

Strategic Plan for Information Resources Management

US INTERNATIONAL TRADE COMMISSION

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Introduction

The Paperwork Reduction Act of 1995 requires that “each agency shall . . . develop and maintain a strategic information resources management plan that shall describe how information resources management activities help accomplish agency missions;”¹

Office of Management and Budget (OMB) Circular A-130 (*Management of Federal Information Resources*), revised February, 1996, further provides that–

“. . . Agencies shall establish and maintain strategic information resources management planning processes which include the following components:

(a) Strategic IRM [information resources management] planning that addresses how the management of information resources promotes the fulfillment of an agency’s mission. This planning process should support the development and maintenance of a strategic IRM plan that reflects and anticipates changes in the agency’s mission, policy direction, technological capabilities, or resource levels;

[a]gencies should link to, and to the extent possible, integrate IRM planning with the agency strategic planning required by the Government Performance and Results Act (P.L. 103-62). Such a linkage ensures that agencies apply information resources to programs that support the achievement of agreed-upon mission goals.”

The Government Performance and Results Act, the Clinger-Cohen Act, and implementing guidance from OMB defined a new framework for Federal agency management in the 1990s. This management reform initiative seeks to bring modern management techniques widely accepted in the private sector to the Federal Government. Key concepts of this new framework include (1) reliance on performance-based (or “fact-based”) management to reach measurable goals established through strategic planning; (2) focus on results delivered to external customers; and (3) the presumption that substantial gains in

¹ 44 USC § 3506(b)(2).

productivity and work quality can be achieved in any organization by modifying work processes to take advantage of information technology.

Relationship between Strategic Business Planning and IRM Planning

The overall agency management cycle starts with development of the strategic business plan (hereinafter referred to as the “Strategic Plan”; the present Strategic IRM Plan is referred to as the “IRM Plan.”) Top management sets business goals for the agency based on forecast workload, input from current and potential customers, knowledge of existing organizational strengths and weaknesses, regulatory requirements, competitors, and assessment of opportunities made available by technology. Out of this analysis comes a set of high-level business goals and a general strategy for achieving them. Presumably, each goal represents a level of organizational performance that is not achievable today, and will require some change in how one or more business process are performed.

In most cases these business process changes will require upgraded or new information technology (IT) systems, or other (non-IT) investments. IT investments will not be the answer to meeting all agency strategic goals. However, with IT creating new opportunities for improved work processes almost daily, and in view of the fact that Federal agencies deal mainly in information rather than physical production, new IT systems are very often at least part of the strategy for meeting ambitious goals.

Contents of This IRM Plan

The main function of the IRM strategic planning process is to set out how technology will be engaged to help reach the defined business goals. The IRM Plan **identifies information systems projects that are critical to reaching goals in the Strategic Plan.**²

² A separate IT Capital Plan, a component of the budget process, should indicate when and how these strategic projects and any requisite infrastructure-development projects will be funded and executed. As of May 2000, OMB created a separate requirement for a plan for implementing the Government Paperwork Elimination Act (GPEA), to be updated and submitted annually. The agency’s GPEA Plan should reflect the same project implementation schedule as the Capital Plan for projects covered by GPEA, i.e., those involving the agency’s transactions with the public.

This agenda of strategic projects, along with adequate IT support for ongoing agency operations, define the requirements that the agency's information infrastructure (its information technology architecture,³ human resources, and management institutions) must be capable of supporting during the plan period. To make sure this infrastructure is ready when it is needed, the IRM Plan describes **how the agency proposes to transition from the architecture in place currently to the target technical architecture that will be needed to support planned strategic applications** and ongoing operations. It also includes IT investments (projects) needed to implement the target architecture.

This IRM Plan also describes **how IRM strategy is integrated with organizational planning, budget and financial management, human resources management, and program decisions.** Coordination with these other management systems is critical to successful execution of the agenda of strategic IRM goals.

Finally, the IRM Plan **summarizes the agency's information security program,** to keep program managers aware of their role in this important function.

This IRM Plan covers the period FY2001-FY2003. The agency's Strategic Plan is required to cover a 5-year period, and it is logical to cover the same time period in the IRM Strategic Plan. However, since the current Strategic Plan period started in FY1999, the current IRM Plan will cover only 3 years so as to coincide with that plan.

This document has been developed from an initial draft prepared by the Office of Information Services (OIS) with input and advice from the Office of Publishing and agency program managers, and in coordination with the Strategic Planning Committee. It has

³ A very simple approach to meeting all requirements for IT investment projects would be to treat each as a separate problem to be solved with a dedicated IT infrastructure, application system, and staff. However, this certainly would be very inefficient and costly.

In recognition of this problem, the Clinger-Cohen Act calls on agencies to develop an information technology architecture (ITA.) An ITA is a common infrastructure and set of standards designed to provide shared support for all agency IT projects and operations. This lowers costs for all projects, speeds implementation and makes it easier for the agency's different computer systems to "talk to" each other (share data). Planning for an IT architecture that will support the projects that will let the agency achieve strategic goals is thus a key element of the IRM Strategic Plan.

been reviewed by the agency's Senior Official for IRM (the Director of Operations) and the IRM Steering Committee (IRM/SC), which includes the agency's most senior staff executives and which

“. . . is responsible for establishing information resources management (IRM) policies and procedures, identifying IRM requirements and establishing IRM priorities based on the requirements of the U.S. International Trade Commission as a whole.” (USITC Admin. Order 94-01)

The Plan was approved by the IRM/SC on May 17, 2001.

The USITC Strategy for Information Management

Agency business requirements are the starting point for development of an appropriate technology strategy, a target information architecture, and a specific agenda of IT acquisitions (projects). This plan is based on several sources of business requirements: (1) most important is the Commission's Strategic Plan in combination with the FY2001/2002 Performance Plan; (2) the agency's GPEA Plan; (3) Governmentwide policies, objectives and guidance; (4) and other requirements for support of on-going operations, including administrative activities.^{4 5}

Technology Vision

The ideal work environment the USITC is building via creative use of information technology is illustrated in the agency's technology vision:

Agency staff are free to excel at their own functions without having to become expert on technology tools, because technology is reliable, easy and natural to use, and it relieves us of many routine tasks; we are connected to all agency resources wherever we are working—at home, on travel or on-site at a negotiation; our status as a preferred provider of trade research and technical advice is enhanced by our ability to provide information tailored to our clients' needs faster than other organizations; we are able easily to share information and collaborate with each other, outside partners and customers, with assurance that confidential information is protected. Agency customers and the public are able to locate our services and research, and may conduct their business with the agency electronically if they prefer.

⁴ An office-by-office survey of business priorities was conducted during June-October 2000 to identify requirements and priorities not explicitly identified in the Strategic Plan.

⁵ The detailed analysis of how these requirements relate to the information management strategy is contained in appendix II.

Technology Strategy

The Commission's technology strategy is designed to achieve the technology vision and provide for meeting the agency's specific business needs, while taking into account its business, technology and cultural environment (as described in appendix II.)

At the most general level, the agency's technology strategy comprises the following principles:

- *Focus.*—We should make sure that the largest possible share of available resources is focused directly on our top strategic priorities.
- *Flexibility.*—Our infrastructure should be designed to let us implement new systems or change existing ones quickly and with minimal disruption or waste.
- *Reliability.*—Internal and external clients of our systems should be confident they protect sensitive information and that they are reliable.
- *Simplicity.*—Systems must be simple to use and maintain.
- *Economy.*—IT must facilitate operational cost savings throughout the organization.

To realize this technology strategy, the agency has identified the following set of technology and management guidelines.⁶

⁶ The agency's Information Technology Architecture (ITA), summarized later in this document, is likewise based on these strategic principles.

GUIDELINE	PRINCIPLES SERVED
Give priority to projects that directly support strategic business goals , have strong sponsor support for work process improvement , and/or are self-financing (generate net “hard-dollar” savings) over their life cycle.	Focus; economy
Support existing strategic systems to agreed levels of reliability and performance.	Focus; reliability
Maintain an end-user computing environment that is competitive with that offered by other employers in terms of ease of use and reliability.	Simplicity; reliability
Develop a security infrastructure that is flexible and demonstrably effective and shared by all major systems.	Reliability; economy
Develop agency decisionmaking infrastructure for IRM that correctly assesses the costs, benefits, and risks of alternative uses of resources.	Focus; economy
Acquire or build systems that offer “ self-service ” options for internal and external customers to conduct their transactions with the agency electronically.	Economy; simplicity; flexibility
Develop capability for rapid development of new systems to support new business needs or opportunities.	Flexibility; focus
Acquire or build systems that are accessible from anywhere via browser or other standard device (e.g. a wireless telephone.)	Flexibility; simplicity; economy
Consider acquiring finished services wherever possible rather than acquiring and operating physical systems in-house.	Economy; simplicity; flexibility
Maximize the use of off-the-shelf systems versus custom-developed systems; for custom-developed systems, maximize the use of standard components .	Economy; flexibility; simplicity; reliability
Focus agency standards on facilitating information exchange . Select from public standards as a first choice and widely deployed “industry” standards as a second choice.	Economy; flexibility
Assume a flat or declining permanent staffing level for IT and increasing service requirements.	Economy; focus

Based on business requirements and these guidelines, the agency has identified specific projects for the FY2001/2003 period, and an overall information technology architecture (infrastructure) that can support these projects, ongoing business operations, and the technology vision.

IT Strategic Goals for FY2001-2003

The agency’s IT goals for the FY2001/2003 period represent a “to-do” list of projects that are consistent with the technology strategy and that represent the agency’s best approach to using

information technology to achieve the business objectives of the Strategic Plan (including Performance Plans.)

The core set of these goals are specific projects related directly to the Commission's 5 customer-facing lines of business ("Strategic Operations".) Also included are supporting goals identified as essential to provide administrative or other services in support of strategic operations. Finally, the goals include projects that will prepare the agency's computing infrastructure to support the new systems that will help achieve the agency's strategic goals (while continuing to meet ongoing operational requirements.) Of particular importance in the latter category is a planned network replacement ("ELAN") that will provide security services for several strategic systems (EDIS, Title VII Questionnaires, myITC) as well as improved support for mobile computing. Computing infrastructure development is discussed further in the Information Technology Architecture section below.

Because IRM strategic planning proceeds independently from the agency-wide budget process, inclusion of a project in the IRM strategic plan carries no presumption either for or against funding. Rather, the IRM plan establishes priorities only among IRM projects. During the budget process, IRM funding will be weighed together with other funding needs of the agency, IRM priorities reassessed as necessary, and funding recommendations to the Commission including those relating to projects in the IRM strategic plan will be made at that time.

Thus some of the goals below may be postponed or abandoned in the budget process, but this document should help decision-makers understand the impact of such trade-offs on achievement of the agency's Strategic Plan goals.

Operation No. 1

Import Injury Investigations

The Commission makes determinations in a variety of import injury investigations, primarily antidumping and countervailing duty investigations concerning the effects of unfairly traded imports on a U.S. industry. Import injury investigations depend in large part on information the agency collects through questionnaires. Resources and technology permitting, the agency plans to enhance the conduct of its import injury investigations by meeting the following goals:

STRATEGIC PLAN GOALS	PERFORMANCE INDICATORS	RELATED IRM STRATEGY	
		HOW CAN IT HELP REACH THE GOAL?	SPECIFIC IRM GOAL
2(a) Obtain customer satisfaction as measured by feedback from users of the process on investigative procedures	INV/GC compile survey results and recommend any appropriate changes	<ul style="list-style-type: none"> By providing a convenient option for electronic submission of original and revised questionnaire data; By making current investigative information readily available on the Web; By providing alternative access to Title VII hearings for Trade Bar and their clients, particularly those not located in the DC area. 	<ul style="list-style-type: none"> By October 2003 (per GPEA Plan), offer option for electronic questionnaire filing via Web form. (Included in "IQ" project.) Add various ancillary info to ITC Web site. Explore feasibility of offering audio or video recording of hearings via the Internet (streaming media.)
2(b) Make available APO material and public versions of reports in accordance with established guidelines, modified as appropriate based on user feedback.	INV maintains log of releases.	<ul style="list-style-type: none"> By smoothing the APO process by eliminating some or all paper handling 	<ul style="list-style-type: none"> IQ project will provide for direct electronic transfer of Q's to Dockets; EDIS-II will provide electronic service of APO from Dockets.

STRATEGIC PLAN GOALS	PERFORMANCE INDICATORS	RELATED IRM STRATEGY	
		HOW CAN IT HELP REACH THE GOAL?	SPECIFIC IRM GOAL
3(a) Circulate draft staff reports to the investigative team for review; . . .	INV tracks issuance of draft reports; . . .	<ul style="list-style-type: none"> By maintaining a more consistent view of all Q data that is accessible to all team members during review. 	<ul style="list-style-type: none"> IQ project will offer “single view” of Q database to all team members.
4(a) Meet administrative deadlines for staff reports; . . .	INV tracks deadlines and issuance dates for reports and determinations; . . .	<ul style="list-style-type: none"> By lessening the time spent on data entry and reconciliation of Q data; by making interim analytical tables available sooner to team; by giving team members option to generate their own work tables. 	<ul style="list-style-type: none"> IQ project will lessen data entry; speed up per-case “programming”; and provide self-service standard listings and reports from common database.

Fulfilling this goal will establish more efficient investigation processes, and more flexible service to questionnaire recipients, who will be able to provide data with greater speed and accuracy. The Commission will also be furthering the purposes of the Government Paperwork Elimination Act.

Operation No. 2

Intellectual Property-Based Import Investigations

The USITC adjudicates complaints brought by domestic industries that allege infringement of U.S. intellectual property rights and other unfair methods of competition by imported goods. Such investigations create a large administrative record of pleadings, exhibits, and other documents. Resources and technology permitting, the agency plans to enhance the conduct of its intellectual property-based import investigations by meeting the following goals:

STRATEGIC PLAN GOALS	PERFORMANCE INDICATORS	RELATED IRM STRATEGY	
		HOW CAN IT HELP REACH THE GOAL?	SPECIFIC IRM GOAL
3(a) Increase information accessible to the public via electronic and other means.	<ul style="list-style-type: none"> • OUII reports on inventory [of 337-related reference and other info on the USITC Web.] • SE/OIS tracks time between filing and scanning of submissions accepted for filing. • SE/OIS tracks time between submission and scanning of Sec. 337 evidentiary record. 	<ul style="list-style-type: none"> • Provide capability for quick development of Web sites that can be updated easily by content experts. • Provide electronic filing & better scan and admin capabilities • Provide better scan and bulk processing facilities. 	<ul style="list-style-type: none"> • Web site with improved content management features ("myITC"). • By October 2003 (per GPEA Plan), offer option for electronic filing of documents with Dockets. ("EDIS-II" project.) • EDIS-II will provide better and faster bulk scan and administration features, as well as faster research.

Fulfilling these goals will contribute to the timeliness of proceedings by allowing more efficient research and will make case documents more accessible. Replacing EDIS also will be a major step toward fulfilling the agency's GPEA Plan and will make more efficient the conduct of import injury investigations covered in Operation 1.

Operation No. 3

Research Program

The USITC conducts an extensive research program consisting of its probable economic effects investigations and analyses of trade and competitiveness issues. It is a national resource of industry, economic and regional experts for the Nation's policymakers. The agency has developed a technique that significantly enhances the efficiency and speed of conducting probable-effects investigations by using automated templates to support analysts making product-level economic estimates for selected investigations. Resources and technology permitting, the USITC plans to enhance further its research program by meeting the following goals:

STRATEGIC PLAN GOALS	PERFORMANCE INDICATORS	RELATED IRM STRATEGY	
		HOW CAN IT HELP REACH THE GOAL?	SPECIFIC IRM GOAL
1(a) Obtain increased use of ITC capabilities/research products by customers in Congress, USTR, peers, the public.	OP will track: <ul style="list-style-type: none"> • Level of visitors downloading reports from ITC Web site; • Requests for hard copies of reports; • Written comments from users; • No. of witnesses and Members of Congress testifying at Sec. 332 hearings; • No. of new requests for Sec. 332 investigations. 	<ul style="list-style-type: none"> • Enhance ease of use of Web site; • Provide Web site "personalization" to provide services like notification of items of interest; • Improve capabilities for executing data-intensive 332's like PE studies; • Develop flexible and useful mechanisms for delivering research via the Web (e.g., Africa quarterly data updates.) • Enhance the appearance and accessibility of published reports 	<ul style="list-style-type: none"> • Web site with improved content management features ("myITC"). • Rapid Web development capability • Probable-effects system for fast, consistent development and electronic publication of large-scale, model-based studies • Assess value of more color graphics in report design • Assess value of distribution of reports via CD

A "personalized" Web site will help us reach potential consumers of our work product with precision, and increase their appreciation of the ITC as a convenient research resource.

A capability for quick development of data-intensive interactive Web sites customized for a particular client will let us offer timely and “evergreen” (always current) data to supplement 332 investigations.

An probable-effects “template” system will enhance the Commission’s status as a responsive source of consistently sound trade-policy analysis. It will also permit the agency to undertake large (hundreds or thousands of products) probable-effects investigations in time-frames that meet policymakers’ requirements.

Operation No. 4

Trade Information Services

The USITC maintains an extensive repository of trade data and trade expertise and provides U.S. policymakers with trade information services relating to U.S. international trade and competitiveness. The agency also provides its staff and Federal Government customers unique interactive Web-based access to U.S. trade and tariff data via the DataWeb system. As of September 2000 the agency completed a pilot test of the feasibility and value of making the DataWeb available as a free public service and in January 2001, the Commission determined to provide DataWeb access as an ongoing public service.

One of the Commission's most important information products is the Harmonized Tariff Schedule of the United States (HTS). The HTS is used by importers and the U.S. Customs Service as the authoritative source of information on product definitions, duty rates and other conditions of entry of goods into the United States. The HTS and related information is relied upon by U.S. trade officials in developing and negotiating trade agreements and as the basis for defining our international obligations and rights in the WTO and other fora. The USITC maintains unique staff expertise in the highly technical details of U.S. law and international convention that govern the modification and interpretation of these rules. The agency faces challenges in maintaining its exacting standards of quality while keeping up with fast-moving changes in policy and law and responding to expectations of immediate and convenient access to data essential to commercial operations.

Resources and technology permitting, the agency plans to enhance the conduct of its trade information services by meeting the following goals:

STRATEGIC PLAN GOALS	PERFORMANCE INDICATORS	RELATED IRM STRATEGY	
		HOW CAN IT HELP REACH THE GOAL?	SPECIFIC IRM GOAL
1 (a) Obtain increased use of ITC trade data and nomenclature expertise by customers in Congress, USTR, peers, the public.	OP tracks: <ul style="list-style-type: none"> • bill reports; • 484-Committee actions; • DataWeb use; • Trade Database use. 	<ul style="list-style-type: none"> • Continue to enhance, performance and ease of use of DataWeb; • Lower total staff effort required to maintain the HTS for all purposes (hard-copy and “database” versions”), while improving timeliness and features 	<ul style="list-style-type: none"> • Upgrade capacity of DataWeb system to support Government and public access. • Automate portions of HTS maintenance cycle to eliminate duplication efforts and help quality control.

Automating the maintenance and enhancing the electronic accessibility of the unique HTS resource will improve the agency’s ability to provide derivative work products to key customers like USTR, speed publication of changed information, and promote the goals of GPEA.

Making the DataWeb available as a free public resource will further the reputation of the agency as the Nation’s international trade experts, improve the quality of the Government’s analysis of international trade issues, serve key customers and the public without burdening agency staff with simple data inquiries, and promote the purposes of GPEA.

Cross-Cutting and Supporting Goals

The Commission plans a number of IT initiatives that will assist the conduct of all or most of the agency's five strategic Operations:

CROSS-CUTTING AND SUPPORTING GOALS FOR FY2001-2003-CONTINUED		
GOAL	RELATED IT STRATEGY GUIDELINES	RELATED BUSINESS REQUIREMENTS OR ENVIRONMENTAL FACTORS
Security architecture. —Implement a replacement network architecture based on the “network services model,” including an advanced security facility (“ELAN”)	<ul style="list-style-type: none"> • Build capability for rapid development of new systems; • Develop systems that are accessible from anywhere; • Develop a security infrastructure; • Maintain an end-user computing environment that is competitive; • Focus agency standards on facilitating information exchange 	<ul style="list-style-type: none"> • Enable GPEA-compliant electronic transactions for EDIS, etc.; • Support remote/mobile work; • Enable closer collaboration with customers; • Control “level-services” costs
myITC.—Implement personalized, secure Web “portal” for electronic delivery of most agency work products. Ex: USTR officials would be able to view confidential 332’s or PE databases via myITC that would not be visible to the public.	<ul style="list-style-type: none"> • Build capability for rapid development of new services; • Build systems that are accessible from anywhere via browser; • Offer self-service systems; • Assume flat or declining permanent staffing level for IT 	<ul style="list-style-type: none"> • Control costs and maintain quality; • Offer customer self-service; • GPEA Plan
AD Data Warehouse.—support improved budget formulation and execution	<ul style="list-style-type: none"> • Develop agency decision-making infrastructure for IRM 	<ul style="list-style-type: none"> • “Level services” cost savings; • Enable better budget and planning processes and alignment with GPRA/ Clinger-Cohen management guidance; • Better support for budget justification of non-traditional projects and programs

CROSS-CUTTING AND SUPPORTING GOALS FOR FY2001-2003-CONTINUED		
GOAL	RELATED IT STRATEGY GUIDELINES	RELATED BUSINESS REQUIREMENTS OR ENVIRONMENTAL FACTORS
Develop variety of smaller or quick-response ("opportunistic") applications within very limited budget remaining after strategic goals are funded	<ul style="list-style-type: none"> Build capability for rapid development of new systems; Systems that are accessible from anywhere via browser; Self-service; Maintain an end-user computing environment that is competitive 	<ul style="list-style-type: none"> Frequent one-of-a-kind trade-policy analysis tools to support "preferred research provider" goal; Forms automation (internal); Miscellaneous unfunded GPEA goals (FOIA request, etc.)
Infrastructure: Implement component-based applications facility to support rapid and low-cost ("opportunistic") development of new Web-accessible systems	<ul style="list-style-type: none"> Build capability for rapid development of new systems; Systems that are accessible from anywhere via browser Self-service; Develop a security infrastructure; Maximize the use of off-the-shelf systems; Assume flat or declining permanent staffing level for IT 	<ul style="list-style-type: none"> Use component technology and open standards to offset inability to maintain top technical talent and still generate large numbers of relative simple applications economically
Implement service-level standards for basic "desktop" facilities and major applications	<ul style="list-style-type: none"> Support existing strategic systems; Maintain an end-user computing environment that is competitive; Assume flat or declining permanent staffing level for IT 	<ul style="list-style-type: none"> Control costs by better focus on meeting high customer priorities; Support better sourcing decisions for basic services

Information Technology Architecture

An Information Technology Architecture (ITA) is a translation of agency business requirements, plus factors in its business, technology, regulatory and organizational environment, into a technical infrastructure that is capable of meeting the requirements efficiently. As defined in OMB guidance, an ITA comprises 3 elements: an enterprise architecture (a description of business processes of the agency); a technical reference model that describes the overall configuration of the physical and logical components of the agency's IT assets; and a standards profile that catalogs the protocols, formats and standards used by the agency to achieve interoperability among various computer systems.

The Commission's ITA is managed by the IRM/SC with assistance of the TRC. In all organizations, there is an existing physical IT infrastructure consisting of the systems and standards already in place—the "legacy" architecture. The ITA document describes this existing infrastructure and a target infrastructure that can meet the agency's planned business requirements.

The USITC's target infrastructure is based on a technical reference model called the "network services model" defined by the Burton Group (and others.) This is a technical model that maximizes an organization's ability to implement quickly and manage effectively a diverse and changing set of electronic transactions and collaborations between itself and a large number of customer audiences and business partners. It is thus well suited to implementing e-commerce, and likewise e-government.

A plan is needed for the transition from the architecture that exists now to the target architecture. The transition plan includes whatever projects are needed to address specific areas of the architecture that are scheduled to change. It also describes how dependencies among various components of the architecture will be managed during transition to minimize work disruption and risk of delay in implementing planned strategic applications.

For the period FY2001-FY2003, most of the elements required to reach the target architecture is included in the ELAN project. ELAN will replace the current ITCNet system (centered on the agency's Banyan Systems VINES network operating system) with a system capable of supporting the Internet-oriented business requirements our planning has identified.

A critical feature of the ELAN system will be a flexible and strong security system. The system must provide protection of confidential information that will give confidence to agency managers and the parties and customers who entrust their trade secrets to us. At the same time, it must support the ever-increasing degree of mobility, flexibility, and partnering arrangements needed to reach agency business goals and the GPEA vision of electronic government.

Several major planned applications, including EDIS and electronic acceptance of OINV questionnaires, depend critically on the ELAN security architecture. Implementation of this new security system is planned for FY2002, coincident with present time-lines for implementation of the high-risk modules of the

supported applications. **Delay in fielding and testing the ELAN security system would therefore delay the implementation schedules of those systems.**

Other components of the ELAN system—new file, print, calendar and email services; remote-access facilities—are considered far less challenging and risky. While some staff retraining (both IT staff and agency program-office staff) will be needed, significant work disruption is not expected and there are no significant dependencies of new strategic applications on these ELAN components.

The other major project required to reach the target IT architecture is creation of a general-purpose software development facility. Software development will remain an important part of IRM activity even though the agency expects to meet most strategic systems needs via acquisition of off-the-shelf systems or competitively sourced software development projects. The agency will need to support smaller “opportunistic” projects using a blend of in-house staff and contractors. Opportunistic systems are those built to meet unanticipated or frequently changing needs, but which are not required to be highly robust, scalable or full-featured. The ability to develop “quick and dirty” systems addresses the business need to respond to highly variable research or technical assistance requests that typically have short deadlines. This capability will contribute much toward making the USITC a preferred source for such services. In addition to speed, the agency’s applications strategy needs to be able to produce systems at low cost. This is a requirement for dealing with a very large agenda of relatively simple, non-strategic application requirements (e.g., internal forms automation, and miscellaneous small-volume GPEA-related projects) with very constrained funding. Finally, the application facility must not require premium-priced software developers: the agency does not have them on staff currently, and will not be able to attract or retain them at Federal pay scales.

The agency’s strategy for satisfying these requirements and constraints is to identify, implement, and train in-house developers on an application server product suite based on a standard software component model.^{7 8} Although this project will

⁷ Most current in-house software development is based on Microsoft’s Active Server Pages (ASP) product, which implements Microsoft’s COM/DCOM component model. However, testing is currently being conducted

require a significant amount of technical work and staff development and training, it is not now expected to involve major acquisition costs. Consequences of delay or failure to implement this advanced software applications development facility would be to limit the ability to provide quick-response research (for projects with a significant data component) and limit the number of smaller non-strategic systems (e.g., internal forms automation) that can be fielded within the FY2001-FY2003 planning horizon.

⁷—*Continued*

with a product that implements Sun Microsystems' Java-2 Enterprise Edition (J2EE) application server standard, based on the Javabeans/Enterprise JavaBeans (EJB) component model. The latter appears to have strong momentum among developers and software vendors, has more features, and runs on a wider variety of software platforms. On the other hand, it is as yet still a bit more complex than ASP.

⁸ The concept of "opportunistic" applications development and the strategy of focusing on a single vendor's application development suite are taken from research by Gartner Group, the world's largest IT advisory service.

Integration with Other Management Processes

Success in executing the major IT systems and technical infrastructure projects planned to achieve the agency's strategic goals will depend on support from other agency management systems. The following discussion identifies some such dependencies.

Strategic Planning

The USITC is currently undertaking a major revision of its Strategic Plan, to be transmitted to OMB in September 2001. The outcome of this process will drive revisions in supporting plans, including the IRM Plan. Also, some further improvements are anticipated for the strategic planning process in future cycles. First, earlier introduction of technology considerations should take place as a result of the Commission's plans to establish a CIO position with a more formal role in the strategic planning process, consistent with Clinger-Cohen and OMB's implementing guidance. Second, the agency expects further evolution in the relationship between the strategic planning process and the budget process. Specifically, the agency expects to see greater influence of the Strategic Plan on the budget, so that resource allocation will be linked directly to support for strategic plan goals. Third, progress in the use of performance-based management in the strategic planning process is anticipated, as early results of performance measurements are assessed each year and as experience with establishing performance indicators increases.

The IRM Plan will be reviewed annually to assure it is adjusted for changed circumstances and priorities. However, it may be appropriate to conduct a more in-depth review in FY2001 in light of the rapid evolution of the Strategic Planning and related processes.

IT Capital Management

The Clinger-Cohen Act and OMB implementing guidance has significantly increased the emphasis on management of IT

investment and resource management. Like many agencies, the USITC is in the process of developing and learning to use the significantly more complex management processes defined by this guidance. This is an area that calls for a substantial management effort over the next few years, and more total staff resources.

In FY2000, the IRM/SC developed its initial version of a formal IT project evaluation procedure based on Clinger-Cohen guidelines. Two projects have been reviewed on the basis of the new procedures: a purchase of 200 desktop PC, and EDIS-II. Although the PC purchase was cleared easily through the TRC and IRM/SC, the more complex and strategic EDIS-II proposal encountered scrutiny and objections from several quarters, including from the Acting Inspector General. Participants in the reviews agree that the agency has a long way to go to reach a smoothly functioning process for selection of IT investments.

Selecting projects, however, is just part of the 3-stage process defined by Clinger-Cohen for “selection, control and evaluation” of IT investment. In the control phase of IT capital management, each major ongoing project must be reviewed according to a pre-defined schedule to assure that it is meeting planned interim milestones on time, and ultimately that it is delivering the benefits anticipated at the time it was approved. The sheer volume of such reviews is daunting, and will definitely require the review groups to develop from scratch a very efficient process to accomplish this oversight, lest review become a bottleneck to project execution.

The IT investment control process defined by Clinger-Cohen absolutely depends on defining for each project at selection time a set of performance indicators the project is expected to meet. These well-defined (measurable) goals and schedules represent an informal contract between the investment review officials and the project team: in exchange for funding, the agency expects to obtain certain valuable capabilities or results that will make a clear contribution to its strategic goals. During the execution of the project, periodic comparison of actual progress with the pre-defined goals should help management spot programs that are falling short and force some corrective action, potentially including a decision to terminate the project. Agency managers (and project leaders) today have little experience in developing such performance indicators, or in managing projects on the basis of quantitative performance. This practice will take some time to develop.

Finally, IT capital management guidance requires agencies to manage all new and current IT investment (i.e., expenditures) as a “portfolio” of IT “assets.”⁹ Each “asset” (e.g., 200 new PCs, or the EDIS system) has a cost (initial investment and ongoing operation) and produces a return (tangible or intangible benefits such as providing Docket services.) This portfolio is to be reviewed at least annually to make sure it still represents the optimal deployment of information resources, including considerations of risk. This perspective also helps the agency assess whether a new proposed investment is attractive by providing a basis for comparison with currently held assets.

As of the start of the current planning period, the USITC had begun to develop its portfolio approach to IT capital management. We have made some initial progress in combining various IT expenditures into meaningfully defined assets for budget purposes. In the USITC as elsewhere, budget reviews have been based only on data in categories like “equipment” or “external services” that are not easily related to individual projects or results. Data or estimates are not yet available on total costs—including Federal staff costs—or for the full life-cycle costs of a project. Such data are essential to perform analyses of costs of operation of current work processes, for comparison with proposed alternatives. On the benefits side of the equation, we have begun data collection on specific benefits that we are receiving from various systems. At present, however, there are almost no quantified measures of benefit that would be needed to provide a basis to compute a rate of return.

Since the requirement is relatively new, there is no literature on how agencies have developed the information base needed to apply portfolio management concepts to their IT investments, and the value of the technique has yet to be documented in Federal practice. For these reasons, developing portfolio management procedures are probably a lower priority than other aspects of the IT investment management process. However, it is certainly worthwhile to begin to consider the basic issues involved: thinking about what groupings of expenditures make sense to consider as comprising a specific asset; documenting

⁹ “A cross-functional executive review committee acting for or with the Agency Head must be responsible for managing the agency’s entire capital asset portfolio, making decisions on the best allocation of assets to achieve strategic goals and objectives within budget limits.” OMB Circular A-11, Revised (Transmittal Memorandum No.74), July 17, 2001.

(though perhaps not quantifying) the benefits each asset is creating; and beginning to think in terms of trying to compare assets across traditional cost-center and budget object-class boundaries.

The agency has a large agenda in the area of IT capital planning. Under Clinger-Cohen, the CIO is primarily responsible for managing this process; pending establishment of that position, the USITC's Designated Senior Official for IRM and the Director of Information Services are working with the IRM/SC as the de-facto investment review board to develop review procedures and a base of experience. It seems likely that putting in place a workable set of selection, control, evaluation and portfolio-management processes will require at least 2 years. The objectives for FY2001 are: (1) to get consensus on a project proposal selection process; (2) make a first cut at casting IT expenditures into "asset" categories in time for the summer 2001 budget cycle¹⁰; and (3) practice establishing and monitoring project performance objectives.

Budget Development and Financial Management

IT capital planning is intimately related to budget development and other aspects of financial management. At present, the USITC's process for making IT-related input into annual internal budget consideration is that the relevant cost centers (principally IRM and Publishing) receive requests from office heads, add their own "internal" requirements, and forward them to the Director of Administration for consideration by the Budget Committee. Typically, the requests from offices are in terms of specific equipment or services; typically, Budget Committee review is in terms of "budget object classes" (supplies, equipment, external services, postage, etc.) that are difficult or impossible to relate to specific work processes, much less to program results. Working with this input, agency decision makers have tended to categorize expenditures as "ongoing" (meaning same as previous year) or "new." New expenditures typically receive low funding priority, on the theory that they are non-essential extras, for which no

¹⁰ This involves not only reviewing new IT projects in this fashion, but reviewing the backlog of established, continuing expenditures in the same terms. For example, the agency needs to conduct IRM/SC review of the entire DataWeb program (not just capacity expansion), the entire photocopier program (not just this year's copier proposals), etc.

funding has been provided by Congress. New capital expenditures are often made in the 3rd or 4th fiscal quarter of each year using unexpended funds, and with minimal time for review. During FY2000, some progress was made in recasting IRM expenditures in “project” categories for Budget Committee review, and in conducting IRM/SC review of year-end expenditures.

The Director of Administration has recognized the need for major improvement in the budget process. Beginning in FY2000, he worked with the Director of Operations and the Strategic Planning Committee to integrate budget formulation with the Strategic Plan and annual Performance Plans. For the FY2001/2002 budget cycle, he called on office heads to re-orient their narrative budget justifications to focus on how their activities support the agency’s 5 strategic operations; he has developed data presentations estimating roughly how expenditures are divided among the 5 operations; and he has emphasized workload forecasting (particularly caseload forecasts) in making his own recommendations to the Budget Committee. On another front, he is sponsoring a “data warehouse” project to make development of expenditure estimates and budget forecasts a much less manual, time-consuming and error-prone task.

Several major items remain on the agenda of changes required in the budget process to support information management. First, the relationships between strategic planning, IT investment review and the budget process need to be better defined. It is not yet clear how decisions on adjusting the agency’s IT investment “portfolio” will relate to budget decisions. Second, the discussion in Budget Committee considerations should be shifted from the question of “existing” versus “new” expenditures, to issues of how well expenditures are supporting strategic business goals. This will require a thorough re-organization of the project data provided to decision-makers, and the addition of a whole layer of performance data to the mix. This may require that the new AD data warehouse support activity-based costing so that expenditures can be recast in terms of their relationship to strategic goals.

The agency has not yet developed an IT Capital Plan distinct from the annual budget request. Responsibility for defining and preparing this plan has not yet been established, but OMB guidance suggests it should normally be the joint responsibility of

the Chief Information Officer and the Chief Financial Officer (or officials with equivalent responsibilities.) It may also become necessary to develop a set of budget reporting documents (as defined by the OMB Circular A-11 data call) as OMB increasingly uses budget reporting as the vehicle for reporting on other IT policy issues, e.g., information security planning.

Finally, the budget process might better support the agency in developing an effective case to Congress for funding activities other than the USITC's traditional core functions, conducted via basically the same work methods. Agency congressional budget justifications are generally limited to asking for funding for "uncontrollable" cost increases, and workload variations. In the current budget cycle, the limitations of this approach are apparent. Beyond that, however, it is clear that all Federal agencies are facing rising requirements for public access and convenience (e.g., GPEA) and for increased productivity. To meet these expectations the agency must find a way to make investment in significantly improved work processes, and to convince Congress that "we have done our homework" to make sure the investments pay off. Thus our justifications will have to speak the language of IT capital investment, and have the numbers to prove success.

Human Resources

This section discusses 2 kinds of human resource needs: (1) for the internal operation of the IT function; and (2) for executives involved in review and decision-making on information technology issues and their relationship to overall agency goals.

Human resources for IT operations

Staffing for information technology operations is widely recognized as a particularly difficult challenge, whether in the public or private sector. Several factors converge to create this challenge:

- *Increased impact.*—Information systems have become essential to most organizations' core business processes, so system failures are far more costly.

Moreover, information systems increasingly are the direct interface to the external customer, removing the human element to correct errors or interpret misleading outputs.

- *Increased complexity.*—It is no longer sufficient for IT professionals to know how to program in a single computer language. To be effective, they have to be at least generally familiar with how the configuration of computer networks affects their programs. They have to deal with computer security issues. They have to consider multiple types of software clients (e.g., Netscape versus MS Internet Explorer browsers.) They have to consider how their programs will react to hundreds or thousands of simultaneous users, and options for recovery from failure. They have to learn how to re-use programming code or components to deliver results faster while maintaining quality. And they have to deal with a flood of new knowledge that affects their work.
- *Increased scope.*—Since information systems are directly affecting core business processes, IT organizations are expected to provide support for business process analysis and change management. IT is also expected to provide support for project documentation and justification through the funding approval process. This is very far from the skill set, and perhaps the mind-set, of the traditional back-room “techie” programmer.
- *Increased speed.*—“Internet time” is today’s reality. Internal and external customers and stakeholders have dramatically higher expectations of what can be done with information technology. They expect the IT staff to be expert on the latest versions of the latest products (even when the products are not actually shipping.) In fact, the latest products and IT tools often have such dramatically improved features that the IT staff should be using them, even before the bugs are worked out. This means using tools for which training programs have not been developed, and where Internet discussion lists are the primary source of information and experience.

- Increased competition.*—Because of the high skill demands of the latest technologies and the high value these technologies can deliver, competition for IT professionals with top skills is intense. Firms whose core competency is software development (i.e., Microsoft or Oracle) must have these skills at any price. Organizations that are users (and not vendors) of software are therefore expected to find it hard to retain top software development skills on staff. Instead, they accept that they will have to make do with lesser skilled staff, and are shifting to buying more pre-built systems and simplifying the software development tasks that they retain in-house. Public-sector IT organizations are at a further disadvantage in that they have rigid limits on compensation and benefits they can provide.

The human-resource strategy for IT operations takes into account this environment and agency business goals.¹¹

STRATEGY	RATIONALE	IMPLICATIONS
Minimize in-house software development	Hard to find and retain expert developers; economics of buy vs. build keeps tilting to “buy”; most USITC work is not unique and therefore doesn’t require custom development	Plan for declining staffing levels for software applications developers
For retained software development, use simplified development methods for most work	Gartner Group recommended strategy for small and medium-sized organizations companies that do not have software development as a core competency	Implement packaged software development environment that is as simple to use as possible, consistent with application needs. Plan for “average” skills in in-house software group. Maintain adequate budget for training staff in new skills.
For complex or mission-critical applications, and for software architecture, the agency plans to use contract development in most cases	The agency is not likely to be able to afford specialized skills, skills in emerging areas of technology, and skill in design of complex, reliable, multiuser, secure web-based systems.	Develop contract-management skills and maintain an adequate budget for this type of work.

¹¹ Approval of this IRM Strategic Plan does not constitute approval of specific staffing increases indicated in this section. Final staffing decisions are made via the budget process in light of Strategic Plan goals, requirements of continuing operations and funding levels.

STRATEGY	RATIONALE	IMPLICATIONS
Maintain one senior “software architect” position on staff.	The agency will need at least one senior expert to make sure of getting best performance from contractors, and to plan ongoing update of the general in-house software development facility	Establish one “software architect” position as an early priority.
Develop a project management capability	Work process analysis, business requirements assessment, financial analysis and project management will be the key skill sets needed to successfully implement most planned strategic applications.	Establish at least one position for a trained project manager (MBA-type skill set) to pilot this concept as a top priority. Provide project management training to existing staff who have sound business, analytical and communications skills.
Maintain or strengthen on-board technical expertise in information security	High-quality information security is an increasingly critical success factor to moving to electronic government.	Maintain at least one position for a senior-level information security manager. There is currently adequate coverage in this area on board, but the agency should keep adequate expertise in-house.
Closely watch for opportunities to contract or out-source basic desktop (PC) and network management functions.	It is difficult to maintain expertise in network management, and probably not critical to have this expertise in-house.	There is currently good coverage in this area and the agency maintains a very economical operation, but it may be difficult to replace current skilled staff. Alternatives should be available should that prove to be the case.

Executive training on information technology management

Two factors are creating a need for agency program managers and senior executives to acquire new skills relating to management of information resources. First, core work processes will increasingly depend on information systems. Managers of these processes cannot carry out their responsibilities without some expertise in managing IT. Second, senior career and political executives with policy and budget responsibilities need to understand how IT can affect the agency’s strategic objectives and resource requirements.

The following program is recommended, with a target completion date of two years after it is initiated. Given the audiences, the Executive Resources Board may wish to consider whether this program might be handled through group training using the managerial and executive training budget.

TOPIC (EST. DAYS)	AUDIENCE	APPLIES TO TASK:
<ul style="list-style-type: none"> • “Best practices” for how other organizations are transforming their businesses through IT; (1-3) • Executive overview of key technologies of today and tomorrow (1) 	<ul style="list-style-type: none"> • Commissioners or designated Commissioner staff; • Senior staff decision-makers (Strategic Plan, IRM/SC, Budget Committee); • Senior program managers 	<ul style="list-style-type: none"> • Defining realistic but ambitious strategic goals; • Defining realistic project performance measures; • Developing the case to Congress for funding IT investments.
GPRA and Clinger-Cohen management frameworks (1)	<ul style="list-style-type: none"> • Commissioners or designated Commissioner staff; • Senior staff decision-makers (Strategic Plan, IRM/SC, Budget Committee); • Senior program managers 	<ul style="list-style-type: none"> • Create shared understanding of Federal planning and management framework; • Inform internal decisions on developing USITC planning, investment and budget procedures.
IT investment review topics: performance-based management; benefit/cost analysis; IT portfolio management; IT architecture; information security; OMB budget review process (3-5)	<ul style="list-style-type: none"> • Senior staff decision-makers (Strategic Plan, IRM/SC, Budget Committee); • Senior program managers; • IT project leaders (upon assignment to a major project) 	<ul style="list-style-type: none"> • Create shared understanding of process for managing IT investment from concept to selection and control phases to final evaluation.
Concepts of business process re-engineering; concepts of change management (2)	Senior program managers; IT project leaders	Create understanding of scope of business process change, including benefits and challenges.

In addition, the Commission may wish to consider more targeted training for managers with specific IRM operational responsibilities.

TOPIC (EST. DAYS)	AUDIENCE	APPLIES TO TASK:
CIO certificate program (e.g., the National Defense University) (6-8 weeks)	Senior IRM managers and key senior staff members directly involved in IRM (e.g., in OIS.)	All above topics, plus a few others, in greater depth.

Information Security

Under Federal policy, the manager of a work process which is supported by a computer system is responsible for assuring the security and availability of the information in the system. Non-technical managers are expected to request and receive significant support from computer security services (OIS) in analyzing information risks and arranging for adequate protection, but the process manager is ultimately in the best position to understand and place a value on the risks to the data and process they are managing.


In recent guidance, OMB has strengthened the requirement that appropriate security be “designed in” to new information systems from the beginning, and that the cost of adequate security controls be included in project proposals. Thus new IT investments require analysis of risks and development of a security strategy before funding is provided.

The system manager (owner of the work process supported by the system) is required to make a formal determination that security controls are in place before the system is placed into operation, and to conduct periodic reviews of system security. During operation, the system manager is the final authority for determining who will have access to the system and on any other key security-related decision, e.g., to shut down the system if a serious security threat requires it.

Thus program managers have a critical role in assuring information security of automated systems.

Appendix III summarizes the USITC’s information security program.

IRM Plan: Schedule of reviews and approvals

DATE	REVIEW OR APPROVAL EVENT	BY	COMMENT
May 17, 2001	IRM/SC approval	Robert A. Rogowsky, Chair	

Appendix I

Background Information on the USITC

Agency Background Information

The mission of the Commission is two-fold: administer U.S. trade remedy laws in a fair and objective manner; and provide the President, USTR, and the Congress with independent, quality advice and information on matters of international trade and competitiveness. In so doing, the Commission contributes to the development and implementation of sound and informed U.S. trade policy.

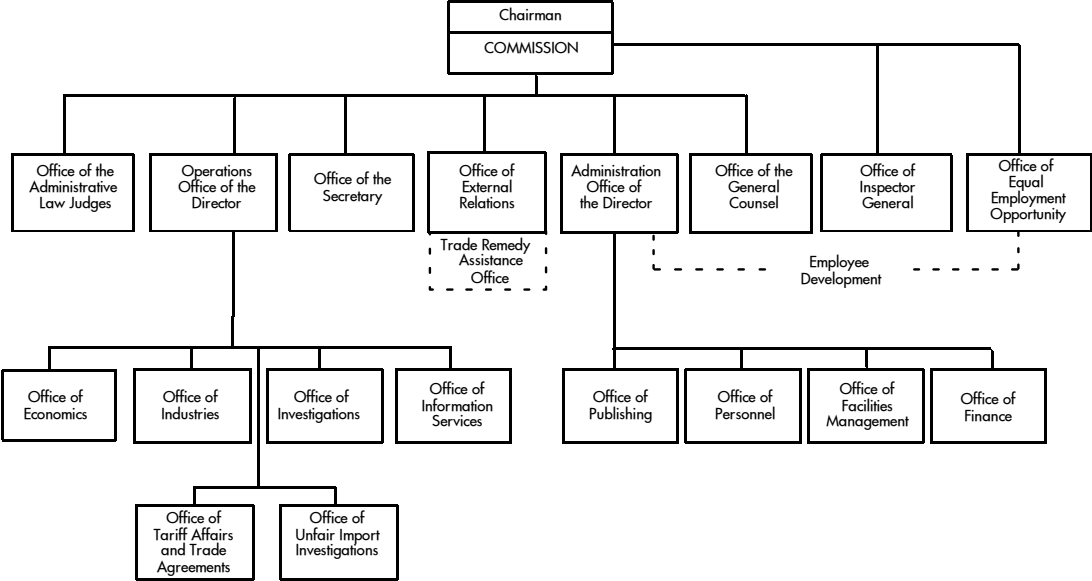
The Commission is an independent agency of the Federal Government. The Commission itself comprises 6 commissioners (at full complement), nominated by the President and confirmed by the Senate. No more than 3 commissioners may be of the same political party. The President appoints a Chairman and Vice-Chairman for 2-year terms; these offices must alternate between political parties. The Chairman has day-to-day management responsibility for the agency, but all Commissioners vote on the budget. Thus the Commission is designed to be non-partisan. As an independent agency, the Commission is not subject to some laws and Executive regulations relating to IRM management. However, as a matter of good management practice, the Commission generally follows Federal management guidance unless there is a specific reason not to. The Commission's independence is further strengthened by its authorizing legislation, which exempts it from Executive budget review. However, the Commission is subject to the management provisions of the Paperwork Reduction Act, the Government Performance and Results Act, and the Government Paperwork Elimination Act.

Funds available in the FY2001 budget of the Commission are \$48.8 million; authorized staffing is 425 FTE. The agency's budget is presented as a single line item. Internally, funds are budgeted and expenditures managed through a small number of "cost centers", including a Personnel Cost Center that accounts for about 70 percent of total expenditures, a Facilities Management Cost Center that includes space rental (another 12 percent of total expenditures.) IRM, publishing, travel, library, training and other miscellaneous cost centers comprise the remaining 18 percent of the budget. The agency has no revolving-fund or fee authority, and thus charges for none of its services (except occasional search and preparation expenses in

relation to major FOIA requests.) The agency has a single location in southwest Washington, DC.

The chart below shows the management structure of the Commission.

U.S. International Trade Commission



Agency strategic planning is coordinated by the Strategic Planning Committee¹², chaired by the Director of Operations. The Director of Operations is the agency’s Senior Official For IRM, as defined in the Paperwork Reduction Act,¹³ as well as Chairman of the Information Security Committee. The Director of Operations also chairs the IRM Steering Committee (IRM/SC.) The IRM/SC (introduced above) provides senior management review of major IRM matters including, on a *de-facto*

¹² The Strategic Planning Committee was designated in Administrative Order 98-05 of March 5, 1998.

¹³ The Commission is currently considering how it will structure the Chief Information Officer (CIO) function. In the interim, most of the duties assigned by statute or Federal guidance to agency CIO’s are performed by the Director of Operations or the Director of Information Services, either as a result of specific agency management action or on a *de-facto* basis.

basis, functions specified by Clinger-Cohen Act and related OMB guidance: review and approval of the agency's information technology architecture and major IT investment proposals. The IRM/SC oversees one permanent subordinate group, the Technical Review Committee (TRC.) The TRC performs the role of initial technical review of changes to the information technology architecture and other IT-related policies, and of major IT project proposals.

The agency's Budget Committee, chaired by the Director of Administration, provides the Chairman of the Commission with a recommended congressional budget request and operational expenditure plans, including funding for strategic programs, and for IT and other acquisitions.¹⁴

Day-to-day management and operation of most IRM functions is the responsibility of the Office of Information Services (OIS.) OIS reports to the Director of Operations. Significant IRM operational and cost-center functions are also handled by the Office of Publishing, which is responsible for design and publication of Commission reports and other documents, agency-wide support of photocopying equipment and operation of a central photocopy facility, and support for multimedia functions.

The Commission developed its first Strategic Plan in 1995, and a second edition in 1997. The current (third) edition, released in October, 1998, addresses the period FY1999-FY2003. The Commission has also published Performance Plans for FY2000/2001 and FY2001/2002, and Program Performance Reports covering FY1999 and FY2000. All these documents may be found on the USITC's main Web site at <http://www.usitc.gov/webabout.htm>.

The Strategic Planning Committee is currently preparing a revised Strategic Plan covering FY2002/FY2006. (An IRM Strategic Plan covering the same period will be prepared once the new agency Strategic Plan is final.)

A separate committee, led by the Director of Operations, prepared the agency's initial plan for implementing the Government Paperwork Elimination Act (GPEA Plan), which was submitted in October, 2000. The present document is consistent with that Plan.

¹⁴ The Commission does not have a Chief Financial Officer (CFO), but the Director of Administration performs many of the duties of this position as defined in statute and Federal guidance on a *de-facto* basis.

Appendix II
Analysis of USITC Business
Requirements

Sources of Business Requirements

This plan considers several sources of business requirements: (1) the Commission's Strategic Plan in combination with the FY2001/2002 Performance Plan; (2) the agency's GPEA Plan; (3) Government-wide policies, objectives and guidance; (4) and requirements for support of on-going operations, including administrative activities. The latter requirements are less likely to be clearly reflected in the strategic planning process, but are nonetheless deemed by staff and/or management to be vital to successful execution of the agency's mission. To better take into account these requirements, OIS conducted a round of interviews with agency office heads during June-October, 2000, which is referred to as "the FY2000 IT Requirements Survey." The following tables summarize the Commission's business requirements, indicating the source of the requirement.

Commission Business Requirements

NUMBER	DESCRIPTION	SOURCE
1.	Maintain and improve the quality and timeliness of agency investigative work products	Performance Plan, Strategic Goals I-2.(a)-3.(a)-4.(a), II-1(a)-1(b)-1(c)-2(b)-3(a)
2.	Make the Commission the preferred source for trade policy research and technical assistance	Performance Plan, Strategic Goals III-(all), IV-(all), V-(all)
3.	By the end of FY2003, the Commission will offer its customers, business partners and suppliers practical options to conduct their business with the agency electronically.	Agency-wide goal in FY2001/2002 Performance Plan; GPEA
4.	Automate investigations questionnaire development and processing, including electronic submission	Performance Plan, Operation I; GPEA; funding proposed for FY2001 and FY2002.
5.	Implement next-generation Dockets system (EDIS-II) including electronic filing and document distribution (including APO)	Performance Plan, Operation II, GPEA; funding proposed for FY2001
6.	Support enhanced automated Probable Effects process.	Performance Plan, Goal II-3(a); funding proposed for FY2001 & FY2002
7.	Support DataWeb as a free public service	Performance Plan, Goal IV-1(a); funding proposed for FY2001 & FY2002
8.	Implement Harmonized Tariff System (HTS) On-Line	Performance Plan, Operation IV; funding proposed for FY2001; GPEA item.

NUMBER	DESCRIPTION	SOURCE
9.	Create personalized Web "Portal" ("myITC") to enhance service to all customer and partner constituencies and serve as the main means of delivery of Commission work products	Requirements Survey; funding proposed for FY2001
10.	Greatly enhance automation support for budget formulation and execution (AD Data Warehouse)	Requirements survey; agency commitment in response to IG report; funding proposed for FY2001
11.	Comply with Government-wide guidance and requirements for records management, disability accessibility, information security, investment planning, financial standards.	Various laws and regulations
12.	Put comment process for agency rulemaking on-line	GPEA Plan
13.	Accept FOIA and Privacy Act requests on-line	GPEA Plan
14.	Accept invoices electronically	GPEA Plan

Commission Business Enhancements

NUMBER	DESCRIPTION	SOURCE
1.	Maintain or decrease "level services" costs of IT systems and IT-enabled work processes	Requirements Survey
2.	Maintain or enhance information security of Commission computer systems and CBI data in particular	Requirements survey
3.	Support work-at-home, work on travel, and effectiveness of on-site participation on trade policy support activities	Requirements survey
4.	Make it easier for staff to find and use technology tools	Requirements survey
5.	Automate all internal administrative paperwork and forms	Requirements survey
6.	Offer easy-to-use and reliable capability for taking remote testimony and depositions by parties in Sec. 337, 332 and Title VII cases, and for Commission meetings. Provide "Webcast" of hearings for interested parties outside Washington area.	Requirements survey
7.	Increase transparency of Commission investigations methodologies by placing self-service version of COMPAS model on the Web.	Requirements survey

In addition to business goals of the Commission, several other factors must be taken into account to make an effective IRM strategy. One important factor is the agency's business environment; another is the landscape of technology opportunities and trends. Important constraints are the agency's ability and willingness to absorb change associated with process re-engineering, and the availability of funds for investment in regular operations and new projects.

A full analysis of these factors is beyond the scope of this document, but the following summarizes some of the most relevant implications and assessments that should drive IRM strategic planning:

Factors in the Commission’s Business Environment

FACTORS	IMPLICATIONS
<i>Business environment—</i>	
Federal agency	Subject to many rules affecting staffing, “due process”, and financial arrangements Cannot compete for top technical talent on salary Inability to raise funds via financial markets Complex goals (not simple profit-seeking)
Small organization	Minimal internal IT research capability Too small to afford customized solutions in most cases Too small to staff specialized functions with full-time staff or to have backup for most functions No multi-site management complexities Relatively easy to standardize IT environment
Future case workload uncertain	Current (as of 10/2000) agency caseload forecasts call for a return to normal historic workload in import-injury cases following the “sunset” transition backlog, so FY2001/2002 may be a good time to attack process improvements in this area. Longer-term trends are uncertain, so general computer capacity requirements from this source are projected as flat (though complexity of all types of cases grows as capabilities and expectations of “consumers” rises.) Caseload is inherently variable throughout the year (as it depends on external decisions) so planning for most systems should include some spare capacity. These external decisions include not only private petitions to initiate cases, but also changes in law and regulation that may significantly affect the conduct and cost of case handling.
Independent status means less focused oversight	The USITC has significantly more flexibility than most agencies in deciding what Executive Branch management guidance it follows. In principle, this permits more effective and creative approaches to some management issues, and fewer resources on reporting.

FACTORS	IMPLICATIONS
Technology opportunities and trends—	
Technology moves to the “front office”	There is general recognition that information technology now offers the potential for significant enhancement in quality, productivity and customer impact of most core functions of most private and public organizations. Congress and the public therefore expect better results for less funding. To achieve this, program managers will have to change work processes and not just conduct business as usual, no matter how successful they have been. The IRM function should provide help for changing work processes, and not just provide technology.
Security and privacy issues must be solved to open the way to new business models requiring partnering	Before the Internet, information security was provided mostly by physical security controls (guards at the building entrance; safes in offices.) Early in the Internet era, security was provided by electronic “firewalls” that provided rigid separation between internal systems and external systems. However, the firewall approach does not support the kind of wholesale interactive data access and data exchange between an organization and its business partners and customers that is required by modern business models. Nor does it support the closely related GPEA vision of electronic government. However, business data still require adequate protection. The USITC is very dependent on the fact and the perception of the agency’s ability to protect CBI. Thus a new information security is required, that is as reliable as the physical or firewall models but still permits highly flexible interaction among the set of people that is appropriate for a particular situation. Implementing such a system is the central challenge of an e-government computer architecture.
Rapid change	IT is not just about “bolting on” technology, but about major change in work processes; External expectations rise rapidly as other organizations make great advances in customer convenience and efficiency; Success in handling “people” issues become critical to progress; New business-process change skills are needed by program managers and IT
Open standards increasingly practical	Increasing commercial use of open standards (product standards developed by public organizations, or at a minimum having published specifications) makes communication (e.g., over the Internet) between ad-hoc groupings of business partners and customers more practical; open standards give buyers of IT (like the USITC) more and cheaper product choices
“Pervasive computing” moves out of the office and out of the PC	The “boundaries” of the organization are no longer physical, so conventional security concepts are obsolete; Web browser-oriented technologies that can work flexibly with various devices (cell phones, PDAs) will work better than non-portable “desktop” technologies.

FACTORS	IMPLICATIONS
Component technology and XML promise faster application development and improved interoperability	Customized “hand” programming cannot produce quality results fast enough. XML technology will reduce the need for rigid standardization.
<i>Cultural/organizational constraints—</i>	
Significant process improvement means significant impact on work process and staffing	Program managers will find themselves spending more time changing work processes than overseeing stable ones
Executive management structure limits involvement	“Court-like” organization of the Commission leaves little time for Commissioners to focus on management issues. If they are to be meaningfully involved in management decisions, clear presentation of options must be provided.
Limited customer information	Like many Government organizations, the Commission is not used to thinking in terms of “marketing” its services. Tools for getting customer feedback are therefore limited.
Emerging management experience and immature management processes to support performance-based management	GPRA and Clinger-Cohen introduce radically new management processes. Senior staff have limited experience working with these processes, so decision-making is relatively time-consuming.
<i>Funding constraints—</i>	
Tradition of reliance on caseload increases to justify budget increases	The agency has little experience developing compelling cases to Congress for new or enhanced services or programs; as an independent agency, the USITC typically does not receive strong support for its budget in the Administration’s budget request.
No fee authority	The agency relies on appropriated funds so new services to the public require budget increases.
Short-term outlook is constrained	FY2001 is expected to be a very constrained year, so the agency may have to delay implementation of some plans.
Internal cost-saving opportunities limited	Staff costs are a very high proportion of total costs, and Commission policy is to rely only on attrition to adjust staffing levels. Cost savings in programs do not accrue to the program, so incentives to save are minimal.

Appendix III

Information Security Program

USITC Policy Framework for Information Security

The USITC's Information Security Program comprises the following elements:

DOCUMENT	ROLE	STATUS	RESPONSIBILITY
Information Security Directive	This public document sets overall Information Security policy for the agency, and assigns roles and responsibilities.	A major revision of the Directive was approved in 2001. It is available in the Directives database on the USITC Intranet.	Maintained by the Director of Information Services; modifications must be approved by the Commission via Directives Review process.
Information Security Handbook	This public document contains detailed guidance on procedures for handling CBI and NSI, whether in hard-copy (paper) or electronic form. This document includes "rules of the system" for ordinary and privileged (administrative) users of the agency's general computer system (ITC-Net.)	Handbook is an attachment to the Information Security Directive.	Maintained by the Director of Information Services, with guidance from IRM/SC. Reviewed annually or more often as needed.
Computer Security Plan (CSP)	This <i>non-public</i> document contains overall USITC automated information security strategy, and identifies agency information systems that merit specific security controls because of the sensitivity of information they contain or their importance to agency operations. For the agency's general computer system (ITC-Net) and for each "major applications system" as identified in the Plan, there is a separate set of security controls (as defined by OMB A-130) including a separate security plan. These plans are included in the agency CSP.	The USITC CSP is available from the Director of Information Services.	The Plan is maintained by the Director of Information Services, subject to the the guidance of the Information Security Committee. It is reviewed at least annually. Security Plans for ITC-Net and major application systems are reviewed by their designated system owners at least every 3 years.

The following is a summary of the agency Computer Security Plan. It does not contain sensitive information.

Summary of the USITC Computer Security Plan

The principal guidance for Federal agencies on management in information systems security is Appendix III of OMB Circular A-130. Appendix III defines the minimum set of security controls that agencies should maintain for their automated information systems. The guidance provides for separate sets of controls for each "general support system" (i.e., computer network, LAN,

etc.) And for each “major application system.” The first step in implementing this guidance is to identify the “general support systems” and “major application systems” at the ITC.

Appendix III defines a general support system as:

“an interconnected set of information resources under the same direct management control which shares common functionality. A system normally includes hardware, software, information, data, applications, communications, and people. A system can be, for example, a local area network (LAN) . . .”

Given this definition and that—

- the agency is relatively small;
- the agency is located at a single site;
- all systems of the agency network are connected; and
- most users need to use most components of the network at least occasionally, and
- for security purposes, the agency has built most access controls around the entire network and not around individual components,

it is reasonable to consider that **the agency has one “general support system” comprising the agency’s entire computer network.**

Appendix III defines a major application system as:

“an application that requires special attention to security due to the risk and magnitude of the harm resulting from the loss, misuse, or unauthorized access to or modification of the information in the application.”

Appendix III also notes that “[A]ll Federal applications require some level of protection. Certain applications, because of the information in them, however, require special management oversight and should be treated as major.”

Thus the definition is based on the sensitivity and value of the information in the application, and not the cost or complexity of the system itself.

Based on this, the agency has identified the **Electronic Dockets Information System (EDIS)** as a major application system.

EDIS is a major application system because it contains confidential information whose compromise would severely harm the agency’s most critical mission, namely Title VII and Sec. 337 adjudication. Based on the program manager’s plans for EDIS as the central facility for case research, prolonged loss of availability of the system will become very harmful to the adjudication mission as well. Finally, the difficulty and expense of recreating the system’s database makes it a high-risk system that merits special protection.

During FY2001 the agency identified 2 additional major application systems for which documentation of security controls is being prepared: (1) the Probable-Effects Template System (PETS); and (2) the CNIF System.

Other agency applications that were considered for classification as “major applications” for purposes of Appendix III, but rejected for the reasons indicated, are:

INFORMATION RESOURCE	REASON NOT QUALIFIED AS “MAJOR APPLICATION”
International Trade Database	Replicable from other sources; not time-critical; not confidential
Finance and Payroll system	Under management control of DOI; low confidentiality
Staff word-processing work product	Not a distinct system (part of the “general support system”); mostly easily replicable from paper records

USITC Information Systems Management Controls

General Support System: the USITC Network

System description

The USITC Network (hereinafter “ITC Net”) is a heterogeneous local-area network serving all agency functions for the entire staff of about 400 at a single site at 500 E St. NW. The standard ITC Net workstation is a Pentium-class PC running Windows95/98 (97 percent of workstations.) Standard network printers are HP LaserJet 3,4 and 5 models.

The network topology is switched Ethernet (100BaseT central switch with 10BaseT workgroup switches.) VINES IP and TCP/IP protocols are supported throughout the network.

File, print and internal e-mail is handled by Banyan Systems, Inc.'s VINES network operating system running on 6 Pentium-based servers. Most standard "personal productivity" applications and many special-purpose applications are provided from this system. There are several PC-based application servers running DOS, LINUX, or Windows NT: a Lotus Notes/Domino server, a Biscom LAN FAX server; a NewsEdge server; 2 internal and one external Web servers; a newsgroup server; a SACONS small-purchase system server; an application server ("ReportWeb") ; and a CD-ROM server.

ITC Net includes an Oracle database facility on an HP-UX (UNIX) server; an (Excalibur) imaging application that uses a separate HP-UX server plus 2 HP OCR workstations, 3 WinNT scanning stations and 6 Talaris image printers; and a publishing subsystem comprising Interleaf document software hosted on a Solaris server and 5 Win95 workstations, connected to 2 Xerox Docutech printer/copiers and a Xerox XDOD workstation.

External connections of the ITC Net include a T1 Internet connection via a Raptor Systems NT-based Eagle firewall; a 56KB TCP/IP leased line to the Department of the Interior (for a financial and personnel services cross-servicing arrangement) that also passes through the firewall; a backup modem-based SNA connection to Interior; a dial-in PcAnywhere host pool; 2 Banyan asynch dial-in/out pool connections; a modem-based terminal server in the Main Library for OCLC; and an estimated 10 modems in PCs throughout the agency used for dial-out access to various services.

The following describes implementation for the ITC Net of the 4 basic security controls required by Appendix III.

1. Security responsibility

Management responsibility for the ITC Net (including security) is assigned per memorandum, dated October 28, 1997, to Michael Olsavsky, in his capacity as Chief of the Information Systems Division of the Office of Information Services.

2. ITC Net security plan

(Confidential)

3. Independent Evaluation of Controls

(Confidential)

4. Authorization to Process

(Confidential)