



## A Final Report for **City of Chandler**

### **Strategic IT Plan—Executive Summary**

6 January 2004  
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**Gartner**

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## 1. Executive Summary

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## 1.0 Executive Summary

### 1.1 Background

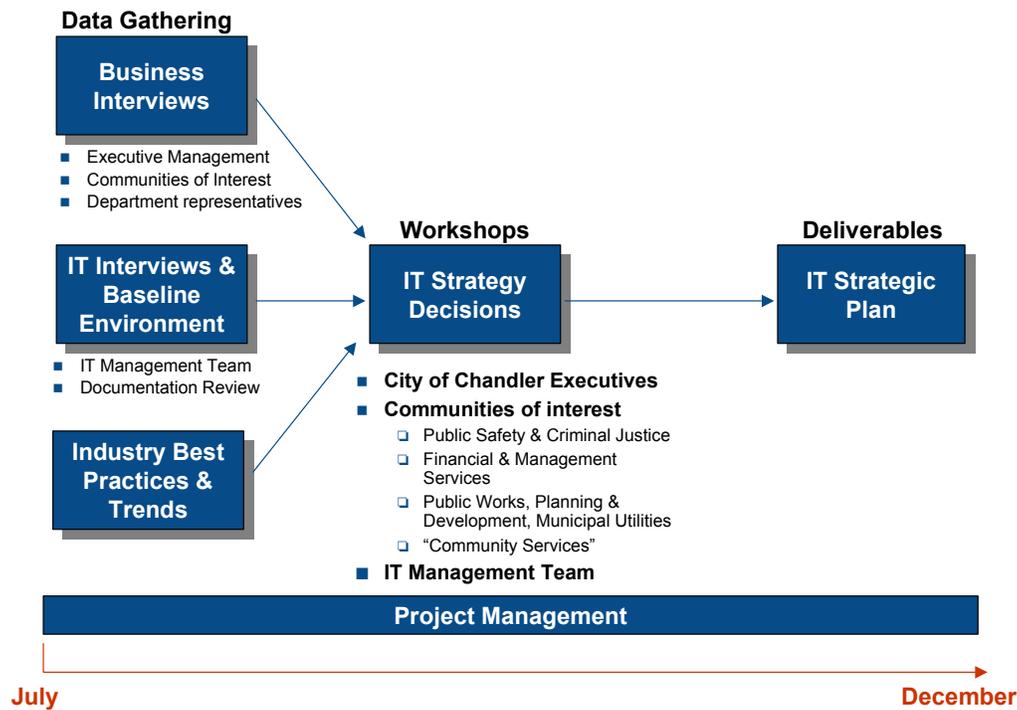
The City of Chandler (the City) is located in the southeastern portion of the Phoenix Metropolitan area. As one of the fastest growing cities in the nation among cities with populations over 200,000, the City offers excellent quality-of-life amenities, superior schools, a rapidly expanding healthcare system and a reputation as a global leader in technology.

In 2003, the City Manager appointed the City's first Chief Information Officer (CIO). Under the CIO's direction, the development of a comprehensive Information Technology (IT) Strategic Plan for the City was undertaken. The objectives of this effort were to:

- Assess the alignment of current IT resources and strategies with Citywide business goals and objectives
- Define the City's IT strategic direction based on an assessment and gap analysis of the City's current IT environment with respect to the City's business goals and objectives, industry technology trends and best practices in the areas of:
  - IT infrastructure (e.g., applications, systems, network, Internet)
  - IT organization and staffing
  - IT governance
  - IT management processes (e.g., training, methodologies, tools)
  - IT operations (e.g., service delivery, project management, security, disaster and business recovery)
- Identify and prioritize IT initiatives that are required to support the City's business goals and objectives
- Develop an IT strategic plan that aligns the City's IT objectives and initiatives with the City's business goals and objectives.

The City's strategic planning process was an inclusive, business-driven, consensus-based process guided by the City's Executive Team and Information Technology management team. The City engaged Gartner Inc., an independent research and management consulting firm, to assist with strategic assessment and strategy formulation efforts. Input from more than 100 stakeholders was solicited through individual interviews or focus group sessions over a six month period. The strategic planning process is shown in the diagram below:

Figure 1. Overview of Strategic IT Planning Process



Source: Gartner, 2003

The IT Strategic Plan is intended to define the City's vision of the future for IT and the key strategies for achieving this vision. It will provide Citywide guidance and direction for the management and development of IT within the City over the next three to five years.

## 1.2 Chandler Business and IT Context

Based on input from City executives and staff, Gartner identified business drivers for the City to consider during the IT strategic planning process. These business drivers are the forces that require the City to take action in response to environmental trends over the next three to five years. Environmental trends are the social, political, economic and technological directions and events that affect the City at large. The business drivers identified include:

- **Rapid City expansion and build-out**
- **City economic development**
- **Aging city residential and commercial center**
- **Stressed and aging City support infrastructure**
- **Changing City social and political environment**
- **Reduced state funding and increasing internal City costs.**

Gartner facilitated workshops with the executives, and with their input, identified business strategic imperatives for the City to consider during this strategic planning process. These imperatives are:

■ **Aggressively maintain and develop City facilities and infrastructure through capital improvement projects**

This imperative implies a commercial investment and reinvestment program as well as efforts to improve transportation, water, waste, water recreation, public safety facilities and infrastructure.

■ **Attract quality commercial development to the City**

The goal of this imperative is to diversify the City's employment base and enhance the City's ability to compete effectively against other communities for employment and commercial development.

■ **Manage residential development and quality of life**

This imperative ensures that City service availability reflects the growth and development of the City while improving the quality of older neighborhoods through neighborhood revitalization and preservation.

■ **Improve program resource management practices**

This imperative seeks to ensure that project funding accounts for both one-time and ongoing operational costs. Better understanding promotes more insight to changing priorities (e.g., staff asked to re-prioritize capital projects over the upcoming five-year period and whenever possible, defer the building of facilities needing new personnel or ongoing costs).

■ **Evaluate and improve internal business processes that support City services**

This imperative focuses on both efficiency and effectiveness. One example is to automate and streamline end-to-end processes, rather than automating inefficiencies and fragmented processes. For instance, moving City services closer to the customer through more remote field sites—police, fire and public works sub-stations—would promote efficiency and effectiveness. Additional examples include:

- Enhance Citywide collaboration and information sharing as informational requirements and business processes span business functions across the City, e.g., public safety and criminal justice
- Enhance customer self-sufficiency in their use of City services
- Seek better insight and understanding into City customer demand to better develop services that serve their needs
- Leverage geographic information as a common platform.

The standalone IT function in the City is relatively new. Up to one year ago, this function was part of the Management Services department. Today, the IT organization is in the midst of transforming itself from an infrastructure-oriented, cost focused function to a mature provider of IT services. This transition is evident in the findings discussed in this section, and is noted in our discussion of emerging processes, and in positive and hopeful feedback from customer groups.

The City's IT division is comprised of 45<sup>1</sup> fulltime staff providing IT services to the City. The division has existed for one year under the direction of the City Manager's Department—it previously fell under the department of Management Services. In February 2003, the GIS Division was merged under IT, and became part of the IT applications group within the division. The IT division is now headed by a Chief Information Officer (CIO) who reports directly to the City manager.

Though the IT division is tasked with providing IT-related services for the entire City organization, some departments maintain their own IT staff and IT operations. In these cases, the IT division provides services only as needed.

The key functions of the IT division currently are:

- Deployment, maintenance and support of City business applications and software. Note that some City departments manage their own applications
- Management of the City's data network; this includes the provision of remote access capabilities
- Citywide desktop personal computer management with the exception of the library, which has its own independent sources of revenue for desktop computers
- Project management of new IT initiatives
- Management of vendors providing the City with IT solutions and services
- Security management and disaster recovery of IT systems.

### 1.3 Chandler's IT Strategic Direction

Based on the findings from the gap analysis, Gartner developed a set of five strategic IT recommendations, representing the strategic IT actions that IT must take to successfully support, enhance or redefine city functions in order to accomplish the City's business imperatives and address the City's business drivers. These strategic actions recommendations include:

- Enhance IT service delivery
- Develop enhanced customer-centric programs and services through electronic delivery channels
- Support City growth
- Leverage data to support effective business management
- Improve business-driven IT decision-making.

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<sup>1</sup> IT Division headcount as of 12/1/03, provided by City of Chandler

These objectives are aligned to the City’s business imperatives, shown in the diagram below, and described in the text following the diagram.

**Figure 2. Alignment of Strategic IT Objectives to Business Goals**

IT Imperatives	Business Imperatives				
	Develop city facilities and infrastructure	Attract quality commercial development	Manage residential development	Improve program funding and resource management	Evaluate and improve internal business processes
Enhance IT service delivery				X	X
Develop enhanced customer-centric programs and services	X	X	X		X
Support City growth	X	X	X	X	X
Leverage data to support effective business management	X		X	X	X
Improve business-driven IT decision making	X			X	X

Source: Gartner, 2003

**Strategic Goal 1: Enhance IT Service Delivery**

Enhancing IT service delivery is critical to ensuring the City’s IT investments in people, processes and technology are optimized. This goal requires that responsibilities for IT service delivery be clarified, especially between the central organization and those persons who provide IT-related services in the departments. It further requires that IT customers articulate their expectations for the scope and quality of IT services, and agreements are established with the service providers about how the expectations will be met. A methodical, systematic approach to defining and clarifying roles and establishing expectations will generate consistent improvements in IT service delivery.

Another component of the goal to enhance IT service delivery is the ability to improve the value of technology solutions by ensuring that IT services are business-focused and based on an understanding of the City’s business needs. This comes about with established relationship managers between the functional departments and IT providers, and by strengthening the functional and departmental expertise of the IT professionals.

The following objectives were articulated to achieve this goal of improved service delivery:

- Define the scope of services provided by the IT organization
- Clarify IT organization and staff roles and responsibilities
- Enhance business-related skills of IT professionals
- Establish service-level expectations and agreements
- Monitor IT service delivery metrics.

### **Strategic Goal 2: Develop Enhanced Customer-Centric Programs and Services Through Electronic Delivery Channels**

Several initiatives are underway to enhance the City's ability to deliver services electronically, both externally to citizens and other stakeholders, and internally to employees. For example, online utility bill payment and online training are current City initiatives. In addition, such progress has been made in the private sector that customers have come to expect access to some City services independent of City business hours of operation. They have come to expect services 24 hours a day, seven days a week. Current thinking about customer service emphasizes taking a citizen-focused approach, enabling customer self-sufficiency and one-stop service delivery.

To achieve this goal of customer-centric programs and services through electronic delivery channels, the following objectives were identified:

- Improve internal and external communications infrastructures capabilities
- Ensure security and privacy of electronic transactions
- Enhance electronic commerce capabilities
- Improve customer service.

### **Strategic Goal 3: Support City Growth**

By all measures, the City has experienced significant growth over the last decade, and is recognized as one of the fastest-growing cities in the nation. Managing this growth has been a core activity of City departments. As the City reaches the milestone of 90 percent build-out, it is critical that City services expand to reach all communities, and that the City provide applications and tools that enhance the provisioning of City services commensurate with its growth, and fosters economic expansion. These tools must also facilitate collaboration among related department processes and activities and enable enterprise-wide analyses and decision-making. The collaboration has already begun with the establishment of communities of interest around Finance and Management Services, Public Safety, Community Services, and Public Works, Municipal Utilities, and Planning and Development.

In addition, employees who do not work in the central City complex, but instead work in the communities and outlying facilities, are increasingly providing City services outside of the City campus facilities. The ability to communicate seamlessly with these external facilities and field employees will become a core requirement for cost-effective, high-quality constituent service delivery.

To achieve this goal of supporting City growth, the following objectives were identified:

- Understand City demographics and community-based customer segments
- Enable more cost-effective service delivery channels
- Easily integrate and share information between departments
- Leverage geographic data to effectively target and deliver City services
- Share common information and data among communities of interest, independent of source and manual intervention.

#### **Strategic Goal 4: Leverage Data to Support Effective Business Management**

Ubiquitous access to information is critical to City executives for making informed decisions. For example, in measuring the performance of a capital improvement project, it is essential to be able to quickly access information on the progress of the project, determine its initial budget, and identify expenditures against the budget. This currently is achieved by accessing multiple autonomous systems. Should the overall project budget change, the impact on individual project components needs to be quickly and easily determined, rather than the manual process currently involved. Offering competitive City services such as library, water, sewer, transportation, and trash collection against private sector counterparts is also a strategic consideration, as well as the ability to measure performance and ensure accountability of City departments and employees.

In addition, there is a host of geographic, demographic, economic and other information that can provide insight into trends affecting the City. This information cannot currently be leveraged, because it is so difficult to access. Providing measurement, monitoring and evaluation tools to more effectively manage the business interests of the City becomes even more of a challenge as information explodes exponentially in manual, desktop or isolated department systems. In addition, the ability to use the City's budget and forecast information as a management tool throughout the year would enhance business decision-making.

To achieve this goal, the following objectives were identified:

- Improve access to City information to facilitate management decision-making
- Streamline internal business and operational support functions
- Enhance ability to respond to service requests
- Maximize employee productivity and effectiveness

#### **Strategic Goal 5: Improve Business-Driven IT Decision-Making**

A key component to achieving this goal is the recognition by City decision makers that IT is a strategic tool for enhancing the City's internal and external service delivery channels. As such, it has to be managed with an enterprise-wide emphasis to ensure that the City's collective capabilities and resources are leveraged. A modified IT governance framework will enable key decision makers across the City to decide on strategic IT projects and the City's overall IT direction, and facilitate involvement at different levels.

Currently, the City's IT Oversight Committee (ITOC) serves as its single IT governing board. While it has been in operation for a while, and enabling processes have been defined, the breadth of IT decisions is not covered by this group. For example, there is no structured venue for technology architecture guidance.

In addition, a number of key IT processes are in their embryonic stages in that they have been identified, somewhat documented, but not fully implemented. This is especially true in the areas of IT investment management, where IT portfolio management, project justification and prioritization, and continuous project monitoring activities do not take place.

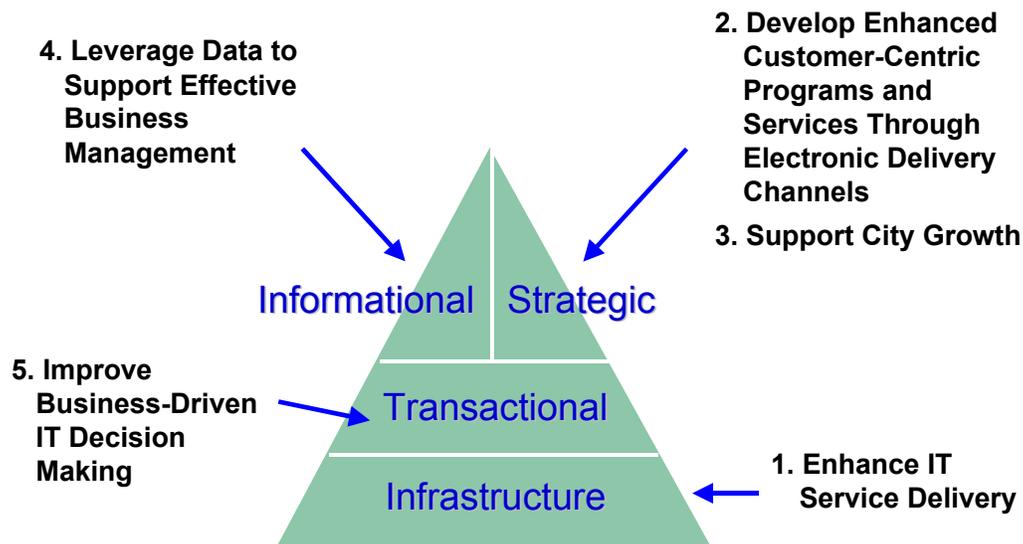
In order to achieve this goal, the following objectives have been identified:

- Maximize the City's capabilities for making IT decisions

- Improve the planning and monitoring of IT funding and budgeting
- Appropriately manage the allocation of IT funding and staff resources
- Achieve organization-wide buy-in and support of IT decisions and strategic direction
- Consistently apply and enforce IT standards, policies, and procedures
- Minimize IT total cost of ownership.

These strategic goals span different levels of IT functions as depicted below. They enable the organization to focus on IT activities that support, enable or drive IT capabilities for the City, and move to increase the value of IT within the organization.

**Figure 3. Mapping IT Strategic Goals to IT Functions**



Source: Gartner, 2003

Initiatives have been defined that support each of the strategic directions. These are described in detail in the following section.

Based upon stakeholder input and Gartner's observations, there are critical success factors that must be achieved in order for the City to successfully act upon these strategic goals and the supporting initiatives. These critical success factors are:

- Executive sponsorship for the City Council and City executives. The leadership is important to sustaining momentum, maintaining alignment with City business goals, and securing resources.
- Commitment of time and resources throughout the organization. Participation of both business and IT resources will be required for each of the initiatives.
- Enhanced credibility in the central IT organization. A true partnership must exist—one that is based on trust, mutual understanding and consistent delivery on promises.
- IT resources and capabilities. The appropriate mix of skills and level of resources are required to enable these objectives. Both the business and technical resources are

thin—all agree there is little ability to backfill positions or to dedicate specific resources to a given project. The tradeoff decision must be continuously made.

- Technology leadership for City business functions. Increased functional and departmental expertise is needed to ensure that technology and business solutions meet the business need, today and into the future. In addition, the synergies that arise from collaborating between different City departments can drive the need for new capabilities.

## 1.4 Initiatives

The strategic objectives are supported by 23 initiatives. The initiatives are listed below, and described in detail in Section 5.2 of this document.

**Table 1. Preliminary Strategic Recommendation**

<b>1. Enhance IT Service Delivery</b>
1.1. Redefine the City’s IT organization and migrate to a centralized IT organization structure
1.2. Evaluate external service provider capabilities and costs to deliver IT infrastructure services
1.3. Establish standards and training programs for core IT competencies
1.4. Strengthen IT security management practices across the city
1.5. Establish comprehensive IT business continuity and disaster recovery policies & procedures
1.6. Formalize policies and procedures to support key IT business activities and processes
<b>2. Develop enhanced customer centric programs and services through electronic delivery channels</b>
2.1. Establish and implement an e-Government strategy for Chandler
2.2. Provide employee solutions that enable self service
2.3. Evaluate existing applications for constituent/citizen/ customer relationship management (CRM) solution
<b>3. Support City Growth</b>
3.1. Strengthen data, solution delivery, and maintenance services pertaining to geographic information
3.2. Reassess current enterprise wide implementation of electronic document management system
3.3. Evaluate existing applications portfolio for improvement opportunities
3.4. Consider renovating or replacing the existing CJIS solution
3.5. Enhance police record management functions through more integrated, seamless department specific applications.
3.6. Rationalize data sources for common information (e.g., address, GIS data, etc.)
3.7. Enhance communications infrastructure for seamless information access and sharing across the city
<b>4. Leverage Data to Support Effective Business Management</b>
4.1. Provide measurement, monitoring, data access, and evaluation tools for more effective enterprise wide business management
4.2. Provide IT capabilities for ongoing budget and forecasting processes that support business decision making

<b>5. Improve Business Driven IT Decision Making</b>
5.1. Establish robust IT governance structure and processes
5.2. Formalize IT investment management practices—IT investment decision making
5.3. Formalize IT investment management practices—IT portfolio management
5.4. Formalize IT investment management practices—IT program and project management
5.5. Clearly define IT enterprise architecture

Source: Gartner, 2003

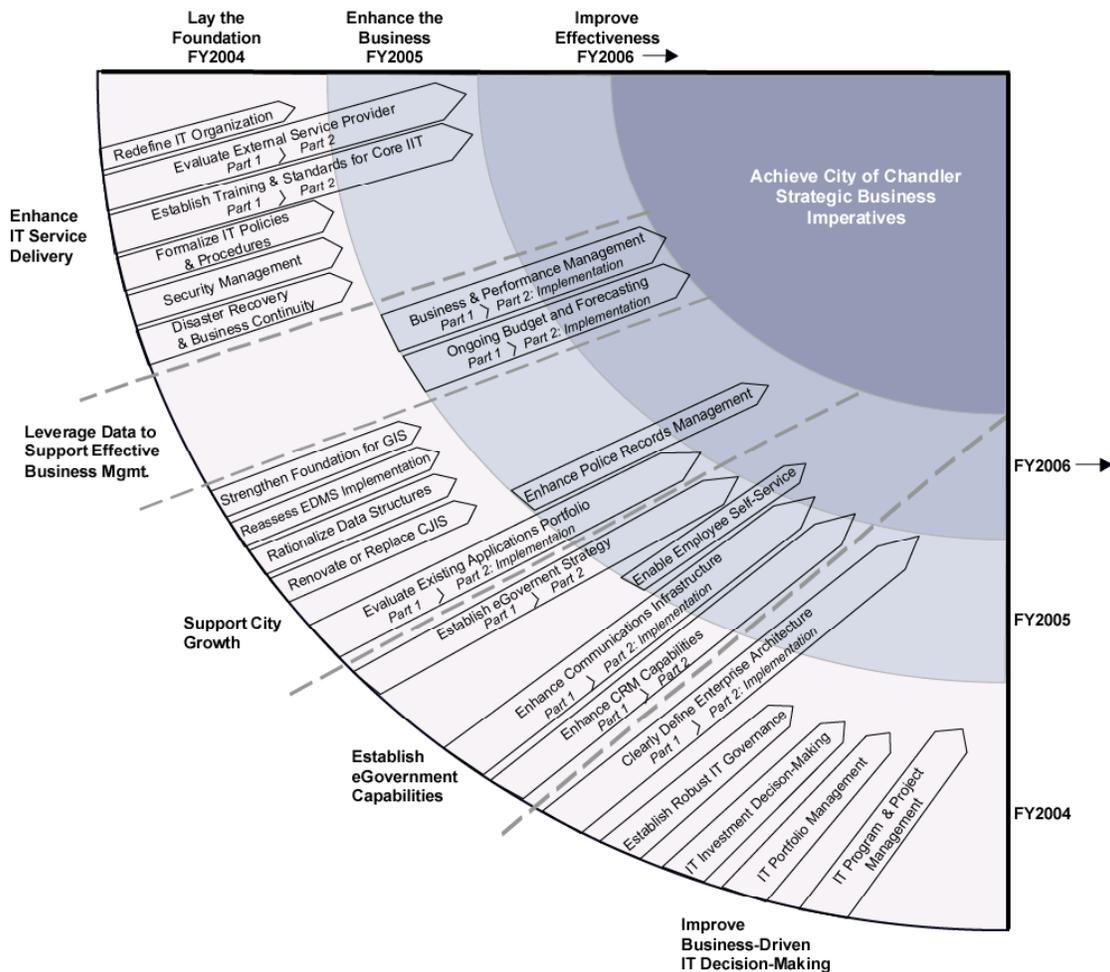
## 1.5 Implementation Roadmap

The City has a significant challenge ahead in implementing the initiatives described in this document. The initiatives are designed to transform the IT capabilities for the City, not only in terms of the specific technology solutions in place, but also in terms of the processes used to manage the organization and make IT-related decisions, and in terms of the organization and people. A transformation this significant has some inherent risks that need to be addressed in developing the implementation roadmap. The proposed roadmap seeks to balance the risk while enhancing the overall capabilities. The initiatives are divided into three categories for implementation, which are:

- **Lay the Foundation**—Initiatives in this category provide a solid foundation upon which the City can build further IT capabilities. They are seen as prerequisite activities, and will provide the operating infrastructure needed for the central IT organization to consistently provide IT services, and to get the strategic and executive guidance from the City executives and management team.
- **Enhance the Business**—Initiatives in this category enhance the business’s ability to achieve the business imperative. These initiatives can be addressed once the foundational elements are more firmly in place, giving the end customers the confidence they can rely on the organization to deploy the solutions effectively, and that the solutions will meet the needs of the enterprise in achieving enterprise goals.
- **Continuous Improvement**—Initiatives in this category enable the City to focus on continuous improvement activities. Initiatives in this phase rely on the operating and technology infrastructure elements that have been implemented, new applications that have been deployed, and existing applications that have been enhanced. They enable the organization to focus on performance management and operational improvements.

This is shown in the following figure depicting the implementation roadmap.

Figure 4. Chandler IT Strategy—Implementation Roadmap



Source: Gartner, 2003

## 1.6 Funding Requirements

As part of the strategic planning process, Gartner conducted a high-level analysis to determine the City’s overall funding needs to help achieve its IT strategic goals and objectives.

The estimates are based on Gartner industry and technology research into software, hardware, consulting and training costs on similar or related initiatives. For purposes of consistency, the estimates are based on the use of external resources to perform the work—the use of internal resources to perform some of the work could reduce the potential costs incurred.

The estimates do not reflect the potential benefits—cost reduction or revenue enhancement—that could accrue as a result of implementing the initiatives. Nor do they take into account potential funding strategies that could also offset the cost of the initiatives. Such funding strategies might include private/public partnerships (e.g., for desktop replacement, for implementation of enterprise portal), convenience fees (e.g., transaction fees for using the

Internet to pay parking tickets or utility bills), and strategic outsourcing arrangements. Once the new governance framework has been implemented, the City should analyze and implement potential funding strategies to offset the costs.

The estimated funding needs for the initial implementation layer “Lay the Foundation” is \$25 to \$6 million. These are incremental investment requirements. Gartner recommends that the City of Chandler target a three year implementation timeline. However, we recognize that the City of Chandler may elect to extend this timeframe to five years to more closely reflect availability of funds.

**Table 2. IT Investment Requirements Summary**

Implementation Layer	Estimated Funding
Lay the Foundation	\$ 2.5–6 million
Enhance the Business	\$ To Be Determined
Improve Effectiveness	\$ To Be Determined

Source: Gartner, 2003

These estimates are conservative, but still may exceed the available funds. It is in this type of situation that the governance structure is critical—more transparency in the decision making process, consistent information and processes, alignment with business objectives. The governance structures will provide the mechanisms through which the City of Chandler can adjust the implementation program to reflect the conditions that exist at the time the implementation plan is updated.

## 1.7 Critical Success Factors

The City has established the vision for how information technology will enable the transformation of the City’s business model. In order to achieve this vision and the strategic IT goals and objectives, the following critical success factors were identified:

- Strong executive sponsorship and support from City Council and City executives on the City’s IT Vision and Mission
- Buy-in from City stakeholders including the various City departments
- Commitment of time and resources
- Funding and staff resource support to execute the plan
- Ongoing close communications and teamwork throughout the organization
- Phased implementation strategy based on overall City priorities
- Regular progress assessment of the achievement of strategic IT objectives
- Annual review process to ensure that the plan goals and objectives remain consistent with the City’s business needs.

## 1.8 Conclusion

This IT Strategic Plan incorporates the input of many City stakeholders. It provides a vision for the City's future IT direction and delineates the City's strategic goals and objectives. It identifies key initiatives that will lead to the attainment of these goals and objectives, including the steps required to optimize the IT organizational framework, and the funding required to undertake the initiatives. Implementing these initiatives presents the City with the opportunity to constructively evolve how the City plans, procures and manages IT services to optimize the numerous benefits that technology can provide in delivering cost-effective services to its citizens. In summary, this IT Strategic Plan provides the roadmap to fully utilize the power of IT to achieve the City's business goals.

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