

STRATEGIC INFORMATION MANAGEMENT (SIM)
SELF-ASSESSMENT TOOLKIT

---- Exposure Draft ----

Version 1.0

U.S. General Accounting Office
Accounting and Information Management Division

October 28, 1994

Exposure Draft

This exposure draft is provided to you for your use and comment. We plan to revise the toolkit based on the results of our own use, as well as your ideas for improvement. We hope you will share your reactions with us.

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STRATEGIC INFORMATION MANAGEMENT (SIM) SELF-ASSESSMENT TOOLKIT

PREFACE

Federal agencies are under pressure to improve the services they provide to the public, with greater accountability for achieving results, quicker and at lower cost. Pressures for change are coming from a variety of sources. The 1993 Government Performance and Results Act (GPRA) establishes expectations for agencies to plan strategically and achieve better mission outcomes. Other laws, regulations, and guidance are contributing to new demands on agency managers, along with public expectations of improved service. A consensus has been developing that federal agencies can and must change the way they work, and change in ways that deliver better services to the public.

These pressures are making it necessary for agencies to manage their operations strategically, taking advantage of information technologies (IT) where appropriate. Federal agencies have not kept pace with evolving management practices and skills necessary to (1) precisely define critical information needs, and (2) select, apply, and control changing information technologies. The result, in many cases, has been wasted resources, a frustrated public unable to get quality service, and a government ill-prepared to measure and manage its affairs in an acceptable, businesslike manner. Agencies need to improve their management practices in order to mitigate risks leading to poor IRM performance and get higher returns on their information technology investments.

In May 1994, GAO issued a study of how leading private and public sector organizations were improving their mission performance through strategic information management and technology.¹ GAO found that senior managers in these organizations used a consistent set of

¹ *Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology* (GAO/AIMD-94-115).

practices that helped them to achieve successful performance outcomes. These practices worked because, over time, they institutionalized better ways of doing business that are necessary to capture the value of information and information technology. They require no new laws to implement them, since they are consistent with current federal regulations. The practices are supported by the Senate Committee on Governmental Affairs and the heads of over 20 federal agencies. OMB has incorporated them in its revision of A-130, and GSA has included them in their draft IRM guide.

This *Strategic Information Management (SIM) Self-Assessment Toolkit* is designed to help agencies put these practices to work for themselves. The practices address enterprise-wide information management issues and do not prescribe how to design, build, test, and acquire information systems. Rather, the focus of a SIM self-assessment is on achieving measurable improvements in outcome-oriented performance that matters to the public, rather than just on complying with rules and regulations. Agency assessment teams can use this guide to benchmark the agency's current strategic information management practices against a defined set of practices used by leading private and public sector organizations. Based on these results, senior agency management can develop and recommend specific actions to pursue in order to improve the implementation of these practices over time and achieve measurable improvements in performance.

Caveats About This Guide

Strategic information management is in a relatively immature state and is influenced by a wide range of factors--managerial, technical, cultural, and political. Stable cause-and-effect relationships are difficult to define and expert points of view often differ significantly. This exposure draft--based upon our analysis of a relatively small number of case study organizations--admittedly is neither comprehensive or complete. A number of areas remain that require further research before integrating them into our framework. We view this product as the first in a series of efforts needed to help bring strategic information

management in the federal government up to the level of leading organizations. As such, we ask that users of this assessment toolkit treat it as an evolving product that will undergo refinement and additions as it is pilot tested further and as we receive input from agencies reviewing and using this draft. We will also continue to explore and revisit the management practices themselves in response to the changing IRM environment, and will refine the practices or incorporate additional ones that may emerge over time.

The fundamental practices identified in the toolkit should be viewed as a template relevant to any organization. We recognize that this particular management template can require customized application to any organization depending on a wide variety of contextual factors (e.g., current improvement initiatives in place) as well as existing organizational strengths and weaknesses.

Additionally, this assessment tool should not be treated as cookbook that everyone in your organization can readily understand and apply. Using it requires knowledge, experience, and judgement in strategic information management. If used solely in a "check list" manner, it will not produce the benefits it is intended to yield.

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1.0 INTRODUCTION

1.1 Overview of Strategic Information Management

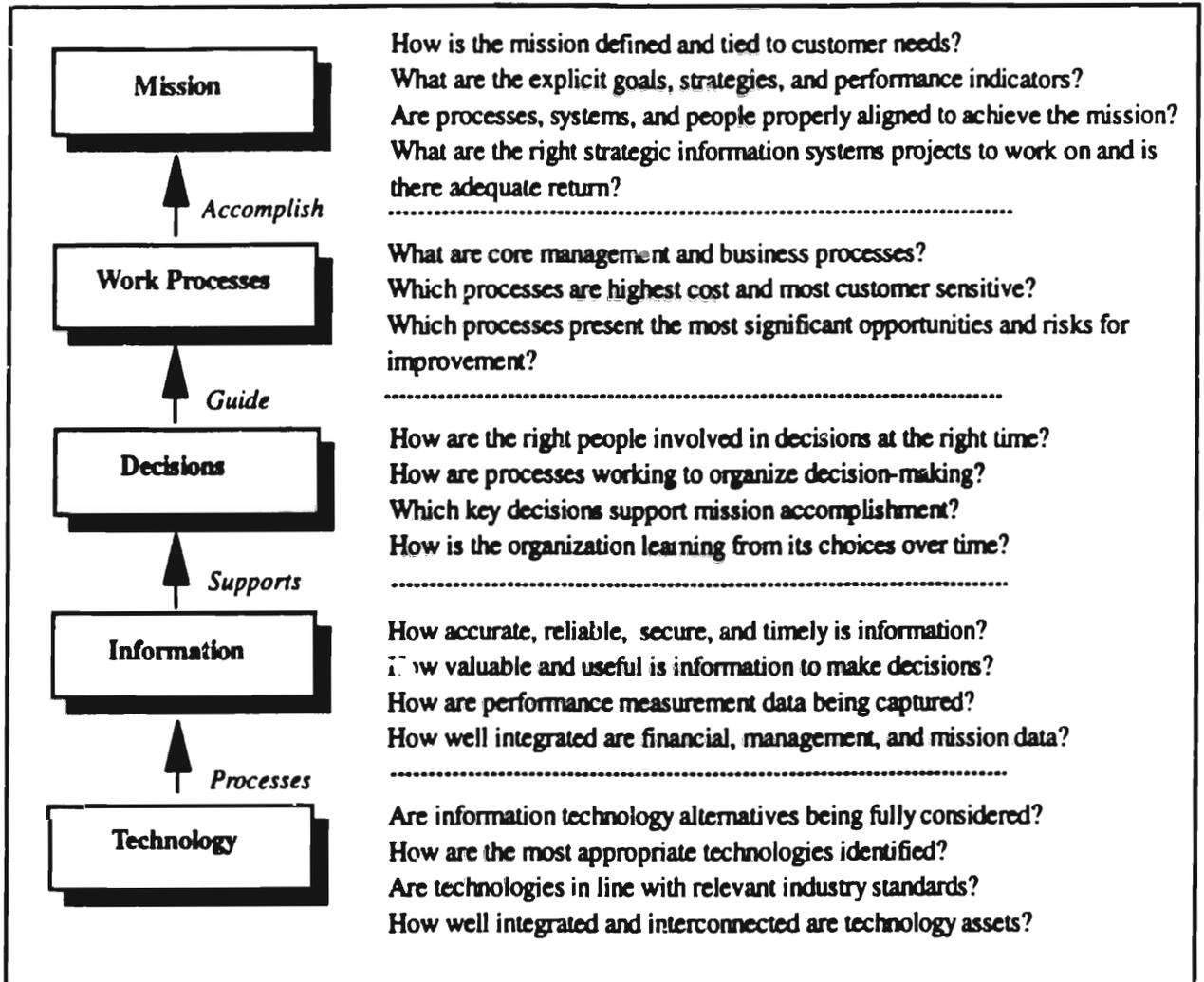
Strategic Information Management (SIM) is the process by which top agency officials and line managers plan for, direct, and evaluate the use of information and information technologies to help accomplish their major programmatic objectives. It is a critical part of any general management approach, cutting across basic organizational activities such as financial management, program management, property management, and human resources management.

Strategic information management typically involves:

- defining a mission based on customers and needs;
- establishing core business processes to meet those needs;
- understanding the management decisions that guide the mission delivery processes;
- supporting those decisions with the right information available to the right people at the right time; and
- using information technology to improve the delivery of products, goods, and services to customers.

Figure 1 outlines the critical questions that senior managers face in each of these areas.

Figure 1: Strategic Information Management Issues



As the arrows in this figure show, there is a mutual dependency between technology and information, and the decisions, work processes, and missions that they support.

1.2 Improving Management Practices Over Time

This assessment guide is intended to help senior managers (1) determine how well their agency is applying information resources to achieve program results and (2) develop an action plan for implementing effective management practices. Leading organizations have found that it takes time to implement good management practices and significantly improve mission performance. An initial SIM assessment of your agency will probably show that it has neither fully implemented these management practices, nor achieved desired levels of improvement in program results. For this reason, a SIM assessment should not be viewed as a one-time effort. Rather, the initial review should establish a baseline of the agency's practices and develop an action plan for continually improving them over time. Subsequent SIM assessments should show whether your agency is making progress in putting these practices in place, and is achieving demonstrated results in improving mission performance.

Improvement should be demonstrated both in applying the *means* (the use of effective IRM strategies and processes) and achieving the *ends* (demonstrated improvements in mission outcomes and in IRM's contribution to those outcomes). Agency assessments like these are particularly vulnerable to limited success because of a tendency for a process focus to become the ends rather than the means of producing demonstrated results. In addition, in the federal government environment where turnover in agency leadership is common, it is easy for these efforts to be treated as quick snapshot efforts that end up losing momentum and commitment over time. The following table shows how an agency might progress over time in both implementing the management practices and demonstrating mission performance improvement.

Table 1: Approximate Implementation Stages for Management Practices

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Management practices (means)	Benchmark assessment completed for current management practices	Improvement in 3 or more practices	Across-the-board improvement in all practices	Continued across-the-board improvement	Selected practices have been fully implemented, as at leading organizations
Demonstrated results (ends)	Performance indicators under development	Complete set of indicators developed; baseline completed	Performance indicators being recorded and tracked	Positive, stable trend established in selected indicators	Positive, stable trend established in most indicators

Throughout the SIM assessment process, the assessment team should look for evidence of measurable improvements in the your agency's program performance, linked to its information resource management activities, as well as effective management processes. The team's goals should therefore be two-fold--determining whether the agency implements recommended policies and procedures, while looking for the payoffs from that implementation. Measuring demonstrated results as well as evaluating processes will give you a more complete picture of your agency's information management effectiveness.

Our experience with leading organizations confirms that moving through the stages described above may take anywhere from 2 to 5 years, and that maintaining momentum over the long haul is critical. However, case study examples demonstrate that some short-term improvements, such as reducing high-risk projects, elimination of low-value systems projects, and increased productivity, should occur within 12 to 24 months after putting some of these management practices in place. Moreover, several intangible benefits can also accrue for the organization, such as increased capability with existing people and resources and smoother oversight relations because of a common frame of reference being used to explain and evaluate agency progress in meeting performance goals.

1.3 Purpose and Underlying Principles of the Toolkit

The SIM self-assessment toolkit is based on GAO's research on management practices and performance measurement at selected private, state, and federal organizations that are leaders in using information resources to support mission goals. This research, summarized in GAO's report, *Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology* (GAO/AIMD-94-115), emphasizes the importance of strategic information management in creating improvements in agency operations through significant changes in assumptions and practices. You should familiarize yourself with this report to increase your understanding of the SIM principles, which are summarized below.²

GAO's report describes 11 fundamental management practices followed by the senior management of successful organizations in reducing costs, improving quality, and increasing responsiveness to customers--key areas in mission performance. These practices are well-suited to the federal environment since they reinforce the thrust of current and proposed laws and regulations, and do not require additional legislation. (See appendix I for the linkages between the SIM management practices and federal laws and regulations governing IRM.) The 11 practices, summarized below, can be grouped into three critical functions: (1) *deciding* to work differently, (2) *directing* resources toward high-value uses, and (3) *supporting* improvement with the right skills, roles, and responsibilities.

² A copy of this report may be ordered from GAO's document distribution center by calling (202) 512-6000. This first copy is free; additional copies are \$2 each.

DECIDE TO CHANGE

Initiate, mandate, and facilitate major changes in information management to improve performance

Practice 1: Recognize and communicate the urgency to change information management practices

Senior management focuses on what they are getting for the money being spent on information technology and what information they need to run the organization. Without executives recognizing the need to improve information management, meaningful change is slow, and sometimes impossible. To significantly increase the rate of change requires new technologies, new processes, and new ways of doing business.

Practice 2: Get line management involved and create ownership

Line ownership and accountability starts with the chief executive, who sets clear expectations and places responsibility for information management decisions and results with line executives who deal directly with the customer. Without such accountability, it is too easy to improperly delegate decision-making, accept project delays, or fail to discern the loss of projected benefits.

Practice 3: Take action and maintain momentum

A willingness to take action and maintain momentum is the difference between lip service and real improvement. Because of existing barriers to improving information management, leading organizations give considerable attention to initiating the change process and ensuring that it maintains momentum.

DIRECT CHANGE

Establish an outcome-oriented, integrated strategic information management process

Practice 4: Anchor strategic planning in customer needs and mission goals

Almost every organization has mission and information planning processes and plans. But the most effective strategic business and information management planning processes are both

tightly linked and anchored, not to bureaucratic requirements, but to explicit goals that meet external customer needs. Successful information systems are defined not only as the ones delivered on time and within budget, but also as those that produce meaningful improvements in cost, quality, and timeliness of service.

Practice 5: Measure the performance of key mission delivery processes

Successful organizations rely heavily on performance measures to define mission goals and objectives, quantify problems, evaluate alternatives, allocate resources, track progress, and learn from mistakes. Good performance measures define the information needed to perform a mission well and allow organizations to learn objectively and consistently over time. They also measure whether information technology projects really make an impact on mission outcomes.

Practice 6: Focus on process improvement in the context of an architecture

Information technology projects that do not consider process redesign typically fail or reach only a fraction of their potential, while process improvement efforts that ignore technology usually leave significant opportunities on the table. Further, when many independent process improvements are pursued in an uncoordinated and unorganized fashion, chaos, incompatibility, and fragmentation can result. To reduce risks and maximize the benefits of process improvements across an entire enterprise, an architecture (i.e., shared standards and rules for processes, data, and technology) is vital.

Practice 7: Manage information systems projects as investments

Leading organizations manage proposed information systems projects as investments, rather than expenses. Moreover, senior management teams use a disciplined process to select, control, and evaluate all major information systems projects. This disciplined process ensures that dollars are put to work where the needs are greatest and the returns on investment are highest.

Practice 8: Integrate the planning, budgeting, and evaluation processes

Successful organizations pay close attention to integrating the planning, budgeting, and performance measurement processes. This helps force the linkage of information systems efforts to the mission, provides tight controls during implementation, and allows regular assessments to ensure that benefits accrue. Without links to planning, budgeting becomes a reactive exercise to priorities of the moment that are not weighed adequately against future needs. Without links to performance measurement, mistakes are either not discovered or are repeated. And without links to budgeting, plans become mere paper exercises in rationalization.

SUPPORT CHANGE
Build organizationwide information management capabilities to address mission needs

Practice 9: Establish customer/supplier relationships between line and information management professionals

The best-designed management processes in the world cannot work without defining roles and responsibilities (i.e., knowing who is going to do what). In successful organizations, line executives typically behave as the customers of information management support professionals by asserting control over information systems project funding and direction. Information management professionals then act as suppliers, working to support the line unit's effort to achieve a management objective, make a critical decision, or solve a problem.

Practice 10: Position a Chief Information Officer as a senior management partner

Establishing a Chief Information Officer as a senior management partner is critical to building an organizationwide information management capability. In successful organizations, the Chief Information Officer typically serves as a bridge between top management, information management units, and line management. Although the Chief Information Officer is no substitute for institutionalized information management processes, this person--working closely as a peer--helps line executives change how they manage information resources and technology assets.

Practice 11: Upgrade skills and knowledge of line and information management professionals

Lasting improvements in information management are impossible without upgrading the knowledge and skills of executives, managers, and information management professionals. In the rapidly evolving world of information technology, remaining current is vital. Organizations that fail to improve themselves continuously become literally trapped in antiquated skill bases, which then become an anchor inhibiting the organization's ability to change.

1.4 Organization and Use of the Toolkit

The toolkit is designed to be flexible enough to accommodate different analytical approaches and levels of scope. It contains two sets of assessment tools that differ primarily in the level of detail and analysis required to complete them. First, the **diagnostic tools** provide a way for the agency to conduct a *quick, preliminary assessment* of key strategic information management practices, which have been grouped into six categories (described in section 3). Using criteria statements and suggested questions, the assessment team can work with agency management to understand how well the SIM practices are currently being applied and to score the agency at a specific maturity level using a four point benchmark scale. Using the diagnostic tools, the team can quickly determine which practices warrant more in-depth attention over others and establish priorities for detailed assessment work. In other situations, an assessment team might decide that enough is already known about the agency's relative strengths and weaknesses to skip the diagnostic phase and immediately select specific management practices for a detailed assessment. The critical point is for the assessment team to carefully consider how to use the diagnostic tools to most effectively complete a meaningful and results-focused assessment. It is important to recognize, however, that the diagnostic tools are not intended to be used alone. A detailed review of some or all of the practices needs to be done in order to obtain an in-depth understanding of the weaknesses that need to be improved and to develop a specific action plan that will yield useful results.

The **detailed assessment tools** (described in section 4) drive the analysis down to a lower level of detail and provide greater specificity for assessing individual management practices. These tools are similar in design to the diagnostic tools (i.e., assessment questions and benchmark scales), except that each of the 11 SIM practices is treated separately and in more detail.

2.0 INITIATING A SIM SELF-ASSESSMENT

2.1 Critical Success Factors

Doing a SIM self-assessment can be a time-consuming, resource-intensive effort. Conducting such an exercise on top of the agency's pressing day-to-day operations and management matters is not a trivial task. For the assessment to be conducted seriously and successfully, the following preconditions should be fully considered:

- *Executive leadership and commitment to the project is essential, both at the career and political levels*

Executive management must fully support the self-assessment, understand and communicate its purpose, and commit to using it as a basis for initiating changes designed to improve the agency's mission performance.

- *Joint program and IRM management involvement is required*

This exercise cannot be successful if it is conducted solely by the information management and technology professionals in the agency. In order for the agency to determine how well it is managing its information and technology assets in ways that produce effective mission results, the agency's program and business units must be actively involved in assessing current conditions and suggesting means of improvement.

- *An assessment team equipped with knowledge of strategic information management and IRM skills should be dedicated on a full-time basis to manage the effort*

Although there is no recipe for team size or qualifications, it is essential that the agency dedicate staff on a full-time basis to plan, manage, and facilitate the SIM

assessment. Trying to manage this exercise on top of existing schedules and day-to-day responsibilities poses a great risk to the agency's ability to conduct it successfully in a timely and effective manner. Appointing a dedicated team also is a highly visible signal of top management support. The team should have a good cross-sectional understanding of information management, technology, and program areas of the agency. Team members should include staff who are experienced in facilitating group discussions; possess good analytical, written, and oral communication skills; and are adept in project management.

- *Management must commit to follow through with an action plan for improvement*

Using the results of the assessment to support and devise needed information management improvements clearly demonstrates to the agency rank and file that the effort is being taken seriously by top management.

2.2 Decisions About Project Scope and Direction

Agency management and the assessment team should consider several important factors concerning project scope and direction before starting a SIM self-assessment. First, agency management must decide whether the focus of the assessment should be organizationwide, encompassing all major mission areas, or focus on a single mission area and its related organizational components. This decision should weigh the size, structure, and organizational complexity of the agency against time, available resources, and the overall goals of the assessment.

Second, agency management should consider how the project will balance the assessment and benchmarking dimensions (i.e., determining scores and level of maturity) against the desire to produce real change. Agencies can fall into a trap of expending tremendous energy on producing "correct" benchmark scores and lose perspective on learning from the exercise and

using it as a way to more effectively apply IRM strategies and processes to achieve demonstrated improvements in mission outcomes.

Third, an agency can consider starting the assessment by focusing exclusively on readily known and identified SIM weaknesses and corresponding opportunities for change. Beginning the assessment with known problem areas might assist the agency in constructing corrective actions responsive to internal management studies or external oversight reviews.

Fourth, the agency should consider how a SIM self-assessment can effectively augment or potentially conflict with other ongoing management improvement efforts, such as total quality management projects, process improvement initiatives, or strategic planning sessions. In particular, resource commitments, deadlines, priorities, and expected payoffs of these competing projects have to be weighed against those expected from the SIM assessment.

2.3 Using a Standard Process Is Critical to Success

Based on our experience, GAO also suggests that the assessment team use a structured approach that incorporates the following four elements: (1) *educating* the assessment team and key senior agency managers on the SIM practices and self-assessment process and reaching consensus on a well-conceived project plan that is aggressively managed with disciplined milestones and deliverables; (2) *assessing* existing agency SIM practices using data collection templates in this guide and then *benchmarking* the agency using the associated benchmark scales; (3) *interpreting* the benchmarking results and transmitting the results to agency executives; and (4) *devising an action plan* for improvement that establishes priorities, separates short-term improvements from long-term ones, and emphasizes measuring demonstrated results. A sample work plan for a team carrying out a self-assessment is shown in table 2.

Table 2: Sample Work Plan for a SIM Self-Assessment

Step 1: Educate top management on the content and application of SIM practices and how to best proceed with a self-assessment	Step 2: Gather data needed to assess each of the 11 SIM practices; conduct diagnostic and/or detailed benchmark sessions	Step 3: Interpret benchmarking results and advise top management on potential changes to facilitate SIM improvements
<p>Activities/work steps:</p> <ol style="list-style-type: none"> 1. Discuss GAO best practices report and toolkit 2. Answer questions about specific examples of the 11 SIM best practices 3. Assemble reference materials 4. Create a project assessment team and <ol style="list-style-type: none"> (a) establish scope, constraints, caveats (b) set benchmarking prioritization and sequencing (c) agree on roles, responsibilities, and expectations (d) determine project schedules & milestones (e) establish data sharing mechanisms (f) agree on expected outcomes/briefings/products (g) agree on benchmarking evaluation/scoring procedures 	<p>Activities/work steps:</p> <ol style="list-style-type: none"> 1. Determine composition of data/information bundles necessary to assess agency on each practice 2. Collect data/conduct interviews 3. Familiarize participants with scoring methodology used to benchmark each practice 4. Determine benchmarking scores 5. Discuss areas and methods for improvement 	<p>Activities/work steps:</p> <ol style="list-style-type: none"> 1. Interpret reasons behind benchmarking scores 2. Crosswalk benchmarking scores with previous SIM reviews 3. Establish prioritization for areas needing improvement (in sync with general SIM reforms underway or planned) 4. Communicate urgency of addressing these issues to agency top management
<p><i>Outputs:</i></p> <ul style="list-style-type: none"> Project plan Establish in-house agency compendium of best practices materials and references Establish agency focal points for best practices Listing of external people and organizations for reference 	<p><i>Outputs:</i></p> <ul style="list-style-type: none"> Resource packages for current agency practices/policies pertaining to each of the SIM best practices Staff paper documenting scoring summary for each practice 	<p><i>Outputs:</i></p> <ul style="list-style-type: none"> Issue analysis summary Action plan on what changes are necessary to achieve improvements

3.0 DIAGNOSTIC PHASE

3.1 Objectives

The diagnostic phase is designed to help an assessment team identify the practices critical to the agency's success that seem to be most at risk. This preliminary assessment will *quickly* compare the agency's strategic information practices against the leading practices *at a high level*. The purpose is to identify, prioritize, and select the most serious weaknesses for further, detailed review.

3.2 Description of the Six Diagnostic Areas

To speed the diagnostic phase, the 11 management practices have been combined into six higher-level groupings. The "decide to change" practices are treated as one unit, as are the "support change" issues. In addition, the strategic planning practice is combined with the practice of integrating strategic planning with budgeting and other strategic processes, since they are closely related. These diagnostic areas and key assessment questions are summarized below.

- *The Importance of Information Management to the Agency Mission*

Have agency executives and senior managers initiated short- and long-term changes, using information resources, to help resolve mission problems and improve performance?

- *Strategic Planning, Budget, and Evaluation Integration*

Does the agency operate by an integrated strategic management process that is based on internal and external customer needs, links planning to budget and investment decisions, and uses performance assessment to revise strategic plans?

- *Measure the Performance of Key Mission Delivery Processes*

Does the agency effectively use mission delivery and IRM performance measures to gauge how well the agency meets the needs of key external customers?

- *Focus on Process Improvement in the Context of an Architecture*

Is the agency focusing IRM goals, strategies, and resources on core business process improvement within the context of an organization-wide architecture?

- *Manage Information and Information Technology Projects as Investments*

Does the agency use an investment review board (IRB) led by executive managers to make IRM investment decisions, including initial funding decisions for proposed projects and periodic reviews throughout the project life cycle?

- *Build Organization-Wide Capabilities to Address Mission Needs*

Has the agency established clear roles for line managers and information resource managers as internal customers and suppliers, positioned a Chief Information Officer (CIO) as a senior manager, and established a professional development program for line and IRM managers?

3.3 Assessment Procedures

During the diagnostic phase, the assessment team will complete three tasks:

- use a relatively small number of review questions to gather high-level information about the agency's strategic management practices in each of the six diagnostic areas;
- use benchmark scales for each of the six diagnostic areas to assess the maturity of the agency's management practices against the practices of leading organizations, and
- determine which of these diagnostic areas should be the subject of a detailed review.

Each of the six diagnostic areas has two types of tools: a *diagnostic table* and a *benchmark scale*.

The *diagnostic table* for each of the six areas begins by listing the critical issues to be assessed. The significance of the issues is then briefly noted. Following this is a set of criteria statements that indicate what leading organizations do in this area. Each criteria statement includes a set of questions to help you probe your agency's actual practices in order to determine how closely they match the criteria statement. The questions are key ones, but should be treated as suggestions only; you may need to tailor them to unique agency situations. The questions are accompanied by typical information sources, either documents or interviews with agency officials. At this stage, you should be very selective about the amount of information you gather. Remember that the intent of the diagnostic phase is to quickly scope out *potential* management problems for detailed review.

The *benchmark scale* in each diagnostic area allows you to rank your agency based on the extent to which it follows the criteria statements described above. The benchmark scale is divided into four columns, representing four levels of maturity in applying information management practices. *Unstructured* (level 1) means that the agency has not defined policies

or procedures for implementing the management practices. *Being defined* (level 2) means that policies are being written that call for the expected practices, but they have not yet been put in place. *Being implemented* (level 3) means that appropriate IRM policies and processes have been designed and are being followed in parts of the agency, but they may not be consistently followed. *Institutionalized* (level 4) means that the agency has fully adopted the IRM practices called for, applies them consistently, and improves them through a feedback loop. Figure 2 shows an example of a benchmark scale. Notice that items on the scale are divided roughly diagonally, with *negative characteristics* (in italic) dominating the two left columns.

Figure 2: Sample Benchmark Scale

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 4:
FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE**

Critical Issue: *Is the agency focusing IRM goals, strategies, and resources on core business process improvement within the context of an organization-wide architecture?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>There is no agency-wide program for process improvement, or the existing program does not effectively target a small number of core business processes.</i> <input type="checkbox"/> <i>Improvement techniques (e.g., TQM, BPR) are not selected to match the specific problems they are intended to solve.</i> <input type="checkbox"/> <i>Improvement projects are stovepipe efforts, not integrated or guided by agency architectures.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>An agency-wide improvement program is being established that includes BPR.</i> <input type="checkbox"/> <i>Core business processes have been defined, and BPR projects are easily distinguished from other improvement efforts.</i> <input type="checkbox"/> <i>Core processes have not been sufficiently analyzed for needed improvements, with expected process outcomes redefined.</i> <input type="checkbox"/> <i>Improvement priorities and project selection methods are not established.</i> <input type="checkbox"/> <i>Process improvement projects are not always strongly linked to customer needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>An established process improvement program is in place.</i> <input type="checkbox"/> <i>Senior executives set priorities for improvement projects to ensure that they are directed at core processes.</i> <input type="checkbox"/> <i>Comprehensive architectural standards covering data, systems, and business models have not been established to allow integration among the projects.</i> <input type="checkbox"/> <i>Implementation plans lack well-defined performance indicators that link to customer needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The agency engages in BPR or other process improvement efforts, focused on order-of-magnitude improvements in cost, quality, or customer service. Expected payoffs and risks are defined and understood by top executives.</i> <input type="checkbox"/> <i>Projects are customer-oriented and focused on core business processes.</i> <input type="checkbox"/> <i>The organization consistently follows comprehensive architectural standards that govern data and technology as well as procedures for mapping key processes and information flows.</i>
<p>Preliminary Assessment of Risk and Opportunities for Improvement:</p>			

Figure 3 illustrates the correspondence between the criteria statements in the diagnostic table and the specific characteristics of the highest maturity level ("institutionalized") in the benchmark scale. The correspondence may be on-to-one, as illustrated in the figure, or the criteria statement may flow into two or more of the "institutionalized" characteristics. This close correspondence is designed to make it easier to move from the questions and data collection to the data analysis--which in this case means deciding where to place your agency on the scale.

Figure 3: Relationship of Diagnostic Table to Benchmark Scale

DIAGNOSTIC AREA 4: FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE		BENCHMARK SCALE: AREA 4: FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE	
<p>Critical Issue: <i>Is the agency focusing IRM goals, strategies, and resources on core business process improvement within the context of an organization-wide architecture?</i></p> <p>Significance: Achieving dramatic improvements in the way federal agencies meet the needs of the public is a driving force behind efforts such as the National Performance Review and the Government Performance and Results Act. To achieve these results, agencies must select appropriate improvement techniques, ranging from continuous quality improvement efforts to radical changes in basic work processes. Business process reengineering is a key element of an overall improvement program because it provides an approach for dramatically improving cost, quality, and speed of service within a relatively short time.</p>		<p>Implemented</p> <p>Institutionalized</p>	
Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	Implemented	Institutionalized
<p>1. The agency engages in process improvement efforts to create order-of-magnitude improvements.</p> <ul style="list-style-type: none"> Does the agency have a process improvement program? Does the program include projects expected to result in order-of-magnitude improvements in cost, quality, and/or service delivery? 	<p>Documents:</p> <ul style="list-style-type: none"> Charter of the process improvement program Process improvement goals, strategies, and techniques Inventory of improvement projects 	<p>ed process program</p> <p>atives set</p> <p>projects that they are ore</p>	<p><input type="checkbox"/> The agency engages in BPR or other process improvement efforts, focused on order-of-magnitude improvements in cost, quality, or customer service. Expected payoffs and risks are defined and understood by top executives.</p>
<p>2. Improvement projects are customer-oriented and focused on core business processes.</p> <ul style="list-style-type: none"> Has the agency identified its customer needs, and the core processes which service those customer needs? Do the improvement projects focus on core mission delivery processes? 	<p>People:</p> <ul style="list-style-type: none"> Senior executives BPR project team CIO and head of IRM operations 	<p>standards</p> <p>z, systems, models</p>	<p><input type="checkbox"/> Projects are customer-oriented and focused on core business processes.</p>
<p>3. The agency uses information and IT architectures to support its process improvement.</p> <ul style="list-style-type: none"> Do the agency's architectures include standards for data, hardware, and software structures, and a standard configuration management process? Do internal customers and top managers participate in defining the standards and architectures? 	<ul style="list-style-type: none"> Reengineering project plans Agency data standards and systems architecture standards Performance indicators 	<p>to allow among the</p> <p>on plans</p> <p>ined</p> <p>indicators</p> <p>customer</p>	<p><input type="checkbox"/> The organization consistently follows comprehensive architectural standards that govern data and technology as well as procedures for mapping key processes and information flows.</p>
<p>Typical Problems: Agencies may not have a well-developed process improvement program in place that provides a robust variety of improvement techniques. Agencies may not understand their customers' needs or the work processes in place to meet customer needs, and may lack performance measures to determine how well they meet those needs. Improvement efforts may be leading to the development of more stovepiped information systems because the agency lacks architectural standards to guide major changes in information systems that result from reengineering.</p>			

In scoring a diagnostic area, you should place the agency at a given maturity level unless it fully meets the positive characteristics of that level. In other words, being "almost a level 3" would be scored as a "level 2." Data collection for the diagnostic phase should take advantage of group interviewing techniques, supplemented with individual interviews and limited document analysis. You may save time and stimulate discussion by setting up group interviews that bring together individuals responsible for different aspects of one issue, such as IRM investment decisions.

3.4 Identifying Areas for Detailed Review

For each criteria statement listed in each of the six diagnostic areas, you should determine whether there is evidence of problems that should be explored in more detail. If your agency has not developed or implemented all of the management practices described under "institutionalized" in a particular area, you should flag that area for *possible* additional work. A summary sheet is provided at the end of the diagnostic phase to roll up the results of your benchmark assessments.

If the summary chart shows that two or three areas are rated low on their benchmark scales, you should probably plan to target those practices for detailed review. If you find that all or most of the areas are at low levels of maturity, you may need to reduce the list by considering other factors, such as

- agency priorities and judgments about which practices address its most serious performance problems;
- congressional interests and concerns;
- feasibility or receptivity of the agency to improve a selected practice; and

- your judgment on which of the 11 practices offer the most payoff for your agency, or make the most sense as a first step in a long-range improvement process.

The assessment team should discuss this selection with top agency executives and look for opportunities to get buy-in from them on what the improvement priorities should be. Agreement at this early stage could lead to a more positive outcome at the end of the assignment, when you will recommend an action plan for improvement.

3.5 Outputs

The diagnostic phase should produce two outputs. First is a short summary of your initial assessment, identifying areas of greatest concern in the agency's IRM practices. The summary should include some initial observations on IRM problems and what the agency could do to make improvements. Second, the assessment team should prepare a project plan, showing a work breakdown for carrying out a more detailed assessment of targeted practices. The detailed review section, described in section 4, will provide you with more comprehensive issues, questions, and criteria for you to use in assessing the 11 practices on an individual basis.

3.6 The Diagnostic Tools: Tables, Benchmark Scales, and Summary Sheet

The remaining pages of this section contain the tables and scales for each of the 6 diagnostic areas. At the very end of this section are the summary sheets to help you record the results of the benchmark exercise. Each of the criteria statements within the 6 diagnostic areas corresponds to a row on the summary sheet.

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Diagnostic Assessment Tools

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DIAGNOSTIC AREA 1: THE IMPORTANCE OF INFORMATION MANAGEMENT TO THE AGENCY MISSION

Critical Issue: *Have agency executives and senior managers initiated short- and long-term changes, using information resources, to help resolve mission problems and improve performance?*

Significance: Often, a federal organization's approach to managing information resources takes a short-term focus. Line managers are not aware of information management issues, nor are they held accountable for effectively resolving those issues. Planning processes are closely tied to existing ways of doing business. The result is that IRM strategies often have little relationship to critical line operational information needs and technological support requirements.

Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	
<p>1. Agency officials regularly assess their mission performance and identify potential contributions of IRM.</p> <ul style="list-style-type: none"> • Has the agency identified and assessed its critical mission performance problems and improvement opportunities? • Has the agency assessed the potential for using information resources in addressing those improvement opportunities? • Have executives and senior managers communicated to all staff a clear commitment to make improvements in agency operations? 	<p>Documents:</p> <ul style="list-style-type: none"> • Analysis of current condition, assessment of environment, emerging needs, and changing technologies • Action plan for improvement • Inventory of improvement projects that are planned or underway, with objectives and milestones • Organization strategic and operational plans • Performance measurement data 	<p>People:</p> <ul style="list-style-type: none"> • Senior executives • CIO • Program heads • IRM operations head • Internal "champions" of IRM improvement efforts
<p>2. Line managers are held accountable for achieving program results through the use of IRM.</p> <ul style="list-style-type: none"> • Do senior executives hold line managers accountable for meeting their goals of improving mission performance with information management? • Are line managers involved in making critical information management decisions? 		
<p>3. Agency executives balance short-term and long-term approaches to improving IRM performance.</p> <ul style="list-style-type: none"> • Have senior officials made changes in their IRM goals or activities when crises or significant changes to the agency's environment have occurred? • Does the agency have short- and long-term IRM goals and milestones? • Have senior managers recognized and supported champions for IRM improvement efforts? 		

Typical Problems: This issue could be a concern in the agency if there is little or no mention of IT applications as one way to address agency mission delivery problems, although other agencies with similar problems have made heavy use of IT. Another indicator might be that the IRM plan is prepared and signed off by IRM professionals. In this case, executives and program managers may have limited knowledge of what the IRM strategic plan lays out as goals and objectives, how key information resource decisions are made, or how strategic and operational IRM plans are implemented.

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 1:
THE IMPORTANCE OF INFORMATION MANAGEMENT TO THE AGENCY MISSION**

Critical Issue: *Have agency executives and senior managers initiated short- and long-term changes, using information resources, to help resolve mission problems and improve performance?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior line management does not recognize the strategic potential of information resources. Instead, they see IRM as an administrative function that has little or nothing to do with accomplishing program objectives.</i> <input type="checkbox"/> <i>Senior officials do not have a strategic vision that indicates how IT will be used to improve mission performance.</i> <input type="checkbox"/> <i>Line managers do not lead information management improvement efforts.</i> <input type="checkbox"/> <i>Agency officials focus primarily on short-term problems, not on establishing long-term IRM objectives and goals.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Agency officials have identified a set of programs that are dependent on or could be improved with information management, and are assessing their information requirements.</i> <input type="checkbox"/> <i>Senior line managers are beginning to take responsibility for strategic business decisions, in which IT solutions play a part.</i> <input type="checkbox"/> <i>There are few if any concrete ideas about how to change the agency, using information resources.</i> <input type="checkbox"/> <i>Senior line managers generally delegate IRM-related decisions to the IRM unit.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Agency officials have assessed the performance of their most visible and/or critical program functions.</i> <input type="checkbox"/> <i>Senior managers are actively involved in making technology decisions based on their program requirements.</i> <input type="checkbox"/> <i>Key activities, such as putting champions in place to encourage change, are underway.</i> <input type="checkbox"/> <i>Few proposed changes in IRM are fully in place. Their benefits have not yet been demonstrated.</i> <input type="checkbox"/> <i>There is still confusion about line manager responsibilities in the development of information systems.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Agency officials regularly assess their mission performance and identify potential contributions of IRM. They set priorities for improving mission performance through effective IRM.</i> <input type="checkbox"/> <i>Line managers are held accountable for achieving program results through the use of IRM.</i> <input type="checkbox"/> <i>Agency executives balance short-term and long-term approaches to improving IRM performance. They have designated internal champions for IRM improvement actions.</i>

Preliminary Assessment of Risk and Opportunities for Improvement:

DIAGNOSTIC AREA 2: INTEGRATION OF STRATEGIC PLANNING, BUDGET, AND EVALUATION

Critical Issue: Does the agency operate using an integrated strategic management process that is based on internal and external customer needs, links planning to budget and investment decisions, and uses performance assessments to revise strategic plans?

Significance: Federal agencies are required to conduct multi-year strategic planning. Strategic planning and budget requests should demonstrate how information technology will be acquired and operated to support mission and program needs. However, for many federal agencies, strategic planning and its integration with budgeting and evaluation is a cumbersome, paper-intensive process that rarely focuses on producing results for the public. Overall, decisions do not fit together into a strategic management framework that starts with agency strategic planning and ends with performance assessments, serving as input to follow-on strategic planning.

Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	
<p>1. Agency officials (a) identify and periodically reassess needs and priorities of customer groups, (b) incorporate needs into plans and goals, and (c) match products and services to customer groups.</p> <ul style="list-style-type: none"> • Has the agency identified its internal and external customer groups and assessed their needs? • Has the agency focused its strategic mission planning on the highest priority customer needs and mission goals? • Has the agency matched its specific products or services to the needs of customer groups? 	<p>Documents:</p> <ul style="list-style-type: none"> • Agency business and IRM strategic plans • IRM operational plans • Description of the strategic planning process • Agency guidance and requirements for budget and planning processes 	<p>People:</p> <ul style="list-style-type: none"> • Key internal customers • Representatives of selected external customer groups • Senior program officials • CIO • Senior executives (political appointees)
<p>2. Strategic planning, budgeting, and evaluation processes are (a) fully integrated, and (b) used to make key program improvement and IT investment decisions.</p> <ul style="list-style-type: none"> • Does the agency use these strategic processes to make key decisions on program budgets and information system investments? • Are outputs of one process used as inputs to another? • Are decisions consistent across the processes? 		

Typical Problems: Integration is a concern in agencies whose planning, program, budget, and analysis organizations communicate at arms length and interact more as adversaries than as allies. As a result, key strategic directions and resource allocation decisions are made on an *ad hoc* basis, not as part of an overall strategic management framework. For example, strategic plans are not used to prepare operational plans, budget decisions, or evaluation activities.

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 2:
INTEGRATION OF STRATEGIC PLANNING, BUDGET, AND EVALUATION**

Critical Issue: *Does the agency operate using an integrated strategic management process that is based on internal and external customer needs, links planning to budget and investment decisions, and uses performance assessments to revise strategic plans?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Agency decision-making is neither strategic nor based on a systematic review of customer needs and mission objectives.</i> <input type="checkbox"/> <i>Decision-makers often have only an intuitive sense of what the customer or the program really need.</i> <input type="checkbox"/> <i>Major IRM decisions, affecting customers and programs, are left to mid-level managers who have only limited awareness of program issues.</i> <input type="checkbox"/> <i>Strategic planning is not integrated into other key management processes such as budgeting, investment selection, or program evaluation.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The agency is identifying its customers and business goals, and preparing strategic plans to address those customer groups.</i> <input type="checkbox"/> <i>IRM is not explicitly linked to mission objectives or customer needs.</i> <input type="checkbox"/> <i>Agency products and services are not matched to specific customer groups.</i> <input type="checkbox"/> <i>Strategic management processes are not being integrated. Planning, budgeting, and implementation cycles are not feeding into one another. Resource decisions are made independently of planning decisions or measured performance.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Agency officials have identified the major needs of internal and external customer groups.</i> <input type="checkbox"/> <i>Strategic plans link to other strategic management processes, with the impact of IT considered as part of this integrated process.</i> <input type="checkbox"/> <i>Progress against expected performance is evaluated irregularly and is not linked back to planning or investment decisions.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Agency officials identify and periodically reassess the needs and priorities of its internal and external customer groups.</i> <input type="checkbox"/> <i>The agency incorporates customer needs into the goals and objectives of its strategic and operational plans.</i> <input type="checkbox"/> <i>Agency officials match their products and services to customer groups.</i> <input type="checkbox"/> <i>Strategic planning, budgeting, and evaluation processes are fully integrated in a comprehensive strategic management framework.</i> <input type="checkbox"/> <i>Strategic management processes are used to make key program and investment decisions.</i>
<p>Preliminary Assessment of Risk and Opportunities for Improvement:</p>			

DIAGNOSTIC AREA 3: MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES

Critical Issue: Does the agency effectively use mission delivery and IRM performance measures to gauge how well the agency meets the needs of key external customers?

Significance: Performance measures should play a key role in demonstrating whether the agency is meeting its mission goals and objectives. Some of these measures will focus on the delivery of services to the public, independent of information resources. Other measures will track the usefulness of information systems maintained for use by internal customers. The Government Performance and Results Act of 1993 requires that all agencies establish strategic planning and performance measurement systems. The act allows for a seven-year phase-in period for pilot projects to demonstrate the use of performance measures, administrative discretion for federal managers, and the use of performance indicators in budgeting. In addition, federal agencies that provide services directly to the public are required by executive order 12862 (Sept. 11, 1993) to measure and track public satisfaction with their services. Finally, the Chief Financial Officers Act of 1990 requires that measures of program performance be addressed in financial statements.

Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	
<p>1. The agency consistently uses a mix of outcome and efficiency performance measures to assess the impact of information management activities on mission delivery and productivity.</p> <ul style="list-style-type: none"> • What performance measures does the agency use to track its program and IRM operations? • Do these performance measures reflect the quality of customer service? • Are the performance measures periodically reviewed and adjusted to improve their usefulness? 	<p>Documents:</p> <ul style="list-style-type: none"> • Agency performance management and budgeting plans and directives • Agency annual reports and financial statements • Program and IRM strategic plans • BPR process models • Performance measures and performance data 	<p>People:</p> <ul style="list-style-type: none"> • Senior program officials • Management analysis division staff • IT project managers and contractor team leaders • Controller and budget staff
<p>2. Managers use performance data in key management processes. They use baselines and benchmarks as tools for developing improvement goals.</p> <ul style="list-style-type: none"> • How are performance indicators used to influence key program or IRM decisions? • Is performance measured against internal or external baselines or benchmarks? 		

Typical Problems: Performance measures can be a concern in a variety of ways. First, the agency may have performance measures that only focus on outputs or internal activities, such as number of staff involved in a mission delivery activity, or measures that are of only one type, such as financial measures. Second, the agency may have too many measures, none focused on the "vital few" to help managers assess performance and potential problem areas and target attention on correcting critical problem areas. Or the agency may have the right measures, but little is being done with them in terms of agency decision-making.

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 3:
MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES**

Critical Issue: *Does the agency effectively use mission delivery and IRM performance measures to gauge how well the agency meets the needs of key external customers?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>The agency cannot measure what it is accomplishing, for whom, or at what cost.</i> <input type="checkbox"/> <i>Decision-making is based on untested assumptions rather than measurable customer needs and strategic objectives.</i> <input type="checkbox"/> <i>Line managers cannot judge the mission usefulness of IT since information management measures are not incorporated in business requirements.</i> <input type="checkbox"/> <i>IRM effectiveness is assessed independent of program outcomes.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Some IRM performance measures are in place.</i> <input type="checkbox"/> <i>The agency is beginning to develop new performance targets based in part on comparisons with other organizations and on feedback from internal customer groups.</i> <input type="checkbox"/> <i>Performance measures are focused on outputs (e.g., number of reports or amount of data) rather than mission outcomes, and are used inconsistently.</i> <input type="checkbox"/> <i>Program and investment decisions are not consistently based on performance data.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Outcome-oriented performance measures are in place for specific IRM products and services.</i> <input type="checkbox"/> <i>Management processes are beginning to make consistent use of performance data in decision-making.</i> <input type="checkbox"/> <i>Performance targets are based on internal analysis or baselines, and on some external benchmarks.</i> <input type="checkbox"/> <i>Performance measures are not re-evaluated periodically for relevance.</i> <input type="checkbox"/> <i>Managers do not consistently link program performance to IRM products or services.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The agency consistently uses a mix of outcome and efficiency performance measures to assess the impact of information management activities on mission delivery and productivity.</i> <input type="checkbox"/> <i>Performance measures are periodically reviewed and adjusted to improve their usefulness.</i> <input type="checkbox"/> <i>Program and IRM managers use performance data in key management processes, including continuous improvement.</i> <input type="checkbox"/> <i>Senior managers use benchmarks as a tool for developing improvement goals for program and IRM objectives.</i>
<p>Preliminary Assessment of Risk and Opportunities for Improvement:</p>			

DIAGNOSTIC AREA 4: FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue: *Is the agency focusing IRM goals, strategies, and resources on core business process improvement within the context of an organization-wide architecture?*

Significance: Achieving dramatic improvements in the way federal agencies meet the needs of the public is a driving force behind efforts such as the National Performance Review and the Government Performance and Results Act. To achieve these results, agencies must select appropriate improvement techniques, ranging from continuous quality improvement efforts to radical changes in basic work processes. Business process reengineering is a key element of an overall improvement program because it provides an approach for dramatically improving cost, quality, and speed of service within a relatively short time.

Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	
<p>1. The agency engages in process improvement efforts to create order-of-magnitude improvements.</p> <ul style="list-style-type: none"> • Does the agency have a process improvement program? • Does the program include projects expected to result in order-of-magnitude improvements in cost, quality, and/or service delivery? 	<p>Documents:</p> <ul style="list-style-type: none"> • Charter of the process improvement program • Process improvement goals, strategies, and techniques • Inventory of improvement projects • Customer needs analyses • Reengineering project plans • Agency data standards and systems architecture standards • Performance indicators 	<p>People:</p> <ul style="list-style-type: none"> • Senior executives • BPR project leaders • CIO and head of IRM operations
<p>2. Improvement projects are customer-oriented and focused on core business processes.</p> <ul style="list-style-type: none"> • Has the agency identified its customer needs, and the core processes which service those customer needs? • Do the improvement projects focus on core mission delivery processes? 		
<p>3. The agency uses information and IT architectures to support its process improvement.</p> <ul style="list-style-type: none"> • Do the agency's architectures include standards for data, hardware, and software structures, and a standard configuration management process? • Do internal customers and top managers participate in defining the standards and architectures? 		

Typical Problems: Agencies may not have a well-developed process improvement program in place that provides a robust variety of improvement techniques. Agencies may not understand their customers' needs or the work processes in place to meet customer needs, and may lack performance measures to determine how well they meet those needs. Improvement efforts may be leading to the development of more stovepiped information systems because the agency lacks architectural standards to guide major changes in information systems that result from reengineering.

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 4:
FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE**

Critical Issue: *Is the agency focusing IRM goals, strategies, and resources on core business process improvement within the context of an organization-wide architecture?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>There is no agency-wide program for process improvement, or the existing program does not effectively target a small number of core business processes.</i> <input type="checkbox"/> <i>Improvement techniques (e.g., TQM, BPR) are not selected to match the specific problems they are intended to solve.</i> <input type="checkbox"/> <i>Improvement projects are stovepipe efforts, not integrated or guided by agency architectures.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>An agency-wide improvement program is being established that includes BPR.</i> <input type="checkbox"/> <i>Core business processes have been defined, and BPR projects are easily distinguished from other improvement efforts.</i> <input type="checkbox"/> <i>Core processes have not been sufficiently analyzed for needed improvements, with expected process outcomes redefined.</i> <input type="checkbox"/> <i>Improvement priorities and project selection methods are not established.</i> <input type="checkbox"/> <i>Process improvement projects are not always strongly linked to customer needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>An established process improvement program is in place.</i> <input type="checkbox"/> <i>Senior executives set priorities for improvement projects to ensure that they are directed at core processes.</i> <input type="checkbox"/> <i>Comprehensive architectural standards covering data, systems, and business models have not been established to allow integration among the projects.</i> <input type="checkbox"/> <i>Implementation plans lack well-defined performance indicators that link to customer needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The agency engages in BPR or other process improvement efforts, focused on order-of-magnitude improvements in cost, quality, or customer service. Expected payoffs and risks are defined and understood by top executives.</i> <input type="checkbox"/> <i>Projects are customer-oriented and focused on core business processes.</i> <input type="checkbox"/> <i>The organization consistently follows comprehensive architectural standards that govern data and technology as well as procedures for mapping key processes and information flows.</i>
<p>Preliminary Assessment of Risk and Opportunities for Improvement:</p>			

DIAGNOSTIC AREA 5: MANAGE PROJECTS AS INVESTMENTS

Critical Issue: Does the agency use an investment review board (IRB) led by executive managers to make IRM investment decisions, including initial funding decisions for proposed projects and periodic reviews throughout the project life cycle?

Significance: IRM projects are increasingly vital for mission performance. Budget constraints, increasing customer demands, and the integration of services across agencies and levels of government heavily rely on information resource capabilities. IRM projects are now recognized as being strategic investments--important for the agency's future--rather than as necessary expenses.

Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	
<p>1. The agency uses an investment review board (IRB) led by executive managers to make key investment decisions.</p> <ul style="list-style-type: none"> • Is there an IRB? • Does the IRB oversee all IT investments? • Are senior program and information managers involved as active members of the IRB? 	<p>Documents:</p> <ul style="list-style-type: none"> • IRB charter • IRB member list • IRB decision memoranda or other records of actions 	<p>People:</p> <ul style="list-style-type: none"> • IRB members • Line managers
<p>2. The IRB uses a disciplined process to select and review projects.</p> <ul style="list-style-type: none"> • What decision criteria does the IRB use to approve projects? • Does the board continue its reviews throughout a project's life cycle? 	<ul style="list-style-type: none"> • Selected IRB meeting minutes 	
<p>3. The IRB manages the proportions of expenditure on maintenance and strategic investments.</p> <ul style="list-style-type: none"> • Does the IRB determine how much the agency spends on maintaining systems versus new development projects? • What are the relative proportions of expenditure? 		

Typical Problems: An agency may not view information resource decisions as investment decisions. Instead, the agency may view an IT purchase as a short-term cost, not something for the long term benefit of the agency. The agency may not have a systematic way to make and hold to IT investment decisions. These decisions may be made by lower level managers, and only subject to pro forma senior management review. It may also be a cause for concern if the agency has an investment process, but the process is not based on well-understood criteria, or the decisions are frequently changed for reasons of expediency.

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 5:
MANAGE PROJECTS AS INVESTMENTS**

Critical Issue: *Does the agency use an investment review board (IRB) led by executive managers to make IRM investment decisions, including initial funding decisions for proposed projects and periodic reviews throughout the project life cycle?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>The agency has no central committee or review board, led by senior line managers, to make critical investment decisions.</i> <input type="checkbox"/> <i>Information system projects are justified, developed, and maintained by technical staff with little input from senior line managers.</i> <input type="checkbox"/> <i>There is no consistent process in place to apply management decision criteria to all phases of an information system life cycle.</i> <input type="checkbox"/> <i>More emphasis is placed on enhancing/maintaining current systems than developing strategic systems.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>An investment review board is in place, with technical specialists applying <u>ad hoc</u> decision criteria to proposed project selection.</i> <input type="checkbox"/> <i>Consistent system investment criteria are under development.</i> <input type="checkbox"/> <i>The board does not consistently oversee projects throughout their life cycles.</i> <input type="checkbox"/> <i>Investment review board meetings have no senior line management representation.</i> <input type="checkbox"/> <i>Projects are selected to meet immediate program needs, not strategic priorities.</i> <input type="checkbox"/> <i>Large, multi-year projects comprise the bulk of investment.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The investment review board involves senior managers in some capacity.</i> <input type="checkbox"/> <i>The agency is moving away from multi-year, high-risk projects toward a modular approach, with specific benefits expected of each module.</i> <input type="checkbox"/> <i>IT spending is being categorized by purpose, such as maintenance, enhancement, or new development.</i> <input type="checkbox"/> <i>Line manager involvement in IRM issues is not well defined.</i> <input type="checkbox"/> <i>The investment review board lacks authority to enforce its decisions.</i> <input type="checkbox"/> <i>The IRB does not enforce an appropriate balance between maintenance and strategic investments.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>All IRM investments are approved by the IRB, made up of senior program and information managers.</i> <input type="checkbox"/> <i>The IRB uses explicit decision criteria to select and manage all IRM projects.</i> <input type="checkbox"/> <i>The board reviews all projects throughout their life cycles. Levels and frequency of review depend on the benefits, risks, and costs of each project.</i> <input type="checkbox"/> <i>The IRB controls the scope and length of new projects to reduce risks and increase their probability of success.</i> <input type="checkbox"/> <i>Projects are clearly defined as strategic, maintenance, or development/enhancement. The IRB determines how much is invested in each type of project.</i>
<p>Preliminary Assessment of Risk and Opportunities for Improvement:</p>			

DIAGNOSTIC AREA 6: BUILD ORGANIZATION-WIDE IRM CAPABILITIES TO ADDRESS MISSION NEEDS

Critical Issue: *Has the agency established clear roles for line managers and information resource managers as internal customers and suppliers, positioned a Chief Information Officer (CIO) as a senior manager, and established a professional development program for line and IRM managers?*

Significance: This issue assesses an agency's efforts to build and maintain information management capabilities. In the past, line managers have delegated most aspects of information resource planning, design, and operations to technical professionals and consultants. IRM professionals needed to know little about mission delivery issues as they dealt with individual system delivery projects and applications. Today, however, information management is an inseparable part of mission delivery, as important as policies, people, finances, and facilities. Line managers should understand how IT applications are important to mission delivery strategies and performance. IRM personnel should have a better understanding of mission delivery to ask meaningful systems design questions, provide advice on emerging technologies, and assess the continued appropriateness of existing information resource services. IRM leadership should be an integral part of senior management.

Diagnostic Criteria and Suggested Assessment Questions	Potential Information Sources	
<p>1. Line managers identify information needs, while IRM professionals supply information products and services.</p> <ul style="list-style-type: none"> • Do line managers take the lead in identifying their information and performance needs? • How do IRM managers and staff support line managers with products and services? Do they measure satisfaction with their services? 	<p>Documents:</p> <ul style="list-style-type: none"> • Description of professional development program • CIO position description 	<p>People:</p> <ul style="list-style-type: none"> • Line managers • CIO • IRM operations managers
<p>2. A CIO is placed as an executive management partner.</p> <ul style="list-style-type: none"> • Does the position of CIO (or an equivalent) exist, and has it been filled with a person experienced in both IRM and general management? • Is the CIO seen as credible and effective in improving IRM strategies and service delivery? 	<ul style="list-style-type: none"> • Inventory of IRM skill requirements for line and IRM staff. • Training program (types of courses, availability) 	
<p>3. The agency has a professional development program for line and information resource managers.</p> <ul style="list-style-type: none"> • Does the agency assess skills and training needs? • Does the agency provide line managers with IRM training, and IRM officials with training on mission delivery? 		

Typical Problems: The agency may have a problem in this area if line managers have little knowledge of or training in IRM, and consistently delegate IRM decisions to technical professionals or consultants. Another indicator is the placement of the IRM function several levels below the agency head, precluding significant top management attention.

**BENCHMARK MATRIX FOR DIAGNOSTIC AREA 6:
BUILD ORGANIZATION-WIDE IRM CAPABILITIES TO ADDRESS MISSION NEEDS**

Critical Issue: *Has the agency established clear roles for line managers and information resource managers as internal customers and suppliers, positioned a Chief Information Officer (CIO) as a senior manager, and established a professional development program for line and IRM managers?*

<i>Unstructured</i> 1	<i>Being Defined</i> 2	<i>Being Implemented</i> 3	<i>Institutionalized</i> 4
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line and IRM managers rarely benefit from one another's respective expertise when developing mission-based IT decisions.</i> <input type="checkbox"/> <i>Line managers do not assess the adequacy of information services, while IRM managers do not look for or use line staff feedback.</i> <input type="checkbox"/> <i>The CIO, if there is one, has duties other than IRM and has weak IRM qualifications.</i> <input type="checkbox"/> <i>The CIO does not or cannot act as an advisor to senior line managers.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line and IRM managers are defining their respective roles and responsibilities.</i> <input type="checkbox"/> <i>The CIO has IRM skills and participates, at least some of the time, in agency improvement efforts as a bridge between IRM and line managers.</i> <input type="checkbox"/> <i>The agency is cataloging its current and future IRM skills requirements.</i> <input type="checkbox"/> <i>IRM managers are not evaluated based on their contributions to business solutions.</i> <input type="checkbox"/> <i>Senior line officials do not depend on the CIO to help develop solutions.</i> <input type="checkbox"/> <i>Line and IRM managers work poorly together because information management responsibilities are vague and inconsistent.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line/IRM multi-disciplinary teams have been formed, and current and future IRM skills have been identified.</i> <input type="checkbox"/> <i>The CIO works with program managers to implement IT solutions, and line managers depend on the CIO's expertise.</i> <input type="checkbox"/> <i>Program costs and benefits are not always taken into account by IRM managers.</i> <input type="checkbox"/> <i>IRM managers do not use feedback from program managers in evaluating the quality of information services.</i> <input type="checkbox"/> <i>The CIO is well versed in either IRM or general management, but not both.</i> <input type="checkbox"/> <i>Senior managers do not provide sufficient resources for training to improve skills.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line managers identify their critical requirements for IRM support or services. They provide regular feedback on the quality and timeliness of service they receive from IRM units.</i> <input type="checkbox"/> <i>IRM professionals are held responsible for providing services and support to line managers and staff.</i> <input type="checkbox"/> <i>A CIO is placed as an executive management partner. Executives and senior line managers rely on the CIO's IRM expertise and recognize his or her contributions.</i> <input type="checkbox"/> <i>The agency has a professional development program for line and information resource managers, creating a broad skill base. The agency provides sufficient resources for training.</i>

Preliminary Assessment of Risk and Opportunities for Improvement:

3.7 Determining Where to Focus a Detailed Review

You should use the following chart to summarize the results of your diagnostic assessment. The criteria listed below are the same as those shown in each of the preceding six diagnostic areas. The chart will help you get a quick overview of how all the diagnostic areas were scored, and which ones are of special concern because of their low maturity level. Note that each diagnostic area has practice numbers in parentheses which refer to the 11 practices found in the detailed review section. These are the practices you could select to review in detail for the diagnostic areas that are weak.

Diagnostic Criteria	Maturity Level			
	1	2	3	4
<i>Diagnostic Area 1: Agency officials regularly assess their mission performance and identify potential contributions of IRM. (practice 1)</i>				
<i>Diagnostic Area 1: Line managers are held accountable for achieving program results through the use of IRM. (practice 2)</i>				
<i>Diagnostic Area 1: Agency executives balance short-term and long-term approaches to improving IRM performance. (practice 3)</i>				
<i>Diagnostic Area 2: Agency officials (a) identify and periodically reassess needs and priorities of customer groups, (b) incorporate needs into plans and goals, and (c) match products and services to customer groups. (practice 4)</i>				
<i>Diagnostic Area 2: Strategic planning, budgeting, and evaluation processes are (a) fully integrated, and (b) used to make key program improvement and IT investment decisions. (practice 8)</i>				
<i>Diagnostic Area 3: The agency consistently uses a mix of outcome and efficiency performance measures to assess the impact of information management activities on mission delivery and productivity. (practice 5)</i>				
<i>Diagnostic Area 3: Managers use performance data in key management processes. They use baselines and benchmarks as tools for developing improvement goals. (practice 5)</i>				
<i>Diagnostic Area 4: The agency engages in process improvement efforts to create order-of-magnitude improvements. (practice 6)</i>				
<i>Diagnostic Area 4: Improvement projects are customer-oriented and focused on core business processes. (practice 6)</i>				
<i>Diagnostic Area 4: The agency uses information and IT architectures to support its process improvement. (practice 6)</i>				

Diagnostic Criteria	Maturity Level			
	1	2	3	4
<i>Diagnostic Area 5: The agency uses an investment review board (IRB) led by executive managers to make key investment decisions. (practice 7)</i>				
<i>Diagnostic Area 5: The IRB uses a disciplined process to select and manage projects. (practice 7)</i>				
<i>Diagnostic Area 5: The IRB manages the proportions of expenditure on maintenance and strategic investments. (practice 7)</i>				
<i>Diagnostic Area 6: Line managers identify information needs, while IRM professionals supply information products and services. (practice 9)</i>				
<i>Diagnostic Area 6: A CIO is placed as an executive management partner. (practice 10)</i>				
<i>Diagnostic Area 6: The agency has a professional development program for line and information resource managers. (practice 11)</i>				

4.0 DETAILED REVIEW

4.1 Objective

The objective of the detailed review is to (1) fully review the management practices individually and in more depth than in the diagnostic phase, and (2) recommend specific actions for improvement.

4.2 Procedures

The toolkit in this section is similar in design to the diagnostic phase. The key difference is that the practices are no longer grouped into six categories. Instead, each practice is treated separately. There is at least one benchmark scale for each practice, and some of the more complex practices have two or three scales. Each practice includes:

- a description of the critical issues to be assessed,
- some advice to consider in pursuing the issues,
- potential information sources,
- criteria statements that describe the ideal conditions that you would like to see for the practice, and
- key questions to ask to get the information you need to place the agency on the accompanying benchmark scale.

You will use this material to perform an in-depth assessment for each of the practices you selected for detailed review at the end of the diagnostic phase. Essentially, you are following

the same assessment procedures as in the diagnostic stage. Using the criteria statements and questions, you work with people in your agency to (1) understand how well they are currently applying the management practices and (2) place the agency at a specific maturity level on the benchmark scale.

4.3 Analysis of Strengths and Weaknesses

As you review each practice in detail, you should summarize your observations, conclusions, and proposed recommendations for helping your agency to move up the benchmark scale over time. The agency's place on the benchmark scale, coupled with your interviews and review of relevant documents, should enable you to be specific about what aspects of the practice your agency is doing well, and what steps it needs to take in order to move up the scale.

4.4 Core Recommendations for the 11 Practices

The following are core recommendations for each of the 11 practices. They are general in nature and are appropriate in helping nearly any agency, large or small, get off to a good start. You should consider making these recommendations in cases where the agency has not begun to implement the practice(s) that are found to be at a low maturity level following a detailed review.

- *Practice 1: Recognize and Communicate the Urgency to Change Information Management Practices*

To make a convincing business case for change, senior executives should:

- initiate a thorough review of (1) current performance, (2) information systems spending, (3) projected versus realized results, and (4) major information management problems; and

-- benchmark information management practices against leading organizations-- preferably chosen according to objective data or recognized criteria.

- *Practice 2: Get Line Management Involved and Create Ownership*

To increase line management accountability for the mission impact of information management decisions, senior executives should:

-- establish an organizationwide information management steering committee chaired by the chief executive and led by senior line management, and

-- identify executive-level sponsors for each major information systems project.

- *Practice 3: Take Action and Maintain Momentum*

To initiate an improvement program and maintain its momentum, senior executives should:

-- educate senior line management through a combination of conferences, training, co-location and rotation programs at all levels, and joint visits with information management professionals to organizations that use technology well; and

-- identify an informed, committed opinion-leader to be a champion in supporting information management improvement.

- *Practice 4: Anchor Strategic Planning in Customer Needs and Mission Goals*

To begin linking information systems more closely to customer needs and mission goals, senior executives should:

- choose at least one major mission area to specifically define customer groups and needs (i.e., those identified through mandated customer surveys) and integrate this mission area with strategic business and information plans, and
- choose at least one major information system initiative and determine if its key requirements will meet both external and internal customer needs.

- *Practice 5: Measure the Performance of Key Mission Delivery Processes*

To assess the mission value of information management, senior executives should:

- identify outcome-based measures of accomplishment for a major mission area and benchmark performance against a comparable organization, public or private; and
- charter senior management teams to develop measures that specifically assess (1) the contribution of information systems investments to mission performance and (2) the performance of the internal information management organization.

- *Practice 6: Focus on Process Improvement in the Context of an Architecture*

To begin focusing strategic resources on process innovation in the context of an architecture, senior executives should:

- task a senior management team to lead a high-level analysis of the organization's main business processes, and identify and sponsor a major process improvement opportunity; and
- appoint both a business and an information architect--reporting to the information management steering committee--to facilitate the design and maintenance of an organizational architecture (e.g., work processes, information flows, and technology).

- *Practice 7: Manage Information Systems Projects as Investments*

To hold line managers more accountable for project selection, delivery, and rigorous reporting, senior executives should:

- task a team to develop decision criteria for selecting and evaluating major information systems projects; and
- institutionalize a process to propose, select, develop, and evaluate the results of all information systems investments.

- *Practice 8: Integrate the Planning, Budgeting, and Evaluation Processes*

To begin integrating all the elements of an integrated strategic planning cycle, senior executives should:

- choose one critical mission area, if possible limited in scope, to fully integrate business and information planning, systems planning, budgeting, and performance evaluation; and

-- task a senior management team to design and implement an annual management performance report as an input to strategic planning.

- *Practice 9: Establish Customer/Supplier Relationships Between Line and Information Management Professionals*

To get line and information managers working together, senior executives should:

-- institute a regular survey of line management's satisfaction with the information management organization's quality, cost, and responsiveness; and

-- require every information systems project team to define line and information management roles throughout the entire project life cycle.

- *Practice 10: Position a Chief Information Officer as a Senior Management Partner*

To articulate information management's role in mission improvement, senior executives should:

-- recruit or promote a qualified professional with a track record of results to serve as a Chief Information Officer, reporting directly to the Secretary; and

-- task the Chief Information Officer to participate in a line management effort that identifies major opportunities to use information systems to enhance performance.

- *Practice 11: Upgrade Skills and Knowledge of Line and Information Management Professionals*

To upgrade information management capability, senior executives should:

- systematically identify information management skill targets and gaps for both line managers and information management professionals, and
- fully integrate skill and knowledge requirements in performance evaluations and promotion criteria.

4.5 Organization-Specific Recommendations

In addition to the generic, core recommendations that apply to organizations that are just getting started in the practices, you should look for opportunities to develop recommendations that are tailored to the specific situations you have found at your agency. In general, the criteria statements in each practice can be transformed into a specific recommendation for action, if the agency is deficient in that area.

You should work with your agency's top management to develop an action plan that indicates how the organization plans to go about implementing the recommended actions. Remember that it takes time to implement the practices and bring them up to a "leading organization" level (see section 1.2). The implementation steps should be measurable over time, so that the agency can demonstrate the progress it is making.

4.6 Outputs/Deliverables

The assessment team's deliverables for this phase are a characterization of the strengths and

weakness in the agency's information management practices. This characterization will be used to develop an action plan recommending general and specific steps for improvement.

4.7 Detailed Review Tools

The material that follows are the detailed, practice-by-practice assessment tools. You should use these to review the management practices that you identified in the diagnostic phase as warranting further review. Or, if you wish, you can simply select practices that are of particular interest or concern to your agency without going through a diagnostic exercise.

Detailed Review Tools for the 11 Practices

Practice 1. RECOGNIZE AND COMMUNICATE THE URGENCY TO CHANGE INFORMATION MANAGEMENT PRACTICES

Critical Issue: *Have senior executives assessed how IRM contributes to mission performance, and communicated an urgent business case for improving IRM management if necessary?*

Advice to the Assessment Team: One of the most important motivators for IRM change is executive and senior management activities and behaviors. They have to make the business case for change and communicate it widely in the organization. You should look for "hands on" involvement in IRM decision-making, communications, and follow-up evaluation activities, such as senior executives asking for information and assessments of mission performance and raising questions that relate IRM decision-making to mission delivery decisions. IRM professionals may be initial facilitators or catalysts for the change, but senior executives must take on the actual leadership of IRM change.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, public relations personnel; organization internal and external communications such as newsletters, memos, or press releases; organization strategic mission and operational plans; IRM strategic and operational plans.

Conditions To Look For & Assessment Questions

1. Senior executives identify and assess the organization's critical mission performance issues and problems.

- Do senior executives identify and assess mission performance issues?
- Do the executives have a systematic way to identify and assess these issues?
- Have the mission performance problems been qualitatively and quantitatively assessed in outcome-oriented terms?
- Have the mission performance problems been prioritized?

2. Senior executives directly link these mission performance issues and problems to crucial IRM strategies, activities, and current and emerging information technology applications that can strengthen mission performance.

- Do senior executives' behavior and activities demonstrate that importance is placed on IRM strategies, activities, and IT applications as key management areas?
- If there are mission performance problems, have shortcomings in IRM effectiveness or efficiency been directly related to these problems?
- Have senior executives taken action to operationalize a strong decision-making relationship between IRM strategies, activities, and IT applications and mission delivery?
- Have there been positive results from those actions?
- Have senior executives helped overcome difficulties encountered in linking mission performance problems to IRM strategies, activities, and IT applications?

Practice 1. RECOGNIZE AND COMMUNICATE THE URGENCY TO CHANGE INFORMATION MANAGEMENT PRACTICES

Critical Issue: *Have senior executives assessed how IRM contributes to mission performance, and communicated an urgent business case for improving IRM management if necessary?*

3. Senior executives, using all available communication channels, make the business case for changing to a management approach that integrates IRM decision-making with mission operations organization-wide.

- Do senior executives use benchmarking or self-evaluation results in formulating a strong business case for IRM decision-making in the organization?
- Are internal and external communication channels used to communicate the business case for change?
- Are the main communicators at the right level and/or positions to make the business case heard?
- Is the business case made often through communication channels?
- Are senior executives working closely with the Congress, OMB, and GSA to explain the case for IRM change?

4. The organization establishes an IRM performance baseline by benchmarking against leading organizations (e.g., comparable organizations) to challenge accepted habits and set appropriate targets for change.

- Is external IRM benchmarking done? What organizations are benchmark partners?
- Did the organization use a formal or systematic approach in conducting the benchmarking?
- Has benchmarking been used to drive improvement efforts or confirm retention of existing practices?

Typical Problems:

- Senior management is uneducated and unaware of the critical importance of strategic information management.
- There are few or no fact-based efforts to assess and diagnose information management problems.

PRACTICE 1: RECOGNIZE AND COMMUNICATE THE URGENCY TO CHANGE INFORMATION MANAGEMENT PRACTICES

Critical Issue: *Have senior executives assessed how IRM contributes to mission performance and communicated an urgent business case for improving IRM, if necessary?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives see no need to identify and assess mission performance issues and problems--performance is seen as satisfactory.</i> <input type="checkbox"/> <i>Senior executives have not identified or assessed the linkage between mission performance and IRM.</i> <input type="checkbox"/> <i>The organization has never assessed its IRM practices</i> <input type="checkbox"/> <i>The organization has never benchmarked its IRM performance or collected baseline IRM data.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives are identifying their mission performance issues and problems.</i> <input type="checkbox"/> <i>Senior executives have asked for input on the relationship between mission performance issues and problems and existing IRM activities and IT applications.</i> <input type="checkbox"/> <i>Senior executives rarely mention the business case for change, leaving that to senior IRM officials.</i> <input type="checkbox"/> <i>Senior executives are in the early stages of defining IRM practices and any need to change.</i> <input type="checkbox"/> <i>The organization is developing a plan to gather baseline IRM data.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives assess mission performance issues and problems.</i> <input type="checkbox"/> <i>Senior executives link mission performance issues and problems to existing IRM strategies, activities, and IT applications.</i> <input type="checkbox"/> <i>Senior executives are completing a business case for changing IRM practices.</i> <input type="checkbox"/> <i>The organization has begun to benchmark IRM practices against leading organizations.</i> <input type="checkbox"/> <i>Senior executives are communicating the business case for IRM change only informally and inconsistently.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives identify and assess critical mission performance issues and problems.</i> <input type="checkbox"/> <i>Senior executives directly link these performance issues and problems to IRM strategies, activities, and current and emerging IT applications.</i> <input type="checkbox"/> <i>Senior executives use formal and informal communication channels to make the business case for integrating IRM into decision-making organization-wide.</i> <input type="checkbox"/> <i>The organization establishes an IRM performance baseline by benchmarking against leading organizations to challenge accepted habits and set appropriate change targets.</i>

Practice 1 Notes: Organization-Specific Findings and Recommendations

Practice 2. GET LINE MANAGEMENT INVOLVED AND CREATE OWNERSHIP

Critical Issue: *Do senior managers provide IRM leadership and make program (line) managers accountable for the mission impact of IRM and for making critical IRM decisions?*

Advice to the Assessment Team: Senior managers should exhibit IRM leadership and use their behavior and activities to encourage program (line) managers to take charge of IRM decision-making and assume accountability for IRM results. You should look for very specific behavior and activities, such as the organization head including IRM issues in his or her top executive team meetings or setting strategic IRM goals with specific performance targets. IRM decision-making should not be delegated three or four levels down in the organization.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff; management meeting minutes; organization strategic and operational mission plans, IRM strategic and operational plans; performance measurement plans and measures; individual manager performance goals.

Conditions To Look For & Assessment Questions

1. The organization head actively leads the information management steering committee and participates in IRM decisions with senior executives.

- Is the organization's head involved in setting, evaluating, or controlling either organization-wide or other IRM strategies and issues?
- What IRM decisions, if any, does the organization head make on a routine basis?
- What are the roles and responsibilities of the steering committee, and who are its members?
- Are IRM decisions totally delegated to one of the organization head's deputies or lower in the organization? If so, which ones?
- Does the organization head exhibit behaviors and activities that show strong IRM leadership?

2. The organization head sets and communicates clear IRM performance goals for all management levels, and holds line executives and managers accountable for choosing, supporting, and ensuring effective implementation of IRM decisions and IT solutions.

- Does the organization head set individual IRM evaluation criteria for the various management levels?
- Does the organization head communicate the existence and content of the IRM goals to the rest of the organization?
- Do line managers view themselves as accountable for the effective application of information technology and for the overall IRM program?
- Does the organization head set individual IRM evaluation criteria for the various management levels?
- Are there other incentives besides performance goals and accountability that encourage line management ownership of IRM decisions?

3. Line managers take the initiative in defining information needs and driving IRM solutions and IT applications.

- Do line managers actively work with IRM professionals in defining their information needs for mission delivery?
- Are these information needs well-defined and adequate to devise IRM strategies? Information technology applications?
- Do line managers periodically define their IRM strategies and how effective they are for mission delivery?

Practice 2. GET LINE MANAGEMENT INVOLVED AND CREATE OWNERSHIP

Critical Issue: *Do senior managers provide IRM leadership and make program (line) managers accountable for the mission impact of IRM and for making critical IRM decisions?*

4. Political and career officials work together in the organization to develop management processes that will ensure continuity of management decision-making and commitment for multi-year IRM projects.

- Are political officials--other than the organization head--significantly involved in the organization's IRM decision-making?
- What type of IRM decisions do political officials make, if any?
- How does the organization promote joint political and career official IRM decision-making?
- Does the organization provide for decision continuity and commitment when political leaders change?

Typical Problems:

- IRM department is the primary driving force within the organization for strategic information management; senior line managers see it as someone else's job.
- Few incentives are in place to encourage senior line managers to pay attention or devote significant amounts of time to the issue of information management.

PRACTICE 2: GET LINE MANAGEMENT INVOLVED AND CREATE OWNERSHIP

Critical Issue: *Do senior managers provide IRM leadership and make program (line) managers accountable for the mission impact of IRM and for making critical IRM decisions?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization head and senior executives do not hold line managers accountable for ensuring that IRM supports the accomplishment of the agency's mission</i> <input type="checkbox"/> <i>Line managers do not have a role in actively developing IRM strategies and making decisions to plan, design, and implement information systems-- that is left to the IRM unit(s).</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization head has set an expectation that line senior executives and managers work closely with the IRM unit(s) to identify and resolve IRM problems.</i> <input type="checkbox"/> <i>A formal process exists to involve line managers in defining their information needs and making key IRM decisions.</i> <input type="checkbox"/> <i>Senior executive and manager responsibilities for IRM are defined in general terms only.</i> <input type="checkbox"/> <i>Senior executives and line managers delegate IRM decision-making to lower-level managers and only infrequently participate in decision-making.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization head has established an information management steering committee to lead IRM decision-making.</i> <input type="checkbox"/> <i>Criteria for management accountability for IRM decisions and IT solutions have been established.</i> <input type="checkbox"/> <i>Line managers participate in IRM project initiation, direction, and evaluation.</i> <input type="checkbox"/> <i>Political and career officials have not worked out the mechanisms to carry-out decision-making consistently for multi-year projects.</i> <input type="checkbox"/> <i>The steering committee's scope is not comprehensive; it does not meet at least quarterly and/or is not attended by senior managers personally.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization head actively leads steering committee and participates in IRM decisions with senior executives, including executive-level sponsors for IT projects.</i> <input type="checkbox"/> <i>The organization head sets and communicates clear IRM performance goals and holds senior and managers accountable for IRM decisions and IT solutions.</i> <input type="checkbox"/> <i>Line managers take the initiative in defining information needs and driving IRM solutions and IT applications.</i> <input type="checkbox"/> <i>Political and career officials work together to ensure continuity of management decision-making for multi-year IRM projects.</i>

Practice 2 Notes: Organization-Specific Findings and Recommendations:

Practice 3. TAKE ACTION AND MAINTAIN MOMENTUM

Critical Issue 1: *Do senior executives take both a short- and long-term approach to changing and improving IRM strategies and performance?*

Advice to the Assessment Team: Creating and implementing IRM change when appropriate requires both short and long-term strategies and taking advantage of opportunities for change. You should examine and assess how senior executives use opportunities, such as budget crises, new legislative or executive mandates, oversight audits, or other opportunities, to change IRM leadership and/or service delivery structure. In management meetings, senior executives should establish strategic goals and operational expectations for IRM unit(s). Learning about IRM and mission delivery should be encouraged by senior managers. At the individual level, there should be strong incentives to perform well in IRM areas.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, organization internal and external communications such as newsletters, memos, or press releases; organization strategic and operational mission plans; IRM strategic and operational plans; and job descriptions.

Conditions To Look For & Assessment Questions

1. Senior executives take advantage of short-term "windows of opportunity" (e.g., budget crises or leadership changes) to signal or reinforce the need for IRM improvement.

- Do senior managers identify crises or significant changes to the organization's operational environment as windows of opportunity for significant IRM change if needed?
- Do senior executives make appropriate IRM improvements during these windows of opportunity?

2. Senior executives set clear, concise directions, goals, and milestones for its IRM unit(s) and assess IRM's impact on mission performance.

- Do senior executives set out performance-oriented directions, goals, and milestones for the organization's IRM unit(s)?
- Are these directions, goals, and milestones clear and concise for implementation strategies?
- Do the directions, goals, and milestones cover short and long term actions and deliverables?
- Do senior executives track the results of changes in IRM, assess their impact on mission performance, and drive further improvement?
- Are short- and long-term actions and deliverables aligned?

3. Executives and senior managers maintain a transition strategy to align their information management program with future needs.

- Have executives determined how the agency will move from its short-term efforts to implement its long-term goals and strategies?
- Do the steps and timeframes of the transition plan appear reasonable given the size of the gap between the organization's current state of IRM and its future needs?

4. Senior executives expect line managers to be knowledgeable in how IRM is being or not being used to make a difference in mission performance, creating support for the improvement process.

- Do the senior executives demonstrate behaviors and activities that support educating line managers in IRM?
- Is senior management attention causing the behavioral change in how line management perceives IRM support for mission performance?

Practice 3. TAKE ACTION AND MAINTAIN MOMENTUM

Critical Issue 1: *Do senior executives take both a short- and long-term approach to changing and improving IRM strategies and performance?*

Typical Problems:

- There has been a lot of talk and lip service about the need to improve IRM, but little action.
- An initially strong effort for IRM improvement has languished for want of follow-through because of senior executive turnover and lack of institutionalization.

PRACTICE 3: TAKE ACTION AND MAINTAIN MOMENTUM

Critical Issue 1: *Do senior executives take both a short- and long-term approach to changing and improving IRM strategies and performance?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Organization officials do not identify windows of opportunity for changing IRM performance.</i> <input type="checkbox"/> <i>Managers do not assess how effectively their IRM strategies and applications meet short-term opportunities, or prepare the organization for better long-term results.</i> <input type="checkbox"/> <i>Managers have no transition strategies to guide implementation of new initiatives.</i> <input type="checkbox"/> <i>Line managers see no need to increase their IRM knowledge; the agency has not mapped out a long-term IRM program.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Short-term demands or problems that create opportunities for change are recognized and provide impetus for better IRM support of mission performance.</i> <input type="checkbox"/> <i>Senior managers have a policy that IRM should base its goals on strategic organizational goals and objectives.</i> <input type="checkbox"/> <i>Agency still lacks a transition strategy to align IRM program with future mission strategies, objectives, and needs.</i> <input type="checkbox"/> <i>There is little incentive for line managers to increase their knowledge of IRM and its impact on mission performance.</i> <input type="checkbox"/> <i>Information systems or other IT actions are not systematically assessed on the basis of their contribution to short- and long-term needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives regularly scan their internal and external environments to identify opportunities for using IRM to support improvements in mission performance.</i> <input type="checkbox"/> <i>Senior executives have initiated an IRM program whose strategic directions and goals are driven by mission strategies and objectives.</i> <input type="checkbox"/> <i>Senior managers direct transition planning to guide future use of information resources.</i> <input type="checkbox"/> <i>Senior executives direct line managers to become more knowledgeable about IRM and how it can support program performance.</i> <input type="checkbox"/> <i>Line managers do not reassess opportunities and improvement actions regularly.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives take advantage of short term "windows of opportunity" to signal or reinforce IRM improvement.</i> <input type="checkbox"/> <i>Senior executives set clear, concise directions, goals, and milestones for their IRM program and assess IRM's impact on mission performance.</i> <input type="checkbox"/> <i>Executives and senior managers maintain a transition strategy to align their information management program with future mission needs.</i> <input type="checkbox"/> <i>Senior executives expect line managers to be knowledgeable about how IRM is or is not making a difference in mission performance.</i>

Practice 3 Notes - Critical Issue 1: Organization-Specific Findings and Recommendations

Practice 3. TAKE ACTION AND MAINTAIN MOMENTUM

Critical Issue 2: *Do senior executives assign effective line managers as champions to shepherd IRM improvement initiatives, and provide incentives for them and other managers to resolve performance problems?*

Advice to the Assessment Team: IRM change also requires day-to-day help from a credible and visible "champion" who takes advantage of opportunities for change. You should examine and assess how senior executives position a champion to constantly facilitate, control, and track improvement initiatives. A line manager (or support manager if the activity involves a support function) should be set up as the bridge between the senior executive team and IRM professionals. He or she should have defined responsibilities for reporting to the senior executive team and authority for resolving issues such as "turf" battles and resource issues.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff.

Conditions To Look For & Assessment Questions

1. Senior executives designate and support high-level champions to facilitate IRM activities day-to-day in key business processes.

- Do senior managers identify line managers as champions in IRM areas?
Are these line managers from business process areas that rely heavily on or should rely heavily on IRM practices and applications?

2. The champions have clear "proactive" roles, responsibilities, and authority that are adequate to resolve problem areas at a high level.

- Have senior managers laid out the roles, responsibilities, and authority for the designated champions?
- Do the champions have sufficient authority in the organizations to fulfill expectation for the roles and responsibilities they have?
- Are the champions accountable for real, meaningful improvements in IRM and IT applications?

3. The champions are effective in fulfilling their roles and responsibilities, and report regularly to executives and senior managers.

- Are the champions' roles and responsibilities well-understood and recognized in the organization?
- Are the champions performing their roles and responsibilities in line with senior management expectations?
- Do the champions report regularly to executives and senior managers, raising critical issues for top management attention?

4. Management performance reviews, bonuses, and/or promotion decisions include IRM dimensions that are directly related to mission service delivery improvements.

- Are IRM responsibilities and expectations listed in individual manager's performance reviews, bonus justifications, and/or promotion decisions?
- Is inclusion of IRM responsibilities and expectations making a demonstrated difference in improving IRM strategies and performance?
- Does the organization have other incentives to encourage IRM improvement?

Practice 3. TAKE ACTION AND MAINTAIN MOMENTUM

Critical Issue 2: *Do senior executives assign effective line managers as champions to shepherd IRM improvement initiatives, and provide incentives for them and other managers to resolve performance problems?*

Typical Problems:

- Champions are designated formally but then not supported when it comes to tough decisions, making them "paper tigers."
- All responsibility for making change happen is placed on the champions, who cannot change the whole system until incentives are readjusted.
- Champions chosen simply are not effective in catalyzing change.

PRACTICE 3: TAKE ACTION AND MAINTAIN MOMENTUM

Critical Issue 2: *Do senior executives assign effective line managers as champions to shepherd IRM improvement initiatives, and provide incentives for them and other managers to resolve performance problems?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives believe that existing management structures and responsibilities are enough to ensure line managers undertake "championing" roles.</i> <input type="checkbox"/> <i>Management performance reviews, bonuses, and/or promotion decisions do not include IRM dimensions.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives are developing the criteria for selecting high-level managers who can serve as champions.</i> <input type="checkbox"/> <i>Championing roles, responsibilities, and authority are under development but there is considerable resistance from some senior managers.</i> <input type="checkbox"/> <i>Champions are not yet in place in the organization.</i> <input type="checkbox"/> <i>Management performance reviews, bonuses, and/or promotion decisions include IRM factors only for those involved in major project implementation; these are included on an <u>ad hoc</u> basis.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives are now identifying managers with the skills and credibility to act as champions for their core business processes.</i> <input type="checkbox"/> <i>Championing roles, responsibilities, and authority are being formally established and communicated to the organization.</i> <input type="checkbox"/> <i>Lower level managers have been designated as champions until senior managers can be selected.</i> <input type="checkbox"/> <i>Management performance reviews, bonuses, and/or promotion decisions consider IRM dimensions, but on a limited basis.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Senior executives designate and support high-level champions to facilitate IRM activities day-to-day in key business processes.</i> <input type="checkbox"/> <i>The champions have clear proactive roles, responsibilities, and authority that are adequate to resolve problem areas at a high level.</i> <input type="checkbox"/> <i>The champions are effective in fulfilling their roles and responsibilities, and report regularly to executives and senior managers.</i> <input type="checkbox"/> <i>Management performance reviews, bonuses, and/or promotion decisions include IRM dimensions related to improvements in mission service delivery.</i>

Practice 3 Notes - Critical Issue 2: Organization-Specific Findings and Recommendations

Practice 4: ANCHOR STRATEGIC PLANNING IN CUSTOMER NEEDS AND MISSION GOALS

Critical Issue: *Do the organization's strategic business and IRM plans have goals that directly satisfy explicit, high-priority external and internal customer group needs?*

Advice to the Assessment Team: Despite the emphasis on customer service in today's government environment, most organizations have not defined well the internal and customer groups to whom they provide mission and related IRM services and products. Nor have they prioritized those customers in terms of their needs and the seriousness of the performance gap between what the organization delivers and what the customers expect. You should see if the organization has a complete list of all of its external and internal customer groups and if it does a systematic assessment each year of mission problems, including securing customer input, categorizing problems by customer group, and then planning corrective actions. IRM planning and projects should then be targeted at priority customers.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, external customers receiving direct services and products, and suppliers to the organization; customer surveys and performance reports; organization strategic and operational mission plans, IRM strategic and operational plans; IRM project reports.

Conditions To Look For & Assessment Questions

1. The organization specifically defines its products and services by internal and external customer groups and needs.

- Has the organization defined its major external customers? Internal customers?
- Has responsibility for identifying customer needs been assigned?
- Has the organization identified the specific needs of these groups?
- Have these needs been translated into appropriate products and services?
- Is the assessment updated periodically?

2. The organization links specific customer group needs to mission performance problems, and assesses opportunities to close the gap between performance and needs.

- Are performance issues being examined from a customer perspective?
- Does the organization relate needed improvements for mission delivery processes and services to specific customer group needs?
- Does the organization identify and obtain input from internal and external customers on mission delivery problems?

3. Strategic planning is based on services and outcomes considered highest priority by internal and external customers.

- Has the organization prioritized its customer needs?
- Did the organization resolve any conflicts and reach a consensus on highest priority customer needs?
- Has the organization used the priority listing to set strategic mission goals?
- Does the organization revise its mission goals so they remain relevant to changing circumstances in customer needs? Are customers involved in this process?

Practice 4: ANCHOR STRATEGIC PLANNING IN CUSTOMER NEEDS AND MISSION GOALS

Critical Issue: *Do the organization's strategic business and IRM plans have goals that directly satisfy explicit, high-priority external and internal customer group needs?*

4. *In line with mission goals, the organization tailors IRM products and services to priority customer group needs.*

- Does the organization use the customer priority listing to help make decisions about providing major IRM products and services?
- Do major IRM products and services reflect priority customer group needs?
- Are IRM products and services reviewed and adjusted often to reflect priority customer needs?

Typical Problems:

- The organizations's strategic planning is completely disconnected from end-of-the-line external customers (the public).
- Little attention is paid to the information or decision-making needs of external customers.

PRACTICE 4: ANCHOR STRATEGIC PLANNING IN CUSTOMER NEEDS AND MISSION GOALS

Critical Issue: *Do the organization's strategic business and IRM plans have goals that directly satisfy explicit, high-priority external and internal customer group needs?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Customers and their needs are not identified or linked to mission goals, problems, or opportunities.</i> <input type="checkbox"/> <i>Strategic plans and goals do not reflect customer priorities or a vision of service to internal and external customers.</i> <input type="checkbox"/> <i>IRM plans, products, and services are not linked to customer needs and mission goals.</i> <input type="checkbox"/> <i>System development projects are established without linkages to customer needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Customer groups are now being defined.</i> <input type="checkbox"/> <i>The organization is in the process of analyzing how mission issues and problems related to customer needs.</i> <input type="checkbox"/> <i>Products and services have been defined overall.</i> <input type="checkbox"/> <i>The strategic planning process is used to identify a limited set of mission goals.</i> <input type="checkbox"/> <i>Customer needs are still largely defined by management's perceptions, rather than directly from customers.</i> <input type="checkbox"/> <i>The organization has not established a need to align IRM products and services to customer needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization has categorized its internal and external customer groups and is now defining each group by its product, service, and needs.</i> <input type="checkbox"/> <i>The organization is assessing mission problems and how they link to customer group needs.</i> <input type="checkbox"/> <i>The organization is now restructuring its strategic planning process to better focus on customers and mission goals.</i> <input type="checkbox"/> <i>The organization is now assessing its IRM products and services, but has not tailored them to priority customer group needs.</i> <input type="checkbox"/> <i>Customer needs are not stated in qualitative and quantitative terms that can be used to set performance goals and measure how well goals are being met.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization specifically defines its products and services by internal and external customer groups and needs.</i> <input type="checkbox"/> <i>The organization links specific customer group needs to mission performance problems, and assesses opportunities to close the gap between performance and needs.</i> <input type="checkbox"/> <i>Strategic planning is based on services and outcomes considered highest priority by internal and external customers.</i> <input type="checkbox"/> <i>In line with mission goals, the organization tailors IRM products and services to satisfy the needs of priority customer groups.</i>

Practice 4 Notes: Organization-Specific Findings and Recommendations

Practice 5. MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES

Critical Issue 1: *Does the organization effectively use mission delivery and IRM performance measures to gauge how well the organization meets the needs of key external customers?*

Advice to the Assessment Team: As was indicated under Practice 4, strategic planning goals should be linked to the needs of customers. From the standpoint of mission delivery, meeting the needs of key external customers--those who are the intended recipients of government services and products--is paramount. The only way to see if those needs are met as well as they can be is through the use of performance measures. You should look for the organization to use a select number of external customer performance measures for each mission area and use performance reports in planning, budgeting, and evaluation decisions. IRM measures should move away from traditional IRM measures, such as those related to quality, quantity, cost, and cycle time of mission products and services, to external customers.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, and internal and external customers and suppliers; customer surveys and performance reports; organization strategic and operational mission plans, IRM strategic and operational plans.

Conditions To Look For & Assessment Questions

1. The organization identifies outcome-based performance measures for major mission areas that directly link to key external customer needs.

- Has the organization identified and developed outcome-based performance measures for every customer group that directly receives a product or a service?
- Are the perspectives of key external customers obtained and considered in developing performance measures?
- Do performance measures reflect external customer outcomes in terms of factors such as time, cost, quality, and quantity?
- Is there a balance of effectiveness and efficiency measures?

2. The organization develops specific performance measures for all IRM products and services that reflect mission outcome requirements.

- Has the organization identified and developed performance measures for IRM products and services?
- Do the IRM performance measures reflect mission outcome requirements?
- Did the organization obtain and consider the perspectives of customer groups in developing the IRM measures?

3. Customer groups periodically review, validate, and accept the IRM performance measures.

- Did customer groups review and validate IRM performance measures as they were developed?
- Have customer groups accepted the IRM measures?
- Is there a systematic way to get periodic customer review and validation as IRM measures change?

Practice 5. MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES

Critical Issue 1: *Does the organization effectively use mission delivery and IRM performance measures to gauge how well the organization meets the needs of key external customers?*

4. *Mission delivery and IRM performance measure analyses are built into planning, budgeting, and evaluation processes and decision-making.*

- Are performance trends and gap analysis provided at least once a year for executive management review?
- Are mission and IRM performance measures and reports used in the strategic management process of planning? budgeting? evaluation?
- Have these performance measures and reports significantly impacted these strategic management process decisions?

5. *Performance measurement data are demonstrably reliable.*

- Does the agency validate the reliability of the data it feeds into its performance measurement system?

Typical Problems:

- There is an overwhelming number of measures, with little differentiation between what is really vital versus what is marginally important.
- The performance data is of extremely poor quality or presentation, making it virtually meaningless.
- Few, if any, measures specifically attempt to determine the net contribution of information technology investments to mission performance.

PRACTICE 5: MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES

Critical Issue 1: *Does the organization effectively use mission delivery and IRM performance measures to gauge how well the organization meets the needs of key external customers?*

<p style="text-align: center;">Unstructured 1</p>	<p style="text-align: center;">Being Defined 2</p>	<p style="text-align: center;">Being Implemented 3</p>	<p style="text-align: center;">Institutionalized 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> The organization does not explicitly set annual performance goals for mission areas or IRM services. <input type="checkbox"/> There is no customer view, validation, or acceptance expected of organization performance. <input type="checkbox"/> Performance measures have not been developed for any mission areas. <input type="checkbox"/> The organization has not devoted much time or effort to defining IRM performance measures. <input type="checkbox"/> Little, if any, attempt is made to evaluate systems' contributions to program goals or outcomes. <input type="checkbox"/> Strategic decision-making is not driven by performance-based data. 	<ul style="list-style-type: none"> <input type="checkbox"/> The organization has defined performance measures for some key mission areas on a pilot basis. <input type="checkbox"/> Performance goals have been set for some key mission areas. <input type="checkbox"/> Customer involvement and validation of performance measures and goals is sporadic and informal. <input type="checkbox"/> The organization is defining some IRM performance measures, but most relate to traditional output measures, such as response times. <input type="checkbox"/> Strategic decision-making is only informally driven by performance-based data. <input type="checkbox"/> Performance data not regularly collected or maintained. <input type="checkbox"/> Trends and gaps in measured performance are not routinely evaluated or used as a basis for management action. 	<ul style="list-style-type: none"> <input type="checkbox"/> The organization is completing the process of defining performance measures for major mission areas, including specific IRM performance measures. <input type="checkbox"/> Customer groups are reviewing and validating IRM performance measures. <input type="checkbox"/> A process for routinely collecting, evaluating, and reporting performance measures is being established. <input type="checkbox"/> Too many measures are being used or considered for use, reflecting little differentiation between key outcomes vs. marginally important ones. <input type="checkbox"/> Existing mission delivery and IRM performance measure analyses are inconsistently used in strategic management processes <input type="checkbox"/> Integrity and reliability of performance data are inconsistent. 	<ul style="list-style-type: none"> <input type="checkbox"/> The organization has established a limited set of outcome-based performance measures in all major mission areas that directly link to key customer needs. <input type="checkbox"/> The organization develops specific IRM performance measures for all information products and services, which reflect mission outcome requirements. <input type="checkbox"/> Customer groups periodically review, validate, and accept the IRM performance measures. <input type="checkbox"/> Mission delivery and IRM performance measurement analyses are built into strategic management processes and decision-making. <input type="checkbox"/> Performance measurement data are demonstrably reliable.

Practice 5 Notes; Critical Issue 1: Organization-Specific Findings and Recommendations

Practice 5. MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES

Critical Issue 2: Does the organization identify and use internal and external benchmarking sources to assess its IRM performance?

Advice to the Assessment Team: One of the most powerful ways to motivate IRM change is benchmarking--either against an internal baseline within a function or with another part of the organization, or against an external leading organization in the same process or function. You should look to see if the organization has either done internal and/or external benchmarking and what it has done with the results of the benchmarking in strategic planning and setting performance goals. Since benchmarking is in an early stage in government, this may be an area where little is being done. If so, you should see if the organization has plans to institute benchmarking in the near future.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, benchmarking plans and reports; IRM strategic and operational plans

Conditions To Look For & Assessment Questions

1. *Senior managers are knowledgeable about benchmarking concepts and have designated staff to conduct IRM benchmarking activities.*

- Have senior managers been educated in benchmarking concepts and uses?
- Have senior managers designated staff to be in charge of IRM benchmarking?
- Are the staff trained in benchmarking and how to do IRM benchmarking?

2. *The organization has done IRM internal and/or external benchmarking that covers critical IRM performance areas.*

- Has the organization done either internal and/or external IRM benchmarking?
- If internal, has the organization established an internal baseline for all of its critical IRM performance areas?
- If external, has the organization picked credible benchmarking partners for its critical IRM activities?

3. *Senior managers use internal and/or external benchmarking results to improve IRM goals, activities, and overall performance.*

- Will IRM performance be assessed periodically against internal and/or external benchmarking information?
- Have decision-makers used benchmark results to set IRM performance goals and priorities?
- Is performance against the benchmarks tracked, analyzed, and reported over time?

Typical Problems:

- There are lots of performance goals and targets, but no benchmarks or reference points, usually because the organization is supposedly "unique."
- Benchmarks are established in low-value, easy-to-measure areas as opposed to high-value, hard-to-measure ones.

PRACTICE 5: MEASURE THE PERFORMANCE OF KEY MISSION DELIVERY PROCESSES

Critical Issue 2. Senior managers are knowledgeable about benchmarking concepts and have designated staff to conduct IRM benchmarking activities.

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> No internal or external studies assessing the organization's performance relative to others have been done recently. <input type="checkbox"/> Management does not support benchmarking efforts. <input type="checkbox"/> Variations in IRM performance goals, outcomes, and performance levels across the organization are not regularly examined or compared to facilitate learning and continuous improvement. <input type="checkbox"/> Program goals, outcomes, and desired performance levels are established without a benchmark reference as a baseline. 	<ul style="list-style-type: none"> <input type="checkbox"/> Management endorses benchmarking and is securing resources to commence new internal and external benchmarking. <input type="checkbox"/> The organization has collected internal historical information on IRM performance, but these have not been systematically analyzed against benchmark standards over time. <input type="checkbox"/> The available benchmark information has not been addressed by senior management action plans. 	<ul style="list-style-type: none"> <input type="checkbox"/> Management understands and endorses benchmarking to evaluate organizational performance. <input type="checkbox"/> The organization has done extensive IRM internal benchmarking and is planning external benchmarking activities. <input type="checkbox"/> There is only informal use of the existing internal benchmarking to set IRM performance goals, manage for results, and gauge changes in performance. 	<ul style="list-style-type: none"> <input type="checkbox"/> Senior managers are knowledgeable about benchmarking concepts and have designated staff to conduct IRM benchmarking activities. <input type="checkbox"/> The organization has done IRM internal and external benchmarking that covers critical IRM performance areas. <input type="checkbox"/> Senior managers use internal and external benchmarking results to improve IRM goals, activities and overall performance.

Practice 5 Notes; Critical Issue 2: Organization-Specific Findings and Recommendations

Practice 6. FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue 1: *Does the organization have an organization-wide architecture that provides the infrastructure for integrating reengineering applications over the long term?*

Advice to the Assessment Team: One of the major problems with any process improvement effort employing IRM strategies and information technology applications is the lack of an architecture to support those efforts. IRM projects targeted at business process improvement should be done within a well-defined architecture. Architectural components generally include integrated or consistent functional databases, uniform user interfaces, a coherent network platform, common systems, standards for information exchange, and applications that will fit together. Many organizations may have developed a comprehensive technology architecture covering standards for the hardware, operating systems environment, and applications software used in the organization; however, they may not have fully developed data and information exchange standards and principles, or network or telecommunications standards.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff; architecture standards and policies; business process improvement plans.

Conditions To Look For & Assessment Questions

1. *The organization has a defined organization-wide architecture for data, information exchange, uniform user interfaces, networking, and common systems and applications.*

- Does the organization have an architecture in place that is applicable to the entire organization?
- Does it cover data, information exchange, uniform user interfaces, networking, and common systems and applications?
- Are architectural standards and policies clear and comprehensive?

2. *The architecture is managed at a high level and with sufficient support, skills, and tools to ensure there is a master blueprint to integrate the information systems that support process improvement.*

- Does the organization have a person(s) or unit(s) responsible for architectural management?
- Is policy responsibility for architectural management placed at a high enough level in the organization to ensure organization-wide compliance?
- Is architectural management supported by sufficient personnel with the right skills?
- Are there tools--methodologies and other resources--available to support the integration of business process improvement and IRM planning and applications development?

3. *All process improvement efforts must meet architecture management standards; the architecture is adaptable to emerging technologies and process changes.*

- Are process improvement projects subject to compliance with architecture management requirements?
- Is the architecture adjusted in a systematic way to accommodate new technologies that are important to performance improvement?
- Is the architecture flexible enough to adjust to work process changes done as a part of reengineering or other process improvement efforts?

Practice 6. FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue 1: *Does the organization have an organization-wide architecture that provides the infrastructure for integrating reengineering applications over the long term?*

4. *The architecture permits some control and flexibility at the local level, facilitating local adoption of new business processes and supporting information systems.*

- Do the policies and architectural management program ensure the integration of critical information and information systems?
- Do the architecture policies and standards permit flexibility for local programs or units in adopting new business processes and supporting information systems?
- Are the standards effective in practice in permitting some local control and flexibility?

Typical Problems:

- Multiple process improvement efforts, large and small, are proceeding with little emphasis on an architecture to ensure interoperability and connectivity.
- Large and complex information engineering and architectural efforts are proceeding that represent very small incremental improvements in work processes.
- Processes are still defined in traditional *functional* terms, rather than as a limited number of organization-wide core processes.

PRACTICE 6: FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue 1: *Does the organization have an organization-wide architecture that provides the infrastructure for integrating reengineering applications over the long term?*

<p style="text-align: center;">Unstructured 1</p>	<p style="text-align: center;">Being Defined 2</p>	<p style="text-align: center;">Being Implemented 3</p>	<p style="text-align: center;">Institutionalized 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization sees no need to adopt a comprehensive architecture.</i> <input type="checkbox"/> <i>Architecture management is not defined as an important IRM management area and no tools are available for integration.</i> <input type="checkbox"/> <i>Management and staff have not recognized the need to integrate process improvement efforts with architectural requirements in order to promote interoperability and connectivity.</i> <input type="checkbox"/> <i>Local offices are left free to ignore any existing architectural requirements.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization is starting to define its comprehensive architecture.</i> <input type="checkbox"/> <i>Architecture management is under development.</i> <input type="checkbox"/> <i>Process improvement efforts, including reengineering, are not well integrated with current architectural requirements; work process and technology changes are only slowly brought into architectural requirements.</i> <input type="checkbox"/> <i>No tools, methodologies, or technologies are available to integrate information systems that support process improvement.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization has defined the technical standards for its comprehensive architecture, and is in the process of implementing it.</i> <input type="checkbox"/> <i>Architecture management is well defined; the organization is implementing it and has a good selection of tools for integration.</i> <input type="checkbox"/> <i>Not all process improvement efforts meet architectural requirements.</i> <input type="checkbox"/> <i>The current architecture severely limits local flexibility and control.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization has a defined, comprehensive, organization-wide architecture.</i> <input type="checkbox"/> <i>The architecture is managed at a high level and with sufficient support, skills, and tools to integrate information systems that support process improvement.</i> <input type="checkbox"/> <i>All process improvement efforts must meet architectural standards; the architecture is adaptable to emerging technologies & work process changes.</i> <input type="checkbox"/> <i>The architecture permits some flexibility for local innovation to improve mission effectiveness, while fostering the corporate goals of interoperability and sharing.</i>

Practice 6 Notes; Critical Issue 1: Organization-Specific Findings & Recommendations

Practice 6. FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue 2: *Are IRM goals, strategies, and resources focused on core business process improvement?*

Advice to the Assessment Team: IRM planning and budget requests should show that major IRM projects justify themselves as to how they support significant business process improvement. At present, most organizations are trying to define their core business processes and then prioritize them for improvement action. You should see to what extent organizations have clearly assessed business process improvement needs before they authorize major IRM projects. Projects already underway should be closely scrutinized from the same standpoint.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, OMB budget examiners; budget requests and project justifications; business process improvement plans; organization strategic and operational mission plans, IRM strategic and operational plans; project reports.

Conditions To Look For & Assessment Questions

1. All executives, senior managers, and key line managers and their staff have been trained in re-engineering and general process improvement.

- Does the organization ensure that re-engineering and general process improvement is a training priority?
- Is the training targeted at executives, senior managers, and key line managers and their staff?
- Have all key personnel received training in re-engineering and general process improvement?

2. The organization has identified and prioritized its core business processes, based on critical mission needs, to support a comprehensive process improvement program.

- Does the organization have an overall business process improvement program?
- Does the organization make a distinction between re-engineering and other process improvement approaches, and tailor the right approach to the results needed?
- Has the organization identified its core business processes?
- What core business processes has the organization identified?
- Has the organization prioritized the core business processes for improvement action based on critical mission needs?
- What are the priority core business processes?

3. For strategic investments, the organization selects IRM projects because they enable significant core business process improvement (i.e., 50% or more improvement in quality, quantity, cost, and cycle time) compared to those of current processes.

- Does the organization make decisions on what, if any, strategic IRM projects can enable core business process improvement?
- What type and level of process improvement is the general threshold for strategic IRM project selection?

4. The organization has a limited number of large-scale process improvement projects, consistent with organization resource and staff capacity.

- Does the organization use a systematic process to assess the number of large-scale projects it can handle in terms of resources and capacity?
- What are the organization's current and planned large-scale process improvement projects?
- Does the organization have the resources and capacity to handle them adequately over the time frames proposed?

Practice 6. FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue 2: Are IRM goals, strategies, and resources focused on core business process improvement?

5. The organization uses rapid prototyping and controlled deployment in its large scale improvement projects to minimize risk and provide benefits as soon as possible.

- Does the organization systematically use rapid prototyping and controlled deployment in implementing its projects?
- Has the organization had positive results from using rapid prototyping and controlled deployment in minimizing risk and providing benefits rapidly?

Typical Problems:

- Processes have been mistakenly identified as "core," when in fact they are not enterprise-wide, but functionally-driven.
- The organization has too many uncoordinated or undefined efforts going on. Some are in conflict with one another, while others never get off the ground.
- A massive, grand design approach to re-inventing the organization fails of its own weight.

PRACTICE 6: FOCUS ON PROCESS IMPROVEMENT IN THE CONTEXT OF AN ARCHITECTURE

Critical Issue 2: Are IRM goals, strategies, and resources focused on core business process improvement?

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization does not have an overall process improvement strategy.</i> <input type="checkbox"/> <i>Reengineering and process improvement are not well understood in the organization.</i> <input type="checkbox"/> <i>Core business processes are not defined or analyzed.</i> <input type="checkbox"/> <i>Reengineering and IRM efforts are coordinated on an <u>ad hoc</u> basis.</i> <input type="checkbox"/> <i>Proposed reengineering efforts are not based on assessments of resources and capacity.</i> <input type="checkbox"/> <i>Rapid prototyping and controlled deployment are not used as part of reengineering efforts.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Some executives, senior managers, and key line managers and staff have received training in process improvement and reengineering.</i> <input type="checkbox"/> <i>Core business processes are defined and the organization is developing a process improvement strategy.</i> <input type="checkbox"/> <i>Core business process analysis is used infrequently to select and prioritize IRM projects.</i> <input type="checkbox"/> <i>Reengineering projects are often "stand alone" efforts and only informally made part of a process improvement program.</i> <input type="checkbox"/> <i>Process improvement efforts are being driven primarily by IRM systems projects.</i> <input type="checkbox"/> <i>Rapid prototyping and controlled deployment are not used to implement reengineering projects.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Some executives, senior managers, and key line managers and staff are familiar with reengineering and process improvement, implications, and expected outcomes.</i> <input type="checkbox"/> <i>Core business processes are defined and are in the process of being modeled as the organization defines its improvement goals.</i> <input type="checkbox"/> <i>Core business process analysis is used to select and prioritize initial IRM projects, but exceptions are permitted.</i> <input type="checkbox"/> <i>Organizational reengineering capacity and available resources are identified but not rigorously assessed; projects proceed on the assumption the organization can handle them.</i> <input type="checkbox"/> <i>Rapid prototyping and controlled deployment are encouraged, but not required.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>All executives, senior managers, and key line managers and their staff have been trained in process improvement and reengineering</i> <input type="checkbox"/> <i>The organization has identified and prioritized its core business processes to support a comprehensive process improvement program.</i> <input type="checkbox"/> <i>The organization selects IRM projects enabling significant core business process improvement.</i> <input type="checkbox"/> <i>The organization has a limited number of large-scale process improvement projects, consistent with resource and staff capacity.</i> <input type="checkbox"/> <i>The organization uses rapid prototyping and controlled deployment to minimize risk.</i>

Practice 6; Critical Issue 2: Organization-Specific Findings and Recommendations

Practice 7. MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 1: *Does the organization use an executive level investment review board (IRB), led by line officials, to make IRM investment decisions and to continue board reviews throughout an IRM project's life cycle?*

Advice to the Assessment Team: IRM funding has traditionally been viewed by most organizational managers as administrative costs, much less important than funding for staff. You should look for an investment philosophy in the organization where IRM funding is seen as vital for the long-term health of the organization, not something that is "back office" or of little importance. An active investment review board should represent top leaders of each major program area and major support functions such as finance, personnel, and IRM, although the final decision-making authority resides with program executives. The organization should set up high-level scrutiny of IRM funding and then follow the projects that are funded.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, OMB examiners; budget documents; IRM project plans and progress reports; charters and memos of high-level decision-making bodies; organization strategic and IRM mission plans, IRM strategic and operational plans.

Conditions To Look For & Assessment Questions

1. The organization has an IRB with ultimate decision authority for IRM projects.

- Does the organization have an investment review board (IRB)?
- Was it put in place by the organization head and/or the top executive team?
- Does the IRB have decision-making responsibilities for only IRM investments and project review? If not, are the other responsibilities for organization-wide support?
- Are the IRB's decisions final or are the decisions referred upward to another executive body for final decision?

2. The IRB is led by executive-level line officials and represented by program (line) managers and key support function executives; they attend the IRB meetings and do not delegate their decision-making responsibilities.

- Do the IRB members represent executive and senior managers of the organization?
- Does an executive or senior line manager lead the IRB?
- Is participation and actual decision-making delegated to lower-level managers?
- Are any critical decision areas delegated to lower-level working teams?

3. The IRB is very active as a decision-making body, meeting regularly to make decisions on investments and to assess major project progress.

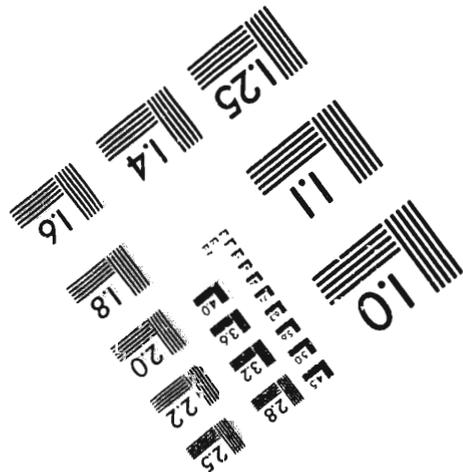
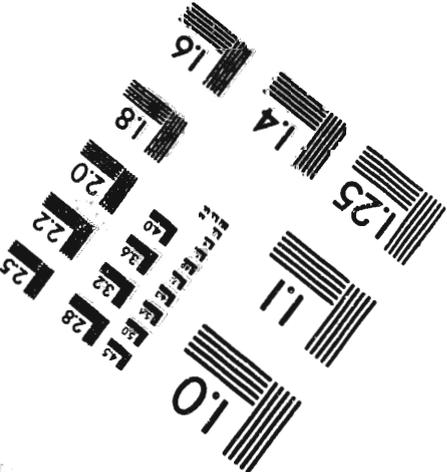
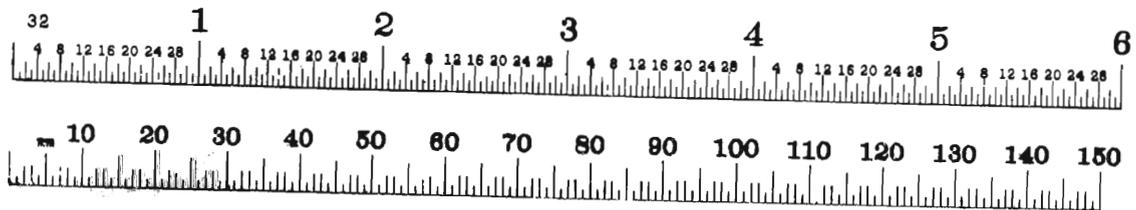
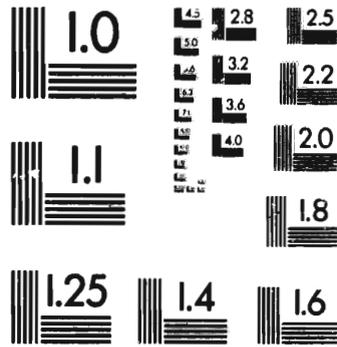
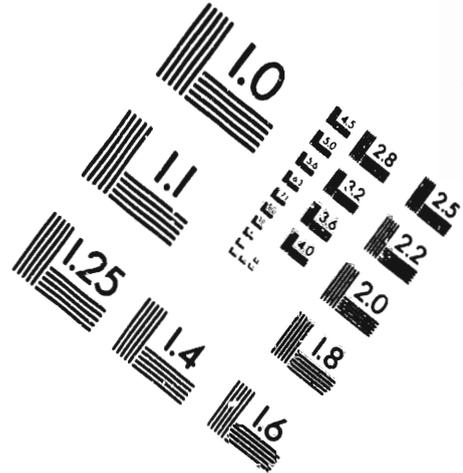
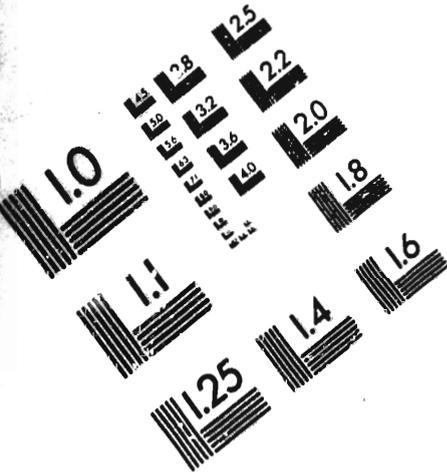
- Are there attendance and participation requirements for the IRB? Are they enforced?
- Does the IRB meet on a consistent enough basis to provide real IRM leadership and decision-making?
- Are IRB project monitoring and evaluation review policies and activities in place? Are they followed consistently?

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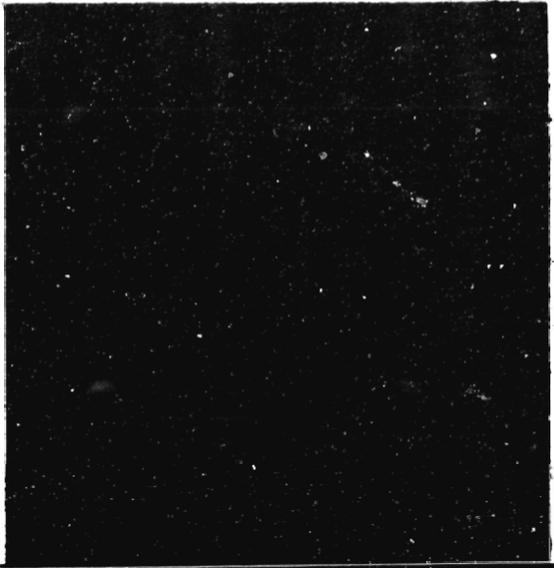
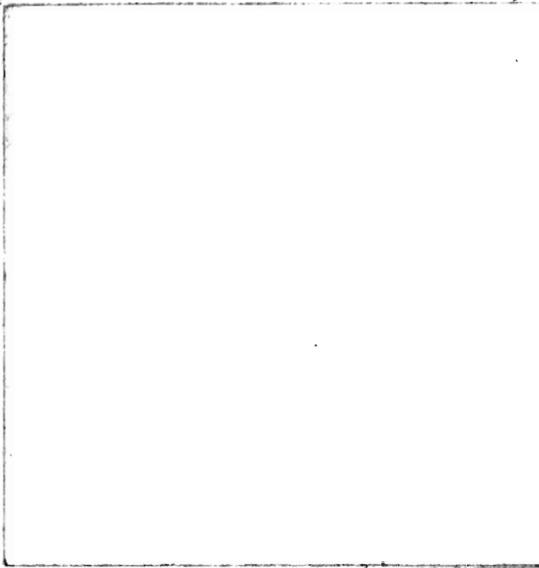
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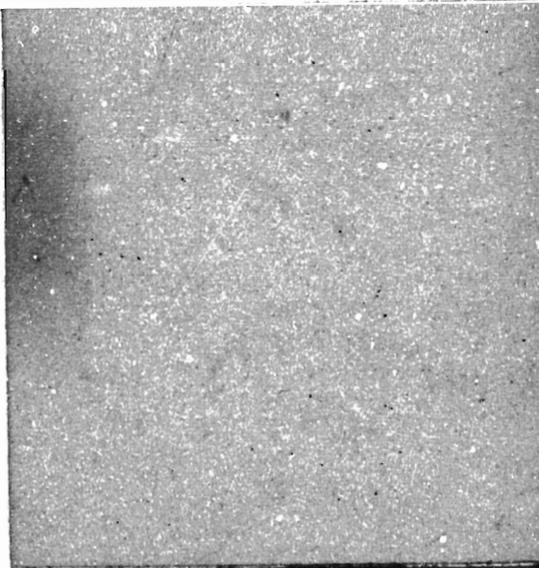
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ROCHESTER, NY 14609
TEL (716) 482-0300
FAX (716) 288-5989

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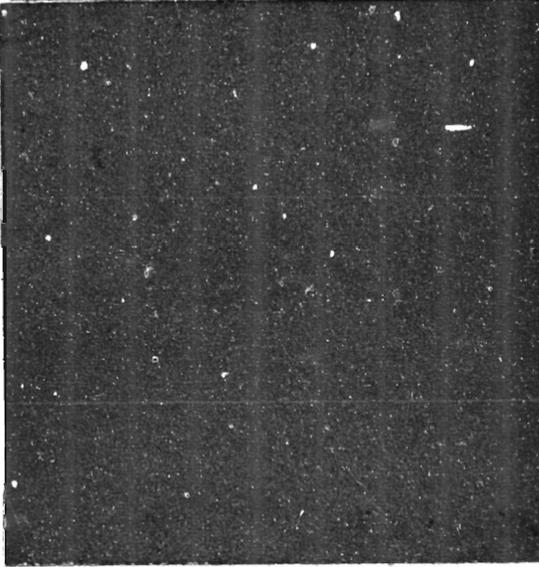
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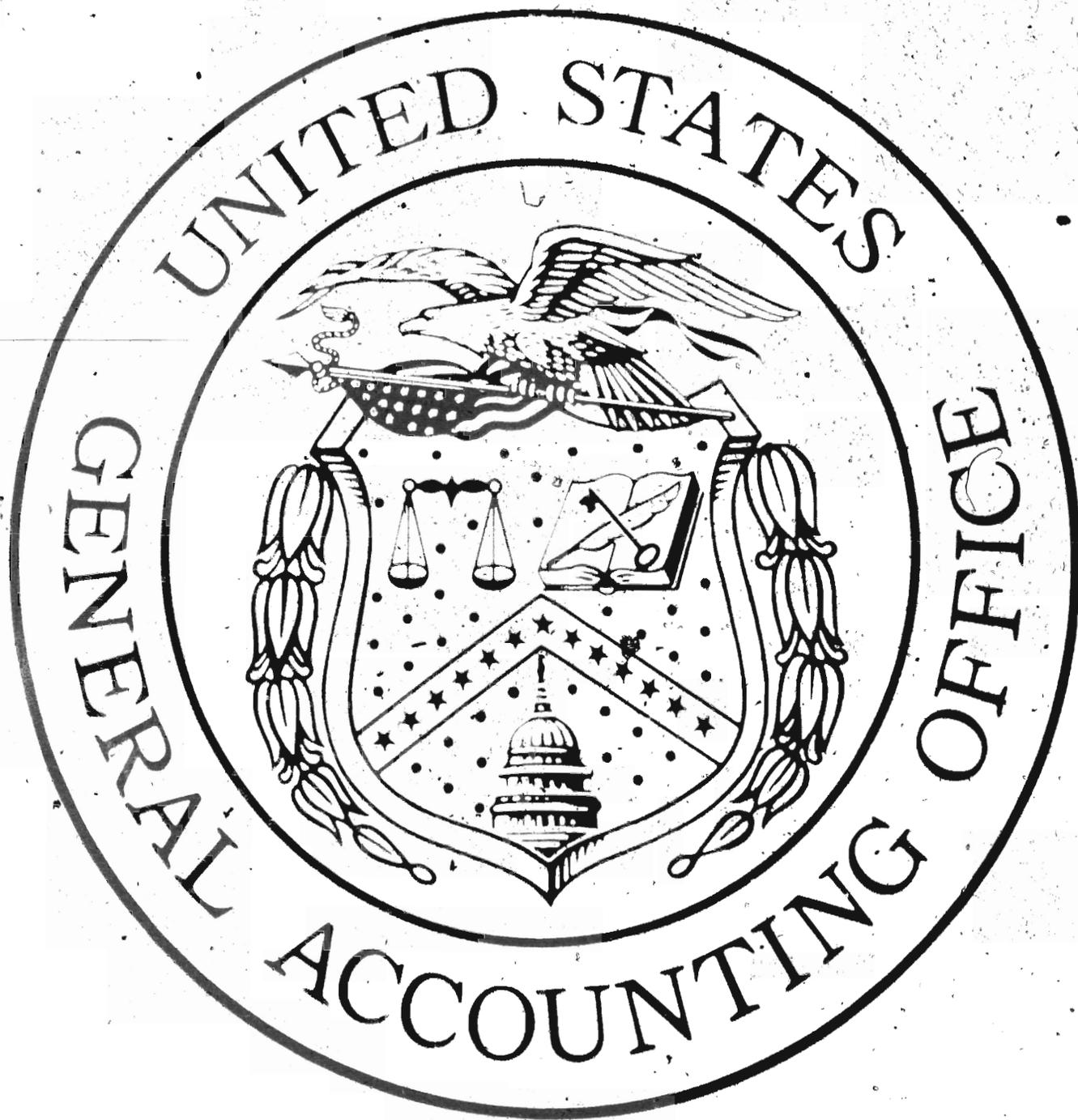


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Practice 7. MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 1: *Does the organization use an executive level investment review board (IRB), led by line officials, to make IRM investment decisions and to continue board reviews throughout an IRM project's life cycle?*

4. *The IRB assigns executive management sponsors to major IRM projects; the sponsors remain actively involved during the project's life cycle.*

- Do executive management sponsors exist for every major IRM project?
- What are the sponsor responsibilities during each project's life cycle?
- Do the sponsors fulfill their responsibilities?
- Do the sponsors keep the IRB informed of project progress and problem areas?

Typical Problems:

- Information system decision-making is heavily oriented toward the initial selection of systems projects, but fails completely to control implementation and make final evaluations.

PRACTICE 7: MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 1: Does the organization use an executive level investment review board (IRB), led by line officials, to make IRM investment decisions and to continue board reviews throughout an IRM project's life cycle?

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>No formal investment management review board (IRB) exists for funding information systems projects and tracking their progress</i> <input type="checkbox"/> <i>The systems development team leaders and staff are responsible for operational control of ongoing projects; progress reporting to top executives is not systematic.</i> <input type="checkbox"/> <i>Systems projects have no executive sponsors.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Review board led by IRM managers exists.</i> <input type="checkbox"/> <i>The IRB acts mainly in an advisory capacity to either executive agency management or IRM leadership.</i> <input type="checkbox"/> <i>Review board meets infrequently concerning project approval, progress tracking, and the need to reassess projects having trouble with cost, schedule, or performance expectations.</i> <input type="checkbox"/> <i>Membership consists of lower-level program and support unit managers; executive managers are not involved in any decision-making.</i> <input type="checkbox"/> <i>Executive sponsorship of projects is nonexistent or is deferred to lower level managers.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Review board led by IRM managers exists with actual decision-making authority for IRM projects.</i> <input type="checkbox"/> <i>The IRB meets at least quarterly to approve and review projects.</i> <input type="checkbox"/> <i>Executive line managers are assigned to the IRB.</i> <input type="checkbox"/> <i>Executive line managers' participation is erratic and they often defer decisions to IRM managers.</i> <input type="checkbox"/> <i>Some projects are still approved independently by managers working outside of the IRB process.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization has an IRB with ultimate decision authority for IRM projects.</i> <input type="checkbox"/> <i>The IRB is led by executive-level line officials, and composed of line managers and key support executives; responsibilities are not delegated.</i> <input type="checkbox"/> <i>The IRB is an active decision-making body, meeting regularly to make investment decisions and assess progress of major projects.</i> <input type="checkbox"/> <i>The IRB assigns executive management sponsors to major IRM projects who remain very actively involved in project monitoring and decision-making during the project's entire life cycle.</i>

Practice 7 Notes; Critical Issue 1: Organization-Specific Findings and Recommendations

Practice 7. MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 2: *Does the organization's investment review board use explicit decision criteria and a project ranking scheme to make initial funding decisions and then have policies and review mechanisms to continue board reviews?*

Advice to the Assessment Team: The investment review board is only as good as the tools and techniques it uses to select projects and then track them to completion. You should look for the board to use decision support tools that show the decision criteria and how they are weighted for assessing and tracking project proposals. You should also assess how the board handles multi-year projects--perhaps the riskiest projects.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, and OMB examiners; budget documents; IRM project plans and progress reports; charters and memos of high-level decision-making bodies; organization strategic and IRM mission plans; IRM strategic and operational plans.

Conditions To Look For & Assessment Questions

1. *The IRB uses comprehensive qualitative and quantitative investment decision criteria weighted for their importance.*

- Does the IRB use investment decision criteria?
- Do criteria include both qualitative and quantitative factors?
- Are the criteria complete--covering such factors as risk, cost/benefit, business results/impact, longevity, size, and customer impact?
- Are the initial criteria weighted for importance?

2. *The IRB has a systematic way to rank proposed projects for current and future funding.*

- Has the IRB organization designed a formal, systematic process to make investment decisions?
- Is the analysis of proposed projects thorough?
- Is the process used to prioritize all IRM investments against one another?
- Are other factors, such as resource constraints, used for final funding decisions on new projects?
- Are other factors used to evaluate proposals that were earlier denied but are now being reconsidered?

3. *As part of its investment strategy, the IRB requires complex projects to be done in modules, avoiding multi-year, high-risk projects.*

- Does the organization place constraints on investment proposals regarding project size and duration to mitigate risk?
- Are modular approaches taken to large projects?
- Are there criteria to authorize projects that are not done in a modular fashion?

Practice 7. MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 2: *Does the organization's investment review board use explicit decision criteria and a project ranking scheme to make initial funding decisions and then have policies and review mechanisms to continue board reviews?*

4. *The IRB categorizes projects as either maintenance of existing information systems or strategic investments in new systems, and tracks and analyzes investment decisions across and within these categories over time as a complete portfolio.*

- Are projects already underway and new proposals categorized as either maintenance expenditures or strategic investments?
- Is the ratio information regularly compiled and assessed in the organization? Is this done often?
- Does the organization keep historical information readily available?
- What is the current ratio? The last several years? Projected for the next several years?
- Are explicit decisions made by the IRB on the projected ratio of investments in the two categories?
- Does the IRB shift funding from one category to another depending on the organization's strategic mission needs in the short and long term?
- Are investment decisions for maintenance or strategic projects overall kept in line with strategic planning decisions?

Typical Problems:

- Multiple, fragmented islands of information technology decision-making are driven by the annual budget process.
- Funding priorities are negotiated rather than analytically based.

PRACTICE 7: MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 2: Does the organization's investment review board use explicit decision criteria and a project ranking scheme to make initial funding decisions and then have policies and review mechanisms to continue board reviews?

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>No basic investment criteria and ranking process are in place.</i> <input type="checkbox"/> <i>No restrictions are placed on multi-year, high-risk projects.</i> <input type="checkbox"/> <i>No categorizing of current and proposed projects as being either (1) maintenance or (2) strategic.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Some investment decision criteria are defined, although generally based on costs, annual funding availability, and equity among the units in getting IRM projects funded.</i> <input type="checkbox"/> <i>The IRB is developing a formal ranking method for projects.</i> <input type="checkbox"/> <i>Project ranking at present is <u>ad hoc</u> and changes are frequent.</i> <input type="checkbox"/> <i>Only limited restrictions are placed on multi-year, high-risk projects.</i> <input type="checkbox"/> <i>Projects are not categorized for decision-making as maintenance and strategic.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The IRB has formally selected basic investment decision criteria that are primarily risk and quantitative factors, heavily influenced by costs and technical needs.</i> <input type="checkbox"/> <i>The IRB has a formal ranking method in place.</i> <input type="checkbox"/> <i>Modular development is encouraged for multi-year, high-risk projects.</i> <input type="checkbox"/> <i>All projects are categorized as maintenance and strategic, but investment decisions as to category are informally analyzed.</i> <input type="checkbox"/> <i>IRB often allows exceptions to its ranking method.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The IRB uses comprehensive qualitative and quantitative investment decision criteria, weighted for their importance.</i> <input type="checkbox"/> <i>The IRB has a systematic method to rank proposed projects for current and future funding.</i> <input type="checkbox"/> <i>As part of its investment strategy, the IRB requires complex projects be done in modules.</i> <input type="checkbox"/> <i>The IRB categorizes projects as either maintenance or strategic, and analyzes and tracks investment decisions over time as a complete portfolio.</i>

Practice 7 Notes; Critical Issue 2: Organization-Specific Findings and Recommendations

Practice 7. MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 3: *Does the organization continue IRB reviews throughout a project's life cycle, ending with a post-implementation review?*

Advice to the Assessment Team: In most organizations, if there is an investment review board, the only decisions that are really made are those that pertain to initial project funding decisions. Project tracking over an entire life cycle and post-implementation reviews are left to lower-level managers. You should look for specific project tracking requirements and executive level sponsorship of major projects.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, and OMB examiners; budget documents; IRM project plans and progress reports; charters and memos of high-level decision-making bodies; organization strategic and IRM mission plans; IRM strategic and operational plans.

Conditions To Look For & Assessment Questions

1. Initial project decisions set project life cycle review requirements, such as reporting and timing, based on project priority and risk elements.

- Does the IRB make decisions regarding project life cycle review requirements once an initial funding decision is made?
- Does the IRB use criteria to make those decisions?
- Does project monitoring and evaluation differ by factors such as risk, project scope, size, or mission impact?
- Any evidence of action being taken on IRB decisions?

2. The IRB requires formal post-implementation reviews of projects that feed results back into the IRB's decision-making process.

- Does the organization have any requirements for post-implementation reviews?
- Are the requirements for post-implementation reviews followed?
- Are lessons learned captured and applied to future decision-making and other projects still in development?

Typical Problems:

- The IRB includes working-level members as opposed to executive decision makers.
- The IRB focuses on front-end selection and neglects oversight and control of development and/or implementation.

PRACTICE 7: MANAGE INFORMATION SYSTEMS PROJECTS AS INVESTMENTS

Critical Issue 3: *Does the organization continue board reviews throughout an IRM project's life cycle, ending with a post-implementation review?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>A formal IRB review process through the project life cycle is not informally or formally in place.</i> <input type="checkbox"/> <i>There is no collection of project critical success factors or lessons learned.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>An IRM review process through the project life cycle is encouraged, though not required.</i> <input type="checkbox"/> <i>Project critical success factors and lessons learned are rarely fed back into the project review process.</i> <input type="checkbox"/> <i>No post-implementation reviews of projects are done.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The initial IRB approval decision process sets out formal project life cycle review requirements.</i> <input type="checkbox"/> <i>Post-implementation reviews have begun.</i> <input type="checkbox"/> <i>The review requirements are inconsistently applied.</i> <input type="checkbox"/> <i>The level of review is not always based on project priority and risk elements.</i> <input type="checkbox"/> <i>Project critical success factors and lessons learned are only occasionally fed back into the project review process.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Formal post-implementation reviews are required by the IRB.</i> <input type="checkbox"/> <i>All projects are consistently reviewed by the IRB at critical milestones, which are based on project priority and risk elements.</i> <input type="checkbox"/> <i>Project results and critical success factors are continually fed back into the IRB decision-making process.</i>

Practice 7 Notes; Critical Issue 3: Organization-Specific Findings and Recommendations

Practice 8. INTEGRATE THE PLANNING, BUDGETING, AND EVALUATION PROCESSES

Critical Issue: *Does the organization integrate planning, budgeting, and evaluation processes and decision-making within an overall strategic management framework?*

Advice to the Assessment Team: In many organizations, there has never been any real requirements that decisions made in one strategic management process carry forward to another. Often, budget decisions were made on different criteria than strategic plan goals and objectives. For IRM, projects were often developed with a tenuous linkage to strategic planning. You should look for how well the organization aligns and integrates decisions from strategic planning through budget decisions to actual project selection and development.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff; organization strategic and operational mission plans and budget documents; IRM strategic and operational plans and budget documents; IRM project documents

Conditions To Look For & Assessment Questions

1. *The organization has a rigorous strategic planning process to set long-range strategic directions, develop operational and tactical plans, and guide executive management operational decisions and assessments.*

- Does the organization conduct formal strategic planning?
- Do the strategic planning products include a high-level strategic business plan and guidance for operational and tactical planning?
- Are the strategic planning products used consistently by executive management for assessments of performance against the overall strategic directions?

2. *The organization integrates separate strategic business and IRM planning, budget review, and performance assessment processes. Decisions from one key strategic management process carry forward to another—the outputs from one process serve as inputs to another.*

- What does the organization view as its key strategic management processes?
- Is the organization coordinating and integrating these key strategic management processes for consistent decision-making?
- Are the schedules of the different management processes in phase, so that outputs of one are available when needed for another?
- Has the integration of these processes, or lack thereof, affected implementation of consistent mission delivery decisions?

3. *Executives and senior managers use the strategic management processes in making critical decisions for major IRM projects through their life cycle—from initiation to post-implementation reviews.*

- Does the organization use the processes to make consistent IRM project decisions?
- Are the processes used for an individual project's entire life cycle?
- Are there any gaps in using the processes during the entire life cycle?
- Does the organization ensure that critical project decisions are reflected in the decision-making for other strategic management processes, where necessary?

Practice 8. INTEGRATE THE PLANNING, BUDGETING, AND EVALUATION PROCESSES

Critical Issue: *Does the organization integrate planning, budgeting, and evaluation processes and decision-making within an overall strategic management framework?*

4. Performance outcomes and progress evaluations are fed back into the key elements of the strategic management process.

- Do strategic planners review performance measures when preparing or updating plans and objectives?
- Are performance outcomes used in preparing budget forecasts or requests?

Typical Problems:

- Planning is disconnected from budgeting, with little use of performance measurement.
- Information systems plans are disconnected from or without strategic business plans to drive them.

PRACTICE 8: INTEGRATE THE PLANNING, BUDGETING, AND EVALUATION PROCESSES

Critical Issue: *Does the organization integrate planning, budgeting, and evaluation processes and decision-making within an overall strategic management framework?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Organizational operations and IRM projects are managed independent of strategies developed during the planning process.</i> <input type="checkbox"/> <i>Decision-making across strategic management processes is not integrated.</i> <input type="checkbox"/> <i>Performance outcomes and progress evaluations are never critical elements in strategic management decisions.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>A basic strategic, operational, and tactical planning process is being developed.</i> <input type="checkbox"/> <i>All of the key strategic management processes are being put into place.</i> <input type="checkbox"/> <i>Only the budgeting process receives serious management attention.</i> <input type="checkbox"/> <i>Executives and senior managers use the budget process only in making initial IRM project decisions.</i> <input type="checkbox"/> <i>Performance outcomes and progress evaluations are prepared but are infrequently used as inputs to key strategic management decisions.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>A basic strategic planning process is used to set long-range strategic directions and develop operational and tactical plans.</i> <input type="checkbox"/> <i>The key strategic management processes are in place and integrated.</i> <input type="checkbox"/> <i>Changes in strategic decisions do not routinely carry down to IRM project plans and life cycle decisions.</i> <input type="checkbox"/> <i>Performance outcomes and progress evaluations are not consistently used to impact the appropriate key strategic management processes.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization has a rigorous strategic planning process-- setting strategic directions, developing plans, and guiding operational decisions.</i> <input type="checkbox"/> <i>The organization integrates business and IRM planning, budget review, and performance assessment processes; decisions in one strategic management process are reflected in other processes.</i> <input type="checkbox"/> <i>Executives and senior managers use the strategic management processes in making critical decisions for major IRM projects.</i> <input type="checkbox"/> <i>Performance outcomes are fed back into the key elements of the strategic management process</i>

Practice 8 Notes: Organization-Specific Findings and Recommendations

Practice 9. ESTABLISH CUSTOMER/SUPPLIER RELATIONSHIPS BETWEEN LINE AND INFORMATION MANAGEMENT PROFESSIONALS

Critical Issue: *Do line managers lead in identifying critical information needs and IRM professionals support those needs by acting as suppliers of information products and services?*

Advice to the Assessment Team: To meet customer needs and mission delivery expectations, line managers should be the key decision-makers for IRM. You should look for strong line leadership and involvement in IRM strategic and operational activities. The IRM unit(s) should have a philosophy of supporting those line manager needs and accepting line leadership. You should look for line managers as key participants in IRM decision-making bodies and the IRM unit working to prepare service delivery plans and customer profiles, and regularly surveying its customers to see how it is performing. In many organizations, line managers still defer to IRM professionals for actual decision-making versus technical assistance and support. You should see to what extent the organization is moving to line leadership of IRM, versus IRM professional leadership.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff; service delivery plans and customer profiles; IRM strategic and operational plans.

Conditions To Look For & Assessment Questions

1. Line managers have the primary responsibility for critical IRM decision-making and for communicating how IRM can be used to make a difference in mission performance.

- Does the organization have line managers lead major IRM decision-making activities?
- Do line managers continuously identify performance needs and work requirements for IRM implications?
- Do line managers comprehensively define expected costs and benefits of IRM improvement projects, focusing the greatest attention on mission-critical outcomes?
- Do line managers communicate IRM's contribution to mission performance?

2. Customer-supplier relationships are maintained effectively at the project, mission, and organization-wide levels, with appropriate quality measures at each level and clear accountability for results.

- Are there clear responsibilities for IRM leadership and decision-making at the project level? Mission level? Organization-wide level?
- Do executive and senior managers work together to identify and resolve IRM issues at all three levels?
- Do project level IRM and program staff work closely together to identify operational problems at all three levels early and resolve them quickly?

3. IRM professionals deliver products and services based on meeting line management mission delivery needs.

- Do IRM professionals identify line management mission delivery needs at an organization-wide level? At a program level? At a project level?
- Are IRM mission delivery choices made at the organization-wide level across line management priorities? At a program level? At a project level?
- Do IRM staff deliver products and services based on explicit service level agreements specifying quality and timeliness requirements, usually with reference to an external benchmark?

Practice 9. ESTABLISH CUSTOMER/SUPPLIER RELATIONSHIPS BETWEEN LINE AND INFORMATION MANAGEMENT PROFESSIONALS

Critical Issue: *Do line managers lead in identifying critical information needs and IRM professionals support those needs by acting as suppliers of information products and services?*

4. IRM officials continuously assess how they act as investment counselors and product-service suppliers.

- Do IRM officials regularly survey line users on product and service quality, cost, and responsiveness, and act on the results?
- Do line and the IRM unit(s) meet periodically to reexamine the mix of IRM products and services to see if they meet line managers' needs?

5. IRM officials provide line managers with explicit information on the internal and external costs of providing IRM services and products.

- Do IRM managers measure the costs, risks, productivity, and benefits of their in-house capabilities, with reference to external benchmarks?
- Are IRM officials required to provide costs of internal services in comparison to services available from outsourcing?
- Do line managers use this information in their IRM decision-making to reevaluate which IRM functions should be managed in-house and which should be outsourced?

Typical Problems:

- IRM and program units criticize one another because they lack a common understanding of what their respective responsibilities are.
- The IRM department is basically isolated within the organization as a glass house or technical body with little strategic interaction with line units.

PRACTICE 9: ESTABLISH CUSTOMER/SUPPLIER RELATIONSHIPS BETWEEN LINE AND INFORMATION MANAGEMENT PROFESSIONALS

Critical Issue: *Do line managers lead in identifying critical information needs and IRM professionals support those needs by acting as suppliers of information products and services?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line managers do not identify and validate current and future IRM and performance requirements to provide IRM staff with a basis for critical technical decisions.</i> <input type="checkbox"/> <i>Unclear division of labor between IRM and line units for identifying IRM mission requirements.</i> <input type="checkbox"/> <i>Accountability for achieving mission effectiveness is hampered by changing priorities and agendas among program and IRM staff.</i> <input type="checkbox"/> <i>IRM officials do not assess how well their services meet customer needs.</i> <input type="checkbox"/> <i>IRM staff do only <u>pro forma</u> economic analyses of proposed systems.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line managers are assigned responsibility for participating in efforts to identify their IRM performance and work requirements.</i> <input type="checkbox"/> <i>IRM and line liaisons established at all organizational levels; there is informal agreement on IRM products and services.</i> <input type="checkbox"/> <i>Line and IRM staff still do not work effectively together at an organization-wide level to establish strategic IRM directions and choices.</i> <input type="checkbox"/> <i>IRM officials do not emphasize systematic assessments of service to customers.</i> <input type="checkbox"/> <i>Established policies exist for measuring IRM costs, risks and productivity, but have not been put into consistent practice.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>IRM and line units have agreed formally on the services or products that IRM will provide to support mission performance needs.</i> <input type="checkbox"/> <i>Line managers and IRM professionals plan and work together regularly to ensure that IRM products and services reflect performance requirements.</i> <input type="checkbox"/> <i>IRM and line staff work to resolve issues at the project level, generally when program staff have identified the issues.</i> <input type="checkbox"/> <i>IRM officials are only doing sporadic customer assessments.</i> <input type="checkbox"/> <i>IRM units do not routinely compare their outputs and costs to external service providers.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>Line managers are primarily responsible for critical IRM decision-making.</i> <input type="checkbox"/> <i>Customer-supplier relationships are maintained effectively at all levels with quality measures and accountability for results.</i> <input type="checkbox"/> <i>IRM staff deliver products and services based on meeting line management mission delivery needs.</i> <input type="checkbox"/> <i>IRM officials act as investment counselors to line management.</i> <input type="checkbox"/> <i>IRM officials provide line managers with internal and external costs of providing IRM services and products.</i>

Police 9 Notes: Organization-Specific Findings and Recommendations

Practice 10. POSITION A CHIEF INFORMATION OFFICER AS A SENIOR MANAGEMENT PARTNER

Critical Issue: *Does the organization position a chief information officer as an executive management partner, and does the chief information officer fulfill that role?*

Advice to the Assessment Team: The seriousness of how IRM is viewed in the organization is visible most often in the hierarchical position of the person responsible for IRM. You should look for placement of a senior manager as a chief information officer (CIO) who has duties and responsibilities comparable to other major support functions, such as finance and personnel, and who is an accepted member of the senior management team. He or she should also be running an IRM unit(s) that is credible and is seen as performing well by customers.

Potential Information Sources: interviews with executives, senior managers, lower-level line and support managers and staff; IRM performance reports.

Conditions To Look For & Assessment Questions

1. The organization has a CIO in place who reports directly to the organization head and works closely as a peer with other executives in articulating the role of IRM in mission delivery.

- Does the organization have a CIO?
- Does the CIO report to the organization head?
- Is the CIO viewed by executive and senior managers as a valued and accepted member of the senior executive team?
- Does the CIO articulate the role of IRM in mission delivery at all levels of the organization?

2. The CIO is effective in bridging between top management, line users, and IRM professionals, resulting in measurable operational improvements.

- Does the CIO forge effective working relationships with top managers, line units, and IRM personnel in (a) consulting and advice-giving, (b) product and service delivery, and (c) IRM capacity building and improvement?
- Have these working relationships resulted in better IRM strategies and service delivery?

3. The CIO has a highly credible service organization, closely monitored as to how it is impacting mission delivery.

- Does the CIO monitor and assess his or her organization and its services?
- Does the CIO use these results for IRM organization improvement?
- Is the IRM organization viewed by executives as being effective in impacting mission delivery? Senior managers? Program or line managers and staff? Project managers and staff? Those outside the organization who have working relationships with the IRM organization?

4. The CIO helps create an appropriate balance of decision-making authority between corporate and program levels on information management issues.

- Does the CIO take a strong role in working with line managers to define and manage an organizationwide architecture?
- Does the CIO allow decisions on information management to take place at the program level within the organization-wide architecture, unless some significant corporate benefit would be missed?

Practice 10. POSITION A CHIEF INFORMATION OFFICER AS A SENIOR MANAGEMENT PARTNER

***Critical Issue:** Does the organization position a chief information officer as an executive management partner, and does the chief information officer fulfill that role?*

Typical Problems:

- Director of IRM is embedded several levels down in the organization and works for the delegated senior IRM official (DSO) in name only; he or she is focused on many other problems besides IRM. As a result, no dedicated senior management is focused on strategic information management.
- CIO has title and authority, but lacks the skill or ability to develop credibility as a service provider or influence as a senior advisor.

PRACTICE 10: POSITION CHIEF INFORMATION OFFICER AS A SENIOR MANAGEMENT PARTNER

Critical Issue: *Does the organization position a chief information officer as an executive management partner, and does the chief information officer fulfill that role?*

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> <i>No CIO is in place or the CIO is a figurehead only; he or she is not considered a top management player.</i> <input type="checkbox"/> <i>The CIO does not adequately understand major program areas and their objectives, resources, constraints, and problems; he or she cannot effectively articulate the role of IRM in improving mission delivery.</i> <input type="checkbox"/> <i>The CIO plays no role in determining whether critical IRM decisions are made centrally or at the mission level, and has not overcome parochialism and fighting between line and IRM units.</i> <input type="checkbox"/> <i>Basic IRM operational needs are not being satisfied.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization is upgrading the CIO's responsibilities and interaction with top management, although the CIO is still at least two levels below the agency head and is dedicated primarily to technical, not strategic, IRM issues.</i> <input type="checkbox"/> <i>The CIO does not seek out opportunities for collaboration between IRM and line units.</i> <input type="checkbox"/> <i>The CIO is not assessing the quality of IRM services and sees no need to mandate appropriate service quality procedures and measures.</i> <input type="checkbox"/> <i>The CIO either tries to take away too much of the information management decision-making from line managers or allows them to ignore corporate needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The CIO reports to the organization head and is dedicated to IRM issues.</i> <input type="checkbox"/> <i>The CIO understands mission problems well enough to talk about IRM to line officials in programmatic language.</i> <input type="checkbox"/> <i>The CIO is developing policies for line managers to make decisions within organization-wide standards and is building stronger collaboration between IRM and line units.</i> <input type="checkbox"/> <i>The CIO is working on improving the quality, timeliness, and range of IRM services, but has yet to effectively monitor and demonstrate strong IRM capabilities in meeting operational needs.</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> <i>The organization has a CIO reporting directly to the organization head, and working as a peer with other executives in defining IRM's role in mission delivery.</i> <input type="checkbox"/> <i>The CIO effectively bridges between top management, line users, and IRM professionals, with measurable operational improvements.</i> <input type="checkbox"/> <i>The CIO leads a highly credible service organization, closely monitored for its impact on mission delivery.</i> <input type="checkbox"/> <i>The CIO helps create an appropriate balance of decision-making authority between corporate and program levels on information management issues.</i>

Practice 10 Notes: Organization-Specific Findings and Recommendations

Practice 11. UPGRADE SKILLS AND KNOWLEDGE OF LINE AND INFORMATION MANAGEMENT PROFESSIONALS

Critical Issue: *Does the organization ensure that (1) line managers have IRM skill and knowledge and that IRM professionals have line skills and knowledge, and (2) that IRM skills are continually brought up to date?*

Advice to the Assessment Team: One of the reasons line managers defer to IRM professionals for IRM decisions is their lack of knowledge of IRM concepts, how IRM contributes to mission delivery, and even simple knowledge of basic technical considerations. On the other hand, IRM professionals may not have an adequate understanding of mission delivery needs and how their IRM products and services fit into the bigger strategic and operational picture. Most line managers have received minimal training in IRM, while IRM professionals have concentrated on developing technical skills and knowledge. You should look for how the organization views this issue and, if it is deemed important, how the organization is closing this gap in training and experience.

Potential Information Sources: interviews with executives, senior managers, line and support managers and staff, and training officers; internal and external training opportunities provided by the organization; individual staff professional development plans; and actual training courses taken pertaining to IRM.

Conditions To Look For & Assessment Questions

1. Line managers have the skills to judge how to align IRM applications with internal and external customer needs and mission objectives.

- Does the organization identify and assess line manager skills in aligning IRM with mission delivery needs?
- What skills have been identified?
- Does the organization provide IRM and strategic application education and training to line managers to build these skills?
- Does the organization provide or pay for the training and free line managers to take the training?
- Are the right line managers receiving the needed training?

2. IRM professionals are skilled in understanding the mission benefits to be derived from IRM activities.

- Does the organization identify and assess IRM professionals' skills in understanding mission delivery needs and IRM activities?
- What skills have been identified?
- Does the organization provide mission delivery and IRM implications education and training to IRM professionals to build these skills?
- Does the organization provide or pay for the training and free IRM personnel to take the training?
- Are the right IRM professionals receiving the needed training?

3. The organization continuously identifies IRM skill and knowledge requirements for line and IRM personnel and provides resources and time for personnel to obtain them.

- Does the organization have a plan to periodically assess IRM skills of both line and IRM personnel?
- Is the plan fully implemented?
- Does the organization provide or pay for the periodic training and free personnel to take the training?

Practice 11. UPGRADE SKILLS AND KNOWLEDGE OF LINE AND INFORMATION MANAGEMENT PROFESSIONALS

Critical Issue: *Does the organization ensure that (1) line managers have IRM skill and knowledge and that IRM professionals have line skills and knowledge, and (2) that IRM skills are continually brought up to date?*

4. Management and professional development plans include IRM as a key skill and knowledge area.

- Does the organization require professional development plans?
- If required, does the organization list IRM as a key skill and knowledge area for executives, senior managers, and mid-level managers?
- Are the professional development plans consistently implemented in the organization for executives? Senior managers? Mid-level managers?

Typical Problems:

- The organization has failed to precisely define the skills it needs to effectively manage information and information technology or has tied those skills to proprietary platforms or technologies.
- Skills have been defined, but there is no comprehensive professional development process to attract, retain, and develop the organization's IRM skill base.

PRACTICE 11: UPGRADE SKILLS AND KNOWLEDGE OF LINE AND IRM PROFESSIONALS

Critical Issue: Does the organization ensure that (1) line managers have IRM skill and knowledge and that IRM professionals have line skills and knowledge, and (2) that IRM skills are continually brought up to date?

<p><i>Unstructured</i> 1</p>	<p><i>Being Defined</i> 2</p>	<p><i>Being Implemented</i> 3</p>	<p><i>Institutionalized</i> 4</p>
<ul style="list-style-type: none"> <input type="checkbox"/> Line managers can characterize key IRM issues affecting their programs only in very general terms, if at all. <input type="checkbox"/> IRM skills and knowledge for IRM professionals are mainly limited to technical specializations. <input type="checkbox"/> Training and development in IRM are largely <i>ad hoc</i> for both current and emerging needs. <input type="checkbox"/> IRM skills and knowledge are not seen as appropriate for formal inclusion in performance evaluations and professional development plans. <input type="checkbox"/> The agency does not provide incentives for IRM professionals or line managers to broaden their IRM skills and knowledge. 	<ul style="list-style-type: none"> <input type="checkbox"/> Line managers can knowledgeably discuss the key IRM opportunities and problems affecting their programs and overall mission delivery. <input type="checkbox"/> IRM professionals can discuss key IRM concerns and applications that affect mission delivery and individual programs. <input type="checkbox"/> The agency has begun to assess its current IRM skills mix, but the emphasis is on technical skills. <input type="checkbox"/> The organizational culture does not value IRM skills for line managers. <input type="checkbox"/> The organization is considering putting IRM skills into evaluations and development plans, but there is considerable resistance. 	<ul style="list-style-type: none"> <input type="checkbox"/> Line managers understand the linkage between mission performance and IRM. <input type="checkbox"/> IRM professionals have considerable training in strategic management and can apply the training in support of line managers' IRM needs. <input type="checkbox"/> The agency has completed its assessment of IRM skills and knowledge of both line managers and IRM professionals and is identifying gaps for current and emerging needs. <input type="checkbox"/> Expectations regarding IRM skills and knowledge are not being integrated into both performance evaluations and professional development plans across the agency. 	<ul style="list-style-type: none"> <input type="checkbox"/> Line managers have the skills to align IRM applications with customer needs and mission objectives. <input type="checkbox"/> IRM professionals are skilled in understanding the mission benefits to be derived from IRM activities. <input type="checkbox"/> The organization continuously identifies IRM skill and knowledge requirements for line and IRM personnel and provides resources and time for personnel to obtain them. <input type="checkbox"/> Management professional development plans and performance evaluations include IRM as a key skill and knowledge area.

Practice 11 Notes: Organization-Specific Findings and Recommendations

5.0 ACTION PLAN FOR IMPROVEMENT

5.1 Objective

The most important part of the self-assessment process is the development of an action plan for improvement. The objective of the action plan is to focus attention and mobilize resources on highest risk and highest opportunity areas. It is easy and ultimately counterproductive to become overly focused on the benchmark scoring exercise. You should be thinking about specific steps for improvement both *during* the self-assessment and *after* it is completed. For instance, immediately after completing the benchmarking of a practice, the assessment team should begin to define improvement steps for that practice. The toolkit is just that: a *tool* to help you gauge where your agency could improve its strategic information management practices (the means) in order to improve mission performance (the end).

Also, the action plan should reinforce the strategic management practices that your agency is doing well. A common mistake is to focus on the negative. It is important to sustain positive achievements, while working to improve weak practices. The practices form an integrated, mutually supportive framework. Ultimately, they all need to be in place.

5.2 Elements of an Effective Action Plan

Your action plan must present a convincing, specifically focused business case for changing information management practices based on mission goals, customer and business needs, observed problems, and performance targets. The action plan should highlight agency-specific performance problems, indicating how they are associated with information management issues.

The results of the benchmarking exercise should be presented, highlighting areas where the agency is doing well and where it is weak. If there are many areas of weakness, you will need to recommend priorities for management improvement. As discussed in the opening section of this toolkit, it took the leading organizations several years to get all of the management practices in place and at a high

level of maturity. Several factors can be used to make the prioritization:

- practices associated with key high-risk areas and pain points in agency performance;
- practices that are likely to yield the most improvement in the shortest time, given the agency's specific performance problems;
- strong interest of top management in improving one or more specific practices; and
- practices dealing with areas that are of high interest to congressional committees or oversight agencies, given the agency's past and current performance problems.

The action plan should recommend specific steps for improving practices that are deemed to be of the highest priority. Section 4 of this toolkit lists "core recommendations" for getting started in practices where the benchmark maturity levels were low. Other possible recommendations are implicit in the criteria statements associated with the benchmark scales in both the diagnostic and detailed review sections.

It is important that your recommended actions for improvement be specific and measurable. You will want to be able to demonstrate that your agency is making progress both in the short term and long term. Overall timeframes and intermediate milestones for implementing the recommendations are critical to the success of the action plan. Selected performance measures for mission delivery should also be integrated into the improvement plan in order to link progress in improving strategic management practices to outcome-oriented improvements in meeting mission goals.

5.3 Obtaining and Sustaining Commitment to Improvement

Even well-intended efforts at improvement can degenerate into lip service or marginal efforts. Obtaining and maintaining improvement in strategic management practices will require support from a critical mass of key decision-makers, in order to generate the commitment for change and maintain

momentum over the next few years get the practices up to the level of leading organizations.

It is critical to get active involvement from the agency's top political and career-service executives and program managers during the self-assessment. This self-assessment guide is fundamentally designed for senior managers because they are the ones in the best position to make change happen. The political leadership provides the driving force for change, while the career executives provide longer-term continuity to sell and sustain the case for change to the agency as a whole, to implement it well, and to keep the effort on track over time.

It is also important to work closely with key congressional committees and oversight agencies, such as OMB, GSA, GAO, and the IG to communicate the objectives of the action plan and obtain their buy-in. Key customer groups should also be brought on board to help sustain support in this effort to improve mission performance and service delivery.

5.4 Identifying Potential Follow-on Work

During the course of the SIM assignment, you may identify the need for further work in areas that are not addressed in this toolkit. To assist with more specialized assessments, GAO is developing assessment methodologies in the following areas, and will share them with federal agencies as they reach the exposure draft stage:

- business process reengineering
- information technology investment management
- system development
- internal controls

- software development
- financial systems

Additional work may be needed in other areas touched on in this toolkit. These may include, but are not limited to:

- consolidation of data centers and networks,
- evaluation of opportunities for using advanced information technology, and
- data and network security issues

You will need to consult with subject-matter experts for help assessing practices in these areas and developing improvement steps.

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Appendix I

Comparison of the 11 Management Practices to Federal Regulations and Guidance

Appendix I
Comparison of Management Practices to Federal Regulations and Guidance

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
<p>1. Recognize and communicate the urgency to change IRM practices</p>	<p>3501(2),(3) - minimize the cost and maximize the usefulness of information collected and maintained;</p> <p>3501(5) -acquire/use IT to improve service delivery and program management, increase productivity, improve the quality of decisionmaking, and reduce waste and fraud;</p> <p>3506(a) - each agency shall carry out its IRM activities efficiently, effectively, and economically;</p>	<p>7o. - the application of up-to-date IT presents opportunities to promote fundamental changes in agency structures, work processes, and ways of interacting with the public to improve agency effectiveness and efficiency;</p>	<p>201-18.002 - the agency's IT plan should consider federal information processing (FIP) resources (ADPE as defined in the Brooks Act) to enhance future performance of programs and operations in support of the agency mission;</p>	<p><u>Transition to the Future: A Model IRM Program for the 21st Century.</u> IRMS, U.S. General Services Administration, November 1994.</p> <p><u>Federal Government Business Process Reengineering: Lessons Learned.</u> IRMS, U.S. General Services Administration, February 1994.</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
2. Get line management involved and create ownership		<p>7q. - Federal managers with program delivery responsibilities should recognize the importance of IRM to mission performance;</p> <p>8b.(3)(a) - agencies shall establish information system oversight mechanisms that ensure each system meets mission requirements;</p>	<p>201-7.002 - agencies planning processes should ensure that program officials and IRM officials participate in developing the 5-year plan for meeting the agency's IT needs;</p> <p>201-18.002 - agencies shall ensure that IRM planning includes personnel from each of the program areas and IRM, contracting, and budget;</p>	<p>Chief Financial Officers Act: 31 U. S. C. 902: establishes authority and functions for agency CFOs for financial information systems providing complete, reliable, consistent, and timely information;</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
2. Get line management involved and create ownership (cont.)		8b.(3)(c) - ensure that officials administering programs supported by information systems are responsible and accountable for managing the system throughout its life cycle;		<p><u>The Senior IRM Manager: Major Roles and Responsibilities as We Move into the 1990's.</u> IRMS, U.S. General Services Administration, March 1989.</p> <p><u>Trail Boss Concept: An Acquisition Management Concept,</u> IRMS, U.S. General Services Administration, 1989.</p>
3. Take action and maintain momentum				<p><u>From Red Tape to Results: Creating a Government that Works Better and Cost Less.</u> Vice President Al Gore, Report on the National Performance Review, September 1993.</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
4. Anchor strategic planning in customer needs and mission goals	3506(c)(8)- develop a 5-year plan for meeting the agency's IT needs;	<p>7i. - the application of information resources should support an agency's strategic plan to fulfill its mission; the integration of IRM and strategic planning promotes appropriate application of information resources;</p> <p>8a.(1) - agencies shall plan in an integrated manner for managing information throughout its life cycle;</p>	<p>201-7.002 - agencies shall establish strategic planning processes, ensuring that the agency's information needs are determined before conducting a requirements analysis for FIP resources;</p> <p>201-18.002 - the agency's IT plan shall reflect current and future program and mission needs;</p>	<p>Government Performance and Results Act: 5 U. S. C. 306: NLT 9/30/97 agency heads shall submit to OMB and the Congress a 5-year strategic plan for the agency's program activities; the plan is to include a mission statement for major functions and operations, including outcome-related goals and objectives.</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
4. Anchor strategic planning in customer needs and mission goals (cont.)		8b.(2)(a) - agencies shall establish and maintain strategic IRM planning processes that address how managing information resources promotes the fulfillment of agency missions; the plan should anticipate changes in mission, policy direction, technological capabilities, and resource levels;	201-18.002 - the agency's IT plan should consider FIP resources to enhance future performance of programs and operations in support of the agency mission; 201-20.103-3 - base requirements for FIP resources on mission needs expressed as opportunities for increased economy and efficiency, new or changed program requirements, or deficiencies in existing capabilities;	E. O. 12862 - Setting Customer Service Standards: agencies providing significant services directly to the public shall identify their customers, establish service standards (equal to best in the business), and measure results against the standards;

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
4. Anchor strategic planning in customer needs and mission goals (cont.)				<p>OMB Bulletin 94-08: planning and budgeting for acquiring fixed assets, including IT; agencies budget based on the long-term plan developed through an analysis of mission and priorities;</p> <p>OMB Circular A-109: establishes requirements for agency acquisitions of major systems, including IT, to fulfill mission needs;</p> <p><u>Information Resources Management Strategic Planning Guide.</u> FEDSIM, U.S. General Services Admin., December 1993</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
<p>5. Measure the performance of key mission delivery processes</p>	<p>3505(2)(A) - the OMB Director shall establish requirements for agency audits of major information systems;</p> <p>3506(c)(1) - agencies shall periodically review their IRM activities;</p> <p>3506(c)(7) - agencies shall evaluate and improve the accuracy, completeness, and reliability of data and records contained in their information systems;</p>	<p>8a.(1)(j) - record, preserve, and make accessible sufficient information to ensure the management and accountability of agency programs, and to protect the legal and financial rights of the federal government;</p>		<p>Government Performance and Results Act: 31 U. S. C. 1115: beginning with FY 1999, each agency is to prepare an annual performance plan covering each program activity in the budget; the plan shall establish performance goals and performance indicators to measure relevant outputs, service levels, and outcomes;</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
5. Measure the performance of key mission delivery processes (cont.)		8b.(1)(b) - prepare/update benefit-cost analysis for each information system at a level of detail appropriate to the investment size and that relies on systematic measures of mission performance;		Government Performance and Results Act: 31 U. S. C. 1116: NLT 3/31/2000 and yearly thereafter, agency heads shall prepare and submit to OMB and the Congress reports on program performance for the previous year;
5. Measure the performance of key mission delivery processes (cont.)				E. O. 12862 - Setting Customer Service Standards: agencies providing significant services directly to the public shall identify their customers, establish service standards (equal to best in the business), and measure results against the standards;

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
5. Measure the performance of key mission delivery processes (cont.)				<p>Chief Financial Officers Act: 31 U. S. C. 902: agency CFOs shall develop and maintain an integrated accounting and financial management system which provides for information responsive to the financial information needs of agency management and for the systematic measurement of performance;</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
5. Measure the performance of key mission delivery processes (cont.)				<p>OMB Circular A-11, Sec 12,15: requires material to implement Government Performance and Results Act;</p> <p>OMB Circular A-94: provides guidelines on benefit-cost, cost effectiveness, and lease-purchase analyses;</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
5. Measure the performance of key mission delivery processes (cont.)				<p>OMB Circular A-127, 7e.: requires financial management systems to be able to capture and produce financial information required to measure program, financial, and financial management performance needed to support budgeting, program management, and financial statement presentation;</p> <p><u>Results-Oriented Performance Measures for Information Technology Based Projects and Programs</u> (draft). IRMS, U.S. General Services Administration, June 2, 1994</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
5. Measure the performance of key mission delivery processes (cont.)				<p>National Performance Review Accompanying Report: <u>Reengineering Through the Use of Information Technology</u>, 1993.</p> <p><u>Managing Information Technology for Results: Center for Information Management</u>. National Academy for Public Administration, August 1994.</p> <p><u>Beta Model: Procurement Performance Measurement</u>. Procurement Measurement Action Team, June 21, 1994.</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
6. Focus on process improvement in the context of an architecture		8b.(1)(a) - seek opportunities to improve program effectiveness and efficiency through work process redesign and judicious application of IT;		<u>Federal Government Business Process Reengineering: Lessons Learned.</u> IRMS, U.S. General Services Administration, February 1994. <u>Data Management Issues Associated with Stovepipe Systems.</u> IRMS, U.S. General Services Administration, October 1993.

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
6. Focus on process improvement in the context of an architecture (cont.)		8b.(4) - create and maintain management and technical frameworks for using information resources that document linkages between mission needs, information content, and IT capabilities (these frameworks shall guide both strategic and operational IRM planning);		

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
6. Focus on process improvement in the context of an architecture (cont.)		8b.(4)(a) - agencies shall develop information systems in a manner that facilitates necessary interoperability, application portability, and scalability of computerized applications across networks of heterogeneous hardware, software, and communications platforms;		

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
7. Manage information systems projects as investments		8b.(1)(b) - prepare/update benefit-cost analysis for each information system at a level of detail appropriate to the investment size and that relies on systematic measures of mission performance;	201-20.001 - acquisition consists of a series of steps beginning with requirements analysis and ending with the implementation of the most advantageous alternative (determined through an analysis of alternatives) to satisfy the requirement;	OMB/GAO Guide-Evaluating Agency Investments in Information Technology (Exposure Draft): provides an analytical framework to assess agency plans, budgets, and management capacity to apply IT effectively;
7. Manage information systems projects as investments (cont.)		8b.(1)(c) - conduct benefit-cost analyses to support management oversight processes to maximize return on investment and minimize financial and operational risk for investments in major information systems on an agency-wide basis;		<u>Improving Industry/Government Communications in Major Information Technology Acquisitions</u> . IRMS, U.S. General Services Administration, June 1994.

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
7. Manage information systems projects as investments (cont.)		<p>8b.(1)(d) - conduct post-implementation reviews of information systems to validate estimated benefits and document effective management practices;</p> <p>8b.(3)(a) - agencies shall establish information system oversight mechanisms that ensure each system meets mission requirements;</p>		
7. Manage information systems projects as investments (cont.)		<p>8b.(5)(a) - agencies shall acquire IT in a manner that makes use of full and open competition and maximizes return on investment;</p>		

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
8. Integrate the planning, budgeting, and evaluation processes		<p>8a.(1)(e) - integrate planning for information systems with plans for resource allocation and use, including budgeting, acquisition, and use of IT;</p> <p>8b.(2)(c) - operational IT planning links IT to anticipated program and mission needs, reflects budget constraints, and forms the basis for budget requests;</p>	201-17.001 - develop and annually revise, in coordination with budget activities, a 5-year plan for meeting the agency's IT needs;	<p>OMB Circular A-11: requires submission of agency-level (as opposed to project or system level) data on the acquisition, operation, and use of IT;</p> <p>National Performance Review Accompanying Report. "Reinventing Federal Procurement." General Printing Office, Washington, D.C. September 1993.</p> <p><u>A Phased Approach to Life Cycle Management.</u> IRMS, U.S. General Services Administration, May 1988</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
<p>Establish customer / supplier relationships between line and information management professionals</p>		<p>7q. - Federal managers with program delivery responsibilities should recognize the importance of IRM to mission performance;</p> <p>8b.(3)(a) - agencies shall establish information system oversight mechanisms that ensure each system meets mission requirements;</p>	<p>201-7.002 - agencies planning processes should ensure that program officials and IRM officials participate in developing the 5-year plan for meeting the agency's IT needs;</p> <p>201-18.002 - agencies shall ensure that IRM planning includes personnel from each of the program areas and IRM, contracting, and budget;</p>	<p>Chief Financial Officers Act: 31 U. S. C. 902: establishes authority and functions for agency CFOs for financial information systems providing complete, reliable, consistent, and timely information;</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
<p>9. Establish customer / supplier relationships between line and information management professionals (cont.)</p>		<p>8b.(3)(c) - ensure that officials administering programs supported by information systems are responsible and accountable for managing the system throughout its life cycle;</p> <p>8b.(4)(e) - Information Processing Service Organizations provide services to recipients on an equitable basis commensurate with the costs incurred and document service agreements with recipients;</p>		<p><u>Better Government Through Information Management</u>, IRMS, U.S. General Services Administration, August 1993.</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
10. Position a Chief Information Officer as a senior management partner	3506(b) - the agency head shall designate a senior IRM official (who reports directly to agency head) to carry out agency IRM responsibilities under the act;	9a.(1) - the agency head shall have primary responsibility for managing agency information resources; 9a.(9) - the agency head shall appoint a senior official who shall report directly to the agency head to carry out agency responsibilities under the Paperwork Reduction Act (military departments and the Office of the Secretary of Defense may each appoint one official);	201-2.000 - role of the agency designated senior official (responsible for implementing policies contained in the FIRMR);	<u>From Red Tape to Results: Creating a Government that Works Better and Costs Less.</u> Vice President Al Gore, Report on the National Performance Review, September 1993.

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
11. Upgrade skills and knowledge of line and information management professionals		<p>7n. - users of federal information resources must have skills, knowledge, and training to manage information resources, enabling the government to effectively serve the public through automated means;</p> <p>8a.(1)(f) - train personnel in skills appropriate to managing information;</p>	<p>201-6.002 - ensure that individuals responsible for IRM have proven records and IRM competencies through a combination of training, work experience, and IRM-related certification programs;</p>	<p>Chief Financial Officers Act: 31 U. S. C. 902: agency CFOs shall provide training of personnel to carry out agency financial management functions;</p> <p>OMB Circular A-127, 7k.: financial management systems users shall be provided adequate training and appropriate user support;</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
11. Upgrade skills and knowledge of line and information management professionals (cont.)		<p>8a.(4)(d) - provide training and guidance to agency officials, employees, and contractors on records management responsibilities</p> <p>8b.(3)(d) - provide appropriate training for users of information resources;</p>		<p>U.S. Merit Systems Protection Board: <u>Workforce Quality and Federal Procurement: An Assessment.</u></p> <p><u>Acquisition of Information Resources: Overview Guide.</u> IRMS, U.S. General Services Administration, 1990.</p> <p><u>Acquisition of Information Resources: A Guide for Contracting Officers Technical Officers Technical Representatives IRMS,</u> U.S. General Services Administration, 1991.</p>

SIM Management Practice	Paperwork Reduction Act, as amended	OMB Circular A-130 (through TM 2, 7/25/94)	GSA Federal Information Resources Management Regulation	Other References
11. Upgrade skills and knowledge of line and information management professionals (cont.)		<p>8a.(4)(d) - provide training and guidance to agency officials, employees, and contractors on records management responsibilities</p> <p>8b.(3)(d) - provide appropriate training for users of information resources;</p>		<p>U.S. Merit Systems Protection Board: <u>Workforce Quality and Federal Procurement: An Assessment.</u></p> <p><u>Acquisition of Information Resources: Overview Guide.</u> IRMS, U.S. General Services Administration, 1990.</p> <p><u>Acquisition of Information Resources: A Guide for Contracting Officers Technical Officers Technical Representatives IRMS.</u> U.S. General Services Administration, 1991.</p>

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