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1996-97 Information Resource Funding Recommendations

A Service of: Information Policy Office

February 1995

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"Efficiency in State Government through Information Resource Management"

1996-97 Information Resource Funding Recommendations

A Service of: Information Policy Office

February 1995

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TABLE OF CONTENTS:

Information Resource Funding Request Recommendations

INTRODUCTION 1

IRM DEFINED FOR MINNESOTA GOVERNMENT 1

IRM IMPLEMENTATION IN MINNESOTA GOVERNMENT . . . 2

BUDGET REQUEST ANALYSIS 4

ON-GOING ISSUES 6

PROJECTS AT A GLANCE 8

DETAILED REQUEST AND

RECOMMENDATION SUMMARY 13

DEPARTMENT OF ADMINISTRATION 15

Statewide electronic commerce services 16

MNet telecommunications infrastructure project 18

STATE ARTS BOARD 19

Networking and information sharing 20

CENTER FOR ARTS EDUCATION 23

Connectivity, lab and classroom computer equipment 24

ATTORNEY GENERAL'S OFFICE 27

Integrated information systems 28

TABLE OF CONTENTS:

Information Resource Funding Request Recommendations

CHILDREN'S CABINET 31

Children's programs information management redesign initiative 32

DEPARTMENT OF FINANCE 35

Statewide Systems Project 36

GAMBLING CONTROL BOARD 39

Integrated gambling data community systems 40

DEPARTMENT OF HEALTH 43

Vital records re-engineering and automation 44

MINNESOTA HISTORICAL SOCIETY 47

Chief Information Officer 47

DEPARTMENT OF HUMAN RIGHTS 49

Information system enhancement 50

DEPARTMENT OF LABOR & INDUSTRY 53

Daedalus 54

MINNESOTA PLANNING 57

Geographic information clearinghouse access system 58

BOARD OF NURSING 61

Discipline and licensing systems 61

TABLE OF CONTENTS:

Information Resource Funding Request Recommendations

PEACE OFFICER STANDARDS AND TRAINING BOARD 65

Technology upgrade and database creation 66

POLLUTION CONTROL AGENCY 69

DELTA 70

DEPARTMENT OF PUBLIC SAFETY 73

Office of Information Systems revitalization 74

Driver and Vehicle Services systems replacement 77

Criminal assessment program 78

DEPARTMENT OF PUBLIC SERVICE 81

Field inspection process improvement and automation 82

DEPARTMENT OF REVENUE 85

Business process improvements 85

DEPARTMENT OF TRADE AND ECONOMIC DEVELOPMENT . 89

Network operations and information management 90

One-stop business licensing 92

Pathfinder - customized travel information 94

DEPARTMENT OF TRANSPORTATION 97

Information resource management implementation 98

ZOOLOGICAL GARDEN 101

IRM environment, technology upgrade and business systems . . 102

TABLE OF CONTENTS:

Information Resource Funding Request Recommendations

APPENDIX . . . . . Appendix Pg i

1996 - 97 INFORMATION RESOURCE FUNDING REQUEST RECOMMENDATIONS . . . . . Appendix Pg i

STATEWIDE INFORMATION RESOURCE MANAGEMENT POLICIES . . . . . Appendix Pg vii

INTRODUCTION

Information has become a major resource and product of state government. The state's ability to gather information, to compile it into useful formats, to make it easily accessible to the public, and to share it effectively within government is of critical importance to government business. Usable, pertinent information provides government with the capacity to give citizens better, faster service.

While government continues to strive to provide better and faster service to citizens, the resources to fund government are limited. Government must continually look for ways to invest funds wisely to streamline operations and achieve quality improvements in the delivery of programs. Effectively managing and using information resources can help achieve these goals.

The Information Policy Office has adopted Information Resource Management (IRM) as Minnesota's strategic direction for managing information resources.

> *Information Resource Management* is the process of managing information resources to accomplish business objectives. IRM establishes an infrastructure for operating a business that includes resources such as data, personnel, funds and information technology.

IRM is one of the strategies used by effective, entrepreneurial organizations. Private sector companies have invested in information management and technology in order to make a positive impact on customer service, quality improvement, cost savings and productivity gains. The approach being used in Minnesota is patterned after steps that these private sector organizations have taken to remain competitive.

Organizations that have an IRM history contend that well-managed technology changes have resulted in significant improvements in their operations. IRM has provided a method for integrating information management with the mission of the organization. Equally important, it has spurred the development of performance measures and process re-engineering. The best business practices that are incorporated into IRM can help position an agency for future success.

IRM DEFINED FOR MINNESOTA GOVERNMENT

Information Resource Management (IRM) addresses all areas that are critical to proper information resource management, including organizational structure, information architecture, organization-wide and project planning, and a framework for developing specific information resources (which are defined as data, applications and technology).

The IRM strategy is influenced by, and provides support for, public policy, information access

initiatives, and regulations and standards. For Minnesota government, IRM is the means for implementing the vision, information management philosophy, technology goals and business goals that have been developed cooperatively over the years by various Minnesota government organizations.

IRM represents a change in perspective about information management. Traditional thinking has been to develop systems that address specific business requirements, including the data and processes needed to meet those requirements. The traditional approach duplicates resources and assumes a system is the right solution before the problem is clearly understood. IRM requires understanding the business and the resources required to carry out that business before solutions are selected. For Minnesota government, this means defining and understanding the business of government and its data, applications and technology. It also means addressing critical success factors by planning and establishing the requisite infrastructures before making investments in information resources.

Using IRM, information resources will be organized differently to allow faster response to legislative mandates and citizen needs.

The IRM approach assists information resource communities, organizations that share common business processes and customers, by allowing organizations to identify and share common data. This improves service and information quality while reducing costs associated with redundancy.

Information access will be improved by managing data separately from the systems that house it, because data will be easier to find..

Costs will be reduced through improved project planning and management.

IRM provides agency executives and line managers with an effective way to get more out of their investments in information resources.

IRM IMPLEMENTATION IN MINNESOTA GOVERNMENT

IRM is being implemented in Minnesota government in several ways:

- Fourteen statewide IRM policies were developed to set strategic boundaries. All Minnesota state agencies are expected to follow these policies, created by the IPO and formally endorsed by the Information Policy Council in May, 1994. (See Appendix B)

- Statewide technical standards and RFP requirements for information technology incorporate the IRM goals for information technologies. The technical standards have been supplemented with several additional statewide standards that together define compliance requirements for

technology and business operations. Standards will continue to evolve.

- Guidelines provide direction, describe IRM philosophies, and assist executives and managers as they make decisions about creating and managing information resources.

- Proposals being considered for new funding must go through the budget review process. The budget review process establishes outcomes for agencies that are based on IRM policies, standards and guidelines, and meet critical success factors.

Public policy requirements are reflected in the policies, standards, guidelines, and funding request requirements.

Information Resource Funding Request Requirements

The Information Policy Office (IPO) is required by Minnesota Statute 16B.41 to review all state agency information resource budget requests before they are submitted to the legislature. In addition to providing input to the legislature, the budget reviews help agencies invest wisely and complete successful projects.

Beginning with the FY 1996-97 biennial session, funding requests focus on an IRM framework of *six critical success factors*. Each critical success factor has one or more standards against which agency funding requests are measured. Some standards measure agency-wide commitment to information management; others focus on project-level management. Both are used to ensure that the proposal is "doing the right project" based on agency-level IRM, and also "doing the project right" based on project-level IRM.

Agencies provide several products (outcomes) to demonstrate compliance with the standards. Agencies also include a one-page summary of the request that includes the business needs, and the potential risks to stakeholders if those needs are not met.

IRM Critical Success Factors

- Improve *executive leadership and involvement.*

- Develop an *information management infrastructure* built around policies, standards and guidelines, which are necessary to allow repeatable processes and sharable products.

- Develop a continuously updated agency-wide *implementation and migration plan*, that allows agencies to determine project priorities and provides a longer-range view of how projects fit with the strategic business direction.

- Create and use *high-level information resource models* that collectively describe agency data, technology and application resources, and how they support business functions.

- Develop an *IRM-oriented organizational structure* that has the authority to manage all aspects of the agency's information resource projects.

- Develop an *effective skill base*. Investments will be needed to acquire, train and retain skilled professionals who can carry out IRM responsibilities.

Agency requests must also incorporate public information policy requirements mandated by Minnesota Statutes Chapter 13 (Minnesota Government Data Practices Act); Chapter 15.17 (Official Records Act); Chapter 138.17 (Government Records Act); and all other state and federal statutory requirements relating to data practices and records management.

Each project is given a rating of excellent, good, satisfactory, fair or poor, along with direction on what to do to improve the project's potential for success. To further the potential for success, IPO often recommends that projects be funded in phases with interim reviews so that all requirements are met along the way.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Fair*
Planning	*Satisfactory*
High Level Resource Models	*Poor*
Organizational Structure	*Satisfactory*
Effective Skill Base	*Fair*
Overall rating	***Satisfactory***

BUDGET REQUEST ANALYSIS

A review of the FY 1996-97 budget requests indicates:

- A few agencies have been exceptional in their efforts to gain control of their data and to meet both their internal needs and the needs of their customers. These agencies have become state government's pacesetters in managing information resources to support customer service and efficiency.

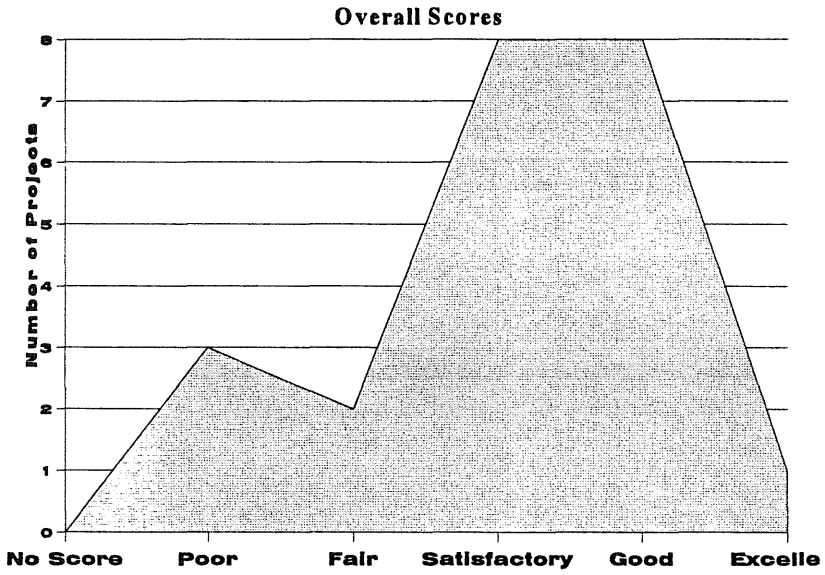
- Most state agencies deserve credit for taking the initiative to implement some of the basics of information resource management. While they are off to a good start, they need to expand their efforts significantly in order to keep up with growing demands and expectations.

- A very few agencies have done little or nothing to manage information resources within their agencies.

As the state's comprehensive approach to information resource management is relatively new, all agencies need to continue efforts in some areas. Many agencies have worked hard at identifying the

issues that need to be addressed, and overall they are making significant progress in preparing themselves for the future.

The following chart indicates how IPO rated agency budget requests.



It is possible to get a rough but fairly accurate sense of an agency's progress by looking at a few key indicators. Based upon the project proposals submitted over the past 8 years, it appears that successful agencies -- and projects -- can be identified by their positive movement in four basic areas.

- **Executive leadership.** State agencies are beginning to recognize the importance of a chief information officer. Several agencies have appointed a CIO, or have given an executive an information-specific role and responsibilities. Other agencies are preparing to appoint a CIO by developing a position description. A CIO is not the head of a data processing unit; it is a high-level position with authority that cuts across traditional functional lines. To be successful in helping set agency strategic direction, a CIO must be prepared to tackle long standing and often very complicated organizational issues.

- **Agency planning.** Some agencies have done excellent work in developing project-specific plans. What has hampered them is that projects are often not connected to agency-wide goals. Few agencies have fully developed an agency-wide implementation plan for all potential information-related projects.

- **Organizational structure.** Information resources can no longer be supported by a distinct, stand-alone organizational unit. The organizational structure that supports information

resource management needs to be integrated throughout all of the agency's operational and support units. Few state agencies have an integrated organizational structure in place; however, many agencies are moving in this direction.

- **Skills.** Effective information management requires staff with the appropriate skills and expertise. Rapid technological development continuously changes skill requirements. It is to be expected that agencies will lack newly developed skill sets among its staff. Agencies need to assess the skills that they have, determine the skills they will need for a project, and develop plans to acquire those skills, through training, hiring or contracting. A few agencies have completed skills assessments but most have not.

ON-GOING ISSUES

As IPO worked with agencies during the budget review process, several issues were raised across many agencies. It is important that government address these issues since they affect the success of the agencies in managing information resources to support business goals.

1. Infrastructure Investment.

- **Information resource investment needs will be on-going**. As with other resources, such as personnel and equipment, information resources require on-going investment. An initial investment in an information system may make an operation cost efficient for today, but unless there is a plan for funding on-going monitoring and upgrading, that operation may become ineffective. Funds must be available on an on-going basis to support infrastructure. Funding mechanisms need to be developed that allow for regularly scheduled infrastructure upgrades.

- **Information resource budgeting and contracting processes will need to change.** Information resources development follows a process that includes planning, design, development and maintenance. The biennial budget process requires agencies to estimate a dollar amount for all phases of development and maintenance before detailed work has been done to determine total dollars needed. The result of this is that phases may be inappropriately funded and agencies must return to the legislature for additional funding. A new process would provide funding for each phase as it was needed with go/no go check points at the end of each phase.

  To achieve the greatest investment value, it is important that the state continue looking for ways to improve contracting for information resources in order to respond to the changing market and technological environment.

- **Government must provide "one face" to citizens.** Many agencies are facing growing citizen demand for access to public government information. Citizen expectations do not neatly fit

within agency boundaries. From a customer perspective, there is a need for "virtual agencies"; that is, information organized as customers need it, coming from several agencies in a seamless manner, transparent to the customer. Statewide infrastructure investments to provide a common, user-friendly face to government information are essential and must be made on an on-going basis.

2. Oversight.

Important to effective management of the investment in information resources, is independent oversight of both the development and maintenance of these resources. The complexity of both the business problems and the technological resources available to help solve these problems presents continuing challenges. Independent risk assessments and evaluations provide support for agencies in dealing with these challenges. Funding appropriations should require agencies to do independent assessments and evaluations as specified by IPO.

3. Obtaining technological skills.

As the technology supporting the public sector, for example local and wide area networks and client server applications, become increasingly complex, the skills required to manage the technology change rapidly. Agencies are finding that they must continually refresh skills to keep pace with changing technology. Government is competing with private sector enterprises for the same set of skills. Funding needs to be available, planning needs to be dynamic, and staffing options need to be flexible.

In addition the state needs to be able to leverage consultants to gain internal skills. Knowledge transfer should be a required part of all consulting contracts.

PROJECTS AT A GLANCE

Projects At A Glance

Agency	Dollars Requested	Dollars Recommended	Positions Requested	Overall Rating
Administration				
Statewide Electronic Commerce Services	$2,250,000	$2,250,000	0	*
MNet Telecommunications Infrastructure	$10,000,000	$10,000,000	0	*
TOTAL	$12,250,000	$12,250,000	0	
State Arts Board				
Network and Information Sharing Project	$100,000	$100,000	0	Satisfactory
TOTAL	$100,000	$100,000	0	
Center for Arts Education				
Connectivity, Lab and Classroom Computer Equipment	$300,000	$300,000	0	Fair
TOTAL	$300,000	$300,000	0	
Attorney General's Office				
Integrated Information Systems Project	$3,271,000	$3,271,000	5	Good
TOTAL	$3,271,000	$3,271,000	5	
Children's Cabinet				
Children's Programs Information Management Redesign Initiative	$1,000,000	$750,000	5	Satisfactory
TOTAL	$1,000,000	$750,000	5	
Finance				
Statewide Systems Project	$2,800,000	2,800,000	0	Satisfactory
TOTAL	$2,800,000	$2,800,000	0	
Gambling Control Board				
Integrated Gambling Data Community Systems Project	$1,165,000	$1,165,000	1	Good
TOTAL	$1,165,000	$1,165,000	1	

Projects At A Glance

Agency	Dollars Requested	Dollars Recommended	Positions Requested	Overall Rating
Health				
Vital Records Re-engineering and Automation Project	$590,000	$590,000	15	Satisfactory
TOTAL	$590,000	$590,000	15	
Historical Society				
Chief Information Officer	$752,000	$250,000	1	N/A
TOTAL	$752,000	$250,000	1	
Human Rights				
Information Systems Enhancement	$423,000	$423,000	0	Satisfactory
TOTAL	$423,000	$423,000	0	
Labor and Industry				
Daedalus Project	$5,000,000	$5,000,000	0	Good
TOTAL	$5,000,000	$5,000,000	0	
Minnesota Planning				
Geographic Information Clearinghouse Access	$500,000	$500,000	1	Poor
TOTAL	$500,000	$500,000	1	
Nursing Board				
Disciplinary and Licensing System Project	$843,000	$843,000	2	Good
TOTAL	$843,000	$843,000	2	
Peace Officer Standards Training				
Technology Upgrade and Database Creation	$122,000	$122,000	0	Poor
TOTAL	$122,000	$122,000	0	

Projects At A Glance

Agency	Dollars Requested	Dollars Recommended	Positions Requested	Overall Rating
Pollution Control Agency				
DELTA Project	$2,556,000	$2,556,000	5	Good
TOTAL	$2,556,000	$2,556,000	5	
Public Safety				
Office of Information Systems Revitalization Project	$3,855,000		10	Poor
Driver and Vehicle Services Systems Replacement Project	$5,308,425		14	Satisfactory
Criminal Assessment Program Project	$351,000		0	N/A
TOTAL	$9,514,425	$2,000,000	24	
Public Service				
Field Inspection Process Improvement and Automation	$186,700	$186,700	0	Fair
TOTAL	$186,700	$186,700	0	
Revenue				
Business Process Improvements	$2,072,000	$2,072,000	5	Satisfactory
TOTAL	$2,072,000	$2,072,000	5	
Trade and Economic Development				
Network Operations and Information Management Project	$1,000,000		2	Good
One Stop Business Licensing	$1,720,000		5	Good
Pathfinder - Customized Travel Information	$455,000		0	Good
TOTAL	$3,175,000	$3,175,000 plus $300,000 for UBI	7	
Transportation				
IRM Implementation Project	$7,000,000	$7,000,000	0	Excellent
TOTAL	$7,000,000	$7,000,000	0	

Projects At A Glance

Agency	Dollars Requested	Dollars Recommended	Positions Requested	Overall Rating
Zoological Garden				
IRM Environment, Technology Upgrade and Business Systems Project	$533,000	$350,000	2	Satisfactory
TOTAL	$533,000	$350,000	2	

* NA - Since IPO is part of Administration, IPO is not providing ratings for the two Administration projects described in this document. This document does, however, provide direction for the projects and requirements to mitigate risks and support successful completion of the projects.

DETAILED REQUEST AND RECOMMENDATION SUMMARY

DEPARTMENT OF ADMINISTRATION

The Department of Administration proposes two projects for funding:

1. **Statewide electronic commerce services.**
   Request is for $2,250,000, with 0 new positions.

2. **MNet telecommunications infrastructure.**
   Request is for $10,000,000, with 0 new positions.

Total Requested Amount	Total Requested Positions	Total Recommended
$12,250,000	0	$12,250,000

The Information Policy Office recommends funding, if funds are available. Project management has critical tasks to complete before the projects can be successfully implemented. The statewide electronic commerce services project is required to do an independent risk assessment and complete project requirements listed in this report. Release of funds for the MNet telecommunications infrastructure project should be made contingent upon IPO review and approval of completion of project requirements listed in this report.

These are statewide projects that benefit many organizations in the state not just this agency. The agency needs to implement information resource management to better support internal agency systems as well as statewide projects such as these that need this agency's sponsorship and support.

Summary*

The projects believe that these two proposals have significant statewide benefits. The **statewide electronic commerce services project** will provide a common, integrated electronic commerce facility that will standardize how the state implements electronic technology. Specific benefits include:

- Better service to customers by providing and supporting multiple access technologies such as electronic filing systems, electronic funds transfers, fax, electronic bulletin board systems, text retrieval, kiosks, smart cards, and interactive voice response systems.
- Better controlled costs by consolidating common services into an integrated central communications facility. Agencies would not have to create their own separate systems and networks which is currently necessary if services are not available from MNet. Also, agencies would share the costs of communication lines, network capacity and applications requirements so that the state can maximize its investments. Agencies would only use the lines, network capacity and technology they require at any given time. This is a particularly attractive feature because of the seasonal nature of many services such as tax information and processing.

In the long term, the **electronic commerce services** initiative will provide an effective, dependable means of delivering state information and services electronically. It will improve public access to state government by providing common, user-friendly access points to government information and services that can be accessed through multiple technologies and applications across the state. It will help position the state as a leader in information technology in both government and business and increase our competitive advantage in the global marketplace.

The **MNet telecommunications infrastructure project** will allow a more rapid expansion of MNet's backbone network to meet the growing demand for telecommunications services. It will lower the rates for backbone transport of data and video to all customer agencies and help equalize the "distance disadvantage" of Greater Minnesota customers. Specific benefits include:

- Upgrade of the existing backbone network infrastructure to increase capacity and improve reliability.
- Installation of multi-point video conferencing to allow fast, effective communication among geographically distant groups or individuals.
- Establishment of dial-up service connections in up to 100 cities in Greater Minnesota allowing customers to access the network through local dial-up services which avoids long distance charges. This would also provide a low-cost method of connecting kiosk units to InterTech's network.
- Exempting MNet purchases from state and local sales taxes to reduce costs to MNet users.

In the long term, this proposal will enable state agencies, local governments, and educational institutions to communicate more effectively by expanding the statewide use of interactive video, electronic mail, data file transfers, and remote data base access. It will encourage customers to expand their use of technology to develop applications that improve their efficiency, lower costs and improve delivery of services to the public. It will alleviate the distance disadvantage for Greater Minnesota locations.

1. Statewide electronic commerce services

The **statewide electronic commerce services project** will provide a statewide approach to develop and implement a means of electronically linking islands of technology. It will provide a seamless connection to integrate systems, data bases, networks and technology. The first phase of electronic commerce is to plan, design, develop and evaluate pilots and recommend implementation. This phase will include an assessment of MNet's role in statewide electronic commerce.

Project Recommendations - IPO recommends funding for the project, if funds are available. IPO requests that the following requirements be written into any appropriation. For this project,

Statewide electronic commerce services project management must:

- Submit progress reports in October 1995, April 1996 and October 1996.

- Invest up to $75,000 of the appropriation in an independent evaluation/ assessment of the design, cost, benefit and risk analysis and implementation plan for electronic commerce.

- Establish and formalize statewide leadership for the project and for MNet and develop and formalize policies, standards and guidelines for electronic commerce.

- Plan and implement an information resource organization to effectively manage data, applications and technology for electronic commerce.

- Refine, monitor and manage project costs as a continuing part of the project.

- Establish a project plan for each phase of the project identifying tasks, schedule and resource requirements. Each plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, independent oversight, maintenance and enhancements as appropriate.

- Establish a plan to evaluate MNet services and operations for inclusion in the statewide electronic services and implement the plan.

- Create a high level business model identifying and describing the major business functions. Create and refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software and the interface compatibility required.

- Identify skills needed for the project and plan to acquire those skills.

2. MNet telecommunications infrastructure project

The **MNet telecommunications infrastructure project** will upgrade and maintain the statewide backbone network infrastructure to provide for (1) additional capacity and reliability, (2) Network Operations Center hardware and software, (3) video conferencing equipment at hub sites and (4) dial-up service connections to 100 cities in Greater Minnesota.

Project Recommendations - IPO recommends funding for the project, if funds are available. IPO requests that the following be written into any appropriation. For this project,

MNet telecommunications infrastructure project management must:

- Submit progress reports in October 1995 and April 1996.
- Allocate 3 to 5 percent of the appropriation to an independent evaluation/assessment of MNet operations.
- Refine, monitor and manage project costs as a continuing part of the project.
- Establish a project plan identifying tasks, schedule and resource requirements. The project plan needs to include user requirements, modeling, quality measures, training, project evaluation, independent audit, maintenance and enhancements.
- Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software and the interface compatibility required.
- Identify skills needed for the project and plan to acquire those skills.

* Since IPO is a part of Administration, IPO is not providing ratings for the two Administration projects described in this document. This document does, however, provide direction for the projects and requirements to mitigate risks and support successful completion of the projects.

STATE ARTS BOARD

The State Arts Board proposes one project for funding:

Requested Amount	Requested Positions	Recommended
$100,000	0	$100,000

Networking and information sharing project.

The Information Policy Office recommends full funding of $100,000, if funds are available. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of the Arts Board's budget request. The request has been given a rating of *satisfactory*. The agency is addressing communication difficulties created by the use of stand-alone personal computers throughout the agency. The agency proposes network implementation and system evaluation to obtain efficiencies in information storage and communication, and to provide citizen access to public information. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Satisfactory*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Satisfactory*
High Level Resource Models	*Not Applicable*
Organizational Structure	*Fair*
Effective Skill Base	*Satisfactory*
Overall rating	***Satisfactory***

The agency believes that this project will position it technologically to enable communities across the state to have access to the agency's information network and to share information on-line among its staff. Specific benefits include:

- Releasing grants in less than 45 days
- Updating addresses on the centralized mailing list within 48 hours
- Streamlining grant review by allowing staff to share word processing documents
- Maximizing the value of existing information and data resources
- Collecting data efficiently to assess agency results and outcomes

Networking and information sharing: project readiness

The agency proposes to implement a local area network and to hire a consultant to evaluate current use of information systems and make recommendations for improvement. A collective approach is used to manage information resources. Project plans are preliminary and incomplete. Information models do not exist. Technical knowledge for the complexity of this project is not present.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *satisfactory*. An executive has responsibility to manage agency information resources. A committee, representing major functions and stakeholders, advises the executive. A collective team approach manages the agency's information resources, policies and procedures. Information resource management responsibilities are not formalized. A process, and criteria, for identifying and selecting projects is not formalized.

Policies, standards and guidelines

Rating: *satisfactory*. A computer policy manual exists. Some policies have associated standards or guidelines. The 14 IPO policies have not been endorsed.

Planning

Rating: *satisfactory*. The agency has completed an agency-wide long range business plan for 1995 to 2000, and a cost, benefit and risk analysis. A one to two year information systems implementation plan, and a plan to refine, monitor and manage costs, are not completed. A project plan will be completed as part of the project.

High-level resource models

Rating: *not applicable*. Modeling is not applicable at this time because it will be completed as part of the project. High level functional business, technology, distribution, and data models are not completed.

Organizational structure

Rating: *fair*. A description of the current information systems organization, and a structural assessment, were provided.

Effective skill base	Rating: *satisfactory*. Currently required skills have been identified. The project team will work with consultants to identify additional skills needed, and to advise management on additional skills required.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *satisfactory* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management must:

- Clearly define and formalize responsibility for information resources.
- Formalize the information resource steering committee role, responsibilities, project selection process and criteria.
- Establish and formalize information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Establish a 1 to 2 year implementation plan.
- Create a high level business model identifying and describing the major business functions of the agency.
- Plan, formalize and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995 and April 1996 on all planning and modeling efforts.
- Refine the scope of the project and the business objectives that are to be met.
- Refine, monitor and manage project costs as a continuing part of the project.
- Establish a project plan identifying tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Create and refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Create and refine high level, logical and physical technology models illustrating

the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Identify, and plan to acquire, skills needed for the ongoing management and use of information resources.

CENTER FOR ARTS EDUCATION

The Center for Arts Education proposes one project for funding:

Connectivity, lab and classroom computer equipment.

Requested Amount	Requested Positions	Recommended
$300,000	0	$300,000

The Information Policy Office recommends full funding of $300,000, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of the Center's budget request. The request has been given an overall rating of *fair*. The agency has identified executive leadership responsibility for information resource management, and has involved the school's various functional areas in its planning process. Planning is underway but incomplete. This request will directly benefit the students. IPO recommends full funding for this request given the importance of this request to agency goals. However, funding is contingent on meeting all IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Fair*
High Level Resource Models	*Fair*
Organizational Structure	*No Score*
Effective Skill Base	*Satisfactory*
Overall rating	***Fair***

The agency believes that the establishment of networking connections will assure appropriate connectivity and data transmission with other campus facilities. These network links will provide the capacity for expanded curriculum development using a multiplicity of graphics, video and multimedia applications. State-of-the-art computer graphics equipment will provide students with educational and professional opportunities that are relevant to today's marketplace environment. Students will obtain training and education instruction using current software and supporting hardware which will allow them to transition into higher education or the workplace with maximum awareness of post secondary or employers' expectations. Using computers in science classrooms will allow for long-term integration of science and technology in a classroom setting. Student performance will be improved and students will be better prepared for post secondary placement.

Connectivity, lab and classroom computer equipment: project readiness

Computers in the Center's laboratories are under-equipped and obsolete. The chemistry and physics classrooms lack permanent computer equipment. Computers in the various campus buildings are not connected in a network. The project would resolve these problems by upgrading equipment to current technology, placing computers in chemistry and physics classrooms, and providing connections among the buildings. The project intends to better prepare students for educational and career opportunities.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal was given an overall rating of *fair*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good*. A position description identifies the authority and responsibilities of an executive who has been appointed to manage the agency's information systems. A technology advisory committee, representing the agency's major business functions, sets mission and vision for technology, promotes standards, and provides assessment of technology initiatives. The agency does not have a process for identifying and selecting projects, or high level criteria for project selection.

Policies, standards and guidelines:

Rating: *satisfactory*. A process for setting policy has been defined but not formalized. The agency has formal policies for open systems standards and information security, along with associated standards and guidelines. The agency has not endorsed the 14 IPO policies.

Planning

Rating: *fair*. The cost, benefit and risk analysis is incomplete. The agency needs more work on an agency-wide implementation plan, a plan to refine, monitor and manage costs, and a detailed project plan.

High-level resource models

Rating: *fair*. A high level technology model exists; a functional business model is incomplete. Data and distribution models are not applicable to this project.

Organizational structure

Rating: *no score*. The structure of the current information systems organization is unclear; the effectiveness of the organization has not been assessed.

Effective Skill Base Rating: *satisfactory*. The project skills have been assessed; the agency already has the skills identified.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *fair* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must:

- Define and formalize the information resource steering committee project selection process and criteria.
- Formalize the policy creation, adoption and communication process. Establish information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Establish a 1 to 2 year implementation plan identifying and sequencing major agency projects.
- Refine the high level business model identifying and describing the major business functions of the agency.
- Plan and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in September 1995 on all planning efforts.
- Complete a cost, benefit and risk analysis for the project.
- Refine, monitor and manage project costs as a continuing part of the project.
- Establish a project plan identifying tasks, schedule and resource requirements. The project plan needs to include user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

ATTORNEY GENERAL'S OFFICE

The Attorney General's Office proposes one project for funding:

Integrated information systems project.

Requested Amount	Requested Positions	Recommended
$3,271,000	5	$3,271,000

The Information Policy Office recommends full funding of $3,271,000, if funds are available. *Phased release* of funds is contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of the Attorney General's Office's budget request. The request has been given a rating of *good.* The office's goal is to increase the quality, productivity and effectiveness of its work. The objectives are to improve the quality of legal services, increase caseload capabilities and decrease both case backlog and legal services turn-around time to those the office serves. The project addresses issues affecting the agency. Workload and responsibility are increasing while the office lacks case management support, automated records management, and automated document creation. Out of 444 staff, 389 do not have access to a computer network. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*No Score*
Planning	*Good*
High Level Resource Models	*Good*
Organizational Structure	*Satisfactory*
Effective Skill Base	*Satisfactory*
Overall rating	***Good***

The agency believes that this project will improve the quality of legal services, increase caseload capabilities, decrease both case backlog and legal services turn-around time to the legislature, state executive departments, agencies, boards, and the citizens of Minnesota. This project will allow the agency to take on work of increasing complexity without undue strain or the need to increase the total staff size as rapidly as in the past. By upgrading the automation systems, the agency will be prepared to add new technology as it becomes the industry standard.

Integrated information systems project: project readiness

The office proposes to develop and implement an integrated information resource system capable of supporting office functional areas: law enforcement, state agency representation, policy development and communication, and administrative services. Executive leadership and involvement exist. A detailed project plan and cost, benefit and risk analysis have been completed. The project plan does not reflect the complexity of the project and is missing work process re-engineering, change management and risk management.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *good*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the office:

Executive leadership and involvement

Rating: *good*. An identified executive will serve as permanent chief information officer. An information resources committee has members representing management and the office's five program sections; its role and responsibilities are not formalized. A process to consider and select projects is not yet set, but selection criteria have been developed.

Policies, standards and guidelines

Rating: *no score*. The information resources committee, with approval of the chief information officer, is responsible for data policies, standards and guidelines. Standards and guidelines are not yet set. The office has not endorsed the 14 IPO policies.

Planning

Rating: *good*. A two-year, office-wide implementation plan, a project plan, and a detailed cost, benefit and risk analysis have been completed. A plan to refine, monitor and manage costs is not completed. Work process re-engineering, change management and risk management tasks are not yet identified.

High-level resource models

Rating: *good*. A functional business model describes the primary business objectives for each major office function. Also completed are high level models for technology and distribution. A data model was provided but is not complete.

Organizational structure

Rating: *satisfactory*. An information management structure is completed; the office identified the need to rely on external

services for strong project management, modeling and technical knowledge skills.

Effective skill base

Rating: *satisfactory*. A skills assessment identifies the need for additional staff and contract services. The office plans to hire additional staff for local area network administration, office automation support and training, database administration, application development and litigation support. The office intends to contract external services for project management, customization, integration, installation and initial training.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the office is making *good* progress in achieving information resource management standards. The analysis shows that the office needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Office management must:

- Formalize the information resource committee's role, responsibilities, project selection process and criteria.
- Establish and formalize information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Strengthen the information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995, April 1996 and October 1996 on all organizational, planning and modeling efforts.
- Allocate 3 to 5 percent of the appropriation to an independent risk assessment of the project.
- Conduct re-engineering as part of the project.
- Refine, monitor and manage project costs as a continuing part of the project.
- Refine the project plan to include re-engineering of work processes, modeling, quality measures, change management, risk management, project evaluation, independent oversight, maintenance and enhancements.
- Refine high level, logical and physical data models for project data. Refine high level, logical and physical distribution models showing where and how project data is distributed. Refine

high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Develop a plan to acquire the skills needed for the project.

CHILDREN'S CABINET

The Children's Cabinet proposes one project for funding:

Children's programs information management redesign initiative.

Requested Amount	Requested Positions	Recommended
$1,000,000	5	$750,000

The Information Policy Office recommends that funding be contingent upon formal legislative recognition of the Children's Cabinet community, and the identification of a "home" agency for the initiative. If a "home" is identified and the community is officially recognized, the IPO recommends partial funding of $750,000. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of the Children's Cabinet's budget request. The request has been given a rating of *satisfactory*. The proposal was prepared by a joint agency team. The team was directed by the Legislature in 1993 to prepare a plan for a statewide integrated children's services data base to support work of the family services collaborative. As a result of its efforts the joint agency team has concluded that an information resource management environment must be established in order to plan for and manage the data, applications and technology resources needed by the family services community. IPO recommends that before funds are targeted for this request, a "home" needs to be identified and the Children's Cabinet community officially recognized. When this is complete, IPO would recommend partial funding of $750,000 but contingent on meeting all IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Not Applicable*
Policies, Standards, and Guidelines	*Not Applicable*
Planning	*Satisfactory*
High Level Resource Models	*Satisfactory*
Organizational Structure	*Good*
Effective Skill Base	*Not Applicable*
Overall rating	***Satisfactory***

Although considerable resources are spent on collecting, storing and using children's program data, state and local officials have difficulty obtaining the information they need. Collaboration among school, health, and social service providers and decision-makers is a state strategy to improve outcomes for families and children. The goal is to develop an integrated, seamless service continuum to make services easier to use and more effective.

The members of the joint agency team believe that the development and management of data, applications and technology as shared resources will allow the community to realize these benefits:

- Providing consumers with streamlined intake and eligibility determination and applying the concept of one-stop shopping to social service delivery.
- Ensuring statewide access to better information and referral services including standardized First Call for Help types of services available statewide.
- Avoiding duplication and gaps by providing automated tools to coordinate case management among multiple service providers.
- Obtaining outcome based data and monitoring the effectiveness of different service delivery strategies. The state's progress can also be monitored in reaching children and family related "Minnesota Milestones" and in tracking indicators in Action for Children's "Kids Can't Wait" report.

Children's programs information management redesign initiative: project readiness

The project is to continue work to establish an information resource management environment to plan for and manage the data, applications and technology resources needed by the children's family services community.

The project will enable agencies to address the issues that hamper coordination. The boundaries of an integrated data base have not been set due to differing interpretations of what it should contain. There is no process for determining who will develop, control or be accountable for a data base. At this time, no organization has the mission of promoting data sharing, setting priorities, ensuring coordinated development or securing compliance with community policies.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *not applicable*. The establishment of leadership and accountability is critical to the project. However, this activity has not been accomplished to date and cannot be rated. The joint agency team recognizes that there is no established community-wide chain of command. Without any decision-making process or criteria in place, agencies with a stake in the project make no joint decisions about the priority of one development project over another, their time lines or their relationships to each other. Executive leadership for the project must be established.

Policies, standards and guidelines

Rating: *not applicable.* At this time, there are no Children's Cabinet community policies for using and supplying data to state-run information systems. This is not applicable until the leadership, scope and boundaries questions are resolved.

Planning

Rating: *satisfactory.* A cost, benefit and risk analysis has been completed. A high level, short-term action plan has been completed for FY 1996 and FY 1997. A community-wide implementation plan needs to be completed.

High-level resource models

Rating: *satisfactory.* A draft high level service delivery model has been prepared. Technology, distribution and data models are not applicable. Detailed modeling will be completed as part of this proposal.

Organizational structure

Rating: *good.* The structure that exists, works well for each individual organization. Information resource development takes place in the information management organizations of each separate organization. Those groups focus on developing computer systems that meet program-specific needs.

What is lacking is an organization with the mission of promoting data sharing, ensuring coordinated development and securing compliance with community policies. This organizational void is recognized. Commitment to the community exists within some state organizations; however the commitment from all state organizations and local organizations is unclear. Community commitment is critical to the project. Ownership of this initiative does not exist with any agency. Legislative language to formalize the community ownership and leadership does not exist.

Effective skill base

Rating: *not applicable.* A skills base assessment and plan are not applicable at this time. They will be done as part of this proposal. An initial high level assessment of skills has been completed.

Project recommendations - IPO recommends partial *phased release* funding of the project, if funds are available, contingent upon formal legislative recognition of the Children's Cabinet community, and the identification of a "home" agency for the initiative. The Legislature and the participating agencies need to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

The "home" agency, acting on the behalf of the community, must:

- Appoint an executive who has clearly defined responsibility for community information resource management.
- Establish and formalize information resource management and public information policies, standards and guidelines for the community.
- Establish a 1 to 2 year implementation plan identifying and sequencing major community projects.
- Refine clearly the scope and boundaries of the community implementation plan and the business objectives that are to be met.
- Create a high level business model identifying and describing the major business functions of the community.

The "home" agency, as the project manager, must:

- Submit progress reports in October 1995 and April 1996 on all community planning and modeling efforts.
- Create and refine high level, logical and physical data models for community data; high level, logical and physical distribution models showing where and how community data is distributed; and high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.
- Plan and implement an information resource organization to effectively coordinate and manage community data, applications and technology.
- Conduct a re-engineering study as part of the implementation plan. The re-engineering activity should focus on business operations and input processes which may be duplicative within the community.
- Complete a cost, benefit and risk analysis for the community implementation plan. Refine, monitor and manage project costs as a continuing part of the community implementation plan.
- Assure that each community project establishes a project plan identifying tasks, schedule and resource requirements.
- Identify skills needed for the community implementation plan and plan to acquire those skills.

DEPARTMENT OF FINANCE

The Department of Finance proposes one project for funding:

Statewide systems project.

Requested Amount	Requested Positions	Recommended
$2,800,000	0	$2,800,000

The Information Policy Office recommends funding of $2,800,000, if funds are available. Funding should be made contingent upon IPO review and approval of project requirements listed in this report.

Summary

IPO has conducted an assessment of the statewide systems budget request. The request has been given a rating of *satisfactory*. The statewide systems project is a multi-year development effort started in FY 1992. The project is jointly sponsored by the departments of Finance, Employee Relations and Administration. During FY 1994-95, the project continued design and development of the four applications systems: accounting, payroll, human resources, and procurement. The funds requested will be used to complete development of these four application systems. In FY 1994 the legislature was informed that $3.4 million would be required to complete development in the FY 1996-97 biennium. The request has been reduced to $2.8 million for the biennium. The statewide system will affect the work of every agency and has the potential to streamline the state's administrative systems and make business processes more efficient.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Satisfactory*
High Level Resource Models	*Satisfactory*
Organizational Structure	*Fair*
Effective Skill Base	*Fair*
Overall rating	***Satisfactory***

FY 1995 project funding required that an independent evaluation be completed to evaluate the project and identify risks and risk abatement strategies. The findings of the Coopers & Lybrand risk assessment report identify several critical areas of risk which the project steering committee will need to resolve. IPO is recommending full funding contingent on meeting IPO requirements detailed in this report and contingent on resolving risks identified in the Coopers & Lybrand report.

The sponsoring agencies believe that the **statewide systems project** will streamline the state's administrative systems and make business processes more efficient. Involving the work of every state agency and hundreds of state employees, SSP will improve the way the state does business by:

- Replacing Minnesota's outdated accounting, procurement and payroll systems
- Creating human resources and decision support information systems
- Re-engineering many of the state's business processes and procedures

SSP will produce an integrated statewide network that will give state government access to the timely information needed for efficient, accountable and quality-oriented government.

1. Statewide Systems Project: project readiness

This request is to complete the implementation of the new statewide accounting, human resources, payroll and procurement systems. The project is nearing completion of its development effort. IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal has been given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good.* Commissioners of the three sponsoring agencies, Administration, Employee Relations and Finance, support and participate in the project. Project oversight responsibility, including contract management oversight, is assigned to an additional four executives from the sponsoring agencies. An information resource steering committee has existed for the project since its inception in 1992; its members include high level management from the sponsoring agencies and the departments of Human Services, Natural Resources, Revenue and Transportation. Steering committee policies for managing scope and cost changes define the strategy, process, and the criteria to consider before increasing project scope or cost. For on-going SSP operation, responsibility for leadership is assigned to the Assistant Commissioner of Information Services in the Department of Finance. In addition the Department of Employee Relations has assigned an executive level position to focus on the human resource application. It is critical that leadership for on-going operations continue to be clearly defined and supported.

Policies, standards and guidelines

Rating: *satisfactory*. Policies, standards and guidelines have been developed as a part of this project. The 14 IPO policies will be endorsed. The project has addressed some of the IPO policies such as security and open systems. In the case of open systems, the project plans to migrate over time toward open standards. It will be critical that migration continue after development is complete.

Planning

Rating: *satisfactory*. A project cost summary has been completed. A project plan was completed in the early phases of the project. Benefits and risks have been reviewed by the steering committee as an ongoing part of project planning. Costs have been estimated for on-going operation of SSP based on costs and volumes experienced by other organizations with similar applications. Planning is underway to transition from development to on-going operations.

High-level resource models

Rating: *satisfactory*. For this continuation project, high level models for business functions and technology are completed. Models for data are currently being developed. It is critical that models continue to be developed and refined.

Organizational structure

Rating: *fair*. The structure to manage the development project was assessed to be adequate. Significant work has been started to define the on-going structure which is critical to the success of SSP.

Effective skill base

Rating: *fair*. The skill base necessary to complete the development project is in place. The skills base is continually being addressed by the prime contractor and project management to meet the needs of the project. Work has begun to assess the skills base necessary for managing change, from the old system to the new, and for managing SSP operations and support, after the development project is complete. SSP recognizes that it may be difficult for agencies and the SSP operations staff to acquire skills necessary for on-going SSP operation. Planning is underway to address the critical need to acquire skills.

Recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the steering committee is making *satisfactory* progress in achieving information resource management standards. However, the steering committee will need to take action immediately to resolve risks identified through the Coopers and Lybrand risk assessment of SSP. In order to support

successful completion of the project, the project must also address IPO requirements. IPO requests that the following be written into any appropriation. For this project,

Steering committee and project management must:

- Submit a progress report in October 1995, April 1996 and October 1996.
- Plan and execute strategies to abate the areas of risk identified in the Coopers & Lybrand risk assessment report.
- Post SSP development, sponsoring agencies invest in an independent evaluation/assessment to develop best practices for large system development projects.
- Develop a plan for periodic post implementation evaluation for on-going SSP operations.
- Continue formalizing information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Complete detailed project plans for the transition from the development project to on-going SSP operations.
- Continue to develop and refine business function, technology, and data models. Create and refine a distribution model.
- Continue to implement the organizational structure for on-going SSP operations.
- Continue to acquire skills needed for on-going SSP operation.

GAMBLING CONTROL BOARD

The Lawful Gambling Control Board proposes one project for funding:

Integrated gambling data community systems project.

Requested Amount	Requested Positions	Recommended
$1,165,000	1	$1,165,000

The Information Policy Office recommends full funding of $1,165,000, if funds are available. Agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Gambling Control Board's budget request. The request has been given a rating of *good.* This project is intended to provide greater government effectiveness and efficiency by identifying non-compliance, streamlining licensing, and maintaining a strong source of revenue for the state. It addresses the issues of information being unavailable or stored in unusable formats, and of inefficient manual processes. The agency has an established information resource management environment. The agency is partnering with the Department of Revenue which has experience with projects of this nature. Consultants will be used to help agencies. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Excellent*
Policies, Standards, and Guidelines	*Good*
Planning	*Good*
High Level Resource Models	*Satisfactory*
Organizational Structure	*Satisfactory*
Effective Skill Base	*Satisfactory*
Overall rating	***Good***

The agency believes that by establishing a shared gambling data community and developing new systems, it can more effectively regulate the lawful gambling industry and reduce redundancies and inefficiencies in accomplishing its mission. Through the development of five major systems, the agency intends to:

- Improve the quality of the educational programs provided to the regulated industry through better data management of industry needs.
- License manufacturers, distributors, bingo halls, non-profit organizations, gambling managers, and provide premises permits to applicants faster and with less paperwork filing requirements.
- Improve compliance with state statutes and rules through increased compliance visits and timely responses to compliance questions and increased communications with other agencies involved in the regulation of the lawful gambling industry.

Integrated gambling data community systems project: project readiness

The agency proposes to improve the quality of its service to the lawful gambling industry and to increase agency effectiveness in regulating that industry. This will be accomplished through development of an integrated gambling system. This system will allow for real-time information sharing between personnel in the agency as well as with other agencies involved in the lawful gambling industry.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal was given an overall rating of *good.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *excellent.* An executive has been appointed, with a position description identifying IRM authority and responsibilities. A committee, with members representing the data community and major agency functions, evaluates information resource projects. A process and high level criteria for identifying and selecting projects is in place.

Policies, standards and guidelines

Rating: *good.* A policy process is established; the agency steering committee has endorsed the 14 IPO policies. Policies do not yet have associated standards or guidelines.

Planning

Rating: *good.* An agency-wide plan identifies the major projects for the next one to two years. A high level project plan and a cost, benefit and risk analysis have been completed. A plan to refine, monitor and manage costs is incomplete.

High-level resource models

Rating: *satisfactory.* High level functional business, technology, and data entity/relationship diagram models have been completed. A high level distribution model is incomplete.

Organizational structure

Rating: *satisfactory.* A description of the current information systems organization was provided. An assessment identifies agency needs which will be addressed through internal staff and the use of consultants.

Effective skill base — Rating: *satisfactory*. A skills assessment is completed; needed skills will come from the agency, Department of Revenue staff or from consultants.

Recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *good* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Project management must:

- Submit progress reports in October 1995 and April 1996.
- Allocate 3 to 5 percent of the appropriation to an independent risk assessment of the project.
- Conduct re-engineering as part of the project.
- Refine, monitor and manage project costs as a continuing part of the project.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development for the one-stop business licensing project and implement the plan.
- Refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

DEPARTMENT OF HEALTH

The Department of Health proposes one project for funding:

Vital records re-engineering and automation project.

Requested Amount	Requested Positions	Recommended
$590,000	15	$590,000

The Information Policy Office recommends full funding of $590,000, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Health's budget request. The agency's request has been given a rating of *satisfactory*. The project has the potential to improve citizen access and the efficiency of the agency, Minnesota counties and information providers by improving methods for collecting, storing and transmitting vital records information. The project addresses issues such as the potential for fraudulent birth record information, and citizens' limited access to birth and death records. The agency has not established an information resource management environment. Agency-wide leadership, implementation planning and organization are incomplete. Project plans and information models have been completed for the project. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Fair*
Policies, Standards, and Guidelines	*Good*
Planning	*Satisfactory*
High Level Resource Models	*Good*
Organizational Structure	*No Score*
Effective Skill Base	*Fair*
Overall rating	***Satisfactory***

The agency believes that automation of vital statistics records will provide the following benefits:

- Improved service to citizens by allowing them to get copies of birth and death certificates in any county or by contacting the Department of Health
- Improved data sharing with health care providers and insurers
- Protection against fraud, loss and violation of data privacy
- Improved timeliness in providing accurate data to programs and medical providers
- Timely reporting to the Federal government

Vital records re-engineering and automation project: project readiness

The agency proposes to: re-engineer the vital records system; standardize input and centralize storage of birth and death records; and build a network support infrastructure for transmitting vital records information among providers, state and county organizations.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *fair*. An executive has been identified, but does not have a position description with formal responsibility, authority and accountability for information resources. There is both an agency management information technology advisory committee, with members not yet identified, and a project advisory work group, with members representing major agency functions and stakeholders. Neither group has yet received formal information resource management authority, roles and responsibilities. Although not yet formal, the agency has both a process and criteria for identifying and selecting projects; the criteria are unclear and not formalized.

Policies, standards and guidelines

Rating: *good*. A policy process has been established; associated standards and guidelines exit. The agency has not adopted the 14 IPO policies.

Planning

Rating: *satisfactory*. An agency-wide implementation plan identifying projects, priorities and sequence for one to two years is not completed. The agency has completed a cost, benefit and risk analysis and a project plan.

High-level resource models

Rating: *good*. A high level functional business model has been completed. The agency has completed high level technology, distribution, and data models.

Organizational structure

Rating: *no score*. A description of the current information systems organization, and an assessment of it's effectiveness are not completed.

Effective skill base

Rating: *fair*. A skills assessment is incomplete; it is unclear

what skills are required of the 15 staff requested.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *satisfactory* progress in achieving information resource management standards. The analysis shows, however, that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management must:

- Formalize high level executive authority and responsibility for information resources.
- Formalize an agency-wide information resource steering committee, defining membership, process and criteria.
- Establish a 1 to 2 year implementation plan identifying and sequencing major agency projects.
- Plan and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995, April 1996 and October 1996.
- Allocate 3 to 5 percent of the appropriation to an independent risk assessment of the project.
- Conduct re-engineering as part of the project.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development for the one-stop business licensing project and implement the plan
- Refine, monitor and manage project costs as a continuing part of the project.
- Refine the project plan identifying tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, independent oversight, maintenance and enhancements.
- Refine high level, logical and physical data models for project data. Refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Refine, and plan to acquire, the skills identified for the project.

MINNESOTA HISTORICAL SOCIETY

The Minnesota Historical Society proposes one project for funding:

Requested Amount	Requested Positions	Recommended
$752,000	1	$250,000

Chief information officer.

The Information Policy Office recommends partial funding of $250,000, if funds are available. Society management has critical tasks to complete before information technology projects can be implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency requirements listed in this report.

Summary

IPO has conducted an assessment of the Historical Society's budget request. The Society's request has not been given a rating because the Society intends to regroup its information technology efforts, start at the beginning, hire a chief information officer and take the first steps toward establishing an information environment. The Society intends to create an institutional plan for dealing with data, customer service, and the entire issue of information resource management. The Society intends to state its vision and goals, establish policies, standards and priorities, create an institution-level strategic plan, assess the costs/benefits/risks of the project, and make decisions regarding information management needs. The Society has not kept pace with developments in information technology over the past five to 10 years. However, the Society will be making an important step forward by hiring a CIO to lead the planning and implementation of information resource management. IPO recommends partial funding but contingent on meeting IPO requirements detailed in this report. When planning is complete, the Society may need to prepare another funding request.

The Society believes that the appointment of a chief information officer is an essential step in allowing the people of Minnesota to access various aspects of their heritage through available technology. It will also enable the Minnesota Historical Society to share its vast resources with other institutions and state agencies.

Chief Information Officer: project readiness.

The Society proposes hiring a chief information officer (CIO) who will be responsible for defining the Society's information management needs and developing a plan to meet those needs. The recent consolidation of multiple locations into the single location at the new history center highlighted the absence of an institutional plan for dealing with data, customer service, and the entire issue of information resource management. No focal point for project review, coordination and oversight exists. Project plans and information models do not exist.

It is important that the Society hire a chief information officer and complete planning as described in the six critical success factors. It is premature to rate this proposal at this time.

Project recommendations - IPO recommends partial funding for the proposal, if funds are available. In its analysis, IPO finds that the Society needs to move forward to hire a CIO to lead information resource management within the Society. IPO requests that the following be written into any appropriation as a requirement that the Society must complete by October 1995 before initiating information resource projects.

Agency management must: before implementing technology,

- Appoint an executive who has clearly defined responsibility for information resources.
- Establish and formalize an agency-wide information resource steering committee, with defined membership, process and criteria.
- Establish and formalize information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Establish a 1 to 2 year implementation plan identifying and sequencing major Society projects.
- Create a high level business model identifying and describing the major business functions of the Society.
- Plan and implement an information resource organization to effectively manage data, applications and technology.

DEPARTMENT OF HUMAN RIGHTS

The Department of Human Rights proposes one project for funding:

Requested Amount	Requested Positions	Recommended
$423,000	0	$423,000

Information system enhancement project.

The Information Policy Office recommends full funding of $423,000, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Human Rights' budget request. The request has been given an overall rating of *satisfactory*. The agency is proposing to continue work on an information resource management environment, which it began in 1993. Initial planning for this project in 1993 was considered good and IPO recommended funding in 1994-95. The agency's FY 1994 appropriation was $40,000 to conduct planning for an information resource management environment as a basis for improving compliance tracking, affirmative action plan monitoring, and evaluation of the equal employment opportunity program. The FY 1995 appropriation was $279,000 to address the plan's top three priorities: improve the technology environment, complete information resource models for the entire department, and begin developing subject-oriented databases. Continued reliance on manual processes jeopardizes these priorities and impacts the accountability, accuracy, timeliness and security of agency data.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Good*
Planning	*Satisfactory*
High Level Resource Models	*Good*
Organizational Structure	*Satisfactory*
Effective Skill Base	*Satisfactory*
Overall rating	***Satisfactory***

IPO's earlier review of Human Right's progress toward implementing their project plan and readiness for the next phase indicated delays and changes in implementation due to changes in agency staffing. The agency had not met IPO requirements of appointing a high level executive and steering committee, creating policies, and establishing an information resource organization. The agency responded and has since identified an executive and a steering committee and formally adopted the IPO policies. The executive is responding to additional requirements as well. FY 95 funds were invested in consulting; equipment; the development and implementation of contractor tracking and contract compliance system; and training. Internal agency business procedures have changed significantly. The request now has been given an overall rating of *satisfactory*. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

The agency believes that by continuing this project and integrating or replacing existing separate systems and providing accurate and timely information the agency can gain several benefits:

- Improved operating efficiencies of agency activities
- Reduced investigation time for discrimination cases
- Increased ability to identify repeat discrimination offenders
- Increased ability to identify discrimination trends
- Increased integrity of information available for addressing public requests for discrimination data

Information system enhancement project: project readiness.

The agency's current reliance on manual processes impacts the accessibility, accuracy, timeliness and security of agency data. This project is intended to eliminate manual processes for intake and case management. This continuation funding request is to finish the agency's information system enhancement project by completing the introduction of new computers and networking into the agency, continuing work on the contract compliance system, beginning design of the intake function, training staff and transferring data to the new system.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal was given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good*. An executive with appropriate responsibility, authority and accountability for information resources has been appointed. There is a steering committee with members identified as representing the agency's functions. The agency has a strategic information plan for identifying and selecting projects.

Policies, standards and guidelines

Rating: *good*. The agency has completed a process for identifying, developing and implementing policies; it does not have associated standards and guidelines. The agency has adopted the 14 IPO policies.

Planning

Rating: *satisfactory*. A strategic information plan serves as the agency-wide implementation plan. Both the project plan and a cost, benefit and risk analysis are incomplete. There is no plan to refine, monitor and manage costs.

High-level resource models	Rating: *good.* Significant portions of the high level data model have been completed. The distribution and technology models are complete; the functional business model is incomplete.
Organizational structure	Rating: *satisfactory.* The agency provided information on its current information systems structure and effectiveness.
Effective skill base	Rating: *satisfactory.* The agency identified contract services for application and database development; it identified a potential need for additional staff or contract services to provide personal computer support as their network grows.

Project recommendations - IPO recommends *phased release* funding of the project, if funds are available. In its analysis, IPO finds that the agency is making *satisfactory* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate risks identified by IPO and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must: before implementing technology,

- Revisit the strategic information plan and validate project direction.
- Develop information resource management and public information policies, standards and guidelines.
- Refine the high level business model identifying and describing the major business functions of the agency.
- Continue to implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit project progress reports in October 1995, April 1996 and October 1996.
- Conduct re-engineering as part of the project.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Refine, monitor and manage project costs as a continuing part of the project.
- Refine the project plan to align with the validated strategic information plan. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.

- Refine high level, logical and physical data models for project data. Refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Identify skills needed for the project and plan to acquire those skills.

DEPARTMENT OF LABOR & INDUSTRY

The Department of Labor & Industry proposes one project for funding:

Requested Amount	Requested Positions	Recommended
$5,000,000	0	$5,000,000

Daedalus project.

The Information Policy Office recommends full funding of $5,000,000, if funds are available. However, agency management has critical tasks to complete before the projects can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Labor & Industry's budget request. The request has been given a rating of *good*. This continuation funding request is to complete implementation of the Daedalus project; $5 million was appropriated in FY 1994-95 to re-engineer work processes and implement enabling technology, including optical imaging, in the Workers' Compensation Division. The agency has made progress on the following activities: completion of re-engineering report and recommendations; purchase and installation of technology for a limited demonstration project; implementation of re-engineering recommendations; currently in the process of completing the project design. Based on successful progress to date, the IPO recommends full funding. However, funding is contingent on meeting all IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Excellent*
Planning	*Good*
High Level Resource Models	*Good*
Organizational Structure	*Good*
Effective Skill Base	*Excellent*
Overall rating	***Good***

This project is intended to provide greater government effectiveness and efficiency by streamlining one of the country's most complex workers' compensation systems. The system is paper-based, with no back-up to the paper files. Over 1.1 million paper files must be managed. Each year, 2.4 million pages are filed; each day, 10,000 pages arrive at the agency and over 260 new files are created. About 25,000 files are in circulation at any given moment. About 30 percent of all dispute files are unavailable when needed.

The agency believes that the Daedalus project will provide the Workers' Compensation Division with the ability to quickly adapt to customers' needs by providing assistance; insuring that state statutes are being adhered to; that employers and injured workers are properly informed in a timely and effective manner; improving customer service; and reducing operating costs. Specific benefits include:

- Improved service to clients
- Faster dispute resolution because of access to important information
- Faster and more accurate document distribution
- Reduced staff time and cost for managing documents
- Better staff management through workload balancing
- Increased productivity and improved quality
- Reduced storage costs

Daedalus project: project readiness

This continuation funding request is to complete implementation of the Daedalus project. This project involves re-engineering of work processes and implementing enabling technology within the Workers' Compensation Division. The agency intends to complete the design and implementation of the project within the entire Workers' Compensation Division.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *good*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good*. The deputy commissioner is currently providing executive leadership for information resource management. A high level executive is in the process of being hired; a position description is in place. An information leadership council, with members representing major business functions, provides information resource management strategies for the department. A process exists for identifying and selecting projects; selection criteria are established.

Policies, standards and guidelines

Rating: *excellent*. A process exists for identifying, developing and implementing policies. Policies have associated standards. The agency has endorsed the 14 IPO and 11 PIPA policies.

Planning

Rating: *good*. An agency-wide plan indicates re-engineering will be completed prior to technology implementation. Not all identified re-engineering opportunities are being implemented. A project plan and a cost, benefit and risk analysis have been completed.

High-level resource models

Rating: *good*. High level functional business, technology, distribution and data models have been completed.

Organizational structure — Rating: *good.* The agency has described and assessed its current information systems structure and has recognized that the structure is not positioned to manage information as a shared resource. Planning is underway to move the agency in this direction.

Effective skill base — Rating: *excellent.* A comprehensive skills assessment, and a plan to acquire needed skills, have been completed.

Project recommendations - IPO recommends *phased release* funding the project, if funds are available. In its analysis, IPO finds that the agency is making *good* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management must:

- Hire as planned a high level executive who has clearly defined responsibility for information resources.
- Continue planning and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995, April 1996 and October 1996.
- Allocate up to $100,000 of the appropriation to an independent risk assessment of the project.
- Implement all re-engineering findings as part of the project.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development for the one-stop business licensing project and implement the plan.
- Refine the project plan detailing tasks, schedule and resource requirements.
- Refine high level, logical and physical data models for project data. Refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

MINNESOTA PLANNING

Minnesota Planning proposes one project for funding:

Geographic information clearinghouse access system.

Requested Amount	Requested Positions	Recommended
$500,000	1	$500,000

The Information Policy Office recommends full funding of $500,000, if funds are available. However, agency management has critical tasks to complete before the project can be succesfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Minnesota Planning's budget request. The request has been given an overall rating of *poor*. The agency intends to improve geographic data access for all state agencies and a broad range of public and private sector uses, while reducing future state investments in geographic data management and distribution systems. Statewide management of critical data, such as geographic data, is key to successfully managing state information resources. This project is important to statewide data management efforts. However, Minnesota Planning has not established an agency-wide information resource management environment. Authority and responsibility for agency-wide information resources have not been formalized. A consultant has been hired to assist the agency in developing an agency-wide information technology plan. IPO is recommending full funding for this project because of potential statewide benefits. However, because of the poor rating given this request, funding must be contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Fair*
Policies, Standards, and Guidelines	*No Score*
Planning	*Satisfactory*
High Level Resource Models	*Not Applicable*
Organizational Structure	*Satisfactory*
Effective Skill Base	*No Score*
Overall rating	***Poor***

The agency believes that this project responds to the growing demand for access to data bases of mappable attributes related to natural resources, infrastructure, political boundaries and demographic information. Anticipated benefits include more immediate access to data by other state agencies, local governments, the private sector, and the public, improved security for existing geographic data and reduced costs for data delivery. The clearinghouse will promote improved data management coordination among state agencies. This project will also provide access to geographic data available from other sources around the world through the use of Internet which further reduces the cost of data base development and delivery.

Geographic information clearinghouse access system: project readiness.

The agency proposes to develop and implement a geographic information clearinghouse access system which will provide computerized data cataloging, storage and distribution of the state's geographic information. The project is in response to increasing customer expectations and demand for information managed by the agency's Land Management Information Center.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal was given an overall rating of *poor*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *fair*. The director of the Land Management Information Center (LMIC) has been identified as the executive leader for the agency, with roles and duties focused primarily on technology. The management team, which includes agency executives and the LMIC director, set agency strategic direction. The computer technology advisory group reviews proposed computer technology investments and makes recommendations to the management team. The agency does not have a process for identifying and selecting projects or a set of high level criteria for project selection.

Policies, standards and guidelines

Rating: *no score*. Agency-wide information management policies, standards and guidelines are not complete. The agency has not adopted the 14 IPO policies.

Planning

Rating: *satisfactory*. A consultant has been hired to assist the agency in developing an agency-wide information technology plan. A cost, benefit and risk analysis was completed. There is no plan to refine, monitor and manage costs. A project plan is not applicable at this time: the planning and design of the proposed system will conform to specifications resulting from the consultant's agency-wide information technology plan.

High-level resource models

Rating: *not applicable*. Distribution and data modeling will be part of the project plan as appropriate and are not applicable at this time. The functional business model is incomplete. A

high level technology model is being prepared by the consultant working on the agency-wide information technology plan.

Organizational structure

Rating: *satisfactory.* An assessment of the organizational structure has been completed. Currently the organization is undergoing significant change to improve the level of integration and support of the agency's information resource infrastructure.

Effective skill base

Rating: *no score.* The agency recognizes that additional staffing and skills will be required, but a skills assessment is not completed. The project funding request supports one additional staff; it is unclear what skills are needed.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *poor* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must:

- Formalize executive responsibility for agency-wide information resources.
- Formalize membership, process and criteria for an agency-wide information resource steering committee.
- Establish and formalize information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Complete as planned the agency-wide implementation plan identifying and sequencing major agency projects.
- Refine the high level business model identifying and describing the major business functions of the agency.

Project management must:

- Submit progress reports in October 1995 and April 1996.
- Conduct re-engineering as part of the project.
- Refine the scope of the project and the business objectives that are to be met.

- Refine, monitor and manage project costs as a continuing part of the project.

- Establish as planned a project plan identifying tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.

- Create and refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Identify, and plan to acquire, skills needed for the project.

BOARD OF NURSING

The Board of Nursing proposes one project for funding:

Discipline and licensing systems project.

Requested Amount	Requested Positions	Recommended
$843,000	2	$843,000

The Information Policy Office recommends full funding of $843,000, if funds are available. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Nursing's budget request. The request has been given an overall rating of *good.* The agency intends to improve effectiveness and efficiency both in identifying disciplinary action and in streamlining licensing. The agency has an established information resource management environment. Project plans and high level models are complete. The agency is ready to proceed with the project. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Excellent*
Policies, Standards, and Guidelines	*Good*
Planning	*Good*
High Level Resource Models	*Good*
Organizational Structure	*Good*
Effective Skill Base	*Good*
Overall rating	***Good***

The agency believes this project will provide new tools for overall management of cases. Benefits from this project include:

- The new integrated discipline and licensing systems will allow analysis of potential factors causing poor nursing practices. From that analysis, the agency hopes to identify and isolate those factors influencing nursing practices.
- The new discipline system will allow electronic tracking and identification of nurses with prior histories of complaints and their Board Orders. Better tracking would provide feedback to the Board on the effectiveness of certain Board Orders.
- The imaging system will improve customer service by handling queries immediately, reduce lost and out-of-file records, and help ensure that files will be current.
- The system will provide information to the interested public in a responsive manner. Data will be easier to retrieve and it will be compiled in an electronic format.

Discipline and licensing systems project: project readiness

The agency faces increasing complaints and resulting investigations about the practice of nurses; the manual system for complaint handling is ineffective. Current technology for the licensing and registration system lacks adequate expansion capability. The agency proposes to: reorganize the computer services section, hire an MIS manager and technical support person, and prepare project implementation plans; re-engineer and reorganize the discipline and licensing business processes; install a local area network within the agency; and develop and implement disciplinary and licensing systems based on re-engineering findings.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *good.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *excellent.* An executive, with appropriate authority and responsibility, has been appointed. A committee, representing the agency's major functions, evaluates information resource projects. The agency has both a process for identifying and selecting projects, and high level criteria for project selection.

Policies, standards and guidelines

Rating: *good.* The agency has a process for identifying, developing and implementing policies. Policies have associated standards and guidelines. The agency has endorsed the 14 IPO policies.

Planning

Rating: *good.* An agency-wide implementation plan has been developed; it indicates that re-engineering, information resource organization and staffing, planning and model development will be completed prior to implementation for technology. The agency has completed a project plan and a cost, benefit and risk analysis.

High-level resource models

Rating: *good.* A project plan has been completed which incorporates model review. The agency has completed high level models for technology and distribution. It has completed a data model for the disciplinary function, but not for the licensing function. A high level functional business model has been completed.

Organizational structure

Rating: *good.* An information systems organization is being

proposed. An organization assessment identifies the need for additional staff.

Effective skill base

Rating: *good.* A skills assessment has been completed; additional staff have been identified for information resource management and technical support. The agency plans to hire additional staff for those roles. It will contract for consulting and training services as required.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *good* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must:

- Periodically evaluate the effectiveness of the proposed information resource organization to manage data, applications and technology.

Project management must:

- Submit project progress reports in October 1995, April 1996 and October 1996.
- Identify and evaluate alternative solutions for the disciplinary and licensing systems.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development for the one-stop business licensing project and implement the plan.
- Refine high level, logical and physical data models for the project. Refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

PEACE OFFICER STANDARDS AND TRAINING BOARD

The Peace Officer Standards and Training Board proposes one project for funding:

Technology upgrade and database creation.

Requested Amount	Requested Positions	Recommended
$122,000	0	$122,000

The Information Policy Office recommends funding of $122,000, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of POST's budget request. The request has been given a rating of *poor*. The agency intends to improve agency effectiveness by fully automating all peace officer data from initial registration contact for examinations, to licensing and disposition of license problems. POST has not established an information resource environment; it does not have agency-wide planning. Project plans and information models are preliminary or do not exist. The agency does not have the technical skills needed for this project. This request has the potential to improve the efficiency of this organization. IPO is recommending full funding. However, because of the poor rating given this request, funding must be contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Poor*
Policies, Standards, and Guidelines	*No Score*
Planning	*Poor*
High Level Resource Models	*Fair*
Organizational Structure	*Fair*
Effective Skill Base	*Fair*
Overall rating	***Poor***

The agency believes that the following benefits will result from this project:

- Improved tracking of individual licensees who become inactive at some stage of their license careers. The present system does not allow adequate matching of officers' records when a break has occurred at some stage of their careers.
- Improved quality of services, information and communication to law enforcement agencies, individual licensees, complainants in complaint investigations and to the public.

Technology upgrade and database creation: project readiness.

POST's current equipment is outmoded, slow, unreliable and difficult to maintain. Networking and record-keeping capabilities are reported to be unsatisfactory. The agency proposes to replace local area network workstations, redesign the licensing database, and provide agency access to the statewide systems project applications areas.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal was given an overall rating of *poor*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *poor*. The Licensing and Testing Coordinator has been designated as the information resource person, but executive authority and responsibility for agency-wide information resources has not been delegated to an executive. The agency-wide roles and responsibilities of the project steering committee have not been defined or formalized. The agency does not have a process for selecting projects or criteria for project selection.

Policies, standards and guidelines

Rating: *no score*. The agency has not completed a process for creating and adopting policies. The agency has not adopted the 14 IPO policies. It does not have associated standards and guidelines.

Planning

Rating: *poor*. An agency-wide implementation plan has not been completed. Both the project plan and cost, benefit and risk analysis are incomplete. There is no plan to refine, monitor and manage costs.

High-level resource models

Rating: *fair*. A functional business model has been completed. High level technology, distribution and data models are incomplete.

Organizational structure

Rating: *fair*. The agency's assessment of its current information systems organizational structure is not complete.

Effective skill base

Rating: *fair*. A project skills assessment is incomplete. The agency will obtain technical skills from Public Safety

information system staff members, and contract for specialized training as needed.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the project is making *poor* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate risks identified by IPO and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must:

- Appoint a high level executive with clearly defined agency-wide responsibility for information resources.
- Formalize membership, process and criteria for an agency-wide information resource steering committee.
- Establish and formalize information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Refine the 1 to 2 year implementation plan identifying and sequencing agency projects.
- Plan and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Obtain external project management expertise for this project.
- Submit progress reports in October 1995 and April 1996.
- Conduct re-engineering as part of the project.
- Refine the scope of the project and the business objectives that are to be met.
- Refine the cost, benefit and risk analysis for the project and monitor and manage project costs as a continuing part of the project.
- Establish a project plan identifying tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Refine high level, logical and physical data models for project data. Refine high level, logical and physical distribution models showing where and how project data is distributed. Refine

high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Identify, and plan to acquire, skills needed for the project.

POLLUTION CONTROL AGENCY

The Pollution Control Agency proposes one project for funding:

Requested Amount	Requested Positions	Recommended
$2,556,000	5	$2,556,000

DELTA Project.

The Information Policy Office recommends full funding of $2,556,000, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of the Pollution Control Agency's budget request. The request has been given an overall rating of *good*. The **DELTA project** is a multi-phased, four-year effort to re-engineer and automate many of the agency's work processes. $3.7 million was appropriated to this project for FY 1994-95. This request continues the work started in 1994 and 1995. This project has the potential to benefit PCA-regulated clientele by streamlining permitting, compliance determination and enforcement activities. The Minnesota Pollution Control Agency has begun to establish an information resource environment. Executive leadership and involvement exist but are not formalized. Policies and planning activities need to be expanded. The agency has demonstrated an ability to manage the project and is positioned to complete implementation. This request will carry forward the time savings and productivity gains which will be realized in the Air Quality and Solid Waste programs. IPO is recommending full funding. Funding must be contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Excellent*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Satisfactory*
High Level Resource Models	*G00d*
Organizational Structure	*Good*
Effective Skill Base	*Excellent*
Overall rating	***Good***

The **DELTA project** includes work process re-engineering, local area networks, relational data bases, office automation, geographic information systems and time management software. The agency's compliance management task is expanding rapidly as state and federal statutes extend environmental regulation to thousands of new facilities. At the same time, existing programs require steady or increased effort. Dramatic staff growth would be required over the next few years if the agency does not complete this project.

The agency believes that the **DELTA project** will assist in achieving the following benefits:

- Reduced permit, license and certificate backlogs

- Reduced costs to regulated businesses
- Improved information analysis
- Improved permit issuance productivity
- More consistent enforcement of environmental protection regulations
- Better coordinated programs and agencies that jointly address environmental problems

DELTA Project: project readiness

This continuation funding request is to complete phase two of the **DELTA project**. The project will carry forward the time savings and productivity gains realized in Air Quality and Solid Waste Programs to the Water Quality, Hazardous Waste, Site Response and Tanks and Spills Programs by providing a consistent approach to permitting, compliance determination and enforcement activities.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal was given an overall rating of *good.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *excellent.* Authority, responsibility and accountability for information resources have been delegated and formalized. An overall IRM plan including establishing the steering committee and formalizing its responsibilities has been implemented. Committee members represent all major functions.

Policies, standards and guidelines

Rating: *satisfactory.* Several agency policies exist. A process for identifying, developing and implementing policies has not been formalized. The agency intends to adopt the 14 IPO policies.

Planning

Rating: *satisfactory.* An agency-wide project plan has been completed and serves as the implementation plan. The initial cost, benefit and risk analysis has not been refined for this continuation project. The project plan will be completed to reflect the steering committee's priorities.

High-level resource models

Rating: *good.* This is a request to continue a project. Models were not a requirement when this project started. The agency has, however, completed high level data and technology models.

Organizational structure — Rating: *good.* The organization is currently being restructured to more effectively manage agency information resources.

Effective skill base — Rating: *excellent.* A comprehensive skills assessment has been completed. The agency plans to hire additional staff and comprehensively train existing staff.

Project recommendations - IPO recommends *phased release* funding of the project, if funds are available. In its analysis, IPO finds that the agency is making *good* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate risks identified by IPO and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management must:

- Formalize executive responsibility for information resources.
- Continue to establish and formalize information resource management and public information policies, standards and guidelines.
- Continue implementing as planned an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995, April 1996 and October 1996.
- Allocate up to $100,000 of appropriation to an independent risk assessment of the project.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development on the one-stop licensing project and implement the plan.
- Refine the cost, benefit and risk analysis for the continuation project. Refine, monitor and manage project costs as a continuing part of the project.
- Refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

DEPARTMENT OF PUBLIC SAFETY

The Department of Public Safety proposes three projects for funding:

Total Requested Amount	Total Requested Positions	Total Recommended
$9,514,425	24	$2,000,000

1. **Office of Information Systems revitalization project.**
   Request is for $3,855,000, with 10 new positions.

2. **Driver and Vehicle Services systems replacement project.**
   Request is for $5,308,425, with 14 new positions.

3. **Criminal Assessment Program (CAP) project.**
   Request is for $351,000 with 0 new positions.

The Information Policy Office recommends partial funding of $2,000,000, if funds are available. These funds should be assigned to the new CIO to proceed with agency-wide planning and to fund critical projects as identified through agency-wide planning. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Public Safety's budget request. Project 1 has been given a rating of *poor*. Project 2 has been given a rating of *satisfactory*. Project 3 has not been rated because planning is just starting and little information is available to make a judgement on the request. The agency has not established an information resource environment. However, a chief information officer has recently been appointed and the agency is taking the first steps to create an IRM environment. At this time, agency-wide planning, funding management, project review, coordination and oversight do not exist. Multiple information systems organizations are found throughout the agency. Project plans and information models are preliminary. It is unknown how the proposed projects will contribute to achieving future agency-wide strategic information resource goals. IPO recommends that the agency receive partial funds to move forward with IRM and begin projects based on results of agency-wide implementation planning. The agency may need to make a budget request in 1996 for FY 97 to address agency needs identified through the IRM planning that will be done in FY96. Funding is recommended for the agency contingent on meeting IPO requirements detailed in this report.

The projects address issues facing the agency. The **Office of Information Systems revitalization project** addresses the agency's explosion in work orders and system enhancements and the incompatibility of its telecommunications network with MNet. The collection of crime statistics is

federally mandated; essential information is not now available. The agency believes the project will have the following benefits:

- The National Incident Based Reporting System will provide more complete information on crimes committed in Minnesota including victim and offender information and victim/offender relationships.
- The addition of three hot files (described below) means critical information will be made available to all criminal justice agencies on the Criminal Justice Data Communications Network. Dangerous individuals will be identified to law enforcement which reduces the threat to officers. Law enforcement will be aware of court orders protecting victims of abuse, which can save lives.

The **Driver and Vehicle Services systems replacement project** addresses the lack of data integration and inter-operability. The division, considered "data rich but information poor," relies on manual processes and redundant data entry. The agency believes the project will provide the following benefits:

- Reduced cost of maintaining and operating existing information systems
- Improved customer service by responding to customer requests in minutes rather than hours due to the availability of document image management

The **Criminal Assessment Program (CAP) project** addresses both multiple data entry and multiple stand-alone systems. The agency believes the project will provide integrated information concerning sex offenders, sex crimes and violent criminal information. This information will be used for investigation and enforcement within criminal justice agencies.

1. Office of Information Systems revitalization project: project readiness

Evaluation Area	Rating
Executive Leadership and Involvement	*Satisfactory*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Poor*
High Level Resource Models	*Fair*
Organizational Structure	*Poor*
Effective Skill Base	*Fair*
Overall rating	***Poor***

The **Office of Information Systems revitalization project** includes several project efforts: additional staff; a study of the criminal justice data communications network with demonstration pilots; implementation of Minnesota's National Incident Based Reporting System (NIBRS); completion of the agency-wide electronic mail system; and addition of three new files in the "hot files" system. The hot files are: a violent offender/gang file, a supervised probation/parole file, and an orders for protection file.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given a rating of *poor*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement	Rating: *satisfactory*. An executive was appointed recently; a position description is being finalized. Executive authority and responsibility are not clearly defined. A management information systems steering committee, representing the agency's diverse groups, recently was re-constituted; its agency-wide roles and responsibilities are informal and unclear. The process and criteria for selecting projects are unclear.
Policies, standards and guidelines	Rating: *satisfactory*. A process for creating and adopting policies exists but has not been formalized; associated standards and guidelines exist. The agency proposes to adopt the 14 IPO policies.
Planning	Rating: *poor*. The agency has not completed an agency-wide implementation plan sequencing and prioritizing all major projects; a cost, benefit and risk analysis; a plan to refine, monitor and manage costs; or a project plan.
High-level resource models	Rating: *fair*. A high level technology model has been completed for all aspects of the project. High level functional business, distribution and data models are not complete.
Organizational structure	Rating: *poor*. Multiple information systems organizations exist within the agency; a description of one of these organizations was provided. An assessment of the structure's effectiveness was not provided.
Effective skill base	Rating: *fair*. A skills assessment is incomplete; it is unclear what skills are needed. The agency plans on hiring additional staff and contracting for identified skills as needed.

Project recommendations - IPO recommends *phased release* funding for the agency, if funds are available. Funds should be assigned to the new CIO to be used to complete agency-wide planning. Based on completed agency-wide planning, remaining funds should be used for priority projects identified through the agency-wide planning. In its analysis, IPO finds that the agency is making *poor* progress in achieving information resource management standards. The analysis shows that the agency and the project need to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management, before October 1995, must:

- Formalize executive agency-wide responsibility for information resources.
- Formalize an agency-wide information resource steering committee. Formalize membership, processes and criteria for the committee.
- Formalize existing information resource management and public information policies, standards and guidelines, and adopt the 14 IPO policies.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development on the one stop business licensing project and implement the plan.
- Develop a 1 to 2 year implementation plan identifying, prioritizing, funding and sequencing major projects for all divisions within the agency. Continue to work with the criminal justice data community to jointly prioritize projects that impact the community.
- Plan and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995, April 1996 and October 1996.
- Allocate 3 to 5 percent of the appropriation to an independent risk assessment of this effort.
- Define clearly the scope of each stated project and the business objectives that are to be met.
- Complete a cost, benefit and risk analysis for each stated project. Refine, monitor and manage project costs as a continuing part of each project.
- Establish a project plan identifying tasks, schedule and resource requirements for each stated project. The project plans need to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Create and refine high level, logical and physical: data models for project data; and distribution models showing where and how project data is distributed. Refine technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.
- Identify, and plan to acquire, skills needed for each project.

2. Driver and Vehicle Services systems replacement project: project readiness

The Driver and Vehicle Services systems replacement project is intended to improve the division's internal operations' effectiveness and efficiency. It will re-engineer, design and implement a new system to replace the present collection of non-integrated systems.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given a rating of *satisfactory*. Ratings for each factor are listed below.

Evaluation Area	Rating
Executive Leadership and Involvement	*Satisfactory*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Fair*
High Level Resource Models	*Good*
Organizational Structure	*Poor*
Effective Skill Base	*Good*
Overall rating	***Satisfactory***

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *fair*. Same as project 1.

Policies, standards and guidelines

Rating: *satisfactory*. Same as project 1.

Planning

Rating: *fair*. An agency-wide implementation plan sequencing and prioritizing all major projects is not completed. A high level project plan and a cost, benefit and risk assessment has been completed.

High-level resource models

Rating: *satisfactory*. High level functional business, technology, distribution, and data models have been completed for the project.

Organizational structure

Rating: *poor*. Same as project 1.

Effective skill base

Rating: *good*. A skills assessment is completed. The agency plans to upgrade skills and train internal staff and contract for external skills as needed.

Project recommendations - IPO recommends *phased release* funding for the agency, if funds are available. Funds should be assigned to the new CIO to be used to complete agency-wide planning. Based on completed agency-wide planning, remaining funds should be used for priority projects identified through the agency-wide planning. In its analysis, IPO finds that the project is making

satisfactory progress in achieving information resource management standards. The analysis shows that the agency and the project need to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management, before October 1995, must:

- Complete the agency management requirements listed in project 1.

Project management must:

- Submit progress reports in October 1995, April 1996, October 1996 and April 1997.
- Allocate 3 to 5 percent of the appropriation to an independent risk assessment for this project.
- Conduct re-engineering as planned.
- Refine the scope of the project and the business objectives that are to be met.
- Refine, monitor and manage project costs as a continuing part of the project.
- Develop the project plan identifying tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, independent oversight, maintenance and enhancements.
- Refine high level, logical and physical: data models for project data; distribution models showing where and how project data is distributed; and technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.
- Identify, and plan to acquire, skills needed for the project.

3. Criminal assessment program project: project readiness

The **Criminal Assessment Program (CAP) project** will create an integrated computer system containing the sex offender registration data base, the Minnesota sex crimes analysis program data base, the violent criminal apprehension program data base, the photo retrieval data base and other relevant CAP or state computer data bases.

Evaluation Area	Rating
Executive Leadership and Involvement	*Fair*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Not Applicable*
High Level Resource Models	*Not Applicable*
Organizational Structure	*Poor*
Effective Skill Base	*Not Applicable*
Overall rating	***None Given***

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. Since many of the critical success factor requirements are not applicable at this time, the proposal was not given an overall rating. IPO comments and ratings if applicable are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement	Rating: *fair*. Same as project 1.
Policies, standards and guidelines	Rating: *satisfactory*. Same as project 1.
Planning	Rating: *not applicable*. An agency-wide implementation plan sequencing and prioritizing all major projects is not completed. A cost, benefit and risk analysis and a project plan are not applicable at this time.
High-level resource models	Rating: *not applicable*. A high level functional business model is incomplete. Technology, distribution and data models are not applicable at this time.
Organizational structure	Rating: *poor*. Same as project 1.
Effective skill base	Rating: *not applicable*. The project skills assessment and acquisition plan are not applicable at this time.

Project recommendations - IPO recommends funding the project, if funds are available. Funds should be assigned to the new CIO to be used to complete agency-wide planning. Based on completed agency-wide planning, remaining funds should be used for priority projects identified through the agency-wide planning. In its analysis, IPO finds that the project rating is *not applicable* because planning is only starting and little information is available to make a judgement on the request and progress in achieving information resource management standards. The analysis shows that the agency and the project need to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management, before October, 1995, must:

- Complete the agency management requirements listed in project 1.

Project management must:

- Submit progress reports in October 1995 and April 1996 on all planning and modeling efforts.

- Conduct re-engineering as part of the project.
- Define clearly the scope of the project and the business objectives that are to be met.
- Complete a cost, benefit and risk analysis for the project.
- Establish a project plan identifying tasks, schedule and resource requirements for the project. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Create and refine high level, logical and physical: data models for project data; distribution models showing where and how project data is distributed; and technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.
- Identify, and plan to acquire, skills needed for the project.

DEPARTMENT OF PUBLIC SERVICE

The Department of Public Service proposes one project for funding:

Field inspection process improvement and automation project.

Requested Amount	Requested Positions	Recommended
$186,700	0	$186,700

The Information Policy Office recommends full funding of $186,700, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Public Service's budget request. The request has been given a rating of *fair*. This project is intended to provide greater efficiency in the Weights and Measures Division by improving field operations and methods for recording, forwarding and sharing inspection information. The division's workload is increasing rapidly, and current work assignment methods cannot ensure that all equipment is inspected with equal frequency. The project addresses the issue that inspections do not occur on a regular schedule and more frequent tests are needed for problem and high-use equipment. The agency has not established an information resource management environment. Information system functions are located throughout the agency; systems and databases are divisional or unit based rather than departmental. This request has the potential to improve the efficiency of this organization. IPO is recommending full funding. However, because of the *fair* rating given this request, funding must be contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Fair*
Policies, Standards, and Guidelines	*No Score*
Planning	*Satisfactory*
High Level Resource Models	*Excellent*
Organizational Structure	*Poor*
Effective Skill Base	*No Score*
Overall rating	***Fair***

The agency believes this project will enhance the productivity of field personnel to ensure that (1) all field weighing and measuring equipment is inspected with equal frequency on a regular schedule, and (2) problem and high use equipment is tested more frequently. The agency seeks to provide its customers with an environment where information transfer is accomplished in a timely and efficient manner utilizing distribution tools and technologies that provide quick, cost effective and easy access.

Field inspection process improvement and automation project: project readiness.

The agency proposes to: re-engineer the inspection process used by Weights and Measures field staff; purchase and distribute laptop computers to field inspectors; acquire the technology and build an interface, network and communication infrastructure; and evaluate and acquire an agency-wide electronic mail system.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal was given an overall rating of *fair*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *fair*. An executive has been identified, but needs a position description describing responsibility, authority and accountability for information resources. A committee, representing major business functions, is identified; its information resource management roles and responsibilities have not been formalized. The agency has not completed a process and criteria for identifying and selecting projects.

Policies, standards and guidelines

Rating: *no score*. A standard operating procedures handbook exists but the content is not clear. No policies, standards and guidelines were provided.

Planning

Rating: *satisfactory*. An agency-wide implementation plan contains information goals and objectives. A high level project plan and a cost, benefit and risk analysis are incomplete. There is no plan to refine, monitor and manage costs.

High-level resource models

Rating: *excellent*. High level functional business and technology models have been completed. Distribution and data models are not applicable at this time; modeling is part of the project.

Organizational structure

Rating: *poor*. Information resource professionals and support staff are located throughout the agency. An assessment of the effectiveness of the organization's structure has not been initiated.

Effective skill base Rating: *no score.* A skills assessment has not been completed; needed skills are unclear.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *fair* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks identified by IPO and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must: before implementing technology,

- Formalize executive responsibility for information resources management.
- Formalize roles, responsibilities, process and criteria for an agency-wide information resource steering committee.
- Develop information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Plan and implement an agency-wide information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit project progress reports in October 1995 and April 1996.
- Conduct re-engineering as part of the project.
- Refine, monitor and manage project costs as a continuing part of the project.
- Complete the project plan identifying detailed tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Create and refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software and the interface compatibility required.
- Identify skills needed for the project and plan to acquire those skills.

DEPARTMENT OF REVENUE

The Department of Revenue proposes one project for funding:

Total Requested Amount	Total Requested Positions	Total Recommended
$2,072,000	5	$2,072,000

Business process improvements.

The Information Policy Office recommends full funding of $2,072,000 if funds are available. Agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Revenue's budget request. The request has been given a rating of *satisfactory*. This proposal has the potential to improve both state and customer efficiency in filing, remitting and processing tax information. Revenue has agency-wide information resource management in place. The chief information officer position is a focal point for the agency's planning, allocation of resources, project review, coordination and oversight. At this stage of the project, the agency's plans, information models, and cost, benefit and risk analysis are preliminary. The agency needs an agency-wide implementation plan that identifies and sequences all major projects. IPO recommends full funding but contingent on meeting IPO requirements detailed in this report.

The agency believes that the **business process improvements proposal** will encourage and enable taxpayers to use advanced electronic technologies in filing returns and remitting payments. For many taxpayers, these alternatives are convenient and cost effective. For the State, taxpayer remittances will be deposited more quickly, returns are more accurately filed because arithmetic errors are corrected before filing, and account information that is used to assist the taxpayer is available more quickly. The Internal Revenue Service will receive all withholding information electronically by 2001. These changes move Minnesota tax returns in the same direction.

Business process improvements: project readiness

Revenue's current input processes are too open to errors. When errors are introduced from paper-based transactions, they cascade through the entire process, increasing the burden and frustration of both taxpayers and agency staff. Errors introduced early in the process delay the entire processing cycle, and are normally very costly to correct.

The **business process improvements project** proposes to re-engineer current input processes. In that effort, the project will develop a common facility for electronic and paper-based input. This common facility will include electronic data interchange, electronic funds transfer, and optical scanning.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Satisfactory*
Planning	*Fair*
High Level Resource Models	*Good*
Organizational Structure	*Satisfactory*
Effective Skill Base	*Fair*
Overall rating	***Satisfactory***

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good*. An executive with authority and responsibility for information resource management has been identified. The agency executive committee sets project priorities; its information resource management role and responsibilities need to be formalized. Committee members are identified as representing major business functions. There are criteria, but no formal process, for project selection.

Policies, standards and guidelines

Rating: *satisfactory*. Technical standards and guidelines are in draft form. The agency has adopted the 14 IPO policies.

Planning

Rating: *poor*. The agency has not completed an agency-wide implementation plan, a plan to refine, monitor and manage costs or a project plan. A cost, benefit and risk analysis has been completed.

High-level resource models

Rating: *good*. The agency has completed a detailed, functional business model, as well as high level technology, data and process models. A distribution model is not applicable at this time.

Organizational structure

Rating: *satisfactory*. The agency has an information systems organization, although it is not an IRM organizational structure. An agency internal assessment indicates the current organizational structure is adequate for managing future information management projects.

Effective skill base Rating: *fair*. The agency has identified needed skills for this project, but the plan to acquire those skills is unclear.

Recommendations - IPO recommends *phased release* funding for the project, if funds are available. In its analysis, IPO finds that the project is making *satisfactory* progress in achieving information resource management standards. The analysis shows that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following be written into any appropriation. For this project,

Agency management must:

- Create an agency-wide implementation plan that identifies and sequences all major projects for one to two years.
- Continue to establish and formalize information resource management and public information policies, standards and guidelines.

Project management must:

- Submit progress reports in October 1995 and April 1996.
- Allocate 3 to 5 percent of the appropriation to an independent risk assessment of the project.
- Complete a detailed cost, benefit and risk analysis for the project. Refine, monitor and manage project costs as a continuing part of the project.
- Establish a project plan identifying tasks, schedule and source requirements. The plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, independent oversight, maintenance and enhancements.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Develop a plan to collaborate with the Department of Trade and Economic Development for the one-stop business licensing project and implement the plan.
- Create and refine high level, logical and physical models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Create high level, logical and physical technology models illustrating the functions performed by system hardware, network links and operating software and the interface compatibility required.
- Create a plan to acquire identified skills for the project.

DEPARTMENT OF TRADE AND ECONOMIC DEVELOPMENT

The Department of Trade and Economic Development proposes three projects for funding:

Total Requested Amount	Total Requested Positions	Total Recommended
$3,175,000	7	$3,475,000

1. **Network operations and information management project.**
   Request is for $1,000,000, with 2 new positions.

2. **One-stop business licensing.**
   Request is for $1,720,000, with 5 new positions.

3. **Pathfinder - customized travel information.**
   Request for $455,000, with 0 new positions.

The Information Policy Office recommends full funding of $3,175,000, plus $300,000 for the uniform business identifier project, if funds are available. Agency management has critical tasks to complete before the projects can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of DTED's budget request. Project 1 has been given an overall rating of *good*. Project 2 has been given an overall rating of *good*. Project 3 has been given an overall rating of *good*. The agency's firm commitment to information resource management is highlighted by the hiring of an executive with broad authority to lead agency efforts. IPO is recommending funding but contingent on meeting IPO requirements detailed in this report.

The three proposals address different sets of business needs and customer service issues. The **network operations and information management project** seeks to meet increasing internal demand for network services and support; the agency lacks staff and funding to complete a conversion to an information resource management environment. The **one-stop business licensing project** will help businesses reduce the complexity and unnecessarily high costs of licensing. The pathfinder customized travel information project addresses the need for more effective, innovative customer service and improved marketing position for the Minnesota tourism industry. Technical knowledge for the size and complexity of these projects is not present within the agency.

The agency believes that the **network operations and information management project** will provide essential network services and support for departmental staff including the following:

- Connectivity to all divisions within the department including those housed in Greater Minnesota using existing state resources whenever possible
- Infrastructure necessary for other DTED projects to provide appropriate, legal access to DTED information
- Upgrades to departmental servers and network applications that are critical to continuing quality network services
- High level information resource models that are required to coordinate and integrate the models for the one-stop business licensing and pathfinder projects.

The agency believes that the **one-stop business licensing project** will reduce the information and transaction costs of applicants for state business licenses and permits. Electronic filing features will enable applicants to file for licenses and permits from the applicant's location at the applicant's convenience.

The agency believes that the **pathfinder project** offers a variety of benefits:

- Improves the capability to provide individualized, customized tourist information
- Allows remote Minnesota Office of Tourism sites to access centralized databases for tourist information. Walk-in customers will be able to get timely information from the Travel Information Centers.
- Provides desktop video conferencing which will allow Greater Minnesota staff and industry stakeholders direct participation in meetings and conversations at the St. Paul office.
- Provides Minnesota with a travel marketing advantage over other states.

1. Network operations and information management project: project readiness

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Good*
Planning	*Excellent*
High Level Resource Models	*Good*
Organizational Structure	*Good*
Effective Skill Base	*Satisfactory*
Overall rating	***Good***

The **network operations and information management project** will complete agency-wide installation of network infrastructure and establish a network operating budget, create two new staff positions and complete conversion to an IRM environment. Information resource management functions are scattered throughout the agency.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal has been given an overall rating of *good.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good.* An executive has been appointed; no position description is provided although a memorandum states this position has broad authority to lead DTED's IRM. A committee, representing major agency functions, evaluates information resource projects. The agency has both a process and high level criteria for identifying and selecting projects.

Policies, standards and guidelines

Rating: *good.* A six step policy process has been established and DTED has endorsed the 14 IPO policies. Policies do not yet have associated standards or guidelines.

Planning

Rating: *excellent.* An agency-wide implementation plan identifies all major projects for the next one to two years; it indicates that the **network operations and information management project** is a prerequisite for the one-stop business licensing and pathfinder customized travel information projects. A project plan and a cost, benefit and risk analysis have been completed. A plan to refine, monitor and manage costs has not been completed.

High-level resource models

Rating: *good.* High level functional business, technology and distribution models have been completed. A data model is not applicable at this time. Agency-wide modeling is part of the project plan.

Organizational structure

Rating: *good.* A description of the current information systems organization was provided. An assessment identifies the need for two staff positions. Agency-wide authority for project review, coordination and oversight is not yet formalized.

Effective skill base

Rating: *satisfactory.* A project skills assessment has been completed; additional staff have been identified for data and project management. The agency plans to hire additional staff for data and project management.

Recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *good* progress in achieving information resource management standards. The analysis also shows, however, that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management, by July 1995, must:

- Incorporate the uniform business identifier project from the Department of Economic Security into the one-stop business licensing project.

- Formalize agency-wide authority for project review, coordination and oversight.

- Plan and implement an information resource organization to effectively manage data, applications and technology.

Project management must:

- Allocate 3 to 5 percent of the appropriation to an independent risk assessment of the project.

- Refine, monitor and manage project costs as a continuing part of the project.

- Create and refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

2. One-stop business licensing: project readiness

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Good*
Planning	*Good*
High Level Resource Models	*Not Applicable*
Organizational Structure	*Good*
Effective Skill Base	*Satisfactory*
Overall rating	***Good***

The one-stop business licensing project will plan, design and implement an electronically accessible business and professional licensing and permitting system. The project consists of two parts: an electronic catalogue of licenses, rules and statutes, and an electronic way to apply for licenses and permits. This is an inter-agency project with potential to improve agency efficiency, business licensing processes and citizen access to public information.

A legislative mandate required the Department of Economic Security to study uniform business identifiers. Executive Order 93-9 required the Department of Trade and Economic Development to study and implement a one-stop shopping concept for business licensing and permitting. Since these projects are now underway and are related, they should be combined at this time and managed at DTED.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given a rating of *good.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement	Rating: *good.* Same as project 1.
Policies, standards and guidelines	Rating: *good.* Same as project 1.
Planning	Rating: *good.* Basic information same as project 1.
High-level resource models	Rating: *not applicable.* Agency-wide modeling is part of the project plan and is not applicable at this time. Technology, distribution and data models will be completed as part of the project. A high level functional business model has been completed.
Organizational structure	Rating: good. Same as project 1.
Effective skill base	Rating: *satisfactory.* A project skills assessment has been completed; a need for six staff positions and contract services has been identified. The agency plans to hire additional staff and contract consulting services.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis IPO finds that the agency is making *good* progress in achieving information resource management standards. The analysis also shows, however, that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management, by July 1995, must:

- Complete the agency management requirements listed in project 1.

Project management must:

- Manage the combined projects under the direction of the Information Management Office. Submit progress reports in October 1995 and April 1996 on all planning and modeling efforts.
- Develop a re-engineering plan before technology is implemented.
- Develop a plan to incorporate the X.509 certificate standard for electronic identification and authentication of businesses and individuals who are doing electronic transactions.
- Redefine clearly the scope of the combined project and the business objectives that are to be met.

- Revise the cost, benefit and risk analysis for the combined project. Monitor and manage costs as a continuing part of the project.

- Create a project plan identifying tasks, schedule and resource requirements for the combined projects. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, independent oversight, maintenance and enhancements.

- Create and refine high level, logical and physical data models for combined project data. Create and refine high level, logical and physical distribution models showing where and how combined project data is distributed. Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Identify, and plan to acquire, skills needed for the combined projects.

3. Pathfinder - customized travel information: project readiness

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	Good
Planning	Good
High Level Resource Models	*Not Applicable*
Organizational Structure	*Good*
Effective Skill Base	*Satisfactory*
Overall rating	***Good***

The **pathfinder - customized travel information project** will re-engineer the Office of Tourism process of responding to customer requests for Minnesota travel information. Customer response to current direct marketing has been decreasing; interest in state publications is lagging. The project addresses the changing needs of consumers who have shorter planning horizons and have more sophisticated and demanding tourism expectations.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal has been given a rating of *good.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement — Rating: *good.* Same as project 1.

Policies, standards and guidelines — Rating: *good.* Same as project 1.

Planning — Rating: *good.* Basic information is same as project 1.

High-level resource models — Rating: *not applicable.* Agency-wide modeling is part of the project plan and is not applicable at this time. A high level

	functional business model and a high level distribution model have been completed.
Organizational structure	Rating: *good.* Same as project 1.
Effective skill base	Rating: *satisfactory.* A project skills assessment has been completed; contract services have been identified for this project. The agency plans to contract consulting services as required.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making good progress in achieving information resource management standards. The analysis also shows, however, that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management, by July 1995, must:

- Complete the agency management requirements listed in project 1.

Project management must:

- Submit progress reports in October 1995 and April 1996 on all planning and modeling efforts.
- Develop a re-engineering plan before technology is implemented.
- Refine, monitor and manage project costs as a continuing part of the project.
- Refine the project plan to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, independent oversight, maintenance and enhancements.
- Create and refine high level, logical and physical data models for project data. Refine high level, logical and physical distribution models showing where and how project data is distributed. Create and refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

DEPARTMENT OF TRANSPORTATION

The Department of Transportation proposes one project for funding:

IRM Implementation Project.

Requested Amount	Requested Positions	Recommended
$7,000,000	0	$7,000,000

The Information Policy Office recommends full funding of $7,000,000, if funds are available. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of Mn/DOT's budget request. The request has been given a rating of *excellent.* The agency is conducting an agency-wide information modeling project to document information resources required to support current and future needs. By July 1, 1995, the agency will have created an implementation/migration plan and an organization transition plan. These migration and transition plans will guide the agency as it moves from the current stand-alone systems environment to a future information resource environment in which information is managed as an asset and shared agency-wide. IPO is recommending full funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Excellent*
Policies, Standards, and Guidelines	*Excellent*
Planning	*Not Applicable*
High Level Resource Models	*Not Applicable*
Organizational Structure	*Not Applicable*
Effective Skill Base	*Excellent*
Overall rating	***Excellent***

The agency believes that the agency-wide modeling project and resulting migration and transition plans will have many permanent, long term benefits which will assist the agency in accomplishing its mission. These benefits are:

- Shared, reusable data, applications and technology that will provide users better information, more quickly and at lower cost
- Geographic information environment to integrate and graphically display information to improve service delivery and decision making
- Technology and applications to enhance the benefits of process improvement and re-engineering
- Orderly transition from today's piecemeal systems to an environment in which information is managed as a shared resource
- Prioritized project plans based on logical sequence, health of current systems and business priorities as determined by budget guidelines and bureau processes

Information resource management implementation: project readiness

The purpose of this funding request is to implement the plans noted above, aligning information resource management with strategic management and business planning. The project is intended to provide better information, more quickly, at a lower cost. The project should resolve issues identified by the agency, including redundant data collection and uncoordinated systems development. The agency's extensive planning effort, and its firm commitment to information resource management, position the agency to implement its plans.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. The proposal has been given an overall rating of *excellent.* Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *excellent.* Two individuals share the authority and responsibility of the chief information officer; the agency has defined executive authority and responsibility. An information leadership council, representing major functions, provides leadership, strategic direction, funding management and prioritization of information resource projects. The agency has a detailed process for identifying and selecting projects, and detailed criteria for project selection.

Policies, standards and guidelines

Rating: *excellent.* A comprehensive process exists to create, adopt and communicate policies, standards and guidelines throughout the organization. The agency has established department-wide internal policies, standards and guidelines.

Planning

Rating: *not applicable.* Planning factors are not applicable at this time because a current agency-wide modeling project will result in an agency-wide implementation and migration plan for information resource projects. This plan will prioritize projects based on logical sequence, health of current systems, and business priorities. Cost, benefit and risk analysis information will be provided when the implementation plans are completed and project scopes are defined. A plan to refine, monitor and manage costs does not exist. Project plans will be provided when the implementation plans are completed and project scopes are defined.

High-level resource models

Rating: *not applicable.* Resource models are not applicable at this time because agency-wide technology, distribution and data modeling is currently being performed. A comprehensive agency-wide functional business model has been completed.

Organizational structure

Rating: *not applicable.* Organizational structure is not applicable at this time because the agency is currently developing an organization transition plan that will define the agency's future information resource management organization. Multiple information systems organizations exist within the agency. The agency has assessed its current information systems structure and has recognized that its current structure is not positioned to manage information as a shared resource.

Effective skill base

Rating: *excellent.* A comprehensive, formal and agency-wide skills assessment was conducted to establish a baseline measurement of skills and knowledge for information resource professionals. Training and education opportunities have been identified and will be offered in reaction to the agency-wide skills assessment.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *excellent* progress in achieving information resource management standards. The analysis shows that the agency needs to continue planning and complete agency-wide modeling. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must:

- Complete as planned the implementation plan identifying and sequencing major agency projects.
- Complete as planned the implementation of the information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in July 1995, October 1995, April 1996, October 1996 and April 1997 on all implementation efforts.
- Invest up to $100,000 to conduct an independent assessment of agency readiness to implement the agency plan by the end of the first quarter of FY 1996.

- Complete planning for each migration/transition project. Planning includes project scope, a cost, benefit and risk analysis and a project plan.

- Refine, monitor and manage project costs as a continuing part of each project.

- Refine high level, logical and physical data models for agency-wide data. Refine high level, logical and physical distribution models showing where and how agency-wide data is distributed. Refine high level, logical and physical technology models illustrating the functions performed by the hardware, network links and operating software, and the interface compatibility required.

ZOOLOGICAL GARDEN

The Zoological Garden proposes one project for funding:

IRM environment, technology upgrade and business systems project.

Requested Amount	Requested Positions	Recommended
$533,000	2	$350,000

The Information Policy Office recommends partial funding of $350,000, if funds are available. However, agency management has critical tasks to complete before the project can be successfully implemented. *Phased release* of funds should be made contingent upon IPO review and approval of agency and project requirements listed in this report.

Summary

IPO has conducted an assessment of the Zoo's budget request. The request has been given a rating of *satisfactory*. The project is intended to provide greater efficiency by improving operations at the Zoo. Current computing resources are limited by old technology, a lack of networking and insufficient numbers of workstations. Until recently, information resource management has been done on an individual basis or at best on an operational unit basis, with information systems becoming fragmented and redundant. The Minnesota Zoological Garden intends to begin the process of establishing an information resource management environment. An executive leader has been proposed as part of this request. IPO is recommending partial funding but contingent on meeting IPO requirements detailed in this report.

Evaluation Area	Rating
Executive Leadership and Involvement	*Good*
Policies, Standards, and Guidelines	*Fair*
Planning	*Fair*
High Level Resource Models	*Satisfactory*
Organizational Structure	*Satisfactory*
Effective Skill Base	*Fair*
Overall rating	***Satisfactory***

The agency believes this proposal will provide widespread data sharing and inter-operability with internal and external partners to allow:

- Strategic, tactical and operational decisions based on information resources
- Continuous monitoring and improvement in business and operations processes
- Modernization of business operations and information technology throughout the agency

IRM environment, technology upgrade and business systems project: project readiness

The agency proposes to hire an information technology coordinator and begin converting to an IRM environment; upgrade campus-wide local and wide area networks; and implement five new business systems, including admissions, computer-aided design, point of sales, inventory control and an information/guest services kiosk system. Project plans and information models are preliminary and incomplete.

IPO has conducted an assessment of this proposal, based upon the six critical success factors of Information Resource Management. This proposal was given an overall rating of *satisfactory*. Ratings for each factor are listed below.

Critical success factor assessment - According to documentation provided by the agency:

Executive leadership and involvement

Rating: *good.* An interim executive exists; a permanent executive leader is proposed as part of this request. A position description has been created but not formally adopted. A technology round table, with members representing major functions, evaluates information resource projects. A selection process for identifying and selecting projects is unclear; criteria for project selection have been established.

Policies, standards and guidelines

Rating: *fair.* A high level process exists for identifying, developing and implementing policies. The agency has not endorsed the 14 IPO policies. Associated standards or guidelines are not completed.

Planning

Rating: *fair.* An agency-wide implementation plan has been developed identifying projects and their sequence for one to three years. A cost, benefit and risk analysis has been completed. A plan to refine, monitor and manage costs is needed. The project plan is high level and incomplete.

High-level resource models

Rating: *satisfactory.* A high level functional business model has been completed. High level technology, source distribution and source data models have been completed. Modeling is part of the project plan.

Organizational structure

Rating: *satisfactory.* An information systems organization is being proposed as part of this request. An organizational effectiveness assessment identifies the need to move forward

with IRM. The assessment also identifies the need for an information technology coordinator who will provide senior management direction for IRM.

Effective skill base

Rating: *fair.* A preliminary skills assessment has been completed which recognizes the need for data administration, project management and modeling skills. The agency plans to hire additional staff and contract for training as required.

Project recommendations - IPO recommends funding the project, if funds are available. In its analysis, IPO finds that the agency is making *satisfactory* progress in achieving information resource management standards. The analysis shows, however, that the agency needs to take action to mitigate identified risks, and thus support successful completion of the project. IPO requests that the following requirements be written into any appropriation. For this project,

Agency management must:

- Hire as planned an executive who has clearly defined agency-wide authority and responsibility for information resource management.
- Further develop information resource management and public information policies, standards and guidelines and adopt the 14 IPO policies.
- Formulate as planned an information resource organization to effectively manage data, applications and technology.

Project management must:

- Submit progress reports in October 1995, April 1996 and October 1996.
- Conduct re-engineering analysis and implement findings as part of the project.
- Refine the scope of the project and define the business objectives that are to be met by the implementation of each of the five business systems.
- Refine, monitor and manage project costs as a continuing part of the project.
- Refine the project plan identifying detailed tasks, schedule and resource requirements. The project plan needs to include re-engineering of work processes, user requirements, modeling, quality measures, training, project evaluation, maintenance and enhancements.
- Create and refine high level, logical and physical data models for project data. Create and refine high level, logical and physical distribution models showing where and how project data is distributed. Refine high level, logical and physical technology models illustrating the

functions performed by the hardware, network links and operating software, and the interface compatibility required.

- Confirm, and plan to acquire, skills needed for the project.

APPENDIX A:

1996 - 97 INFORMATION RESOURCE FUNDING REQUEST RECOMMENDATIONS

(Sent to agencies May 18, 1994)

The Information Policy Office (IPO) is required by Minnesota Statute 16B.41 to review all state agency information resource budget requests before they are submitted to the legislature.

The objectives of the budget reviews are to help agencies invest wisely and complete successful projects. For the FY 1996-97 biennial session, all project requests will be measured against a set of standards based on policies developed by IPO. The standards are consistent with past budget request requirements.

The standards are grouped into six critical success factors:

- Executive leadership and involvement;
- An information management infrastructure built around policies, standards and guidelines;
- Planning that includes agency-wide implementation plans, project plans, cost/benefit/risk analyses, and project scopes;
- High-level information resource models that collectively describe agency functions, data, data distribution and technology;
- An organizational structure that manages all aspects of the organization's information resources; and
- An effective skills base.

Each critical success factor has one or more standards against which agency funding requests will be measured (Figure 1). Agencies must provide several products to demonstrate compliance with the standards. Agency requests must also include a one-page summary of the purpose of the request, which must include the business needs the request will meet, and the potential risks to organization stakeholders if those needs are not met.

Any agency expecting to submit a request for review must contact IPO no later than June 15, 1994. Agency requests must be submitted to IPO no later than October 31, 1994.

Agency requests must incorporate public information policy requirements mandated by Minnesota Statutes Chapter 13 (Minnesota Government Data Practices Act); Chapter 15.17 (Official Records Act); Chapter 138.17 (Government Records Act); and all other state and federal statutory requirements relating to data practices and records management. IPO will provide agencies with examples of the required products and will conduct meetings with agencies to clarify the requirements and answer questions.
For additional information or to have questions answered, call Greg Peterson at 296-6397.

Information Policy Office
Resource Funding Request
Requirements

May 17, 1994

Figure 1:

FY 1996-97 Funding Request Requirements Summary

Funding requests will be evaluated against one or more standards grouped into six critical success factors.
The critical success factors are shown in bold.
The evaluation standards are listed below each success factor.

Some standards affect the agency as a whole and others are limited to the proposed project.

Evaluation Access		Agency-wide Requirements	Project Requirements
Background/Overview of Project			
	One-Page Project Summary		X
1. Executive Leadership and involvement			
	1.1: Executive In-Charge	X	
	1.2: Executive Steering Committee	X	X
2. Information Management Infrastructure			
	2.1: Policies	X	
	2.2: Guidelines	X	
	2.3: Standards	X	
3. Planning			
	3.1: Agency-wide Implementation Plan	X	
	3.2: Project Scope		X
	3.3: Project Cost, Benefit, Risk		X
	3.4 Project Plan		X
4. High Level Resource Models			
	4.1: Agency Functional Business Model	X	
	4.2: High Level Data Model		X
	4.3: High Level Distribution Model		X
	4.4: High Level Technology Model		X
5. Organizational Structure			
	5.1: Organization Structure & Assessment	X	
6. Effective Skills Base			
	6.1: Self-Assessment Matrix & Plan		X

FY 1996-97 Agency Information Resource Budget Request Requirements

Project Summary

Agencies must provide:

- A one-page summary of the project that includes the purpose for the project and the business needs and risks the project will address, including the risks to stakeholders if business needs are not met.

Critical Success Factor 1: Executive Leadership and Involvement

Information management requires the active support of top level management, who must assume responsibility for managing and developing the information resources under their control. Because information resources have agency-wide and statewide value, managing them requires authority and accountability that only executive level management can provide. Agency leadership is required for projects to achieve their potential.

Funding Request Standard 1.1: Agencies must identify an executive with the responsibility, authority and accountability to manage the organization's information resources.

The executive must have the authority and responsibility to:

- Establish policies, standards and guidelines.
- Ensure that adequate information resource models are established and maintained.
- Ensure that an implementation/migration plan is established, maintained and followed.
- Ensure that the management of information resources is linked to business plans, goals, objectives and strategies.

Agencies must provide:

- Name and title of the executive responsible for information resources; and
- A list of the authorities and responsibilities of that person; for example, a position description.

Funding Request Standard 1.2: Agencies must establish an information resource steering committee that advises the executive on managing the organization's information resources. The information resource steering committee must have representatives from top management, information system professionals and users of systems. Agencies must take into consideration the size and complexity of the organization involved when determining the makeup of the committee.

Agencies must provide:

- A policy establishing the information resource steering committee and defining its responsibilities;
- A list of the committee's members, their titles and what organizational units they represent;
- A description of the process used to consider and select projects that are forwarded to the steering committee and IPO; and
- The criteria for determining what issues will be brought before the steering committee for action.

Critical Success Factor 2: Information Management Infrastructure

Agencies need an information management infrastructure made up of policies, standards and guidelines that direct the strategic management of information resources. IPO is developing statewide policies, standards and guidelines that will provide a framework for agencies to use in developing their own policies, standards and guidelines.

Funding Request Standard 2.1: Agencies must develop information resource policies, standards and guidelines. Agency policies, standards and guidelines must address established public information policy as stated in federal and state laws, administrative rules and existing statewide policies issued by IPO.

Agencies must provide:

- A description of how the policies, standards and guidelines are adopted and communicated; and
- Existing or proposed policies, standards and guidelines.

Critical Success Factor 3: Planning

Planning must be conducted from agency and project perspectives. The agency-wide perspective ensures that the right projects are done in the right sequence. The project perspective ensures that the projects are done properly.

The agency-wide perspective is provided by an implementation plan that takes into account business priorities and ensures that projects are completed in a rational sequence. The agency-wide implementation plan determines priorities, and explains what will be replaced, modified or interfaced, and in what order.

Each project for which funding is being requested needs a scope, cost/benefit/risk analysis and a project plan.

Funding Request Standard 3.1: Agencies must develop a one- to two-year agency-wide implementation plan that identifies all projects, priorities and the sequence in which projects will be implemented.

Agencies must provide:

- The agency-wide implementation plan.

Funding Request Standard 3.2: Agencies must develop a scope for each project for which funding is requested. The project scope must link the project to an agency's mission, goals and objectives, and define project objectives and how they will be reached. It must establish boundaries to help management keep the project's complexity and budget under control. It must identify project ownership and support, joint management of project, partnerships or data community work within or external to the organization, including impact on local governments.

Agencies must provide:

- A description of the project scope.

Funding Request Standard 3.3: Agencies must complete a cost, benefit and risk analysis of each project for which funding is requested. Agencies must use Information System Life Cycle Methodology, available from IPO, when completing a cost, benefit and risk analysis . The methodology has seven categories of costs, four categories of benefits, and five categories of risk that must be considered.

Agencies must provide:

- A cost, benefit and risks analysis of each project.

Funding Request Standard 3.4: Agencies must develop a project plan for each project for which funding is requested. The project plan must clearly show how the project will be managed and controlled. The project plan must provide timetables and details on how the scope will be accomplished.

The project plan must at minimum address:

- Tasks and schedule.
- Deliverables and outcomes.
- Resource requirements.
- Compliance with established IPO statewide policies, standards and guidelines, and public policies and statutory requirements.

Additional items for agency consideration are capacity planning, maintenance and enhancements, user requirements, citizen access to electronic information, improved service to citizens, planning and coordinating work process re-engineering, quality measures and user acceptance criteria, use of existing resources, such as MNet, training, project evaluation, independent oversight of large projects, and compliance with established IPO statewide polices, standards and guidelines.

Re-engineering and quality are critical to the success of every project. Several reference materials exist that may provide some additional guidance for re-engineering of work processes: Re-engineering Your Business by Morris and Brandon; Process Innovation by Davenport; Re-engineering the Corporation by Hammer and Champy; Re-inventing the Corporation by Naisbitt and Aburdene; The Challenge of Organizational Change by Kanter, Stein and Jick; Re-inventing Government by Gaebler. Other books may provide assistance in planning and quality, such as Strategic Planning by Steiner; The Customer Driven Company by Whiteley; and books by Juran Deming and Crosby.

Agencies must provide:

- A plan for each project.

Critical Success Factor 4: High Level Resource Models

High-level information resource models help an agency manage and share its data effectively. Models collectively describe project data, technology, and their distribution, and how they are used to support business functions. The models also help identify impacts across business functions and systems. Modeling facilitates making decisions, planning and project management. They are critical to business process re-engineering and quality initiatives as well as RFP development efforts.

Funding Request Standard 4.1: Agencies must create a high level functional business model that includes a description of all functions. Each function must be a major business component that has a well-defined and cohesive role in fulfilling the organization's mission.

Agencies must provide:

- A high level functional business model that briefly describes each organizational function.

Funding Request Standard 4.2: Agencies must create a high level data model for the proposed project that shows entities and relationships. An entity is a person, place, thing, concept or event about which data are or can be recorded. A relationship is an important association between one or more entities that provides some relevant business information.

Agencies must provide:

- A high level entity/relationship diagram for the project.

Funding Request Standard 4.3: Agencies must create a high level distribution model for the proposed project. The distribution model must show the physical distribution of project entities among the major business locations. The model must show the geographic locations of project data entities and user organizations.

Locations can be broad in coverage. For example, Duluth may contain multiple facilities, but could be considered a single business location. Examples of entity distribution are:

- Centralized: Entities are resident at one location; one form and one content.

- Replicated: Entities are physically duplicated at two or more locations; same form and content will be in all places.

- Partitioned: Entities are separated and distributed to two or more locations; same form will exist in each location, but content will differ.

Agencies must provide:

- A chart or diagram showing geographic locations of project entities and users.

Funding Request Standard 4.4: Agencies must create a high level technology model for the proposed project. The technology model must describe the required hardware, network links and operating software.

Hardware processors might be PC's, minicomputers or mainframes. Network links include routers, modems, lines, etc. Operating software is the software that is required to support and manage data access and transaction operation, including operating systems, database management systems, dictionaries/repositories and programming language facilities. The technology model identifies capacity and compatibility requirements, but does not identify specific vendors or products.

Agencies must provide:

- A chart or diagram of the hardware, operating software and network links required for the project.

Critical Success Factor 5: Organizational Structure

Accountability and responsibility for information resources should be agency-wide. The agency should be structured so that resources can be appropriately managed and shared. The management of information resources will require agencies to assess their organization for its readiness to develop, operate and maintain its information resources.

Funding Request Standard 5.1: Agencies must be structured to allow information resources to be appropriately managed and shared.

Agencies must provide:

- A description of the current information management structure, such as an organization chart.

- An assessment of the current structure's effectiveness for managing agency information resources now and in the future.

Critical Success Factor 6: Effective Skills Base

Investments will be needed to acquire, train and retain skilled professionals who can carry out the project and implement the resources. An appropriate skill base is a requirement for the successful completion of the project.

Funding Request Standard 6.1: Agencies must develop an assessment of skills needed for the project and a plan for developing and acquiring the needed skills.

Most projects will require individuals with a good understanding of planning and modeling techniques; business experts who understand data access tools; and builders and developers who understand modern analysis/design techniques for shared data. When assessing needed skills, consider individual and group needs for training, data administration experience, database administration experience, project management experience and overall modeling knowledge.

Agencies must provide:

- An assessment of skills needed for the project.

- A plan for developing and acquiring needed skills.

APPENDIX B

STATEWIDE INFORMATION RESOURCE MANAGEMENT POLICIES

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Introduction to Information Resource Management Policies

Information resource management (IRM) provides agency executives and line managers an effective way to get more out of their investments in information resources. Information resources are defined as data, applications, technology and associated facilities. Information resources are managed in compliance with public information policy, primarily contained in Minnesota statutes, and IRM policies, standards, and guidelines.

IRM provides the legislature assurances their investments in agencies' information resources are being implemented appropriately and in compliance with public information policy. The environment described by the IRM policies will take many years to put in place but a long journey always begins with the first step. The first step for agency executives and managers is to begin understanding IRM. Minnesota IRM policies will provide managers with a framework for managing information resources and will help them to understand the IRM direction.

In 1985, the Information Policy Council established Information Management Principles for agencies to follow when managing information. These general, strategic-level principles have guided the work of the Information Policy Council and Information Policy Office in the ensuing years. The IRM policies are a logical extension of these principles.

- Data Principle - Data is a valuable resource that is to be managed and shared across organizational boundaries. Data must be secure and privacy protected while making it available to those who need it to do their job or function in our democracy.

- Management Principle - Management of information is a fundamental responsibility of managers that cannot be delegated. Executive leadership and involvement is fundamental to the success of information management.

- Standards Principle - Standards for information technology bring agencies together to allow cooperation and more effective and efficient work.

- People Principle - Information empowers people. Government workers can do their jobs better and citizens can participate in our democracy more effectively with good information.

In order to put these principles into practice, the Minnesota Legislature established the Information Policy Office (M.S.16B.41). IPO is responsible for setting the state's direction in information resource management. Specifically mentioned in the legislation are responsibility for the IPO to, among other things, develop and establish:

- policies and standards for state agencies to follow for the development, purchase, and training for information systems;

- techniques for planning and managing information systems that ensure the needs of the agency and the state as a whole are met;

- a state technology architecture, standards, and guidelines that ensures individual agency systems do not needlessly duplicate or needlessly conflict with the systems of other agencies;

- information needs analysis techniques;
- contracts for the purchase of equipment and services;
- training of state agency personnel on these issues; and
- efficient and cost-effective methods of producing, sharing, and storing data.

In accordance with the IPC Principles for Information Management, the Information Policy Office has established a vision for Minnesota regarding information that can be reached through effective information resource management: This vision for Minnesota is:

equal and lawful access to information regardless of location.

Lawful access is defined in large part by a series of statutes administered by the Information Policy Office. These laws, M.S. 15.17 (Official Records), M.S. 138.17 (Government Records), and M.S. Chapter 13 (Government Data) pertain to data practices and records retention and disposition. In addition, there are numerous other statutes that provide agencies and programs with their policy purpose, responsibilities, and detailed guidance on handling government data. It is imperative that agency executives understand and manage issues related to lawful access and other public policy requirements that affect government data.

IPO will be issuing standards and guidelines related to the IRM policies in consultation with the Information Policy Council to help agencies with their journey to the IRM environment. For these IRM policies, standards, and guidelines to be effective, the legislative policy purpose, agency business objectives, and data practices, access, privacy, and retention considerations must be clearly identified and articulated by agency executives.

The legislature and the federal government formulate public policy that directs state agencies in the conduct of their business and the handling of information. It is within this body of public policy and public information policy that IRM is conducted. In our democratic society, there is a necessary tension between IRM and public policy. On the one hand, IRM requires government to optimize the use of its information resources through sharing to avoid unnecessary duplication of data, applications, and technology. On the other hand, public policy and public information policy requires government to safeguard its information resources -- especially data resources -- and sometimes limits the sharing of and accessibility to data. It is this paradox of making information accessible and sharable while protecting it and managing its use that absolutely requires executive leadership and involvement.

1 Managing Information Resources as Valuable Assets

Organizations shall manage information resources and associated facilities as valuable assets critical to fulfilling their missions. Organizations shall apply appropriate management controls to their information resources just as they do to their human, equipment, facilities, material, and financial resources. Organizations shall plan, organize, measure, control and share their information resources to optimize their effectiveness while minimizing costs to those with a stake in the design and use of particular information resources. Organizations shall manage their information resources to assure compliance with statutory requirements on public access to data, rights of subjects of government data, and records management.

2 Leadership and Accountability

Responsibility and authority for information resource management (IRM) shall be established and maintained in each organization to manage all aspects of the planning, development, acquisition, maintenance, operation, evaluation and adherence to statutory policies for the information resources of the organization. The individual responsible for IRM shall hold an executive level position and be responsible for ensuring that all aspects of the organization's planning, development, and operation of information resources comply with applicable public policies and IRM policies.

3 Skill Base, Recruiting, Training

Agencies shall invest in acquiring, training, and retaining skilled information professionals to enable the building and maintenance of an effective information environment. Agencies shall provide employees with appropriate information technology tools and training that allow them to be effective. Training shall include attention to statutory policies that affect the information environment.

4 Organization

Management of internal information resources shall be a cooperative effort between the information users, senior management, and the IRM organization. An information resource steering committee composed of agency executives shall advise the organization's IRM executive on the business needs, public access requirements, rights of subjects of government data, data security and data retention considerations.

5 Data Communities

Information resources are to be shared and managed across traditional organizational boundaries. Data sharing across boundaries presents significant issues concerning privacy rights of subjects of government data that must be properly managed. Agencies have stewardship responsibilities for their information resources which shall be managed within data communities. Data communities shall be organized around common business processes and customers. Agency IRM executives are responsible for ensuring participation in appropriate data communities to optimize the use of information resources across organizational boundaries. IRM executives are also responsible to assure that use of information resources is accomplished in compliance with statutory policies that affect information sharing.

6 Investments

Organizations shall establish and maintain a funding strategy by which common, shared information resources can be developed, acquired, and operated within agencies and data communities. This strategy shall be used to eliminate financial or political disincentives to sharing data, applications, and technology within agencies and data communities. The funding strategy shall not conflict with statutory requirements and public information policy.

7 Quality

Agencies shall use information resources to add value to their services and products, reduce costs, meet customer needs, and measure outcomes. Quality management concepts shall be applied to the information management process and to the information resource development process in particular. Simple automation of manual processes or replacement of old applications without reengineering, fundamental restructuring, or streamlining shall be avoided. Attention to quality in the management of information resource development includes attention to meeting statutory requirements.

8 Security

Agencies shall put in place cost-effective controls to protect their information resources from accidental or deliberate modification, destruction, unauthorized access or illegal dissemination.

9 Policies, Standards, Guidelines

Organizations shall adhere to all statewide IRM policies, standards, and guidelines. The process for promulgating policies, standards, and guidelines shall involve, to the fullest extent practical, all organizations affected by or concerned with the issue at hand. Organizations shall develop their own policies, standards, and guidelines as appropriate consistent with statutory requirements and statewide policies, standards, and guidelines.

10 Models

Organizations shall create and continuously maintain models of their information resources. These models shall be used to help managers and workers visualize and understand how the agency's information resources relate to the public policy purpose and business objectives of the agency and the data community. The models must also address legislative policies on public accountability, public access to government data, the rights of subjects of government data, and records management. These models are the products of agency and data community strategic business planning. These models shall be kept and managed in a manner that makes them accessible to all information users.

Organizations shall use models of their information resources to identify, scope, and plan projects to develop or acquire information resources.

11 Implementation Plans

Organizations shall develop long-range implementation plans which identify potential information resource development projects. At least annually, organizations shall review the sequence and purpose of the plans and, if necessary, modify them to account for changes in business strategies or priorities, and changes in statutory policy that affect access to and dissemination of the organizations information resource. The implementation plans shall be the primary determinant of how agencies allocate their development resources and requests for legislative appropriations.

Information resource projects shall be conducted after costs, benefits, and risks have been analyzed including the effects the project will have on other units of government and privacy and other related rights of citizens. Information resource development projects shall be conducted and evaluated using appropriate project management tools, financial and schedule controls, development methodologies and tools, and policies and procedures that pay attention to the project's compliance with statutory policies and requirements.

12 Data Practices

Organizations must develop and manage government data consistent with the public information policies and requirements of the Minnesota Government Data Practices Act, to ensure public access to government data, and the protection of rights of subjects of government data. Identification of the classification of data and issues of statutory compliance shall begin during the early stages of strategic planning and data modeling. The affects of the data's classification and attention to compliance with statutory requirements shall continue through design, installation, and maintenance.

13 Data Retention & Disposition

Organizations are responsible for ensuring that data is developed and managed consistent with the Minnesota Official Records and Records Management Acts. Identification of what data are needed for public accountability and of the retention and disposition requirements of data and what data are needed for public accountability shall begin during the early stages of strategic planning and data modeling and continue through design, installation, and maintenance.

14 Technical Standards

Organizations shall use statewide technical standards that promote data sharing, interconnectivity, and interoperability when planning, designing, constructing, purchasing, and implementing information resources. Organizations shall evaluate the technical standards to assure these requirements comply with statutory policies. If products are not available that both meet the agency's business requirements and conform to technical standards, and statutory requirements, agencies should determine the best business solution and adjust their plans accordingly.