

STATE OF OREGON

Enterprise Information Resources Management Strategy



**Governor's Information Technology Executive Council
August 7, 2002**

Version 1.0

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PREFACE

The Enterprise Information Resources Management Strategy document was drafted as a work product of the Enterprise Information Management Committee. This committee was originally chartered under the Governor's Information Technology Roundtable, the predecessor to the Information Technology Executive Council. The Enterprise Information Management Committee was chartered to review and update the State of Oregon Enterprise Information Technology Strategy (issued in 1998) and to promote the importance of enterprise information management that will enable stakeholder access to the State's data resources. Committee members represented several state entities from the executive, legislative and judicial branches of government as well as the Oregon University System.

The strategic planning process devised by the Enterprise Information Management Committee, and approved by Information Technology Executive Council, was designed to be as inclusive as possible. In the absence of a comprehensive, statewide business plan, the Enterprise Information Management Committee began the process by defining high-level business drivers for the enterprise. These drivers were reviewed for content by the Information Technology Executive Council and form the basis for defining the goals and objectives for enterprise information management contained in this strategic plan.

A series of focus group sessions were then planned by the Enterprise Information Management Committee, with the help of a management consultant, to address each of the high level strategies.

The management consultant delivered a report, following the focus group sessions, containing recommendations from the focus groups related to the strategies drafted by the Enterprise Information Management Committee. The Enterprise Information Management Committee, with assistance from the State Chief Information Officer and his staff, reviewed and analyzed those recommendations and developed a draft Enterprise Information Resources Management Strategy for review and approval by the Information Technology Executive Council. That draft was approved and adopted by the Information Technology Executive Council on August 7, 2002 and is represented by this document.

USER GUIDE

The Enterprise Information Resources Management Strategy has four components:

- ***Executive Summary***
- ***Strategic Management Plan***
- ***Operational Work Plan***
- ***Appendices***

The four components constitute an integrated document and are presented together here, but the first three can also stand on their own. As such, some material in each

component is duplicated from other components. The document was developed in this way to better satisfy the needs of a broad class of readers.

Some readers will only need an overview of the strategy. The **Executive Summary** contains such an overview, including:

- An abbreviated version of the vision
- A list of the state's business objectives
- Principles that guide IT development
- The information resource management strategic goals

Others will want a bit more detail concerning the enterprise approach to information resources management, how the expected outcomes of the strategy are linked to the state's business objectives, and what will be accomplished with each of the strategic goals. The **Strategic Management Plan** provides this level of detail, including:

- An expanded vision statement and mission
- An explanation and definition of the enterprise approach
- A description of the current information resources management environment
- A discussion of the strategic foundation and the goals of the strategy

For those that would like to examine the plan at a very granular level, the **Operational Work Plan** contains a restatement of each strategic goal, accompanied by the recommended objectives for accomplishing each goal. The work plan in its final form will also include a timeline, assignment of responsibilities, and cost implications.

And finally, the **Appendices** contain a plethora of information that provides meaningful content and background for the planning effort and is included as reference material. Much of the context for the development of the Enterprise Information Resources Management Strategy can be found in the Appendices.

EXECUTIVE SUMMARY

Technology enables state government to efficiently provide information and services for its citizens to make their lives more productive. Technology can also be used to build a productive infrastructure in which businesses can operate and thrive. State and local governments can also take advantage of technology to more efficiently share information and streamline their processes to provide better service to taxpayers.

Oregon's strategic plan, *Oregon Shines*, endorses a number of strategic business objectives. These objectives can be further categorized as follows:

1. Strengthen Families and Communities
2. Make Government User-Friendly and Customer-Focused
3. Create Economic Opportunity
4. Promote Lifetime Learning
5. Protect Our Homes and Communities
6. Build a New Environmental Partnership
7. Establish and Maintain a First-Rate Infrastructure

To achieve these business objectives, State agencies and local governments must work collaboratively with citizens, businesses, and each other.

This Enterprise Information Resources Management Strategy has been crafted to support the strategic business objectives of the state. Together, the enterprise business and information resources management (IRM) objectives will guide individual government agencies as they develop more detailed tactical business plans, IRM plans and initiatives for their agencies. IRM and associated information technology planning, budgeting and management within government agencies must be closely integrated with business planning, development and management to ensure that information technology is being applied effectively and efficiently.

Oregon's vision for enterprise information resources management in support of the State's business objectives focuses on improving:

CITIZEN PRODUCTIVITY (citizen to government):

- a) Providing increased accessibility and availability of government information and services to our citizens.
- b) Providing a focal point through which citizens interact with government.

BUSINESS INFRASTRUCTURE (business to government):

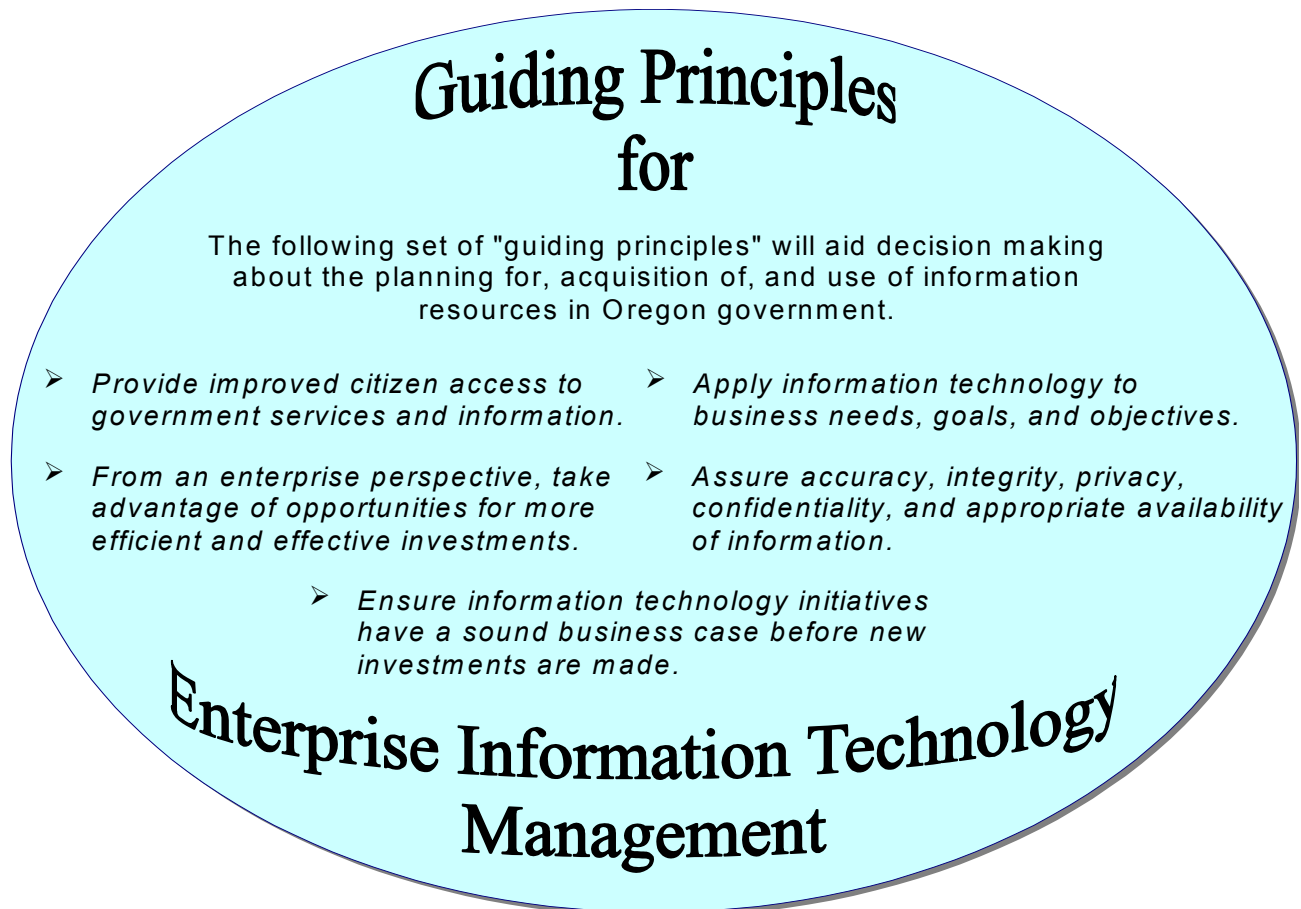
Provide Oregon businesses with:

- a) Easy access to valuable information;

- b) Electronic transaction capability to comply with government operational requirements (e.g. licensing, registration, revenue collection, other transactions specified in statute or by rule); and
- c) Enhanced procurement capabilities.

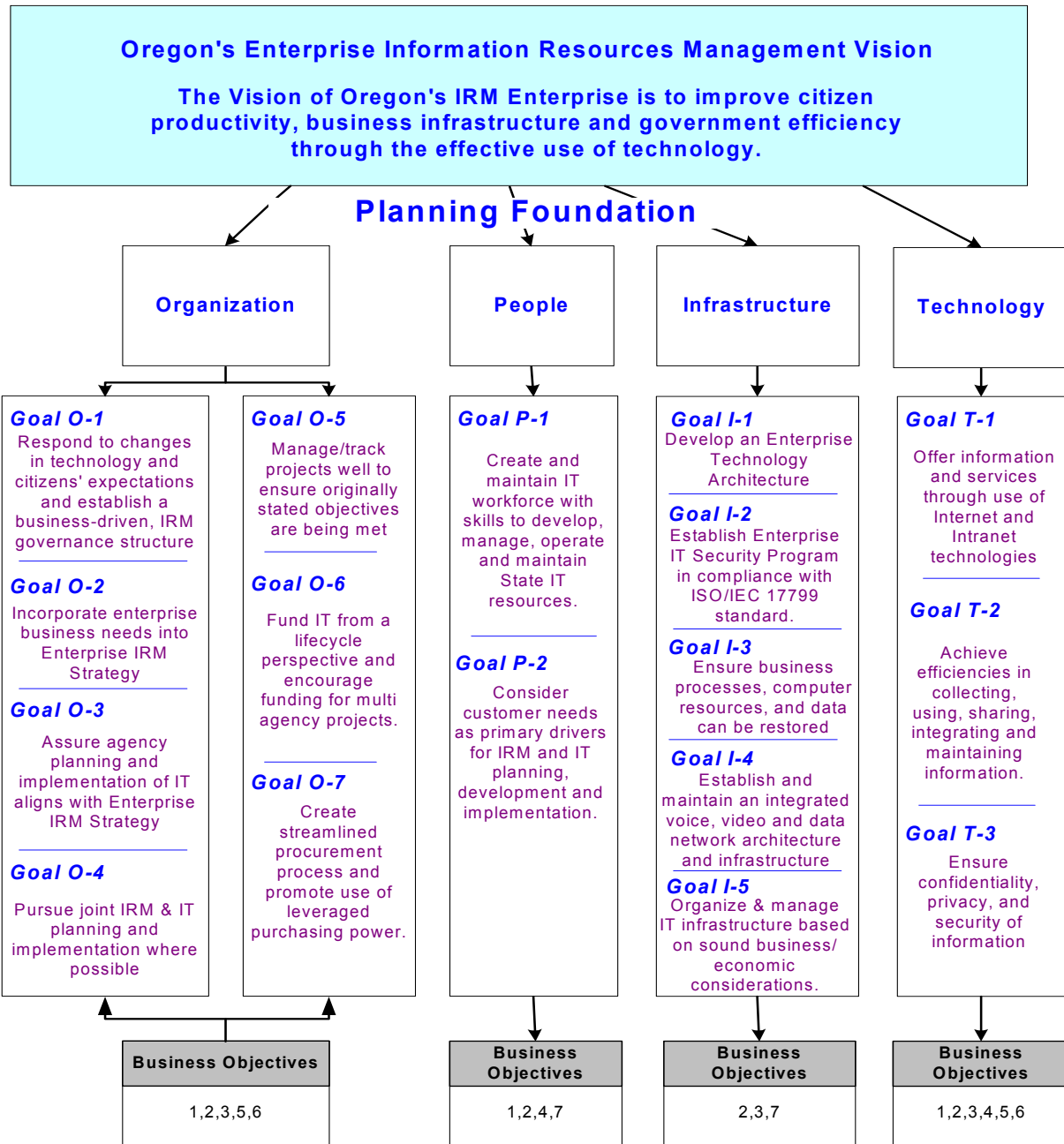
GOVERNMENT EFFICIENCY (government to government):

- a) Encourage collaboration among state agencies and local governments in using technology to operate more efficiently and effectively.
- b) Enable effective collaboration between state agencies, federal agencies, tribal governments, and regional governments.



The strategic initiatives, goals and objectives are further organized in a basic foundation composed of four themes:

- *Organization*
- *People*
- *Infrastructure*
- *Technology*



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STRATEGIC MANAGEMENT PLAN

INTRODUCTION

This strategic plan addresses the long-term management of information resources and technology in the state of Oregon. The outcome of the plan will be twofold. The plan will ensure that information resources and technology effectively support the business needs of the enterprise. Secondly, the plan will provide a basis for efficient sharing of information resources and technology, and effective system implementation and operation across the enterprise.

The "enterprise", in the context of this strategy, is a system comprised of public agencies whose existence is founded in state statute, whose budgetary authority resides with the Governor and/or the Oregon State Legislature, and whose mission is to serve the public interest of the citizens of Oregon. Although the primary focus of this strategic plan is State Government (the Executive, Legislative and Judicial Branches), it is applicable to the entire enterprise of Oregon government, including local and regional governments, state agencies, and academic institutions.

The enterprise approach to the management of information resources is a statewide perspective, focused on relationships, resource sharing, and collaboration among all generators and users of information resources. This approach requires fundamental cultural changes in the work force, sharing of information across agency lines and alterations in the way many agencies conduct their business.

Individual agencies and departments must learn to share new technology. They need to commit their resources to cooperative problem-solving to reduce duplication of effort. Governments at all levels must learn to speak to their citizen-customers the way any good private corporation does: with a single perspective and one standard of performance. Ultimately, government should not require citizens to know how it is organized in order to access government services.

PURPOSE OF THE ENTERPRISE INFORMATION RESOURCES MANAGEMENT STRATEGY

Long-term goals in this plan provide a context and approach for near-term information resource and technology planning and implementation that occur on a routine basis within all organizations across the enterprise. The Enterprise Information Resources Management Strategy has a three-year horizon and will be revised annually. The strategy has the following primary purposes:

The "IT enterprise approach" is analogous to planning for a community. Applications are like single family houses, multifamily housing, light industry, heavy industry and common service buildings. The water and sewer, electricity, telephone, and street networks are shared infrastructure.

There are various levels of choices in the dwelling and business units, but they all must meet minimum building codes and all structures connect to the common shared infrastructure.

Through the telephone and highway infrastructures, individual communities operate efficiently, are connected, and coexist with each other (as the state is connected to the federal and local governments).

The Comprehensive Plan guides community development, as the Enterprise IT Strategy guides IT development for the enterprise.

- To relate IRM initiatives to the State's business objectives and programmatic goals
- To encourage and enable sharing of information and collaboration among stakeholders
- To give a long-term strategic direction and foundation for information management
- To provide guidance and direction for more detailed information resources tactical plans, management and implementation

CHALLENGES AND OPPORTUNITIES

Oregon's state government enterprise – its educational entities, libraries, state and local governments, and other information partners – uses a mix of information technologies to manage and share information and to provide citizens and businesses with many basic services in an effective, efficient, and accessible manner. Information technology (IT) is key to the operation of a variety of programs and to the delivery of services. It is also one of the most rapidly changing components of modern society.

The challenges and opportunities facing Oregon government in applying IT to meet enterprise and agency-specific goals are daunting.

The Vision of Oregon's IT Enterprise is to improve citizen productivity, enhance business infrastructure, and increase government efficiency through the effective use of technology.

No one agency/organization can continue to do it all alone. Cooperative and collaborative efforts are required to meet the expectations of all stakeholders.

Oregon state government at all levels must endeavor to serve its citizens seamlessly, with common processes and technologies where possible. In other words, it must function as an enterprise—a coherent unit from one end of the system to the other.

To succeed, the enterprise must have common vision and direction by which to guide its IT staffing, planning, budgeting, procurement and service delivery efforts. This Enterprise Information Resources Management Strategy will provide that vision and guidance.

STRATEGIC INITIATIVES

There are six strategic initiatives the State will implement, in collaborative partnership with federal agencies, local governments, academic institutions, and private industry to manage information resources and technology from an enterprise perspective. The six initiatives build upon preceding and ongoing statewide endeavors. The six initiatives are represented in the diagram below.

The diagram indicates that Oregon's strategic business objectives, along with agency requirements, have driven the enactment of a number of statutes and executive orders to improve the management of information resources and technology. The enabling

legislation and orders, in combination with a shared statewide IT infrastructure, form the foundation for implementing the major strategic initiatives. These initiatives support business and program applications that provide services to Oregon’s business and citizen customers. Feedback from citizens and outcomes of State services drive changes and updates to Oregon’s strategic business objectives over time.

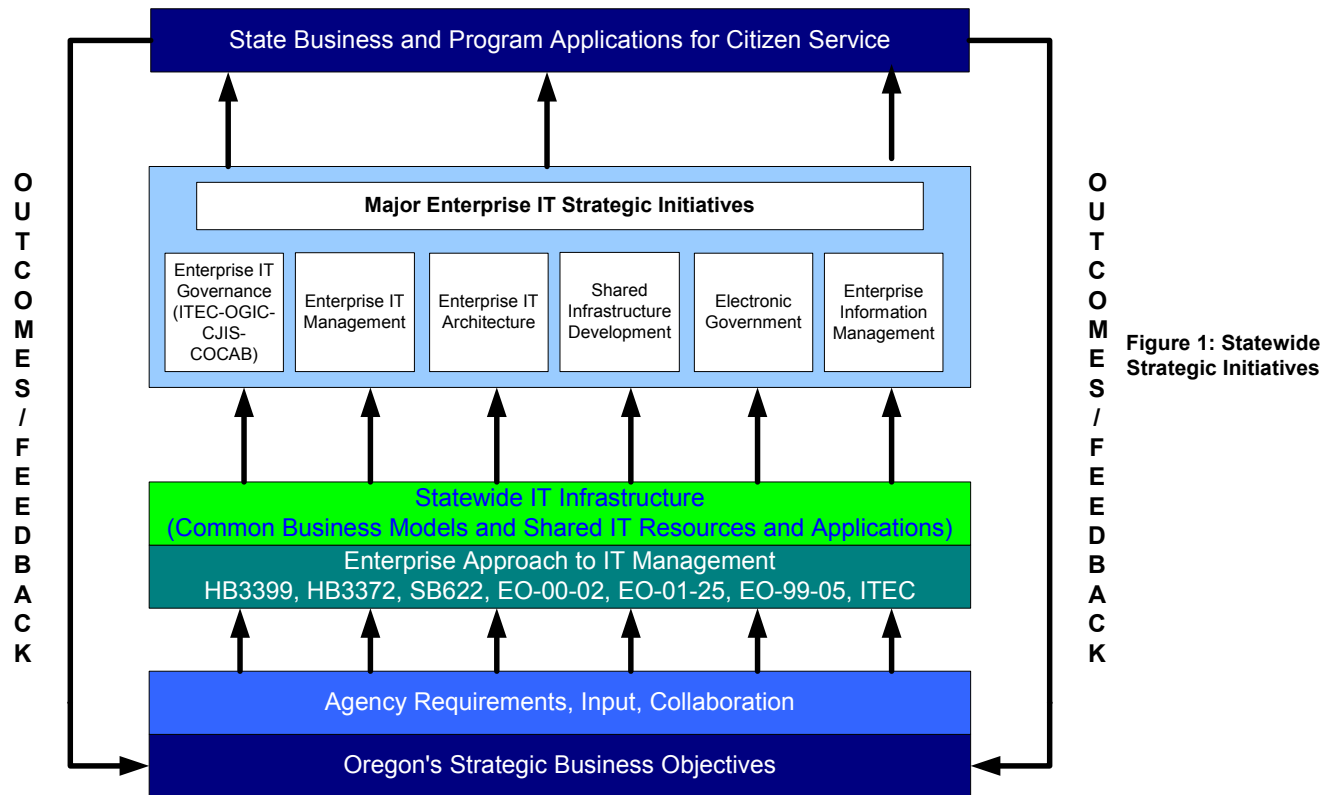


Figure 1: Statewide Strategic Initiatives

OREGON BUSINESS OBJECTIVES

Oregon’s strategic plan, *Oregon Shines*, endorses a number of strategic business objectives. To achieve Oregon’s strategic business objectives, State agencies and local governments must work collaboratively with citizens, businesses, and each other. Government agencies must endeavor to implement programs and initiatives that provide services, not systems, and that are consistent with those business objectives. The State’s strategic business objectives can be further categorized as follows:

1. Strengthen Families and Communities
2. Make Government User-Friendly and Customer-Focused
3. Create Economic Opportunity
4. Promote Lifetime Learning
5. Protect Our Homes and Communities

6. Build a New Environmental Partnership
7. Establish and Maintain a First-Rate Infrastructure

The primary role of information technology is to support business objectives. The enterprise IRM goals and objectives in this plan have been crafted to support the strategic business objectives of the state. Together, the enterprise business and IRM objectives will guide individual government agencies as they develop more detailed tactical business plans, IRM plans and initiatives for their agencies.

Information technology can improve business processes, and reduce costs. Technology has a limited value when applied independently of business objectives and goals. IRM planning, budgeting and management within government agencies must be closely integrated with business planning, development and management to ensure that information resources and technology are being applied effectively and efficiently. The Governor's Information Technology Executive Council, informed and guided by the *Oregon Shines* strategy, defined a comprehensive set of business drivers that affect, precipitate, or prescribe information resource management activities. The matrix in Appendix A indicates how the goals in this Enterprise Information Resources Management Strategy address those business drivers.

VISION

Oregon's vision for enterprise information resources management focuses on improving:

CITIZEN PRODUCTIVITY (citizen to government):

- a) Providing increased accessibility and availability of government information and services to our citizens to make their lives more productive.
- b) Providing a focal point through which citizens interact with government.

BUSINESS INFRASTRUCTURE (business to government):

Provide Oregon businesses with:

- a) Easy access to valuable information;
- b) Electronic transaction capability to comply with government operational requirements (e.g. licensing, registration, revenue collection, other transactions specified in statute or by rule); and
- c) Enhanced procurement capabilities.

GOVERNMENT EFFICIENCY (government to government):

- a) Encourage collaboration among state agencies and local governments in using technology to operate more efficiently and effectively.
- b) Enable effective collaboration between state agencies, federal agencies, tribal governments, and regional governments.

OUTCOMES

The enterprise vision will result in the following outcomes, which in turn support the State's strategic business objectives:

- Make it easier for Oregonians to take advantage of the government services their taxes finance.
- Make it easier for businesses to interact with government.
- Make transactions with and between government more efficient and effective .
- Reduce the amount of paper being collected and processed.
- Ensure accuracy, integrity, and appropriate availability of information.
- Protect and serve the interests of the public.
- Improve government management of resources and money.
- Enhance the working environment for state employees and increase government responsiveness to elected leaders.
- Improve public's perception of government's ability to deliver.

The following matrix relates the outcomes of the Enterprise Information Resources Management Strategy to Oregon's strategic business objectives.

Relationship of Enterprise IRM Strategic Outcomes to Oregon's Strategic Business Objectives		Oregon's Business Objectives						
Enterprise IRM Strategic Outcomes		1. Strengthen Families and Communities	2. Make Government Customer-focused	3. Create Economic Opportunity	4. Promote Lifetime Learning	5. Protect Homes and Communities	6. Build a New Environmental Partnership	7. Establish/Maintain First-Rate Infrastructure
Make it easier for Oregonians to take advantage of the services their taxes finance		★	★		★			★
Make it easier for businesses to interact with government			★	★				★
Make transactions more efficient and effective			★					★
Reduce the amount of paper being collected and processed			★					★
Ensure accuracy, integrity, and appropriate availability of information		★			★	★		★
Protect and serve the interests of the public		★	★			★	★	★
Improve government management of resources and dollars				★			★	★
Enhance the working environment for state employees and increase government responsiveness to elected leaders			★					★
Improve public's perception of government's ability to deliver services			★	★			★	★

GUIDING PRINCIPLES

Oregon's business objectives, combined with the "guiding principles" shown below will guide decisions about information resources and IT planning, acquisition, and use. These principles should be used to guide behavior. If they are ignored, then increased cost, poor performance, and ultimately, poor customer services will be the result. The more they are adhered to, the greater the payoffs in lower cost and better service. There will be instances when adhering to them is not desirable because of unique business needs, cost and technical considerations, or scheduling imperatives. With that in mind, they must be viewed as guidelines, not absolutes.

Guiding Principles for

The following set of "guiding principles" will aid decision making about the planning for, acquisition of, and use of information resources in Oregon government.

- *Provide improved citizen access to government services and information.*
- *Apply information technology to business needs, goals, and objectives.*
- *From an enterprise perspective, take advantage of opportunities for more efficient and effective investments.*
- *Assure accuracy, integrity, privacy, confidentiality, and appropriate availability of information.*
- *Ensure information technology initiatives have a sound business case before new investments are made.*

Enterprise Information Technology Management

INFORMATION RESOURCES MANAGEMENT ENVIRONMENT

Current IRM Environment

1. Information Technology Executive Council

The Governor's Information Technology Executive Council (ITEC) is the policy making body in state government for the evolution and implementation of a statewide enterprise information resources management strategy. The ITEC membership consists primarily of state agency executive leaders and is charged with the development and adoption of:

- Information Resources Policies, Procedures, Standards, and Guidelines
- The Enterprise Information Resources Management Strategy
- The Oregon Statewide Technology Architecture
- Implementation of methods that efficiently guide the use of the State's information technology resources

- Statewide training programs that improve the skills of the state's information technology staff.

2. Chief Information Officer Council

The Information Technology Executive Council has established a council comprised of agency information technology leaders to identify and study information resource management issues and to recommend enterprise opportunities and solutions. The Chief Information Officer Council also acts as a forum for state agency information technology executives to gather and share knowledge.

The objectives of the Chief Information Officer Council include:

- To assume a role of leadership in the development of state agency and intergovernmental information systems.
- To foster collaboration, education, and information technology leadership.
- To provide a means of information exchange which results in an opportunity for professional growth for individuals involved in information technology.
- To foster among public officials a better understanding of the vital role of information technology and its proper relationship to management.
- To make significant contributions toward the improvement of the administration of state government for the benefit of Oregon's citizens.

3. Department of Administrative Services, Information Resources Management Division

The Information Resources Management Division, under the direction of the State CIO, has primary responsibility for planning and implementing Enterprise Information Resources Management Strategy initiatives. The State CIO: facilitates the implementation of the statewide Enterprise Information Resources Management Strategy to create a balanced and effective effort; is the conduit for communicating the component parts of the Enterprise Information Resources Management Strategy; recommends actions to Information Technology Executive Council; leads initiatives authorized by Information Technology Executive Council and leads responses to legislative requests for information or action related to information resources and associated technology.

4. Joint Legislative Committee on Information Management and Technology

The Joint Legislative Committee on Information Management and Technology (JCLIMT) provides legislative direction and project oversight. The JLCIMT was created to review statewide data processing goals and policies, to make recommendations to the Legislative Emergency Board or Ways and Means Committee regarding established and proposed data processing programs and data processing equipment acquisitions, and to conduct studies of data processing efficiency and security.

5. Oregon Geographic Information Council

The Oregon Geographic Information Council (OGIC) develops policy guidelines and provides coordination and leadership for the management and use of geographic information and geographic information systems (GIS) technology. The OGIC also endorses and coordinates the development of data standards for geographic information.

OGIC is chaired by the State Chief Information Officer and council membership includes 24 state agencies, the Statewide GIS Coordinator, two federal representatives and four local government representatives. The enabling Executive Order, EO-00-02, establishes a relationship between the policies and guidelines of OGIC and the State's Enterprise Information Resources Management Strategy.

The Statewide GIS Coordinator manages the Oregon Geospatial Data Clearinghouse. The program is charged with coordinating GIS activities in the state, facilitating communication about GIS issues, and maintaining the website that hosts statewide geospatial data for the State of Oregon.

6. Criminal Justice Information Standards Advisory Board

The Department of State Police, at the direction of the Department of Administrative Services Director, is responsible for operating a Criminal Justice Information Standards (CJIS) program that coordinates information among state criminal justice agencies. The program is charged with ensuring that data can be retrieved to support evaluation of criminal justice programs; establishing methods and standards for data interchange and information access between criminal justice information systems; designing and implementing improved applications for exchange of agency information; and, implementing the capability to exchange images between criminal justice agencies.

The program is also tasked with developing a plan to accelerate data sharing and information integration among criminal justice agencies. The Chief Information Officer for the Oregon State Police chairs the CJIS Advisory Board. The 21-member board includes the State Chief Information Officer and four local government representatives.

7. Connecting Oregon Communities Advisory Board

Senate Bill 622 (1999 Legislative Session) authorized the creation of a five-member Connecting Oregon Communities Advisory Board (COCAB) for purposes of review and recommendation on telecommunications infrastructure projects submitted to the Oregon Economic and Community Development Commission. The Advisory Board:

- Seeks advice and comment on plans submitted by a telecommunications carrier from affected local communities including but not limited to local governments, citizens and businesses.

- Seeks advice and comment from state and federal agencies, when appropriate, to ensure that investments will maximize statewide public benefits and that they are consistent with the needs and desires of the local communities.
- Makes an annual report to the Joint Legislative Committee on Information Management and Technology on the plans and activities funded under SB 622.

The Oregon Economic and Community Development Commission provides final approval of plans and projects. In partnership with the Oregon Public Utilities Commission, the Department of Administrative Services, and the Oregon Department of Education, the Commission is charged with facilitating the deployment of telecommunications infrastructures to create economic opportunities and build quality communities throughout Oregon.

IT ARCHITECTURE

An enterprise technology architecture is a framework and set of guidelines and standards for building and managing information systems. It is based on industry and international standards. The ideal architecture permits access to the entire system of computers, applications, databases, applications and network services through a single workstation that is easy to use and operates with a common user interface.

A technology platform is made up of computers, databases, and communication networks acting as an electronic nervous system capable of supporting a wide array of applications and services. Today, Oregon's technology platform is a collection of separate, agency-focused technologies that do not always serve the corporate needs of the government enterprise. The State provides an information technology infrastructure consisting of shared central services and decentralized agency-specific services.

The overarching goal for the State's standards-based architecture is to enable agencies and educational institutions to increase the quantity and quality of service delivery and to reduce costs. A standards-based architecture will allow us to: improve access to data; implement new systems more quickly; minimize support costs; leverage available talent and skills; more easily adapt to change; communicate a common direction; and manage system complexity.

Although the State has been working towards standardization in technologies and the use of common methodologies, practices, and procedures, a common enterprise information technology architecture does not yet exist. Some progress was made in response to the Year 2000 problem but significant diversity and operational complexity within agencies and across the enterprise exists today.

ENTERPRISE APPROACH

Information technology is a major force in shaping the future of government. The enterprise approach for managing information resources and technology will enable the

State to improve organizational efficiency, increase program effectiveness, and provide greater accountability for expenditures and results.

New and emerging technologies for electronic government and commerce, especially Internet communications and web technologies, offer the potential for fundamentally changing the way citizens and businesses interact with government. Information technology can offer the same radical transformations and quantum leap improvements for government as it is doing for the private sector.

The effective management of information resources and technology involves three primary improvements in the way government currently operates. First, investments must be identified, evaluated, and selected so expenditures are made on solutions that are feasible and employ mature, proven and reliable technologies. Individual investments must be made so that they maximize the returns to the state's total technology asset portfolio.

Second, investments must be implemented and operated effectively and economically. These investments must adhere to the State's technical architecture and be implemented in alignment with the State's project management and quality assurance guidelines. The degree to which new investments support the enterprise information technology architecture and enterprise information resources management initiatives is essential. An effective enterprise communications mechanism is also critical component of this approach.

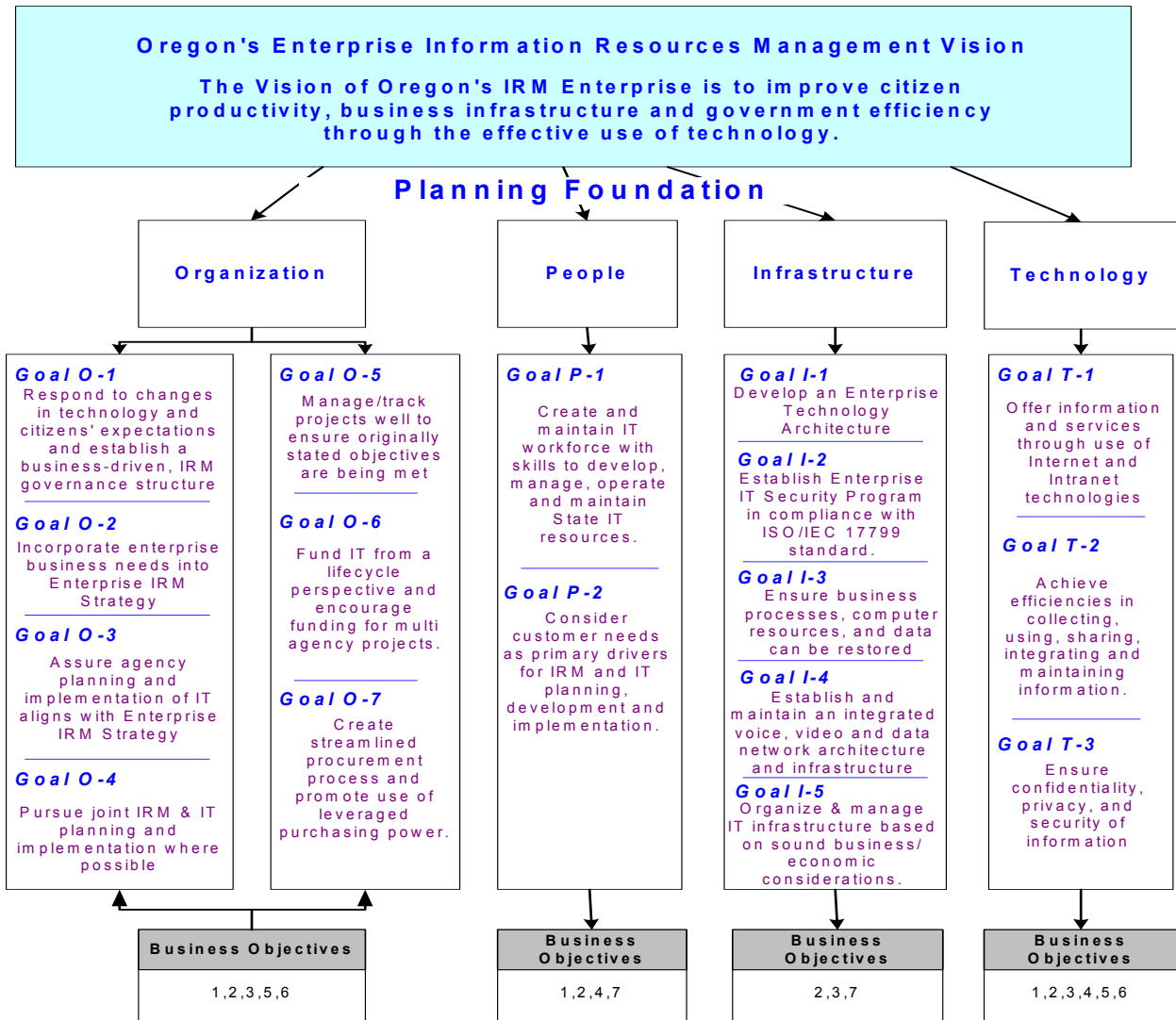
Third, information technology assets must be employed in ways that benefit the business. The use of information technology to enable the reengineering of business processes, streamlining interagency communications for programs crossing organizational boundaries, and creating new service delivery methods are key considerations.

An enterprise approach provides the greatest opportunity for state government, in collaboration with local government and business partners, to maximize the benefits of the technology revolution and electronic government.

GOALS AND OBJECTIVES

The vision and mission statements in this strategic plan are translated into specific goals and objectives. The plan relies on a basic foundation composed of four themes, each incorporating several goals, and the objectives to accomplish those goals. The four themes are:

- *Organization*
- *People*
- *Infrastructure*
- *Technology*



STRATEGIC PLANNING FOUNDATION

The Enterprise Information Resources Management Strategy translates the vision into specific goals and objectives. The plan relies upon a basic foundation composed of four themes, each incorporating several of the goals and objectives. In the work program section of the plan, the objectives for each goal are defined and specific actions are recommended for various stakeholders.

Organization

Goal O-1: Oregon government will respond to changes in technology and citizen expectations and maintain accountability for public resources by collaboration and establishment of a business driven IT governance structure.

Today, more than ever, citizens and their legislators expect their government to be responsive, efficient and effective in providing needed information and services. To do this better, state government must eliminate the barriers that prevent it from operating in the world as it exists today. It must acquire and implement new technologies before they become obsolete.

Every public entity relies upon information resources, and must coordinate such resources in order to acquire and use them to their maximum potential. To that end, the State requires management of its information resources from an enterprise perspective. Such an approach can ensure that state information resources operate in concert to the net benefit of its citizens.

Our IRM governance processes must be adaptable to changing requirements and demands, and decision making around information resources and technology must be expedited to take advantage of the opportunities we have today. IRM governance must be driven by and owned by the State's executive managers. Decisions regarding IRM strategy, direction, funding for major initiatives, allocation of resources, etc. must be timely, and well balanced against other needs of government. A governance structure should be established, which encourages intra-governmental cooperation and inter-governmental continuity, maximizes success of IT initiatives, and prudently manages risk.

Strategic Initiative: Enterprise IT Management

Goal O-2: Enterprise business needs will be incorporated into the enterprise IRM strategic plan, where priorities are set and resources are allocated from an enterprise perspective.

Goal O-3: Executive leadership in state agencies will assure that agency planning and implementation of IT is in alignment with the State's Enterprise Information Resources Management Strategy.

Goal O-4: State agencies will pursue joint information resources planning and implementation with their business partners wherever possible. This may involve regional, multi-state, multi-jurisdictional, and private sector collaboration on shared initiatives.

Goal O-5: Projects will be managed and tracked well to ensure that originally stated objectives are being met.

Agency level planning for information technology implementation should be carried out within the context of the State's overall IRM strategy and there should be a clear mechanism to support and encourage this.

Information technology must have executive sponsorship and active support to successfully meet the business needs of the agency and of the enterprise. Executive leadership must understand enough about information technology to make policy decisions. They must understand the business needs around information technology and must exhibit commitment to information technology as a mission-critical function.

Information technology development must be executed according to a plan and agencies should have a clear format for preparing plans and justifying them for approval. Business needs must be identified; joint planning should be conducted with other business partners; information technology alternatives must be defined; tradeoffs must be identified; priorities must be set; and resources must be allocated.

Finally, on-going project management must follow accepted procedures to ensure that projects meet objectives and there should be procedures and practices to measure and track results.

Information Technology Funding and Budgeting

Goal O-6: Information technology will be funded, whenever possible, from a lifecycle perspective. Funding for multi agency projects will be encouraged throughout the budget and funding process. Information technology funding strategies that allow departments, agencies, and regional partners to collaborate, to share resources and leverage innovation will be adopted.

Currently, funding and budgeting for projects is focused primarily on system implementation, not on the entire lifecycle of the investment. Costs for training, maintenance and support of the system and ultimately the cost of retiring and disposing of the system are not considered. It is important to evaluate, wherever possible, total cost of ownership as a part of cost projections and to have a mechanism to inventory and track information technology assets.

Inter-governmental cooperation creates opportunities for shared funding between state, local, regional, and federal government. However, a defined budget for innovation and expansion of enterprise-wide services does not yet exist. There is no specific mechanism for funding applications that serve multiple agencies, and facilitate data sharing within or across jurisdictions. Lacking alternatives, funding trends tend to be, of necessity, short-term. This short-term approach does not address the needs of large, complex projects that may go on for years.

Information Technology Selection and Procurement

Goal O-7: The State will have a procurement process, which efficiently acquires information resources and technology commodities and services through streamlining requests, solicitation processes, legal reviews, and where appropriate, leveraging agencies' purchasing power.

The State's current procurement methods are obsolete. Rules enacted over time to protect the State from contractual abuses have led to complex procedures that consume time and money, and often result in the procurement of outdated technological solutions. The State needs to streamline its procurement oversight and review processes.

Several efforts are underway to address these issues. The State's newly adopted legislation, House Bill 3399, proposes to enhance and streamline the information technology purchasing process. For example, it: a) considers the value of total cost of ownership, rather than just purchase

price in evaluation of vendor offerings; b) allows and encourages vendors to offer innovative and creative solutions to business problems, rather than over-specifying technical requirements; and c) implements strategic partnerships with vendors. Additionally, a larger, more comprehensive review and revision of the State's procurement statute, Chapter 279, is in process, again with the intention of streamlining the information resources and technology procurement process.

People

IT Staffing: recruitment, training, retention, and sourcing

Goal P-1: The State will have an information technology workforce with the skills to develop, manage, operate and maintain the State's information technology resources.

People are key to the successful implementation of the State's information technology strategy. Attracting and retaining new talent present ongoing challenges for industry and government. Adding to this challenge is the fast-approaching retirement of the "baby boom" generation. This translates into the loss of critical skills, knowledge and information technology leadership. There is and will be a continuing need for information technology staff with mainframe skills. Further, there is the major task of retooling skills for new technologies, e.g. the Internet.

The State has encountered barriers in attracting information technology talent in the marketplace. Technical staff must be trained in new technologies and new methods for system's development and implementation. Moreover, technology training must be provided to the users of technology to achieve desired results from information technology investments. State-sponsored training programs like STEPS, the COBOL Co-op Program, and the IT Co-op recruiting program have helped. Still, more has to be done.

Customer-centric Approach to Service Provision

Goal P-2: The State will consider its citizen customers' needs as a primary driver for information resources and technology planning, development and implementation.

Many technology initiatives will be accomplished as a result of this plan. User/citizen/business customer needs should drive the design and implementation of these initiatives. One way to accomplish this objective is to develop a process for involving representative citizen customers in the design of the initiatives. Furthermore, the information resources management activities that underlie these services will, in many cases, need to be integrated to meet citizen expectations.

Infrastructure

Goal I-1: The State will develop an enterprise technology architecture that articulates the state's technical direction and standards related to telecommunications systems, networks and equipment, security, disaster recovery, business continuation planning and data management. This architecture will guide agency and multi-agency tactical plans and information technology operations. It will also enable collaboration with regional and multi-jurisdictional partners.

An enterprise-wide information technology architecture is a logically consistent set of principles that guide the engineering of an organization's information systems and technology infrastructure. The State of Oregon intends to move to a common information technology model that will establish some coordinated and common services; therefore, a method to express information technology strategy, policies, standards, and technical directions to the various agencies within the State is required. This common set of principles and directions provides a framework for sharing services, information and data, and to provide information technology value to all State agencies and branches of government.

The creation of a standards-based architecture for the enterprise will reduce costs, improve the availability and performance of applications, allow interoperability, improve the ability to share data, and reduce staff training. Decisions about information resources and technology management have been decentralized for decades, resulting in wide diversity of technology throughout the enterprise. Creation of a standard environment will not happen overnight. Movement toward a desktop standard is probably feasible within five years.

However, standardizing development tools, network management tools, middleware, servers, networking hardware, database engines, and environmental software in computer centers, will need to be phased in beyond this five-year horizon.

The State of Oregon is progressing along this path with individual efforts planned or underway in a variety of architectural domains. Still more can and should be done to accelerate a comprehensive and cohesive enterprise information technology architectural development process that aligns with the Enterprise Information Resources Management Strategy planning horizon.

Information Technology Security

Goal I-2: The State of Oregon will establish policies and programs to ensure the integrity and security of information technology resources by protecting them from unauthorized access, modification, destruction, or disclosure. These policies and programs will be developed in compliance with the ISO/IEC 17799 standard. The focus will be on internal requirements, as well as on external requirements such as HIPAA, personal identification, universal identification, national driver's license, personal privacy protection, and homeland security.

The essence of intergovernmental connectivity is opening internal processes and connecting them to partners' systems and services. However, such openness can become a liability when a single security incident wipes out the efficiencies gained by these collaborative connections. On the other hand, if security controls are too onerous, the end result is often the same: inefficient or crippled information exchange, and customer frustration. Security risk is increased as the number and types of access are increased. We must balance these risks against the need to allow access to information. The State's success in this area will be directly related to deploying enough security to maintain trust and to satisfy pertinent federal mandates, but not impeding legitimate business functions or discouraging use of connectivity with our government and private sector partners.

Disaster Recovery/Business Continuation Planning

Goal I-3 : The State will ensure that mission-critical business processes, computer resources, and data can be restored in the event of a natural disaster or other business interruption.

The Y2K experience demonstrated that, in the event of disruption to our computer resources, agencies must provide many basic services manually. Business Continuation Plans (BCP) should be established and maintained for all existing mission-critical business functions and systems. BCP and disaster recovery should also be part of new system development. All mission-critical computing resources should have disaster recovery plans to ensure expedient resumption of service following loss of computing facilities. Agencies should work together to provide backup for each other, if possible, or combine resources in negotiating disaster recovery services. Disaster recovery services should include data communications. Copies of all critical data owned by the State should be securely stored at remote sites, and be readily accessible in the event of data loss at primary processing facilities.

Enterprise Network

Goal I-4: The State will establish and maintain a cost-effective, high-performance, highly reliable and uniform voice, video and data network architecture and infrastructure for Oregon government.

The State's rapid movement to client/server and object-oriented application development, web-centric computing and telephony integration with information technology systems underscores the importance of network architecture. The network infrastructure is a key business enabler for Oregon. The emergence of distributed applications; connectivity and information sharing among multiple agencies, local municipalities, and regional and federal systems; and the increased use of web-centric commercial transactions will generate a significant amount of dependence on the network backbone. This dependence must be founded upon trust in the network's ability to be available, provide good performance, and provide strategic capacity and reliability into the future.

IT Infrastructure Organization and Management

Goal I-5: The State will organize and manage its IT infrastructure based on sound business and economic considerations.

Recently, the Legislature directed state agencies to examine ways to consolidate certain information technology services, i.e. wide area networks, central imaging services, and consolidation of web resources. This directive was meant to create operating efficiencies and avoid unnecessary duplication of effort. Consolidation or centralization can, in some cases, provide operational efficiencies to state government without a corresponding loss in service. Conversely, there may be legitimate reasons why consolidation or centralization does not make good business sense. In any case, when examining whether consolidation/centralization is prudent, analyses that carefully examine/weigh the true costs and benefits will need to be done.

**Strategic Initiative: Electronic Government
(Use of Internet and Intranet Technologies)**

Technology

Goal T-1: The State will offer information and services through the use of the Internet and Intranet technologies where a business and economic justification exists.

Electronic government both enables and requires rethinking how government is organized from the view of the citizen. An electronic government system, based on customer demands rather than agency jurisdiction, will lead to a more intuitive and efficient process of government-provided services, where information is collected once and government functions are integrated.

The State has elected to use the cooperative partnering model to manage its e-government program. Under this model the State will leverage existing agency resources and will centralize e-government elements that make appropriate sense to centralize.

Going onto the Web, though, will change the public's expectation of what government can do and how quickly it does it. And that, in turn, will inevitably change how government agencies work. Existing business processes, policies, laws and regulations may be inadequate to address new kinds of internal and external relationships that are enabled by e-government.

Access/sharing/integration of data and applications

Goal T-2: Oregon government will, through collaboration, achieve efficiencies in collecting, using, sharing, integrating and maintaining information.

Human, natural, and economic issues are inextricably linked in every aspect of government, yet data and supporting applications are not. Data and application integration are difficult in a decentralized IRM environment. Integration of data and applications across the organizational and inter-organizational boundaries of human, natural, and economic resource agencies is key to resolving problems that cut across those boundaries.

The data and information that resides within government computer systems are vital assets and should be managed accordingly. Improving access to data, and promoting intra- and inter-governmental data sharing eliminates duplication of effort. The ability to ensure the accuracy, validity and consistency of data is paramount to the success of this endeavor.

Confidentiality and Privacy of Information

Goal T-3: The State will prudently address confidentiality, privacy, and security of the public's data and information resources in conformance with legal and state policy requisites, as well as federal government and regional and national organization initiatives and requirements.

Security of information technology systems also requires the protection of systems and information, and the assurance that the systems do exactly what they are supposed to and nothing more. Information technology security requires system controls and management controls to ensure only authorized access to information in the systems and proper handling of input, processing and output. The confidentiality of information must be assured whether on-site or off-site, particularly when regional, multi-jurisdictional, and private sector information sharing is involved.

The issues surrounding data sharing and use are complex. Further, the opinions about how to deal with these issues are often strongly held. Key concerns are the issues of security, privacy, confidentiality, liability, and data ownership. The potential for misuse and abuse of the public's data resource increases as the value of the resource increases. Confidentiality and privacy are not just an IT issue. Prudent business practices and processes are key in responsibly addressing these issues.

OPERATIONAL WORK PLAN

(Prioritization, Resource Assignment, Cost Estimates and Timeframe for implementation to be determined/assigned by ITEC in next version of the strategy)

Organization

STRATEGIC INITIATIVE: ENTERPRISE IT GOVERNANCE

Goal O-1: Oregon government will respond to changes in technology and citizen expectations and maintain accountability for public resources by collaboration and establishment of a business driven IRM governance structure.

Objective O-1-a: Evaluate and streamline the existing IRM governance structure and placing executive authority either within agencies or joint power sharing councils of executive managers.

Objective O-1-b: Vest authority with the Information Technology Executive Council (ITEC) for adopting (1) information technology policies, procedures, and methodologies, (2) the enterprise information technology strategic plan, (3) information technology resource management standards, (4) and information technology architecture for the enterprise of state government.

Objective O-1-c: Establish an advisory board of chief information officers, or their equivalent, to provide technical guidance to the ITEC regarding enterprise issues and initiatives.

Objective O-1-d: As enterprise IRM functions can be performed centrally, or among groups of collaborating agencies and communities of interest, vest authority with the ITEC for designating (1) ownership of information resource processes and (2) the lead agency for implementation of new technologies and networks shared by multiple agencies.

Objective O-1-e: The ITEC will formally address the requirements within ORS 291.038 that established the Information Resources Management Council.

Objective O-1-f: The ITEC, working with the Department of Administrative Services, Information Resources Management Division (IRMD), will develop criteria for identifying projects that are multi-agency in nature, as well as the appropriate level of management and methodology that should be available to the project.

Objective O-1-g: IRMD will examine its internal structure and staffing and make appropriate adjustments to assure that it can provide staff, tools, and methodologies to multi-agency data and system development initiatives.

Objective O-1-h: The state will create an enterprise level program focused on innovation and emerging technologies.

Objective O-1-i: Improve communication between staff of the Executive Branch agencies and the Joint Legislative Committee on Information Management and Technology, including the marketing of successes.

STRATEGIC INITIATIVE: ENTERPRISE IT MANAGEMENT

Goal O-2: Enterprise business needs will be incorporated into the enterprise IRM strategic plan, where priorities are set and resources are allocated from an enterprise perspective.

Objective O-2-a: Develop and maintain an enterprise-wide strategic planning process that has annual components for reviewing, prioritizing, and updating activities based on current conditions and recent accomplishments, as well as a three-year formal revision cycle.

Objective O-2-b: Create an Enterprise Information Resources Management Strategy (EIRMS) that provides:

- A foundation and clear context for the development of agency-specific tactical plans and information technology operations and;
- Structure and direction to the information technology activities of State government as an enterprise.

Objective O-2-c: Support the development of an enterprise business architecture that identifies core business functions, needs and requirements.

Goal O-3: Executive leadership in state agencies will assure that agency planning and implementation of information technology is in alignment with the State's Enterprise Information Resources Management Strategy.

Objective O-3-a: Develop an enterprise information technology architecture that clearly articulates the state's technical direction and standards related to telecommunications systems, networks and equipment, security, and data management to provide guidance for agency-specific and multi-agency tactical plans and IT operations.

Objective O-3-b: Establish centrally managed information technology consulting resources to assist agencies lacking internal information technology staffs/expertise with the general business/information technology planning and system management processes.

Goal O-4: State agencies will pursue joint information resources planning and implementation with their business partners wherever possible. This may involve

regional, multi-state, multi-jurisdictional, and private sector collaboration on shared initiatives.

Objective O-4-a: Create a mechanism (system and/or process) that enables communication between and among agencies about ongoing information technology activities and plans.

Objective O-4-b: Establish forums and vehicles for better information technology information and resource sharing

Objective O-4-c: Identify and create communities of interest (COI) based on common business needs. Have those COIs recommend action/initiative priority to the ITEC.

Objective O-4-d: Develop methods and administrative structures to assign and share responsibility for multi-agency initiatives.

Objective O-4-e: Develop simple approaches for the pooling of staff and management resources for information technology.

Goal O-5: Projects will be managed and tracked well to ensure that originally stated objectives are being met.

Objective O-5-a: Revise and develop new templates and tools to support such functions as information technology product and service procurement and proposal evaluation, information technology purchase contract preparation, information technology project needs assessment, preparation of a project plan and team assignments, and information technology policies.

Objective O-5-b: Develop examples and instructions to better enable the use of templates and tools.

Objective O-5-c: Streamline all aspects of project planning, management and execution

Objective O-5-d: Establish a centrally managed pool of certified project managers, available to serve the information technology project management needs of designated enterprise information technology projects/initiatives.

Objective O-5-e: Develop and publish statewide guidelines for identifying and managing risks to information systems and for developing and implementing quality assurance plans.

Objective O-5-f: Both the executive and legislative branches must establish new protocols for viewing and understanding information technology projects that have multi-agency, multi-year project implementation periods.

Objective O-5-g: The new protocols and approach will reflect agency and legislative analysis and funding along the lines of Total Cost of Ownership modeling and as justified by an appropriate level of benefit/cost analysis or cost-effectiveness analysis (CEA).

Objective O-5-h: Develop a track record of success, with realistic commitments on progress, time, and budget delivery of IT capability; communicate this to the other branches of State government.

Information Technology Budgeting and Funding

Goal O-6: Information technology will be funded, whenever possible, from a lifecycle perspective. Funding for multi agency projects will be encouraged throughout the budget and funding process. Information technology funding strategies that allow departments, agencies, and regional partners to collaborate, to share resources and leverage innovation will be adopted.

Objective O-6-a: Establish a centrally managed enterprise information technology innovation fund as a means for financing innovative information technology projects in government.

Objective O-6-b: State agencies will develop information technology budgets that represent the total expenditures on information resource management technology for the agency.

Objective O-6-c: State agencies will develop information technology project proposals from a total cost of ownership perspective (including the initial project/acquisition costs, internal staff and overhead costs, personal service costs, hardware and software costs including maintenance, ongoing operations costs, training, and upgrade costs).

Objective O-6-c: The State will explore modifications to the state budget process as it applies to major information technology projects.

Objective O-6-d: Create multi-year funding vehicles (e.g. capital budgets) for the creation of multi-year information technology assets. The life of the project/system and the amount of time spent paying for it will match or at minimum be in closer alignment with one another.

Objective O-6-e: Create simple administrative vehicles that authorize agencies to invest in enterprise activities extending beyond the boundaries of narrowly constructed agency missions.

Information Technology Selection and Procurement

Goal O-7: The State will have a procurement process, which efficiently acquires information resources and technology commodities and services through streamlining requests, solicitation processes, legal reviews, and where appropriate, leveraging agencies' purchasing power.

Objective O-7-a: Streamline all elements of the procurement process, reducing both the labor and calendar time required to acquire services or commodities.

Objective O-7-b: Monitor the information technology industry and products from key vendors.

Objective O-7-c: Maintain technical standards and State purchase contracts that are practical and also current as to industry trends and the availability of information technology products.

Objective O-7-d: Streamline the review process for procuring technology that adheres to state standards.

Objective O-7-e: Develop an Intranet capability so that agencies can communicate their interest in specific technologies or capabilities with the Department of Administrative Services (IRMD and Central Purchasing) and among themselves.

Objective O-7-f: Survey the needs of the State's small boards and commissions and various members of the Oregon Cooperative Purchasing Program to determine their needs for procurement assistance (requirements gathering, RFI/ITB/RFP document preparation, product/vendor selection, contract negotiation/award, ongoing management, etc.).

Objective O-7-g: Competitively establish pre-qualified supplier lists for both commodities and services.

Objective O-7-h: Develop methods and procedures that facilitate and simplify multi-agency or group "block" negotiation and purchasing of information technology goods and services from vendors and other third parties, including universities and other government agencies.

People

IT Staffing: recruitment, training, retention, and sourcing

Goal P-1: The State will have an information technology workforce with the skills to develop, manage, operate and maintain the State's information technology resources.

Objective P-1-a: Create an enterprise-wide process for recruiting and retaining information technology professionals.

Objective P-1-b: Establish a process or system for “career progression planning” at the enterprise level.

Objective P-1-c: Develop training vehicles for both core competencies and cutting edge technologies.

Objective P-1-d: Develop executive education programs to communicate information resources management issues and opportunities to government executives.

Objective P-1-e: Continue and create information resources management certification-based training courses as required by the enterprise (Project Management, Quality Assurance, IT Portfolio Management, etc.)

Objective P-1-f: Develop an enterprise register of trained individuals who can serve as mentors or trainers to others who have a need for a particular skill or experience set.

Objective P-1-g: Develop a clearinghouse of information (training, technology, policies, procedures and projects) available to State information technology staff via the Intranet.

Objective P-1-h: Develop simple administrative vehicles for sharing/loaning information technology professionals within the State enterprise, in part to provide the information technology professional with a broader range of perspectives and challenges.

Objective P-1-i: Designate IRMD to play a coordinating role and to remove barriers to sharing expertise among agencies and organizations within the enterprise, including the university system and local government.

Customer-centric Approach to Service Provision

Goal P-2: The State will consider its citizen customers’ needs as a primary driver for information resources and technology planning, development and implementation.

Objective P-2-a: The State will periodically conduct customer surveys and/or convene focus groups to determine customer needs as part of the IRM and information technology planning, development and implementation process.

Objective P-2-b: The State will specifically incorporate the needs of Oregon's aging population as modifications and enhancements to service delivery mechanisms are made through the use of information technology.

Infrastructure

STRATEGIC INITIATIVE: ENTERPRISE IT ARCHITECTURE

Goal I-1: The State will develop an enterprise technology architecture that articulates the State's technical direction and standards related to telecommunications systems, networks and equipment, security, disaster recovery, business continuation planning and data management. This architecture will guide agency and multi-agency tactical plans and information technology operations. It will also enable collaboration with regional and multi-jurisdictional partners.

Objective I-1-a: The ITEC will evaluate the current approach to the evaluation and setting of standards and propose a more streamlined approach for use in the future.

Objective I-1-b: In concert with the ITEC, the State Chief Information Officer will promulgate standardized and stratified methodologies for various analytical activities, including Total Cost of Ownership (TCO), Benefit/Cost Analysis (BCA), and System Development Life Cycle (SDLC).

Objective I-1-c: The ITEC will clearly define expected compliance with standards and designate a group with the role of oversight on compliance with standards.

Objective I-1-d: Make clear the differentiation between standards and guidelines and provide a reasonable migration path and time period to attain standards.

Objective I-1-e: The State will have a standard desktop environment by July 2007. Where feasible, the development environment, network hardware and software, and centralized computing hardware, software and processes will also be standardized.

Information Technology Security

Goal I-2: The State of Oregon will establish policies and programs to ensure the integrity and security of information technology resources by protecting them from unauthorized access, modification, destruction, or disclosure. These policies and programs will be developed in compliance with the ISO/IEC 17799 standard. The focus will be on internal requirements, as well as on external requirements such as HIPAA, personal identification, universal identification, national driver's license, personal privacy protection, and homeland security.

Objective I-2-a: Develop the enterprise technology architecture and include security as a top priority at the enterprise level

Objective I-2-b: Establish a Chief Information Security Officer (CISO) position that reports directly to the State Chief Information Officer.

Objective I-2-c: Collaboratively develop security standards and guidelines, methodologies, and tools for use within the enterprise.

Objective I-2-d: Regularly assess the information technology security needs of the enterprise and look for opportunities for collaborative improvement in response to changing requirements at a state, regional, federal, and national level.

Objective I-2-e: Establish a process to help agency management proactively address core risk identification/management, data/information classification, data/information disclosure, employee education, and policy and procedure development issues. This should include communication and training to assist agencies in responding to federal and national requirements related to personal privacy, universal identification, national driver's licenses, etc.

Objective I-2-f: The ITEC will clearly define expected compliance with security standards and designate an entity (individual or group) with the role of oversight on compliance with standards. This entity will periodically audit the security of the State's systems, networks, and data and make recommendations on the improvement of those capabilities as necessary.

Disaster Recovery/Business Continuation Planning

Goal I-3: The State will ensure that mission-critical business processes, computer resources, and data can be restored in the event of a natural disaster or other business interruption.

Objective I-3-a: Research and share best practices for disaster recovery, backup and archival of information resources across the enterprise.

Objective I-3-b: The ITEC will ensure the development of enterprise-wide contingency plans that incorporate "business continuation" as an adjunct to disaster recovery.

Objective I-3-c: The ITEC will conduct a detailed analysis of the State's Burns backup facility to determine the role the facility should/will play (near and long term) as a subset of the State's overall disaster recovery strategy.

Objective I-3-d: A disaster recovery and backup strategy for the state's General Government, Oregon Department of Transportation, Department of Human

Services, and Department of Revenue data centers will be developed and a service developed/procured.

STRATEGIC INITIATIVE: SHARED INFRASTRUCTURE DEVELOPMENT

Network Architecture

Goal I-4: The State will establish and maintain a cost-effective, high-performance, highly reliable and uniform voice, video and data network architecture and infrastructure for Oregon government.

Objective I-4-a: The State will continue to work toward network consolidation and enterprise voice, video and data network development.

Objective I-4-b: Evaluate opportunities to aggregate and re-bid contracts for voice, video, and data services.

Objective I-4-c: Develop a coordinated investment strategy that supports Oregon Department of Transportation ITS, Department of Corrections video visitation, and State of Oregon enterprise Network development.

Objective I-4-d: Expand distance learning and distance education programs via enhanced video technology throughout the state.

Objective I-4-e: Promote and encourage the successful implementation of SB622 by the Economic and Community Development Department and its state and local government, and citizen and private sector partners.

IT Infrastructure Organization and Management

Goal I-5: The State will organize and manage its information technology infrastructure based on sound business and economic considerations.

Objective I-5-a: Develop simple administrative vehicles for determining and selecting the best "sourcing" option for the planning, development, maintenance and support of information technology systems.

Objective I-5-b: The State will consider consolidation/centralization, selective outsourcing, and/or cross sourcing (from agencies across the enterprise) based on a sound business case.

Objective I-5-c: To enhance the state's "sourcing options", however, the State will consider the use of third party functionality (e.g., other agency applications, commercial application service provider) as a prototype, precursor, and/or possible substitute for in-house development and operational efforts.

Objective I-5-d: Implement an information technology portfolio management program as envisioned in HB 3372 at the agency and enterprise level.

Technology

STRATEGIC INITIATIVE: ELECTRONIC GOVERNMENT

E-Government (Use of Internet and Intranet Technologies)

Goal T-1: The State will offer information and services through the use of the Internet and Intranet technologies where a business and economic justification exists.

Objective T-1-a: The e-Government initiative will yield an overall strategy that focuses on the Intranet/Internet as an application and network environment, as a way of promoting common access and interoperability.

Objective T-1-b: The e-Government initiative will build on the successful efforts of several State agencies and design and implement an enterprise-wide Intranet.

Objective T-1-c: The e-Government initiative will develop, enhance, support and maintain an Internet portal.

Objective T-1-d: The e-Government initiative will provide secured financial and informational transactions between the public and any State agency via the web.

Objective T-1-e: The e-Government initiative will use shared networks and/or existing points of presence for citizen access – use Employment Department kiosks, Lottery systems, library terminals, local school systems, and other public access devices to provide services.

STRATEGIC INITIATIVE: ENTERPRISE INFORMATION MANAGEMENT

Access/sharing/integration of data and applications

Goal T-2: Oregon government will, through collaboration, achieve efficiencies in collecting, using, sharing, integrating and maintaining information.

Objective T-2-a: IRMD will host and coordinate an enterprise data clearinghouse, populated principally with metadata identifying the content, formats, custodian, and access requirements of the data. This clearinghouse will also contain information regarding existing data needs, data being collected, and data under development.

Objective T-2-b: IRMD will lead a multi-agency effort to define and promulgate common identifications as a basis for enterprise data integration. The common data element “keys” can be used to relate data records from different systems.

Confidentiality and Privacy of information

Goal T-3: The State will prudently address confidentiality, privacy, and security of the public’s data and information resources in conformance with legal and state policy requisites, as well as federal government, and regional and national organization initiatives and requirements.

Objective T-3-a: Establish and monitor State agency conformance to policies meeting the security and confidentiality requirements, of the federal Health Insurance Portability and Accountability Act (HIPAA).

Objective T-3-b: Establish processes applicable to all State agencies for classifying, retaining, sharing, archiving and removing data/information in electronic records.

Objective T-3-c: Monitor changing external requirements, specifically related to personal identification, universal identifications, national driver’s licenses, personal privacy protection, and other national and federal initiatives, and remain attentive and ready to respond appropriately to such changes.

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APPENDIX A – ITEC Business Driver Alignment Matrix

- Goal O-1:** Oregon government will respond to changes in technology and citizen expectations and maintain accountability for public resources by collaboration and establishment of a business driven information technology governance structure.
- Goal O-2:** Enterprise business needs will be incorporated into the enterprise IRM strategic plan, where priorities are set and resources are allocated from an enterprise perspective.
- Goal O-3:** Executive leadership in state agencies will assure that agency planning and implementation of information technology is in alignment with the State's enterprise IRM strategic plan.
- Goal O-4:** State agencies will pursue joint information resources planning and implementation with their business partners wherever possible.
- Goal O-5:** Projects will be managed and tracked well to ensure that originally stated objectives are being met.
- Goal O-6:** Information technology will be funded, whenever possible, from a lifecycle perspective. Funding for multi-agency projects will be encouraged throughout the budget and funding process. Information technology funding strategies that allow departments and agencies to collaborate, to share resources, and leverage innovation will be adopted.
- Goal O-7:** The State will have a procurement process, which efficiently acquires information resources and technology commodities and services through streamlining requests, solicitation processes, legal reviews, and where appropriate, leveraging agencies' purchasing power.
- Goal P-1:** The State will have an information technology workforce with the skills to develop, manage, operate and maintain the State's information technology resources.
- Goal P-2:** The State will consider its citizen customers' needs as a primary driver for information resources and technology planning, development and implementation.
- Goal I-1:** The State will develop an enterprise technology architecture that articulates the State's technical direction and standards related to telecommunications systems, networks and equipment, security, disaster recovery, business continuation planning and data management. This architecture will guide agency and multi-agency tactical plans and information technology operations.
- Goal I-2:** The State of Oregon will establish policies and programs to ensure the integrity and security of information technology resources by protecting them from unauthorized access, modification, destruction, or disclosure. These policies and programs will be developed in compliance with the ISO/IEC 17799 standard.
- Goal I-3:** The State will ensure that mission-critical business processes, computer resources, and data can be restored in the event of a natural disaster or other business interruption.
- Goal I-4:** The State will establish and maintain a cost-effective, high-performance, highly reliable and uniform voice, video and data network architecture and infrastructure for Oregon government.
- Goal I-5:** The State will organize and manage its information technology infrastructure based on sound business and economic considerations.
- Goal T-1:** The State will offer information and services through the use of the Internet and Intranet technologies where a business and economic justification exists.
- Goal T-2:** Oregon government will, through collaboration, achieve efficiencies in collecting, using, sharing, integrating, and maintaining information.
- Goal T-3:** The State will prudently address confidentiality, privacy, and security of the public's data and information resources in conformance with legal and State policy requisites.

ITEC BUSINESS DRIVERS	Goal O-1	Goal O-2	Goal O-3	Goal O-4	Goal O-5	Goal O-6	Goal O-7	Goal P-1	Goal P-2	Goal I-1	Goal I-2	Goal I-3	Goal I-4	Goal I-5	Goal T-1	Goal T-2	Goal T-3
Externally imposed requirement (e.g., new and changing federal requirements around security, personal identification, etc.											▲						▲
The federal government and various national associations are pushing for inter-state continuity.	▲	▲		▲		▲				▲	▲		▲			▲	▲
Service integration between state agencies and with local/community partners creates the need to move from "stovepipe" legacy systems to integrated systems.	▲	▲	▲	▲		▲		▲		▲	▲		▲	▲	▲	▲	▲
Highly publicized IT project failures within government have created a climate of risk aversion.	▲		▲		▲		▲							▲			
Stakeholders/constituents are seeking legislative solutions for needed and well-intentioned changes that are sometimes not in step with IT capabilities or potentials	▲	▲							▲					▲			
There is a higher expectation of convenience by all customers.	▲								▲				▲		▲	▲	▲
Statewide demographics are changing (i.e. aging population, retirement of the baby boom generation).									▲						▲		

ITEC BUSINESS DRIVERS	Goal O-1	Goal O-2	Goal O-3	Goal O-4	Goal O-5	Goal O-6	Goal O-7	Goal P-1	Goal P-2	Goal I-1	Goal I-2	Goal I-3	Goal I-4	Goal I-5	Goal T-1	Goal T-2	Goal T-3
Funding sources and restrictions can serve as a deterrent to creating standards and create inflexibility in matching resources to business needs.		▲		▲	▲	▲		▲						▲			
Current procurement process has multiple limitations.						▲	▲	▲		▲							
Loss of knowledge based caused by retirements and competition for IT talent.				▲			▲	▲						▲			
Expectation of streamlined operations and enhanced customer service with no additional resources.	▲						▲		▲	▲			▲		▲	▲	
Lack of understanding of IT and enterprise approaches by many leaders and decision makers within government.	▲	▲			▲		▲	▲	▲	▲							
All constituencies are becoming more sophisticated in accessing services and interacting with government.	▲								▲				▲		▲	▲	
Citizens are increasingly demanding from government the same approach to service as they receive from the private sector.	▲								▲				▲		▲	▲	
Government is now a market for IT vendors.					▲	▲	▲										
Increasing volume of complicated transactions and constantly changing business practices.								▲		▲			▲	▲	▲	▲	

ITEC BUSINESS DRIVERS	Goal O-1	Goal O-2	Goal O-3	Goal O-4	Goal O-5	Goal O-6	Goal O-7	Goal P-1	Goal P-2	Goal I-1	Goal I-2	Goal I-3	Goal I-4	Goal I-5	Goal T-1	Goal T-2	Goal T-3
Disaster recovery and business continuation.											▲	▲					
Secretary of State audits.	▲	▲	▲		▲						▲	▲					▲
Protecting and ensuring the privacy, integrity and security of data within the enterprise.											▲	▲				▲	▲
Geographical diversity and increasing service demands in remote locations/sites.	▲	▲							▲				▲		▲		
Increasing demand for seamless government.	▲			▲		▲			▲	▲			▲		▲	▲	
The new Homeland Security effort is affecting IT management and approaches for criminal justice agencies at the state and local levels.		▲									▲					▲	▲
Reduced revenues and budget deficit.	▲	▲		▲	▲	▲	▲			▲				▲	▲		
The need to retrain and retool IT/IS staff in new technologies and "languages".				▲			▲	▲		▲				▲			
Outsourcing of IT/IS functions and services.					▲		▲						▲	▲			▲
Demand for better internal controls and standards for application development.	▲	▲	▲		▲					▲							▲

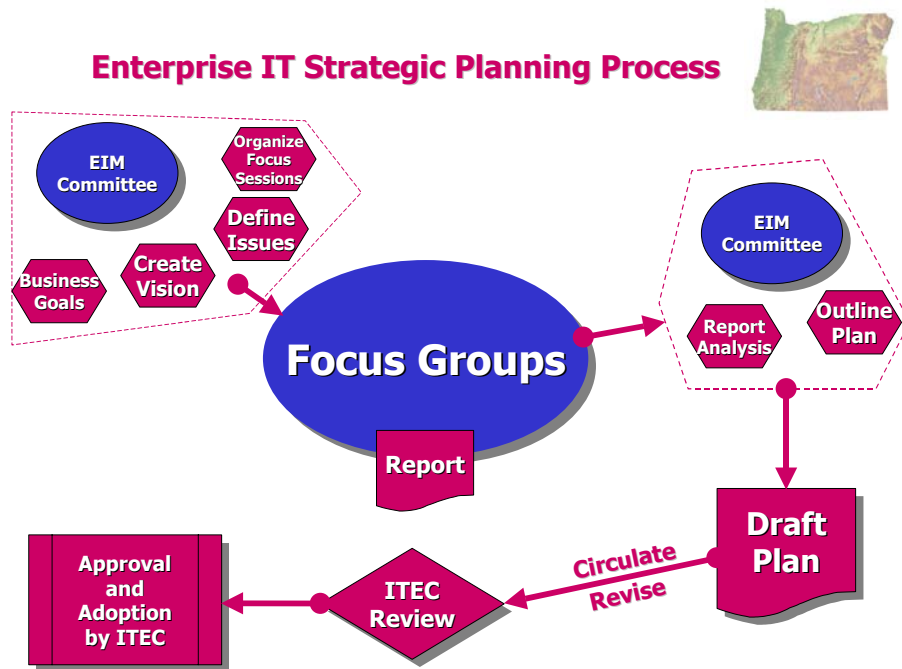
APPENDIX B – Planning Process

The following diagram is a graphic representation of the strategic planning process used by the Enterprise Information Management Committee (EIMC) of the Governor’s Information Technology Executive Council (ITEC).

The strategic planning process devised by the EIMC, and approved by ITEC, was designed to be as inclusive as possible. In the absence of a comprehensive, statewide business plan, the EIMC began the process by defining high-level business drivers for the enterprise. These drivers were reviewed for content by the ITEC and form the basis for defining the goals and objectives for enterprise information management contained in this strategic plan.

The EIMC also drafted a vision statement and fourteen high level strategies for enterprise information management based on support of the enterprise business drivers. A series of focus group sessions were then planned by the EIMC, with the help of a management consultant, to address each of the high level strategies. The focus group sessions were facilitated by the management consultant and had two primary objectives:

- To gain input from the information management community on the issues, and consensus where possible
- To initiate dialogue among the community in a manner that would promote collaborative processes.



The management consultant delivered a report, following the focus group sessions, containing recommendations from the focus groups related to the strategies drafted by the EIMC. The EIMC, with assistance from the State Chief Information Officer and his staff, reviewed and analyzed those recommendations and developed a draft Enterprise Information Resources Management Strategy for review and approval by the ITEC.

APPENDIX C – Oregon Policies, Standards, Statutes, and Other Relevant Background Documentation

Oregon Policies, Standards, Statutes, and Other Relevant Background Documentation

1998 State of Oregon Enterprise Information Technology Strategy Document (including appendices)

Executive Order 98-05

Executive Order 99-05

Revision to EO 00-30 Electronic Government Executive Order

OGIC Executive Order 00-02

DAS/IRMD Secretary of State Audit

ORS 291.038

HB 3372

HB 3399

GIS Strategic Plan

E-Government Project Documentation

Governor's Information Technology Executive Council (ITEC)

State's IT Policies

Information regarding SB622, the Connecting Oregon Communities Board and the Oregon Economic and Community Development's Telecommunications section