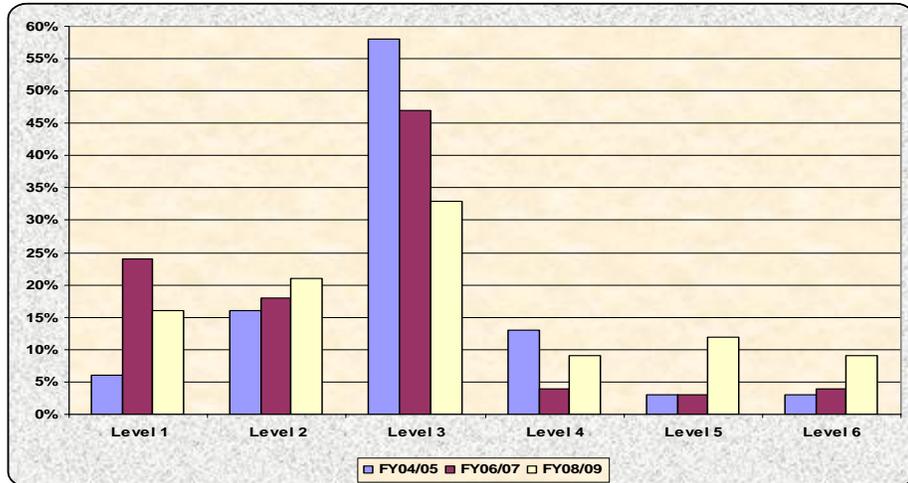


Figure S-5. Project Management Process Maturity Level Biennial Comparison

In Figure S-5, the columns indicate the percentage of agencies at each project management process maturity level. The overall decrease at

the lower three levels is probably a positive reflection of the progress made through OIT project management training efforts.

7.2 Project Management Maturity Comments

In addition to the identification by each agency of their project management maturity level, agencies were given the ability to add a project management maturity comment. Thirty-seven agencies provided information.

- Many of the responding agencies noted progress in the training and certification of their IT staff.
- Some of the responding agencies initiated or indicated maturity in an internal project management office.
- Some of the responding agencies noted their small size or infrequent need of project management skills and practices. Consideration should be given to a PM services capability for these situations.

8 Consolidated Observations

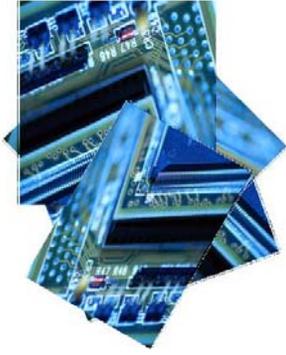
The following summary of observations from this document highlights the more critical issues from the strategic perspective of agency plans. A code is provided (strategic report section (S) – observation (O) – numeric code) for reference in the Executive Summary, and each observation ends with a reference to the supporting section of this document:

- S-O-1 – State agencies continue to increase their online Web presence and services. A governance strategy to guide information management, site navigation and other critical components that affect the online experience for a citizen desiring government services is needed. (1.3)
- S-O-2 – Enterprise-wide data management principles, which affect online accessibility, application data exchange, reporting accuracy, etc., have not achieved consistent attention across most agencies. (1.3)
- S-O-3 – Performance management principles are emerging at all levels of the agency strategic plans. (2.3 and 3.2.3)
- S-O-4 – The workforce development theme occurred in several agencies' strategic plans and is consistent with the new administration's Accountability Approach. (3.2.3)

Contact

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Statewide IT Investment Summary & Analysis

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