



CITY OF HOUSTON

EXECUTIVE ORDER

Subject: **POLICY TO DIRECT AND MONITOR TECHNOLOGY EFFORTS**

E.O. No.

1-44 Revised

Effective Date:

November 25, 2002

BACKGROUND:

In June 2001 the Chief Information Officer (CIO) commissioned a citywide technology assessment and the development of a Strategic Technology Plan. The Plan provides a blueprint for making improvements to the City of Houston's technology infrastructure, standards, core systems, organization and policies. The recommendations from this Plan have been incorporated into this Executive Order.

PURPOSE:

The primary purpose of this Executive Order is to establish and communicate the City's technology strategic direction. This order will position the City to take greater advantage of emerging technologies and allow the City to properly leverage its substantial investment in human capital and physical assets. In addition, this order is intended to:

1. Manage and direct the City's resources to provide the most innovative and cost effective technology future for the City of Houston.
2. Manage and direct the implementation of the Strategic Information Technology Plan for the City as a whole and for individual departments with the purpose of providing both citywide perspective as well as a departmental application focus.
3. Establish standards for acquisition and/or development of computer systems based on the Strategic Information Technology Plan and in compliance with applicable procurement law.
4. Develop implementation strategies for information technologies (hardware and software).

OBJECTIVES:

1. To establish the roles of the Technology Steering Committee (TSC), the Chief Information Officer (CIO), the Chief Technology Officers (CTOs), Information Technology (IT) Department, and departments in managing and directing the City's information technology.
2. To implement a uniform citywide Strategic Information Technology Plan, that conforms with applicable procurement laws and that will incorporate departmental Strategic Information Technology Plans consistent with the citywide plan, recognizing that in many cases the departmental plans are far more specific than the citywide plan, and in conformity with the applicable procurement laws.
3. To maximize the City's investment in information systems by utilizing a standard for systems development methodology and project management, including planning, analysis, design, and implementation.
4. To utilize the City's existing information technology in a cost-effective manner and to eliminate unnecessary redundancies in the information services function, its systems and staffing.

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5. To establish infrastructure, application, data, and security standards which increase opportunities for data sharing and eliminate unnecessary redundancies.
6. To establish IT spending as a higher priority and consistent with the industry median, in order to properly leverage the City's investments in human capital and physical assets.

SCOPE:

This policy directive is applicable to all City of Houston departments and personnel, as it relates to the information systems and related processes. This Executive Order applies to, but is not limited to the following technology-related events:

1. Departmental technology plans;
2. Individual project plans, budgets and financial structures;
3. RFPs for departmental technology plans;
4. RCAs for technology, telecommunications, or Internet-based products;
5. Purchase of capital equipment;
6. All technology consulting, and information technology services;
7. Contract technology staff augmentation;
8. Purchase of non-standard items from the Texas Department of Information Resources (DIR), the Texas Procurement Center (TPC) or other such agreements (Microtechnology Contract, Compaq, etc.);
9. Network/infrastructure projects;
10. Technology outsourcing;
11. Applications with potential multi-departmental utility;
12. New technologies that may have Citywide applicability; and
13. Telecommunications acquisitions and maintenance.

POLICIES:

The following policies communicate the City's strategic technology direction and are intended to provide guidance to the Technology Steering Committee, both citywide and departmental. The policies are organized by category as follows:

1. *Organization*
 - A. The City's IT functions are to be organized to encourage collaboration citywide and to effectively leverage the city's investments in human capital and physical assets.
 - B. Departmental IT spending will be accounted for in a consistent budget format as established by the CIO and F&A Director in a manner to meaningfully account for IT spending and budgeting.
 - C. Executive level management participates in the establishment of an IT vision and strategy through active involvement in the Technology Steering Committee.
 - D. Department Directors with significant IT capabilities, as described below, will designate an assistant director level executive as Chief Technology Officer.
 - E. The Technology Steering Committee will be composed of the CIO and CTOs and be a forum for budget management including multi-year planning, coordinating funding for citywide and departmental projects as well as fostering good communications on current year budget management.
 - F. The CIO and Directors will ensure that qualified professionals are hired with the qualifications and experience necessary to manage the City's technology resources and to allow the City to take advantage of emerging technologies and establish appropriate classification levels that allow the City to attract and hire qualified talent.

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- G. The use of contract outsourcing, i.e. contracts with third parties for services/operations, is to be considered preferable in situations where market competition is significant, services/activities are not extremely critical or sensitive and the City's internal capacity is limited.

2. *Infrastructure*

- A. The City initially will pursue an open/N-Tier architecture, for its computing environment which will enable the reduction of application maintenance costs and network traffic requirements, improve scalability and support staff productivity, and leverage emerging internet technologies.
- B. The City will consolidate data centers where appropriate to do so. Data Center consolidation should provide significant IT organizational and service improvements. Consolidation should be pursued when:
 - 1.) Similar systems and processes are duplicated in different data centers;
 - 2.) Organization-wide processes and shared applications are supported in multiple locations by different support personnel;
 - 3.) Organization-wide technology infrastructure management and support is needed.
 A thorough analysis and identification of all requirements – technical, legal, economic, operational, support and security is performed and a well-planned consolidation document is approved by the Mayor.
- C. The City will develop a solid network foundation, which is essential for all future City technology applications. The City will consolidate networks under the IT Department and redesign the network itself to reduce ongoing costs, improve throughput, and reduce the risks inherent in multiple networks, e.g. unauthorized access and data integrity.

3. *Standards*

- A. Standards for naming conventions, desktop software, passwords and routing protocol are to be established by the TSC.
- B. The TSC will establish a life cycle replacement standard for desktops and other assets to reduce computer support costs, risk of system failures, incompatibility with new technology, and to improve productivity. As part of implementing this standard, alternatives such as equipment leasing should be considered.
- C. The City will develop and implement a disaster recovery plan to ensure the City's ongoing operations and to ensure that required levels of service are maintained or restored to operations in timeframes so that business interruptions can be minimized or avoided.

4. *Core Systems*

- A. The CIO will prepare for and/or begin implementation of a replacement of the core business system with an enterprise resource planning systems (ERP). The risk reduction and potential savings/improvements that can be gained from implementing a new ERP system are to be evaluated and migration actively pursued.

5. *Procedures*

- A. Procedures are to be developed to establish, communicate, and monitor compliance to standards established by the TSC.

IT OPERATING MODEL, STRUCTURE, AND RESPONSIBILITIES:

The structure for overseeing and managing information technology is collaborative in nature and is designed to ensure coordination between departments and the Information Technology (IT) Department in setting technology standards and developing and maintaining services and systems. The structure consists of three levels:

- 1. Technology Steering Committee (TSC);
- 2. Information Technology (IT) Department; and

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3. Departmental Information Technology (DIT).

Technology Steering Committee

1. The TSC is an oversight committee responsible for approving:
 - A. A long-term information technology strategy;
 - B. A shared vision for the role of technology in city government, and
 - C. The leadership necessary to plan and manage technology resources and efforts.
2. The TSC is chaired by the CIO and is comprised of the Departmental CTOs. The TSC will ensure that technology projects are understood and prioritized effectively and that they clearly add value to department operations and the City’s strategic direction.
3. The CIO is responsible for recommending the components of an IT vision and strategy to the TSC and for bringing forward specific recommendations for standards, protocols, procedures, and new initiatives.
4. The responsibilities of the TSC include:
 - A. Determining the organizational and environmental structure for the City’s information technology;
 - B. Reviewing the Strategic Technology Plans that will guide the city and departmental Strategic Information Technology Plans with recommendations to Mayor for actions and ensuring compliance with these plans as well as approved standards and policies;
 - C. Formalizing the investment decision-making process based on size, return expected, etc.;
 - D. Creating a comprehensive standardized technology infrastructure, including the convergence of data, voice, video and imaging on the communications network;
 - E. Focusing on how technology can improve citizen services, such as on-line transactions;
 - F. Creating the framework for enabling Houston to flourish in the Internet economy;
 - G. Partnering with businesses in Houston to achieve the vision for the city technology;
 - H. Managing technology as a coordinated citywide effort and the City’s information as an asset;
 - I. Leveraging the City’s investment in technology to exploit new technologies;
 - J. Establishing and implementing citywide standards and procedures and developing an integrated citywide technology plan; and
 - K. Serving as oversight authority for the City’s portal and Intranet sites.

Information Technology (IT) Department

1. IT is overseen by the CIO who is responsible for operating and maintaining citywide shared services such as:
 - A. Tier 2-4 Help Desk Services;
 - B. Data and Voice Network Operations and Administration;
 - C. Consolidated Data Centers;
 - D. Project Management Office including Emerging Technology and IT Consulting Services;
 - E. IT Administration including IT Budget, Planning and Support, and Procurement;
 - F. Application Support including Enterprise Business Systems and Business Unit Applications, and
 - G. Security/Standards and Policies.
2. The IT Department provides consulting assistance to departments in the areas of technology selection, negotiating and managing technology vendor contracts, project management for large implementations, and strategic planning.
3. The CIO is responsible for:
 - A. Working with the TSC and implementing technology initiatives in accordance with its direction;

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- B. Coordinating with the departmental Information Technology (IT) staff and the Department Directors;
- C. Developing, proposing, implementing, and monitoring the approved Strategic Information Technology Plan;
- D. Developing and implementing written guidelines, IT standards and methods and procedures that are both regarded as standards of good practice in the industry and supportive of City and departmental goals;
- E. Identifying and implementing enterprise systems (mainframe, microcomputer, personal computer, PC networks) and overseeing implementation of all major citywide systems;
- F. Planning for and ensuring the security of city data and applications;
- G. Preparing the annual IT Department budget and establishing controls to stay within the budget, as well as participating in the collaborative review and prioritizing of IT spending across all departments;
- H. Reviewing all departmental Strategic Information plans and aligning them with citywide Strategic Information Technology Plan and standards, through consultation with the departments, while recognizing that the departmental plans may have greater specificity than the citywide plan;
- I. Creating and maintaining the City's technology inventory, as well as planned technology activities;
- J. Reviewing technology purchases and making recommendations to the Department and the TSC;
- K. Planning for and overseeing network operations for citywide e-mail and desktop support;
- L. Overseeing PC, desktop support, and service contracts citywide where applicable;
- M. Maintaining citywide intranet, internet, and data marts;
- N. Managing citywide contracts with technology vendors and assisting with department contracts where appropriate; and
- O. Ensuring in consultation with the City Attorney that all technology purchases are made in compliance with applicable procurement laws.

Departmental Information Technology

1. Each Department Director with significant IT operations will appoint a Chief Technology Officer (CTO), in consultation with the CIO, who will assist the Department Director in maintaining departmental applications and specialized desktop software and providing Tier 1 help desk support. The exact role of the CTO within the Department will be determined by the Department Director. These departments/organizations include:
 - A. Aviation;
 - B. Health and Human Services;
 - C. Houston Emergency Center;
 - D. Library;
 - E. Parks and Recreation;
 - F. Planning and Development;
 - G. Police, and
 - H. Public Works.

2. Departments with smaller IT operations are represented by a single CTO assigned from IT who is responsible for ensuring that the needs of these offices/departments are represented and considered in IT planning and development. These entities include:
 - A. Building Services;
 - B. City Council Offices;
 - C. City Secretary;
 - D. Controller;
 - E. Finance and Administration;
 - F. Fire;
 - G. Housing and Community Development;

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- H. Human Resources;
 - I. Legal;
 - J. Mayor's Office;
 - K. Municipal Courts Administration, and
 - L. Solid Waste Management.
3. In addition, departments are responsible for:
- A. Completing a departmental Strategic Information Plan and updating it appropriately. This plan must be developed in collaboration with the TSC.
 - B. Involving the TSC early in the project initiation stage for all significant technology projects.
 - C. Adhering to all standards and policies issued by the TSC.
 - D. Maintaining, in accordance with standards, all department specific applications not housed in the IT Department data center or managed through a service contract under the control of the CIO.
 - E. Coordinating departmental technology budgets through the TSC.
 - F. Submitting any revisions to departmental Strategic Information Plans to the TSC.
4. The CTO is appointed, evaluated, and terminated assuming not civil service by the Department Director, with advice and consultation with the CIO. CTOs may be responsible for several information technology duties such as:
- A. Managing the departmental IT operations and personnel under the direction of the Department Director.
 - B. Ensuring compliance with all city standards, policies and plans.
 - C. Participating on the TSC.
 - D. Other duties as assigned by the Department Director.