## **Information Technology Initiatives**

Information technology (IT) holds the key to meaningful improvements in the way the RRB provides services to the railroad community. We continue to look to information technology as a source of creative, flexible, and reliable solutions to new challenges involving human capital as well as IT capital. Major issues in the coming years will involve determining how to best leverage our human capital and budgetary resources to achieve the advances to which we are committed in the areas of e-government, customer service, computer security, and infrastructure.

During the past 2 fiscal years, we completed a significant undertaking to develop and document the information technology architecture needed to ensure that the information technology program is on a sound footing. This ensures that our technology investments and initiatives are focused on improving the agency's strategic performance, and that they are internally consistent, well-designed, and standards-based. We have developed our Technical Reference Model and preliminary standards profile in accordance with OMB guidance. We are moving forward with gap analysis and transition/migration planning, and have developed a new, comprehensive capital planning and investment control process to ensure that our future initiatives and investments stay on track, provide a positive return, and achieve constructive results.

The RRB has a strong customer-centered focus and strategy for its information systems. Our objective is to enable our customers to conduct their business with the agency in the most convenient and effective manner possible. Providing our customers with flexible choices in service delivery methods is a key aspect of this strategy that supports a goal of the President's management agenda--to expand use of the Internet and computer resources to provide services through electronic-government (e-government). Effective implementation of the RRB's e-government initiatives is important in making the RRB more responsive and cost-effective. The development of e-government applications that use secure web-enabled technology is a high priority.

Another of the RRB's major objectives -- "one and done" processing -- represents a more streamlined, efficient, and effective process for serving our customers. It involves providing them with accurate, on-the-spot responses to their requests, with RRB staff providing minimal, if any, intervening processing. To support these improvements in our processing, we must establish a solid technology infrastructure. This has involved the procurement of both new and replacement hardware and software to support our desktop and network environment, improved communications, and strengthened security measures.

The RRB's IT Capital Plan includes key initiatives for fiscal year 2005, which are described more fully below and in the section beginning on page 57. In addition, the RRB has developed a separate Enterprise Architecture Capital Asset Plan, which identifies the resources needed to achieve our target architecture in order to meet the agency's performance goals and the President's Management Agenda reforms. Information concerning the Enterprise Architecture Capital Asset Plan is provided under a separate tab at the end of this budget submission.

**E-Government** - Initiatives in this category are required to provide electronic services to the public, as mandated by the Government Paperwork Elimination Act of 1998 and other Federal directives. They are also required to achieve our strategic objective of providing our customers with more flexible service delivery options. We will be strengthening our agency's Website by expanding it to provide interactive, individual-specific, electronic services for our customers -- giving them the option of Internet self-service in addition to more traditional means of conducting their business transactions. We have already begun by developing a preliminary array of Internet initiatives offered through our Website. These include a means of making online requests for various services, including service and compensation histories, replacement Medicare cards, annuity rate verification letters, duplicate tax statements, and a district office finder service.

During fiscal year 2003, we conducted a pilot of our employer reporting system, which involves a strategic shift from paper forms and reports to Internet-based reporting by railroad employers. This system was made available to participating employers in early fiscal year 2003 for beta testing. Based upon the feedback received, we are enhancing and expanding this system to a larger array of employer reporting instruments, together with a nationwide rollout of the service.

During fiscal year 2004, we are planning to implement projects for additional on-line Internet transactions. These include applications and claims for unemployment benefits, and sickness benefit claims. We also plan to begin development of interactive applications involving on-line entry of direct deposit and change of address information.

A total of \$200,000 is planned for these e-government initiatives in the fiscal year 2005 budget.

"One and Done" - - Initiatives in this category include key system development projects required to achieve our primary customer service strategy of "one and done." This strategy represents the ability to provide our customers with accurate, on-the-spot responses to their telephone calls, letters, applications for benefits, and other service requests. In order to achieve this level of service delivery, we must have automated systems that can access and process information, and deliver accurate results to the customer or our employee when needed.

The principal initiative to be funded in this category during fiscal year 2005 is:

➤ IT Task Orders (\$225,000). This non-capital item represents funding to implement the President's goals for increasing private sector competition in commercial-type activities. Contractor resources would be used on a task-order basis to obtain competitive assistance services in application development for a variety of systems needing updating or enhancement to meet the goals of the "one-and-done" initiative.

**Technology Infrastructure and Administrative Support - -** These investments are required to establish a firm foundation for the technology advances we have planned, and to maintain our operational readiness. This will require replacements and upgrades to agency networks, desktop computing hardware and software, and a wide variety of system development tools. It also involves continued investments in enterprise architecture and information security.

The specific investments in this category in fiscal year 2005 include:

- ➤ Mainframe replacement (\$175,000). We plan to replace the mainframe processor in fiscal year 2004 with flexible enterprise server capabilities and greater capacity than the current system. Technical studies will be ongoing in fiscal year 2003 to develop additional detailed justification for this replacement.
- ➤ System development tools (\$100,000). This item provides for software licenses needed to retool the system development staff, to enable them to build new systems and modify existing legacy systems to meet the goals of the RRB's newly established information technology architecture. Such tools will include the resources needed to continue to develop our Microsoft.NET, SQL and DB2 environments.
- Network/server operations (\$250,000). This item represents funding to support the agency's wide area network operations. It includes funding to cover mandatory replacement and/or upgrades of servers, network operating software licenses, routers, switches, etc. It also includes funds to begin a proactive replacement of a portion of our network servers and software with more up-to-date models or versions. We plan a 3-year replacement cycle, in which we would replace approximately one third of the servers each year.
- ➤ Standard Workstation Infrastructure (\$200,000 at guidance level/\$500,000 at agency request level). This item includes funds to support the agency's desktop computing environment, including personal computers and printers, personal computing software suites and other software licenses needed at individual workstations. With full funding, we would also be able to replace printers, portable PC's, and PC's located in training and conference rooms.
- ➤ Information Security (\$150,000). The RRB plans to conduct a vulnerability assessment and update plans to protect our critical infrastructure from cyber and physical attacks. This initiative will entail contractual assistance in conducting a vulnerability assessment, whose results would be used to minimize any identified vulnerabilities and update our computer security plans to comply with the Government Information Security Reform Act.
- Enterprise Architecture Services (\$25,000). This item represents a continuation of contractual support for the ongoing refinement of the agency's enterprise architecture, which was initially developed during fiscal year 2001.

# INFORMATION TECHNOLOGY CAPITAL PLAN

Fiscal Years 2003 - 2008

## Information Technology (IT) Capital Plan FY 2003 - 2008

Capital Element	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
1. Mainframe		\$175,000	\$175,000	\$175,000			\$525,000
2. Disk storage	161,000	161,000					\$322,000
3. Document imaging	215,000	75,000		300,000			\$590,000
4. System development tools	23,000	25,000	100,000	50,000	50,000	50,000	\$298,000
5. Network operations	100,000	250,000	250,000	338,000	313,000	298,500	\$1,549,500
6. Standard workstation							
infrastructure	88,290	300,000	$500,000^{a}$	500,000	500,000	500,000	\$2,388,290
7. Videoconferencing and							
distance-learning				75,000			\$75,000
8. E-government	256,000		200,000	200,000	200,000	200,000	\$1,056,000
9. Information security	136,710	150,000	150,000	150,000	150,000	150,000	\$886,710
10. Records management tools				200,000			\$200,000
Non-Capital Plan Element							
11. Enterprise architecture	25,000	50,000	25,000				\$100,000
12. IT task orders		250,000	225,000	500,000	500,000	500,000	\$1,975,000
		-	-		-		
TOTAL	\$1,005,000	\$1,436,000	\$1,625,000	\$2,488,000	\$1,713,000	\$1,698,500	\$9,965,500

<sup>&</sup>lt;sup>a</sup> Includes \$200,000 at the guidance level of the budget and an additional \$300,000 at the agency request level.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 1. Capital Element: Mainframe

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	TOTAL
	175,000	\$175,000	\$175,000			\$525,000

Agency Strategy and Benefits: In early fiscal year 1999, the RRB replaced its mainframe processor, an IBM 3090-400J acquired in 1991, with a new processor, an IBM S/390 Multiprise 2003 2C5. The specific benefits of this replacement included conversion to CMOS (Complementary Metal-Oxide Semiconductor) technology, which does not require specialized water-cooling or air conditioning as the previous technology did. In general, CMOS processors require less space, lower energy costs, and lower maintenance costs. Space savings have been used to help consolidate other computer equipment (such as local area network servers) from other floors in the headquarters building in order to facilitate coordination and more standardized administration.

We procured the replacement processor through a 3-year operating lease, with an optional buyout in the fourth year. During fiscal year 2001, the RRB decided to accelerate the termination of the lease and to buy out the equipment in fiscal year 2001 rather than wait until fiscal year 2002.

After replacing the mainframe processor, we also replaced the operating system, IBM MVS/ESA, also acquired in 1991, with OS/390. The mainframe operating system supports our nationwide delivery of services as well as our suite of mainframe legacy application programs and databases. This transition ensures that the operating environment is current, viable, and will continue to be supported by the vendor.

We plan to procure the Z800 Series mainframe in fiscal year 2004 through a 3-year operating lease. This decision is necessitated by IBM's decision to cease support of our current operating system, OS/390, at the end of the 2003 calendar year. Its replacement operating system Z/OS is not compatible with our current mainframe, which dictates our need for a new mainframe. The acquisition of the database, DB2, to our environment, and its capacity requirements is another factor favoring an upgrade. The Z800 Series mainframe provides us with flexible enterprise server capabilities and is capable of providing greater capacity. This will support the agency's plans for increasingly automated operations and new e-government functions. Anticipated benefits include reduced energy requirements, faster performance, growth options for increased capacity, and an ongoing ability to install new releases of operating system software as they are issued.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 2. Capital Element: Disk Storage

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	TOTAL
\$161,000	\$161,000					\$322,000

**Agency Strategy and Benefits:** Access to information has become almost as important as the information itself. This is especially true where e-government technology is at the forefront of transforming RRB services for its customers. The RRB needed a data management storage solution that would provide a centralized computing environment with critical Web services for access to real-time data.

The objectives of our data management and storage search were: to cut the time spent on managing storage, increase the effective utilization of disk space, reduce costs associated with power consumption, and obtain a large disk storage device able to store terabytes of data. We also needed to reduce backup from minutes to seconds with a large, more flexible storage solution.

After a competitive process, the RRB selected IBM's 'Shark' Enterprise Storage Server (ESS). IBM's 3-terabyte storage solution will support the database, store the majority of the agency's data, and provide quick access to customer services.

Anticipated benefits of this type of device include sufficient capacity for our growing demands for electronic data storage, superior performance and protection features, and the ability to manage data from various technical platforms, including our network servers. It was determined that it would be more economically advantageous to the RRB to procure the new device through a 3-year lease beginning in fiscal year 2002 and extending until fiscal year 2004, rather than a direct purchase alternative. This element will fund the annual capital lease payments for this system.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 3. Capital Element: Document Imaging

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	TOTAL
\$215,000	\$75,000		\$300,000			\$590,000

**Agency Strategy and Benefits:** During fiscal year 1997, the RRB, with contractor assistance, developed a target configuration and representative cost analysis for a new image processing system. Our objectives were to:

- improve service delivery through immediate access to claim information,
- eliminate the need for and expense of paper folders and claim materials, and
- reduce contract costs for claim folder storage and retrieval.

The concept of image processing is to allow claims staff to view certain documentary evidence and materials needed to adjudicate or process a claim through a microcomputer workstation, without having to wait to retrieve a paper claim folder from the central file storage area.

Anticipated benefits of document imaging include:

- reduced contracting costs for transporting paper claim folders,
- elimination of folder movement within the agency,
- improved customer service,
- reduced storage costs at the off-site facility, and
- simultaneous access to claim folder information by multiple employees.

During fiscal years 1998 and 1999, the RRB completed the first segment of this project, which was to replace an older, stand-alone imaging system used in the unemployment and sickness insurance processing area. During fiscal year 2000, this system was expanded to create a folderless processing environment for unemployment and sickness insurance claims.

During fiscal years 2000, 2001 and 2002, the document imaging system was further expanded into areas of processing covered by the Railroad Retirement Act. All new applications for benefits and supporting documentation were captured by this expanded system. In fiscal years 2003 and 2004, all of the primary requirements for the system will be completed, including the introduction of bar coding to facilitate the capture of document information. Plans for fiscal year 2006 involve the expansion of the system to capture documents in our network of field offices.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 4. Capital Element: System Development Tools

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	TOTAL
\$23,000	\$25,000	\$100,000	\$50,000	\$50,000	\$50,000	\$298,000

**Agency Strategy and Benefits**: The RRB will purchase a variety of software and systems development tools to continue automation efforts that exploit new information technology and support the transition to the target information technology architecture that were defined in the agency's Enterprise Architecture Plan in fiscal year 2003.

We will need to invest in new software tools to support the agency's long-range plans for automation, as discussed throughout this plan. A key aspect of the transition involves the need to provide tools and software infrastructure to support a new Enterprise Architecture, which we expect will be based on proven multi-platform technologies. This will include tools to support middleware, relational databases, and the development of additional microcomputer application systems, as well as tools to allow secure Intranet/Internet access to enterprise mainframe-based applications and data.

During fiscal year 2002, the RRB developed the necessary architectural design and information technology concepts to support the agency's long-term strategic direction. We have translated these into system/software infrastructure requirements and software development tool specifications that will enable implementation of the target architecture, as well as transition us to that point. These will be acquired during the fiscal year 2003-2008 timeframe.

During fiscal year 2003, we procured a minimal number of development licenses for Visual Studio.Net and Fujitu COBOL. Net. We also procured support components, including, Infocus for Section 508 compliancy and Delphi Studio 7 enabling us to convert older Parodox databases to SQL. Additional tools may include new version-control software to improve our control over PC software, similar to the mainframe product in use. It will also include additional developer licenses for a variety of multi-platform system development tools and server support components.

Taken as a whole, the new tools and software purchased under this capital element will provide programmers and system support staff with the required tools to move forward, improve the efficiency and effectiveness of the system development life cycle, and help business processes throughout the agency operate more effectively.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 5. Capital Element: Network Operations

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
\$100,000	\$250,000	\$250,000	\$338,000	\$313,000	\$298,500	\$ 1,549,500

**Agency Strategy and Benefits:** This capital item includes funds to support the agency's centralized wide-area network operations.

A shared, intelligent fiber optic backbone for network operations in the headquarters' building facilitates the physical movement of microcomputer workstations and provides a secure, reliable operating environment. Referred to as the virtual local area network (VLAN), this backbone allows for flexible communications between the various servers throughout headquarters and the field offices.

In fiscal years 2002 and 2003, the RRB, with contractor assistance, underwent an upgrade of its overall network infrastructure with the objective of ensuring a stable and robust network infrastructure to support the agency's program needs. This upgrade included: conversion to Microsoft Windows Advanced Server Active Directory Service; elimination of the remaining Novell servers; upgrade of the agency's e-mail system to Exchange 2000; development of an SQL database environment for development, testing and production; and, introduction of additional network management and monitoring capabilities.

In fiscal year 2004, this item will provide for the continued upgrading of the network and replacement of servers and other network components, such as routers, switches and their attendant software to ensure reliable and secure communications on a day-to-day basis.

Funds are included each year for emergency replacements or upgrades of hardware or software as needed to ensure continuing service to the user community. Funds are also included for the replacement and support of imaging equipment. These purchases may include such items as servers, routers, switches, jukeboxes, scanners and new or upgraded software releases.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 6. Capital Element: Standard Workstation Infrastructure

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	TOTAL
\$88,290	\$300,000	\$500,000	\$500,000	\$500,000	\$500,000	\$ 2,388,290

**Agency Strategy and Benefits:** This capital element provides the investment needed to establish a common framework to support agency-wide operations, both throughout headquarters and the field service. It reflects the RRB's strategic intention to develop and maintain standardized equipment profiles based on job functions and business needs. We have defined the following profiles for microcomputer workstations:

*General user* -- This profile covers most employees, including those who process claims, develop systems, and prepare administrative information, reports and transactions.

*Power user* -- This profile includes financial, actuarial, and system development staff whose work involves very high volume or very complex processing at the desktop.

Mobile user -- This profile includes users of portable PC's who may be connecting to the mainframe or other applications from virtually any location. The primary users would be the contact representatives in the field service who would be using portable PC's on itinerant service. In addition, there are specific individual employees who use portable PC's at home or on business trips.

Document imaging user -- This profile was established to cover employees who need to view and process images created and stored in the agency's image processing system. Essentially, imaging users will use the standard configuration workstation used by general users, except that they will have a larger monitor to enable them to view multiple documents or split screens to process their work. Special purpose software licenses required to use the document imaging system are covered under Capital Element 3, Document Imaging.

This capital element includes projected funding needed to upgrade and replace PC workstations on an ongoing basis. Due to the rapid advances in technology and the need to ensure interoperability, we have chosen a 4-year replacement schedule, cycling through to replace the oldest technology first, and striving to ensure that all users have an adequately powered and maintainable workstation at their disposal. This category also includes funds for peripheral support equipment, such as printers. The request for fiscal year 2005 includes \$200,000 at the guidance level of the budget and an additional \$300,000 at the agency request level.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 7. Capital Element: Videoconferencing and Distance-Learning

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
			\$75,000			\$75,000

**Agency Strategy and Benefits:** The RRB is interested in using videoconferencing technology for the purpose of improving person-to-person intercommunications in such areas as:

*Distance-Learning* -- Training of RRB field office staff could be facilitated and conducted on a more timely basis as new systems and procedures are introduced.

Appeals Hearings -- Videoconferencing could expedite appeals hearings by eliminating the need for travel and the associated delays and expenses. These hearings could be held in a more timely manner, and at a lower cost.

Interactive Customer Services -- Videoconferencing at key non-RRB locations (e.g., railroad personnel offices or union offices) would allow the RRB to expand its customer service delivery options without the need for itinerant travel costs.

*Customer Feedback* - - Opportunities would be created for occasional groups of customers to provide input on procedures, forms and services.

Conferences -- This technology would provide the opportunity to enhance presentations during informational conferences, management conferences, and disbursement officer conferences by allowing the participation of agency officials who are unable to travel to the conference site.

During fiscal year 2001, the agency entered an agreement with the Department of Transportation to develop a customized RRB Virtual University, which provides for an extensive array of on-line courses to be used throughout the agency. Plans for fiscal years 2004 and beyond include the development of customized e-learning training sessions to be provided through the RRB Virtual University.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 8. Capital Element: *E-Government*

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
\$256,000		\$200,000	\$200,000	\$200,000	\$200,000	\$1,056,000

Agency Strategy and Benefits: In order to move the RRB into our customers' homes through the Internet, it is necessary to provide secure links to our legacy databases and application programs. For example, in order to permit a railroad employee to file for his annuity over the Internet, we must provide the application process (with appropriate edits and instructional "Help" features) within an Internet browser. Further, in order to minimize data entry by the customer, the application must be linked with that person's records already maintained by the agency. To make this process user-friendly, we need to develop the application in an environment that is easy to use and graphically pleasing.

During fiscal year 2000, the RRB developed several new Internet services for the public, including requests for rate verification letters, replacement Medicare cards, duplicate tax statements, and copies of service and compensation records. These were introduced to the public on the RRB Website during November 2000. In 2003, we enabled our customers to complete a Compensation and Service Record Request on line.

This initiative will provide for a number of additional Internet-based projects to be pursued during the next few years. Included among these are improvements to our Employer Reporting System that will expand services to railroad employers by providing on-line capabilities for them to store and file electronically forms containing information pertaining to employees. This initiative will provide a significant new service choice for our customers as well, eliminate the need to have an RRB employee assist with each transaction, and allow the customer to initiate transactions when the RRB offices are closed.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 9. Capital Element: Information Security

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
\$136,710	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$886,710

Agency Strategy and Benefits: In order to provide appropriate protection of information and information systems in the face of a changing risk environment, a comprehensive security program requires continuous management to control the risks that threaten the agency's critical assets. Complementary use of both technology and well-trained personnel can effectively reduce those risks to an acceptable level. Implementing and maintaining computer security control techniques requires a comprehensive and integrated management approach. Management needs to have sufficient information to make informed decisions about the threats to agency computer security, have an understanding about what causes these threats by studying how vulnerabilities arise in the development and use of computer systems, and knowledge of the controls that can reduce or block these threats to agency information assets.

We are the trusted custodians of repositories of data about railroad workers and their families. We have the responsibility to protect the confidentiality, integrity, and availability of that information and the resources used to enter, store, process, and communicate it. The RRB will not jeopardize the public trust that has been earned by over half a century of dedicated service to our clients

Funding for information security will provide for a variety of information security program activities including:

- Establish the foundation for intrusion prevention and detection, through the collection and centralization of audit information.
- Develop and build an incident response capability through a multi-layered security strategy that includes the implementation and deployment of a computer security incident response team.
- Assess and evaluate the issue of encryption of agency e-mail.
- Provide for annual security awareness training for all agency personnel and specialized security training for personnel with direct responsibilities for protecting IT systems.
- Develop and deploy a Certification and Accreditation methodology for information systems.
- ° Continue to address efforts that improve processes to incorporate security program principles into all aspects of IT system operations.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 10. Capital Element: Records Management Tools

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
			\$200,000			\$200,000

Agency Strategy and Benefits: This capital item represents funding needed to comply with Federal requirements concerning the need to record and archive electronic transmission of information in the future. In fiscal year 2006, we intend to conduct a limited pilot test early in the year, and to follow up later in the year with a full implementation of a Records Management System. We may need to further refine the cost estimates as vendors enhance their existing products and as new records management products enter the marketplace. The software must comply with the Federal Records Act and the implementing regulations found in 36 CFR 1220-1238. Records management software is becoming well-established and a useful tool for meeting requirements of the National Archives and Records Administration concerning the storage, retrieval and ultimate disposition of electronic Federal records.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 11. Non-Capital Element: Enterprise Architecture

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
\$25,000	\$50,000	\$25,000				\$100,000

**Agency Strategy and Benefits:** This non-capital element is the key to the agency's success in developing an enterprise architecture that responds to the agency's business needs with the consistent and active participation of all RRB components in defining, instituting and supporting the designated initiatives. Through nearly a year of collaborative meetings, the RRB target architecture was identified. This target architecture is comprised of eight distinct, but interrelated, structural components or domains.

Through extensive collaboration with decision-makers throughout the RRB, research into industry best practices and adherence to the RRB's IT objectives and architectural principles, the RRB has documented 10 initiatives that will provide the IT staff with the means and support to develop and implement the target architecture. These 10 initiatives are identified in the agency's *Gap Analysis Results* report, released in January 2002.

The *migration planning* phase, currently in progress, has defined the effort necessary to implement the recommendations for five initiatives identified in the gap analysis. The initiatives were prioritized, and a projected future directions roadmap is being developed spanning a 3 to 6 year period. Constraints, tradeoffs, risks, estimated project costs and metrics to measure success will be included in the plan.

This non-capital item will provide funding for contractual assistance with expanded enterprise architecture requirements including reference models, as well as assistance with the final phase of the migration plan, namely *implementation planning*. The implementation plan will take us from our "as-is" to our "to-be" environment (in essence closing 5 of the 10 identified gaps). Implementation planning coordinates the creation of highly detailed project plans, resources and funding requirements for each initiative and allocates enterprise resources to the projects identified.

Information Technology (IT) Capital Plan FY 2003 - 2008

## 12. Non-Capital Element: IT Task Orders

FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	TOTAL
	\$250,000	\$225,000	\$500,000	\$500,000	\$500,000	\$1,975,000

**Agency Strategy and Benefits:** This non-capital item represents funding to implement the President's goals for increasing private-sector competition in commercial-type activities. Contractor resources would be used on a task-order basis (1) as an alternative to filling vacant positions, and (2) for staff augmentation for network engineering and application development projects.

It is anticipated that task orders in fiscal years 2004 through 2007 would be used to accelerate the development of e-government initiatives as well as for assistance in migrating from the agency's near-exclusive reliance on a single non-relational database management system product to multiple relational database management system products. This is needed to ensure the long-term viability of the agency's development environment, and to maximize the opportunities to use commercially available off-the-shelf software products.

#### Exhibit 53 Information Technology Portfolio Railroad Retirement Board (in millions of dollars)

Appropriation/Funding Source: OMB 446-00-8011/60-8237-0-7-601

							Homeland						
			otal Invest		Pero	entages	Security		DME			Steady Sta	ate
Code	Entry	FY 2003	FY 2004	FY 2005		IT	Priority	FY 2003	FY 2004	FY 2005	FY 2003		FY 2005
		BA	BA	BA	Financial	Security	Identifier	BA	BA	BA	BA	BA	BA
	IT Resources Summary												
446-00-00-99-01-9999-99-112-081	Total, Major Projects	0.088	0.300	0.500	0%	10%	_	0.088	0.300	0.500	0.000	0.000	0.000
446-00-00-99-02-9999-99-112-081	Total, Non-Major Projects	0.917	0.886	0.900	0%	17%	_	_	_	_	_	_	
446-00-00-99-99-999-99-112-081	Total Railroad Retirement Board Investment Portfolio - Sum of Parts 1,2,3 and 4	1.005	1.186	1.400	0%	14%	_	0.088	0.300	0.500	0.000	0.000	0.000
	Part 1. IT Systems by Mission Area												
446-00-01-01-00-0000-00-112-081	Mission Area 1: Financial Management												
446-00-01-01-00-0000-00-112-081	Major Project Name: None												
446-00-01-01-01-9999-99-112-081	Total, Major Projects for Mission Area 1	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-01-01-02-0000-00-112-081	Non-Major Project Name: Expansion of Federal Financial System (FFS)	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-01-01-02-9999-99-112-081	Total, Non-Major Projects for Mission Area 1	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-01-01-99-9999-99-112-081	Total for Mission Area 1 - Financial Management	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-01-02-00-0000-00-112-081	Mission Area 2: RRA/RUIA Benefit Programs												
446-00-01-02-01-0000-00-112-081	Major Project Name: None												
446-00-01-02-01-9999-99-112-081	Total, Major Projects for Mission Area 2	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-01-02-02-0001-00-112-081	First Non-Major Project Name: Videoconferencing and E-learning	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-01-02-02-0002-00-112-081	Second Non-Major Project Name: Customer Care Support System	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-01-02-02-0003-00-112-081	Third Non-Major Project Name: E-Government	0.256	0.000	0.200	0%	0%	_	_	_	_	_	_	_
446-00-01-02-02-9999-99-112-081	Total, Non-Major Projects for Mission Area 2	0.256	0.000	0.200	0%	0%	_	_	_	_	_	_	_
123-00-01-02-99-9999-99-112-081	Total for Mission Area 2	0.256	0.000	0.200	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-01-99-01-9999-99-112-081	Total, Major Projects, Mission Areas 1 and 2	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-01-99-02-9999-99-112-081	Total, Non-Major Projects, Mission Areas 1 and 2	0.256	0.000	0.200	0%	0%	_	_	_	_	_	_	_
446-00-01-99-99-999-99-112-081	Total, Part 1 - IT Investments for Mission Areas 1 and 2	0.256	0.000	0.200	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
	Part 2. IT Infrastructure and Office Automation												
446-00-02-02-01-0030-00-112-081	Major Project Name: Standard Workstation Infrastructure	0.088	0.300	0.500	0%	10%	_	0.088	0.300	0.500	0.000	0.000	0.000
446-00-02-02-01-9999-99-112-081	Total, Major Projects - IT Infrastructure and Office Automation	0.088	0.300	0.500	0%	0%	_	0.088	0.300	0.500	0.000	0.000	0.000
446-00-02-02-02-0001-00-112-081	First Non-Major Project Name: Mainframe Processor	0.000	0.175	0.175	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0002-00-112-081	Second Non-Major Project Name: Disk Storage Equipment	0.161	0.161	0.000	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0003-00-112-081	Third Non-Major Project Name: Tape Storage Equipment	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0004-00-112-081	Fourth Non-Major Project Name: Document Imaging	0.215	0.075	0.000	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0005-00-112-081	Fifth Non-Major Project Name: System Development Tools	0.023	0.025	0.100	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0006-00-112-081	Sixth Non-Major Project Name: Information Security	0.137	0.150	0.150	0%	100%	_	_	_	_	_	_	_
446-00-02-02-02-0007-00-112-081	Seventh Non-Major Project Name: On-Line Procedures Software	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0008-00-112-081	Eigth Non-Major Project Name: Network Operations	0.100	0.250	0.250	0%	0%	_	_	_	_	_	-	_
446-00-02-02-02-0009-00-112-081	Ninth Non-Major Project Name: Records Management Tools	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0010-00-112-081	Tenth Non-Major Project Name: Telephone Communications Equipment	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-02-02-02-0011-00-112-081	Eleventh Non-Major Project Name: Intranet Development	0.000	0.000	0.000	0%	0%		<u> </u>					
446-00-02-02-02-9999-99-112-081	Total, Non-Major Projects - IT Infrastructure and Office Automation	0.636	0.836	0.675	0%	22%	_	_	_	_	_	_	_
446-00-02-02-01-9999-99-112-081	Total, Major Projects - IT Infrastructure and Office Automation	0.088	0.300	0.500	0%	10%	_	0.088	0.300	0.500	0.000	0.000	0.000
446-00-02-02-02-9999-99-112-081	Total, Non-Major Projects - IT Infrastructure and Office Automation	0.636	0.836	0.675	0%	22%		_	_		_		
446-00-02-99-99-999-99-112-081	Total, Part 2 - IT Infrastructure and Office Automation	0.724	1.136	1.175	0%	17%		0.088	0.300	0.500	0.000	0.000	0.000

#### Exhibit 53 Information Technology Portfolio Railroad Retirement Board (in millions of dollars)

Appropriation/Funding Source: OMB 446-00-8011/60-8237-0-7-601

			Total Investment				Homeland						
		T	Total Investment		Perd	Percentages		DME				Steady St	ate
Code	Entry	FY 2003	FY 2004	FY 2005		IT	Priority	FY 2003	FY 2004	FY 2005	FY 2003	FY 2004	FY 2005
			BA	BA	Financial	Security	Identifier	BA	BA	BA	BA	BA	BA
	Part 3. IT Architecture and Planning												
446-00-03-02-01-0000-00-112-081	Major Project Name: None												
446-00-03-02-01-9999-99-112-081	Total, Major Projects - IT Architecture and Planning	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-03-02-02-0001-00-112-081	Non-Major Project Name: IT Architecture and Planning												
446-00-03-02-02-9999-99-112-081	Total, Non-Major Projects - IT Architecture and Planning	0.025	0.050	0.025	0%	0%	_	_	_	_	_	_	_
446-00-03-02-99-9999-99-112-081	Total for Part 3 - IT Architecture and Planning	0.025	0.050	0.025	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
	Part 4. Grants Management												
446-00-04-02-01-0000-00-112-081	Major Project Name: None												1
446-00-04-02-01-9999-99-112-081	Total, Major Projects	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000
446-00-04-02-02-0001-00-112-081	Non-Major Project Name: None												
446-00-04-02-02-9999-99-112-081	Total, Non-Major Projects	0.000	0.000	0.000	0%	0%	_	_	_	_	_	_	_
446-00-04-02-99-9999-99-112-081	Total for Part 4 - Grants Management	0.000	0.000	0.000	0%	0%	_	0.000	0.000	0.000	0.000	0.000	0.000

## Exhibit 300: Part I: Capital Asset Plan and Business Case (All Assets)

Date of this Submission: Agency:	8-22-03 Railroad Retirement B	Soard				
Bureau: Location in the Budget:	Railroad Retirement B					
Account Title: Account Identification Code: Program Activity:	OMB 466-00-8011/60	-8237-0-7-6	tation on Administration 01 Unemployment and Sick			
Name of Investment: Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.) UPI should be created the same for all investments.	Standard Workstation 446-00-02-02-01-0030					
Investment Initiation Date:	10-1-04					
Investment Planned Completion Date:	9-30-05					
This Investment is: Initial Concept_X_ Planning		ady State	_ Mixed Life Cycle			
Investment/useful segment is funded:			Incrementally	Fully X		
Was this investment approved by OMB for previous	Was this investment approved by OMB for previous Year Budget Cycle?					
Did the Executive/Investment Review Committee apyear?	prove funding for this inve	stment this	Yes X	No		
Did the CFO review the cost goal?			Yes X	No		
Did the Procurement Executive review the acquisitio	n strategy?		Yes X	No		
Did the Project (Investment) Manager identified in so	ection 1.1) review this?		Yes X	No		
Is this investment included in your agency's annual p annual performance plans?	erformance plan or multipl	e-agency	Yes X	No		
Does this investment support homeland security?			Yes	No <u>X</u>		
If this investment supports homeland security, indica homeland security mission area(s) this investment su 1- Intelligence and Warning; 2 - Border and Transportation Security; 3 - Defending Against Catastrophic Threats; 4 - Protecting Critical Infrastructure and Key Assets; 5 - Emergency Preparedness and Response; or 6 - Other	pports?	er which				
Is this investment information technology? (see section 53 for definition)			Yes X	No		
For information technology investments only:						
a. Is this project (investment) a financial managemen (see section 53.2 for definition)	t system?		Yes	No <u>X</u>		
If so, does this project (investment) address a FFMIA	compliance area?		Yes	No		

If yes, which compliance area?			
b. Does this investment implement electronic transaction or record keeping that is covered by the Government Paperwork Elimination Act (GPEA)?	Yes	No _	X
If so, is it included in your GPEA plan (and does not yet provide an electronic option)?	Yes	No _	
Does the investment already provide an electronic option?	Yes	No	NA
c. If the investment administers information in identifiable form about members of the public, was a privacy impact assessment submitted via PIA@omb.eop.gov with a unique project (investment) identifier?	Yes	No _	X
d. Was this investment reviewed as part of the FY 2003 Federal Information Security Management Act review process?	Yes	No _	X
d. 1 If yes, were any weaknesses found?	Yes	No	
d.2 Have the weaknesses been incorporated into the agency's corrective action plans?	Yes	No _	
e. Has this investment been identified as a national critical operation or asset by a Project Matrix review or other agency determination?	Yes	No _	X
e.1 If no, is this an agency mission critical or essential service, system, operation, or asset (such as those documented in the agency's COOP Plan), other than those identified as above as national critical			
infrastructures?	Yes	No	X
f. Was this investment included in a Performance Assessment Rating Tool (PART) Review?	Yes	No	X
f.1. Does this investment address a weakness found during the PART Review?	Yes	No	NA

~									
SUMMARY OF SPEND	OING FO	R PROJE	ECT STAC	<del>j</del> ES					
(In Millions)									
(Estimates for BY+1 and beyond are for planning purposes only									
	and do not represent budget decisions)								
und do not represent oddg			CV	DV	DW + 1	DW+2	DV + 2	DV   48 Tatal	
	PY-1	PY	CY	BY	BY+1	BY+2	BY+3	BY+4& Total	
	and	2003	2004	2005	2006	2007	2008	Beyond	
	Earlier								
Planning:									
Budgetary Resources									
Outlays									
Acquisition:									
<b>Budgetary Resources</b>				\$.5					
Outlays				\$.5					
Total, sum of stages:									
<b>Budgetary Resources</b>				\$.5					
Outlays				\$.5					
Maintenance:									
<b>Budgetary Resources</b>									
Outlays									
Total, All Stages:									
<b>Budgetary Resources</b>				\$.5					
Outlays				\$.5					
Government FTE Costs				0 < 50%	)				

Note: Government FTE costs shall include government personnel considered direct and indirect labor in support of this investment. This includes the investment management IPT and any other government effort (e.g., programming effort for part of the overall investment, development effort) that contributes to the success of the investment. The costs include the salaries plus the fringe benefit rate of 32.8%. Agencies should reflect estimates of the costs of internal FTE supporting an IT investment, and should at a minimum include in FTE estimates of anyone spending more than 50% of their time supporting this investment. Persons working on more than one investment, whose contributions over all investments would exceed 50% of their overall time, should have their specific time allocated to each investment.

### I. A. Investment Description

1. Provide a brief description of this investment and its status through your capital planning and investment control (CPIC) or capital programming "control" review for the current cycle.

Standard Workstation Infrastructure is a capital investment in standard desktop workstation equipment (hardware and software) needed to ensure that our employees are equipped to do their jobs. The RRB has a clearly documented desktop standard, which it updates annually as part of the Strategic Information Resources Management (IRM) Planning and Capital Planning process. The standard specifies several user profiles and outlines the specific hardware and software needed to equip each type of user. The RRB's goal is a 4-year replacement cycle for desktop PCs to prevent unnecessary downtime due to obsolescence, breakdowns, or other failures of hardware and/or software at individual workstations. Each year, we assess which PCs are most in need of replacement (generally the oldest models first) and use most of the funds in this capital item to satisfy this need. In addition, funding in this category may also be used for individual items related to the desktop environment, such as printers, software, portable PCs, monitors, etc. At the current services level of the budget, funding is essentially limited to replacing standard desktop computers. At the full funding (agency request) level of the budget, funding will also provide for replacement of additional workstations (needed due to additional staff at this level of funding), replacement of PCs in training and conference areas, some portable PCs, aging network printers and peripherals, and the purchase of incidental PC software where needed.

2. What assumptions are made about this investment and why?

Aging PCs and related equipment lose dependability causing expensive downtime through lost productivity and increased maintenance costs. Modern software requires up-to-date hardware to run effectively. These are industry-accepted assumptions.

3. Provide any other supporting information derived from research, interviews, and other documentation.

Not applicable.

## I.B. Justification (All Assets)

In order for IT investments to successfully address support of the President's Management Agenda and justification of the investment, the investment should be collaborative and include industry, multiple agencies, State, local, or tribal governments, use e-business technologies and be governed by citizen needs. If the investment is a steady state investment, then an E-Gov strategy review is underway and includes all the necessary elements. If appropriate, this investment is fully aligned with one or more of the President's E-Gov initiatives.

1. How does this investment support your agency's mission and strategic goals and objectives?

Up-to-date, fully functioning PC workstations are critical to performing the RRB's mission, because they are the only means of accessing most beneficiary data, adjudication systems, financial and actuarial systems, and all types of record keeping systems needed for the agency's employees to carry out their functions as required. This investment is not identified specifically in the Annual Performance Plan (APP), as it is a "means-type" objective, rather than a direct results-oriented objective. However, it is essential if we are to accomplish our direct mission-related objectives as expressed in the APP. This investment reduces costs and improves efficiency by preventing the breakdowns/failures that would certainly occur if we were not to replace aging PC equipment on a regular basis. It also provides fundamental support for simplified and cost-reducing work processes, since it ensures that employees have intelligent workstations for personal desktop computing, reduced paper usage, and improved communications.

2. How does it support the strategic goals from the President's Management Agenda?

The President's strategic goal of "competitive sourcing" will be supported with this project in that the purchase and installation services of the workstations will be competitively sourced.

3. Are there any alternative sources in the public or private sectors that could perform this function?

No.

- 4. If so, explain why your agency did not select one of these alternatives.
- 5. Who are the customers for this investment?

RRB headquarters and field employees.

6. Who are the stakeholders of this investment?

Constituents of the RRB; the railroad public.

7. If this is a multi-agency initiative, identify the agencies and organizations affected by this initiative.

Not applicable.

7a. If this is a multi-agency initiative, discuss the partnering strategies you are implementing with the participating agencies and organizations.

Not applicable.

8. How will this investment reduce costs or improve efficiencies?

Increased dependability/decreased downtime and provide ability to operate with current software.

9. List all other assets that interface with this asset. Have these assets been reengineered as part of this investment? Yes/No

Interface assets are primarily LAN servers.

## I.C. Performance Goals and Measures (All Assets)

In order to successfully address this area of the business case, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures must be provided. These goals need to map to the gap in the agency's strategic goals and objectives that this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60%, increase citizen participation by 300% a year to achieve an overall citizen participation rate of 75% by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use Table 1 below for reporting performance goals and measures for existing investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2004.

		7	Table 1		
Fiscal Year	 Existing Baseline	Planned Performance Improvement Goal	Actual Performance Improvement Results	Planned Performance Metric	Actual Performance Metric Results
	Desktop inventory	25% planned desktop replacement		Completion of the 25% planned desktop replacement	
	 inventory	25% planned desktop replacement		Completion of the 25% planned desktop replacement	

All new IT investments that are development, modernization, or enhancement (DME) for 2005 and beyond must use Table 2 and are required to use the FEA Performance Reference Model. The PRM Version 1.0, available at <a href="https://www.feapmo.gov">www.feapmo.gov</a>, includes detailed guidance about how to incorporate PRM Indicators into the performance goals and measures table below. Please use the Table 2 and the PRM to identify the performance information that pertains to the major IT Investment. Ensure there is a complete tie-in to the strategic goals and objectives described in section I.B.1.

The PRM has not been released as of the date this Exhibit 300 was completed. The FEAPMO website states that "The Performance Reference Model (PRM) is scheduled to be released later this year."

Once the PRM has been released, we will use it to identify the performance information pertaining to this initiative.

			Table 2			
Fiscal Year	Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
2005						
2005						
2006						
2006						

#### I.D. Project Management (Investment Management) [All Assets]

The OMB Circular A-11, Part 7, Capital Programming Guide, and the OPM Project Management Guidance "Interpretive Guidance for Project Manager Positions, discuss project management structures, responsibilities, and qualifications that contribute to successful achievement of cost, schedule, and performance goals.

1. Is there a project (investment) manager assigned to the investment?	Yes _	X	No	
--	-------	---	----	--

1.A. Identify the members, roles, qualifications, ad contact information of the in-house and contract project (investment) managers for this project (investment).

Name: Samuel D'Agostino Role: IT Project Manager

Title: Chief of Infrastructure Services

**Contact Info** 

U.S. Railroad Retirement Board 844 N Rush Street 3<sup>rd</sup> Floor Chicago, IL 60611 (312) 751- 4720

#### **Qualifications:**

Over 19 years management and supervisory experience in Methods and procedures, user computer services, and infrastructure services.

Managed or supervised the following projects:

- Y2K Server Compliance upgrades
- Frame Relay project
- Implementation of a standard email system
- Implementation of Enterprise Anti-Virus protection for the agency
- Implementation of the Virtual Private Network
- Replacement of work stations and servers
- The upgrade of the Wide Area Network
- The procurement and installation of a new IBM Enterprise Storage Server

Name: Claudia Jackson Role: IT Project Manager

Title: Chief Security Officer

**Contact Info** 

U.S. Railroad Retirement Board 844 N Rush Street 3<sup>rd</sup> Floor

Chicago, IL 60611 (312) 751- 4720

2. Is there a contracting officer assigned to the project (investment)?

)	es es	X	No	

If so, what is his/her name?

Henry Valiulis
Director of
Administration

3 . Is there an Integrated Project Team?

Yes X No \_\_\_\_

3.A. If so, list the skill set represented.

Desktop PC knowledge and procurement skills are coordinated to successfully select and procure equipment offering the best value for the agency.

Project Manager

- Technical manager

Supervisor of Systems and Network Support Supervisor of Customer/Desktop Support

**Technical Team** 

- IT Desktop Specialist
- Network Engineers

- Chief Security Officer
- IT Security Analyst

#### Advisors

- Contracting Officer
- Contracting Specialist
- Architecture Contact

4.	Is	there	a	sponsor/	owner/	for	this	investment'	?
----	----	-------	---	----------	--------	-----	------	-------------	---

4.A. If so, identify the sponsor/process owner by name and title and provide contact information.

Kenneth J. Zoll, Chief Information Officer U.S. Railroad Retirement Board 844 N Rush St Chicago, IL 60611 312-751-7191

Ken.Zoll@RRB.GOV

#### I.E. Alternatives Analysis [All Assets]

In order to successfully address this area of the business case, you must include three viable alternatives that were compared consistently, identify the alternative chosen, and provide benefits and reasons for your choice. Agency must identify all viable alternatives and then select and report details on the top three viable alternatives. Use OMB Circular A-94 for all investments and the Clinger Cohen Act for IT investments for the criteria to be used for Benefit/Cost Analysis. Agency must include the minimum criteria to be applied in considering whether to undertake a particular investment, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment, and specific quantitative and qualitative criteria for comparing and prioritizing alternative investments. For IT investments, agencies should use the Federal Enterprise Architecture (FEA) to identify potential alternatives for partnering or joint solutions that may be used to close the identified performance gap.

- 1. Describe the alternative solutions you considered for accomplishing the agency strategic goals or for closing the performance gap that this investment was expected to address. Describe the results of the feasibility/performance/benefits analysis. Provide comparisons of the returns (financial and other) for each alternative.
- I.A. Discuss the market research that was conducted to identify innovative solutions for this investment (e.g., used an RFI to obtain four different solutions to evaluate, held open meetings with contractors to discuss investment scope, etc.). Also describe what data was used to make estimates such as, past or current contract prices for similar work, contractor provided estimates from RFIs or meetings, general market publications, etc.

Alternative	Description			
Alternative 1	Replace 25% of workstations (current approach)			
Alternative 2	Replace a lesser percentage of workstations			
Alternative 3	Replace no workstations			

2. Summarize the results of your life-cycle cost analysis performed for each investment and the underlying assumptions.

Cost	Alternative 1	Alternative 2	Alternative 3
Elements			
Element 1	\$500,000	\$200,000	\$0
Element 2			
Element 3			
Element 4			
Element 5			
Total			

3. Which alternative was chosen and why?

Alternative 1 was chosen to minimize potential risks.

3.A. Are there any quantitative benefits that will be achieved through this investment (e.g., systems savings, cost avoidance, stakeholder benefits, etc)? Define the Return on Investment (ROI).

Reduced repair costs and reduced productivity loss from potential downtime. ROI is not currently defined.

3.B. For the alternative selected, provide a financial summary, including Net Present Value by Year and Payback Period Calculations:

YEAR =	FY 2005	FY							
NPV	\$500,000								

4. What is the date of your cost benefit analysis?

November 28, 2000 (FY 2001) justifying the four-year replacement cycle.

#### I. F. Risk Inventory and Assessment (All Assets)

In order to successfully address this issue on the business case and capital asset plan, you must have performed a risk assessment at the initial concept, included mandatory risk elements defined below and demonstrate active management of the risk throughout the life-cycle of the investment.

For all investments, both IT and non-IT, you must discuss each of the following risks and present your plans to eliminate, mitigate, or manage risk, with milestones and completion dates. If there is no risk to the investment achieving its goals from a risk category, indicate so. If there are other risks identified, include them. Risk assessments should include risk information from all stakeholders and should be performed at the initial concept stage and then monitored and controlled throughout the life-cycle of the investment. Risk assessments for all investments must include: 1) schedule; 2) initial costs; 3) life-cycle costs); 4) technical obsolescence; 5) feasibility; 6) reliability of systems; 7) dependencies and interoperability between this investment and others; 8) surety (asset protection) considerations; 9) risk of creating a monopoly for future procurements; 10) capability of agency to manage the investment; and 11) overall risk of investment failure.

In addition, for IT investments, risk must be discussed in the following categories 12) organizational and change management; 13) business; 14) data/info; 15) technology; 16) strategic; 17) security; 18) privacy; and 19) project resources. For security risks, identify under the Description column the level of risk as high, medium, or basic. What aspect of security determines the level of risk, i.e., the need for confidentiality of information, availability of information or the system, reliability of the information or system? Under the Current Status column, list the milestones remaining to mitigate the risk.

Date Identified	Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status
Ongoing	Technical obsolescence	Ensure currency of technology. Useful life is four years	High		Managed. RRB EA and Capital Plan approved.
Ongoing		Failure and interruption are unacceptable for the processes supported. Useful life is four years.			Managed. Processes in place. Review of adequacy on annual basis.
Ongoing	Interoperability	Maintain interoperability of investments and systems. Useful life is four years			Managed. RRB EA and Capital Plan approved.

1. What is the date of your risk management plan?

August 17, 1998, the date of the RRB Strategic IRM Plan for FYs 1998 through 2003 which established the four-year replacement policy.

## I.G. Acquisition Strategy

In order to adequately address this area of the business case and capital asset plan you must employ a strong acquisition strategy that mitgates risk to the Federal government, accommodate Section 508 as needed, and use performance based contracts and (SOWs). If you are not using performance based fixed price contracts, your acquisition strategy should clearly define the risks that prompted the use of other than performance based contracts and SOWS. Finally, your implementation of the Acquisition Strategy must be clearly defined.

1. Will you use a single contract or several contracts to accomplish this investment?

A single contract is anticipated.

1.A. What is the type of contract/task order if a single contract is used?

Firm fixed-price.

1B. If multiple contract/task orders will be used, discuss the type, how they relate to each other to reach the investment outcomes, and how much each contributes to the achievement of the investment cost, schedule and performance goals. Also discuss the contract/task order solicitation or contract provisions that allow the contractor to provide innovative and transformational solutions.

Not applicable.

2. For other than firm-fixed price, performance-based contracts, define the risk not sufficiently mitigated in the risk mitigation plan, for that contract/task order, that requires the Government to assume the risk of contract achievement of cost, schedule and performance goals. Explain the amount of risk the government will assume.

Not applicable.

3. Will you use financial incentives to motivate contractor performance (e.g. incentive fee, award fee)?

Not applicable for this type of project.

4. Discuss the competition process used for each contract/task order, including the use of RFP's, schedules or other multiple agency contracts, etc?

Acquisition is done by competitive sourcing using schedule buys, GWAC'S or firm fixed-price to provide either the best advantage or best value to the agency.

5. Will you use commercially available or COTS products for this investment?

Yes. COTS products will be used.

5.A To what extent will these items be modified to meet the unique requirements of this investment?

COTS hardware and software packages are not modified. Only configuration is performed to optimize the performance in the RRB environment.

5.B What prevented the use of COTS without modification?

COTS are not modified.

6. What is the date of your acquisition plan?

August 17, 1998, the date of the RRB Strategic IRM Plan for FYs 1998 through 2003 which established the four-year replacement policy.

7. How will you ensure Section 508 compliance?

Requirements are routinely included in all IT procurements.

- 8. Acquisition Costs:
- 8.A. For budget year, what percentage of the total investment is for hardware acquisition?

Seventy-five percent.

8.B. For budget year, what percentage of the total investment is for software acquisition?

Fifteen percent.

8.C. For budget year, what percentage of the total investment is for services acquisition?

Ten percent.

### I.H. Project (Investment) and Funding Plan

In order to successfully address this section of the business case, you must demonstrate use of an Earned Value Management System (EVMS) that meets ANSIIEIA Standard 748, for both government and contractor costs, for those parts of the total investment that require development efforts (e.g., prototypes and testing in the planning phase and development efforts in the acquisition phase) and show how close the investment is to meeting the approved cost, schedule and performance goals. Information on EVMS is available at <a href="http://www.acq.osd.mil/pm">http://www.acq.osd.mil/pm</a>. For those investments in the operations/steady state phase, you must perform an operational analysis as defined in the Capital Programming Guide to demonstrate how close the investment is to achieving the expected cost, schedule and performance goals for this phase. Program status information in this section must include both the contractor's part of the investments overall costs and milestone requirements as well as the government's costs and milestone requirements to successfully complete the investment phase, segment or module being reported.

#### I.H.1. Description of performance-based management system (PBMS)

Explain the methodology used by the agency to analyze and use the earned value performance data to manage performance. Describe the process you will use or used to verify that the contractor's project management system follows the ANSIIEIA Standard 748-A. If the investment is operational (steady state), define the operational analysis system that will be used. If this is a mixed life-cycle investment with both operational and development/modernization/enhancement (DME) system improvement aspects, EVMS must be used on the system improvement aspects of the investment and operational analysis on the operations aspects. Using information consistent with the work breakdown structure (WBS), provide the information requested in all parts of this section.

Because this project is essentially a procurement of standard commodities and off-the-shelf goods, the performance-based system is contained within the procurement contract, which will outline the specific number of deliverables (e.g., number of standard-configuration PCs), a delivery schedule, and a pricing schedule. The agency's overall goal for the project (at the current services level of the budget) will be to procure PCs, plus replacement network printers, other peripherals and portable PCs, with deliveries scheduled in evenly spaced segments each calendar quarter, to allow for a timely and orderly installation process. We will not establish the final schedules and deliverables until funding for FY 2005 is finalized. The precise number of PCs and other equipment items to be procured and the timing of the deliveries will be established based on actual funding, and when it becomes available in that fiscal year. In addition, costs will be based on competitive pricing from authorized suppliers listed on the GSA schedule at that time. Contractor performance will be measured against adherence to the contract provisions.

#### I.H.2. Original baseline (OMB-approved at investment outset)

What are the cost and schedule goals for this phase or segment/module of the investment (e.g., what are the major investment milestones or events; when will each occur; and what is the estimated cost to accomplish each one)? Also identify the funding agency for each milestone or event if this is a multi-agency investment. For operational or steady state projects, complete one line

on the chart for each year of this phase. If the project is mixed life-cycle there will be two parts to the chart; one for the 0&M portion and one for the developmental portion using EVMS. If this is a multi-agency investment or one of the President's E-Gov initiatives, use the detailed investment plan with milestones on the critical path, to identify agency funding for each module or milestone. (This baseline must be included in all subsequent reports, even when there are OMB-approved baseline changes shown in I.H.3).

Cost and Schedule Goals: Original Baseline for a Phase/Segment/Module of Project (Investment)							
Description of Milestone	Schedule			Planned Cost	Funding Agency		
	Start	End	Duration				
	Date	Date	(in days)				
1.Quarterly equipment deliveries	10-1-04	12-31-04	92	\$125,000	RRB		
2.	1-1-05	3-31-05	90	\$125,000	RRB		
3.	4-1-05	6-30-05	91	\$125,000	RRB		
4.	7-1-05	9-30-05	92	\$125,000	RRB		
Completion date: 9-30-05		Total cost estimate at completion	n: \$500,000				

### I.H.3. Proposed baseline/current baseline (applicable only if OMB-approved the changes)

Not applicable.

Identify in this section a proposed change to the original or current baseline or an OMB-approved baseline change. What are the new cost and schedule goals for the phase or segment/module (e.g., what are the major investment milestones or events; when will each occur; and what is the estimated cost to accomplish each one)? Also identify the funding agency for each milestone or event if this is a multi-agency investment. If this is a new investment in the FY 2005 budget year, this section will be blank for your initial submission.

Cost and Schedule Goals: Proposed or Current (OMB-Approved) Baseline for a Phase/Segment/Module of Project (Investment)						
Description of Milestone	Schedule		e	Planned Cost	Funding Agency	
	Start	End	Duration			
	Date	Date	(in days)			
1.						
2.						
3.						
Completion date:				Total cost estimate at completion:		

#### I.H.4 Actual performance and variance from OMB-approved baseline (original or current)

A. This section is always filled in to reflect current status of the investment. It compares the OMB approved baseline and actual results for this phase, segment, or module of the investment. Show for each major investment milestones or events you planned (scheduled) to accomplish and the cost and what work was actually done and the cost. If the project is in the operational or steady state phase complete one line on the chart for each year. For these projects complete paragraphs C, D, F and G as appropriate. If this is a new investment in the FY 2005 budget year, this will be blank for your initial submission. OMB may ask for latest information during the budget review process.

Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)  OMB-Approved Baseline  Actual Outcome									
	Schedule Schedule			2 2 113011110		Sche	dule		
Description of	Start	End	<b>Duration</b> (in	Planned	Funding	Start	End	Percent	Actual
Milestone	Date	Date	days)	Cost	Agency	Date	Date	Complete	Cost
1.									
2.									
3.									
Completion date: OMB-approved baseline: Estimated completion date:									
Total cost: OMB-approved	l baseline	e:				Estimate a	t completion	on:	

B.	Provide the following investment summary information from your EVMS	data (as of date):				
B.1.	Show the budgeted (planned) cost of work scheduled (BCWS):	\$				
B.2.	Show budgeted (planned) cost of work actually performed (BCWP):	\$				
B.3.	Show the actual cost of work performed (ACWP):	\$				
B.4.	Provide a performance curve graph plotting BCWS, BCWP and ACWP or or segment/module through the latest report. In addition, plot the ACWP of (EAC) value, and provide the following EVMS variance analysis.					
	Project (Investment) Summary (Cumulative)		Value			
	Cost Variance = (BCWP-ACWP) = Cost Variance % = (CVIBCWP) x 100%					
	Cost Performance Index (CPI) = (BCWP/ACWP)					
	Schedule Variance = (BCWP-BCWS) =					
	Schedule Variance % = (SV/BCWS) x 100%_					
_	Schedule Performance Index (SPI) = (BCWP/BCWS)_ Two independent Estimates at Completion (EAC) = ACWPcum + (Performance Factor (I	DE) V				
	(BAC minus BCWPcum)), where PF I = I /CPI, and PF2 = $I/(CPI \times SPI)$ .	T) A				
	Variance at Completion (VAC) = (BAC minus EAC) for both EACs above =					
_	Variance at Completion % = (VAC/BAC) x 100% for both EACs above =					
	Estimated Cost to Complete (ETC)=  Expected Completion Date =					
L	Expected Completion Date					
	tions for Earned Value Management System:					
	P - Actual Cost of Work Performed - What you paid.					
	Budget At Completion - The baseline (planned) budget for the investment.  P - Budgeted Cost for Work Performed - The earned value.					
	S - Budgeted Cost for Work Scheduled - The earned value.  S - Budgeted Cost for Work Scheduled - The planned costs.					
	Cost Performance Index - The ratio of the budgeted to actual cost of work pe	rformed				
	Cost Variance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference between planned and actual cost of work performance - The difference - The diff					
	Estimate At Completion - The latest estimated cost at completion.	orine <b>u</b> .				
	Estimate to Completion - Funds needed to complete the investment.					
	erformance Factor - The cost to earn a dollar of value, or ACWPIBCWP, or	I/CPI.				
	Schedule Performance Index - The percent of the investment that has been co	ompleted.				
	chedule Variance - The variance between the actual and planned schedules.					
VAC -	Variance at Completion - The variance between the baseline and actual bud	get at completion.				
C.	If cost and/or schedule variance are a negative 10 percent or more at the tipercent or more, explain the reason(s) for the variance(s).	me of this report or EAC i	s projected to be 10			
D.	Provide performance variance. Explain based on work accomplished to date, whether or not you still expect to achieve your performance goals. If not, explain the reasons for the variance. For steady state projects, in addition to a discussion on whether or not the system is meeting the program objectives, discuss whether the needs of the owners and users are still being met.					
E.	For investments using EVMS, discuss the contractor, government, and at current estimates at completion. Explain the differences and the IPT's sele paragraph is not applicable to operations/steady state investments.					
F.	Discuss the corrective actions that will be taken to correct the variances, the risk associated with the actions, and how close the planned actions will bring the investment to the original baseline. Define proposed baseline changes, if necessary.					
G.	If the investment cost, schedule or performance variances are 10% or great need to continue the program at the new baseline?  Yes No	tter, has the Agency Head	concurred in the			

## Exhibit 300: Part II: Additional Business Case Criteria for Information Technology

## II. A. Enterprise Architecture

In order to successfully address this area of the business case and capital asset plan you must ensure that the investment is included in the agency's EA and CPIC process, and is mapped to and supports the Federal Enterprise Architecture. You must also ensure that the business case demonstrates the relationship between the investment and the business, data, application, and technology layers of the EA.

#### II.A.I Business

A. Is this investment identified in your agency's enterprise architecture? If not, why?

Yes.

A. I Will this investment be consistent with your agency's "to be" modernization blueprint?

Yes.

B. Was this investment approved through the EA Review committee at your agency?

Yes.

C. What are the major process simplification/reengineering/design projects that are required as part of this IT investment?

There are no major process simplification/reengineering/design projects that are required as part of this initiative.

D. What are the major organization restructuring, training, and change management projects that are required?

There are no major restructuring, training, or change management projects that are required.

E. Please list all the Lines of Business and Sub-Functions from the FEA Business Reference Model that this IT investment supports. The primary BRM mapping for this initiative should have been identified with the last six digits of the unique project (investment) identifier in section 53.8. For a list of the BRM Lines of Business and Sub-Functions, as well as guidance on mapping to the BRM, please see www.omb.gov. (Note: The Services for Citizens area and the Mode of Delivery area should be thought of collectively. If you identified your primary line of business/sub-function in section 53.8 as a Service for Citizen or a Mode of Delivery, at a minimum you should identify the corresponding Mode of Delivery/Service for Citizen that applies in this section).

Line of Business	Sub-function
Income Security	General Retirement and Disability
	Unemployment Compensation
	Survivor Compensation
Health	Health Care Services
Knowledge Creation and Management	Research Development
	General Purpose Data and Statistics
	Advising and Consulting
	Knowledge Dissemination
Public Goods Creation & Management	Information Infrastructure Management
Regulatory Compliance and Enforcement	Inspections and Auditing
Federal Financial Assistance	Direct Transfer to Individuals
Internal Risk Mgmt and Mitigation	Contingency Planning
	Continuity of Operations
	Service Recovery

Line of Business	Sub-function
Controls and Oversight	Correction Action
	Program Evaluation
	Program Monitoring
Information & Technology Management	Information Management
	IT Infrastructure Management

#### II.A.2 Data

A. What types of data will be used in this investment? Examples of data types are health data, geospatial data, natural resource data, etc.

Not applicable.

B. Does the data needed for this investment already exist at the Federal, State, or Local level? If so, what are your plans to gain access to that data?

Not applicable.

C. Are there legal reasons why this data cannot be transferred? If so, what are they and did you address them in the barriers and risk sections above?

Not applicable.

D. If this initiative processes spatial data, identify planned investments for spatial data and demonstrate how the agency ensures compliance with the Federal Geographic Data Committee standards required by OMB Circular A-16.

Not applicable.

E. If this activity involves the acquisition, handling or storage of information that will be disseminated to the public or used to support information that will be disseminated to the public, explain how it will comply with your agency's Information Quality guidelines (section 515 requirements)?

Not applicable. – Desktop replacement at headquarters and the field offices is for only the employees.

F. Managing business information means maintaining its authenticity, reliability, integrity, and usability and providing for its appropriate disposition. Address how the system will manage the business information (records) that it will contain throughout the information life cycle.

Not applicable.

## A.3 Applications, Components, and Technology

A. Discuss this major investment in relationship to the Service Component Reference Model Section of the FEA. Include a discussion of the components included in this major IT investment (e.g., knowledge management, content management, customer relationship management, etc). For detailed guidance regarding components, please refer to <a href="http://www.feapmo.gov">http://www.feapmo.gov</a> and the SRM Release Document.

The Standard Workstation Infrastructure has a direct relationship with the Back Office Services domain within the FEA Service Component Reference Models (SRM). The following is the relationship established by this endeavor:

Back Office Services \ Assets & Materials Management \ Computers & Automation Management Component

B. Are all of the hardware, applications, components, and web technology requirements for this investment included in the Agency EA Technical Reference Model? If not, please explain.

Yes, all the hardware, applications and component requirements for the Standard Workstation Infrastructure are included in the RRB's Enterprise Portfolio of Products and Standards.

C. Discuss this major IT investment in relationship to the Technical Reference Model section of the FEA. Identify each Service Area, Service Category, Service Standard, and Service Specification that collectively describes the technology supporting the major IT investment. For detailed guidance regarding the FEA TRM, please refer to <a href="http://www.feapmo.gov">http://www.feapmo.gov</a>.

The Standard Workstation Infrastructure has a direct relationship with the Service Platform and Infrastructure Service Area of the FEA Technical Reference Model (TRM). This initiative will correspond to the Hardware/Infrastructure Category by establishing a standard for the Embedde Technology Devices, and Peripherals.

D. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc). If so, please describe.

Not applicable.

E. Financial Management Systems and Projects, as indicated in Part One, must be mapped to the agency's financial management system inventory provided annually to OMB. Please identify the system name(s) and system acronym(s) as reported in the most recent systems inventory update required by Circular A-11 section 52.4.

Not applicable.

#### II. B. Security and Privacy

In order to successfully address this area of the business case, each question below must be answered at the investment (system/application) level, not at a program or agency level. Simply referring to security plans or other documents is not an acceptable response. For IT investments under development, security planning must proceed in parallel with the development of the system to ensure that IT security requirements and costs for the lifecycle of the investment are identified and validated. All IT investments must have up-to-date security plans and be fully certified and accredited prior to becoming operational. Anything short of a full certification and accreditation indicates that identified IT security weaknesses remain and need to be remedied and is therefore not adequate to ensure funding for the investment. Additionally, to ensure that requests for increased IT security funding are appropriately addressed and prioritized, the agency must identify: 1) current costs; 2) current IT security performance gaps; and 3) how the funding request will close the performance gaps. This information must be provided to OMB through the agencies' plan of action and milestone developed for the system and tied to the IT business case through the unique project (investment) identifier.

In addition, agencies must demonstrate that they have fully considered privacy in the context of this investment. Agencies must comply with Section 208 of the E-government Act and forthcoming OMB implementing guidance and, in appropriate circumstances, conduct a privacy impact assessment that evaluates the privacy risks, alternatives and protective measures implemented at each stage of the information life cycle. Agencies should utilize the guidance provided in OMB Memoranda in conducting the PIA and submit a copy, using the unique project (investment) identifier, to OMB at <u>PIAkomb.eop.gov</u>.

II.B.I. How is security provided and funded for this investment (e.g., by program office or by the CIO through the general support system/network)?

Security is provided and funded for this project by the CIO through the end-user computing general support system.

A. What is the total dollar amount allocated to IT security for this investment in FY 2005? Please indicate whether an increase in IT security funding is requested to remediate IT security weaknesses, specifying the amount and a general description of the weakness.

The total dollar amount allocated to IT security for this investment is \$50,000. This is based on 10% of the total amount of the investment to be funded. An increase in IT security funding is requested to remediate a security weakness that exists due to continued use of hardware in the infrastructure that is below the level of the Windows 2000 operating systems.

- II.B.2 Please describe how the investment (system/application) meets the following security requirements of the Federal Information Security Management Act, OMB policy, and NIST guidelines:
- A. Does the investment (system/application) have an up-to-date security plan that meets the requirements of OMB policy and NIST guidelines? What is the date of the plan?

Yes, the last update to the security plan for End User Computing was completed August 15, 2002. Subsequent updates of this plan are on-going.

B. Has the investment been certified and accredited (C&A)?

Note: Certification and accreditation refers to a full C&A and does not mean interim authority to operate. Additionally, specify the C&A methodology used (e.g., NIST guidelines) and the date of the last review.

An approved certification and accreditation process for this investment has not been conducted.

C. Have the management, operational, and technical security controls been tested for effectiveness? When were most recent tests performed?

Yes. Management, operational and technical security controls have been tested for effectiveness for this investment. Several evaluations conducted in recent years by Blackbird Technologies, National Security Agency, Sytex Inc, and OIG for RRB have tested these controls.

D. Have all system users been appropriately trained in the past year, including rules of behavior and consequences for violating the rules?

Yes.

E. How has incident handling capability been incorporated into the system or investment, including intrusion detection monitoring and audit log reviews? Are incidents reported to DHS' FedCIRC?

Communications with FedCIRC are received on a regular basis to alert us to any incidents that we should be aware of that may affect operations. However, no formal process is currently in place at this time. We are preparing to formalize procedures for intrusion detection processes.

F. Is the system operated by contractors either on-site or at a contractor facility? If yes, does any such contract include specific security requirements required by law and policy? How are contractor security procedures monitored, verified, and validated by the agency?

Not applicable.

II.B.3 How does the agency ensure the effective use of security controls and authentication tools to protect privacy for those systems that promote or permit public access?

Sensitive system plans for end user computing are reviewed on a periodic basis and evaluated in recent years by RRB's OIG, National Security Agency and Blackbird Technologies.

II.B.4 How does the agency ensure that the handling of personal information is consistent with relevant government-wide and agency policies?

Using the information from last year's report the response has been condensed as follows: Security controls ensure that agency employees must validate their identity at the desktop to gain access to agency information systems or data. Handling of personal or private information in those systems is governed by well-documented agency privacy policies and relevant government-wide policies.

II.B.5 If this is a new or significantly altered investment involving information in identifiable form collected from or about members of the public, has a Privacy Impact Assessment (PIA) for this investment been provided to OMB at PIAgomb.eop.gov with the investment's unique project (investment) identifier?

Not applicable.

## II. C. Government Paperwork Elimination Act (GPEA)

II.C.I If this investment supports electronic transactions or record-keeping that is covered by GPEA, briefly describe the transaction or record-keeping functions and how this investment relates to your agency's GPEA plan.

Not applicable.

II.C.2 What is the date of electronic conversion from your GPEA plan?

Not applicable.

II.C.3 Identify any OMB Paperwork Reduction Act (PRA) control numbers from information collections that are tied to this investment.

Not applicable.