U.S. Army Electronic Business/ Electronic Commerce Implementation Plan

1 October 1999

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Executive Summary

The *Army Electronic Business/Electronic Commerce Implementation Plan* is about changing how the Army operates today and in the future. To achieve the multiple and sometimes conflicting goals of achieving information superiority while reducing operating costs and streamlining business practices, the Army must adopt the lessons and practices of successful organizations in government and industry.

The *Army Strategic Plan for Electronic Commerce* (ASPEC), approved on 10 March 1998, recognizes the value of a process-based view of Electronic Business/Electronic Commerce (EB/EC) by stating that the mission for Army EB/EC is to "Streamline business processes and leverage Electronic Commerce technologies to support the Warfighter and other stakeholders with electronic information worldwide."[1] This mission statement is the cornerstone to achieving the ASPEC's vision of the Army as an integrated, digitized force capable of accessing and using information at any time, from any place, anywhere in the world. To reach this vision, the ASPEC identified five goals, ten objectives, and the organizational responsibilities required to effect the changes needed to the Army's business activities.

This *Army Electronic Business/Electronic Commerce Implementation Plan* defines the steps, actions, and responsibilities required to achieve the Army EB/EC Vision and integrate EB/EC within the Army. The plan delineates the responsibilities for the offices and organizations that serve as key stakeholders with the highest ability to implement EB/EC. These responsibilities establish the commitments of the Army to the EB/EC vision.

Creating an environment that will accommodate EB/EC requires specific steps by all the stakeholders. This plan provides the guidance required to achieve the EB/EC vision identified in the ASPEC. This Plan lists seventeen near-term, four mid-term, and three long-term tasks, all with specific milestones needed to change the Army environment to accommodate EB/EC. These tasks ensure that the Army business environment will accept and utilize EB/EC to the maximum extent possible.

The Implementation Plan identifies the tools necessary for the Army to promote the growth of EB/EC and identify areas within the Army that are ripe for improvement. The Plan provides guidance and processes for identifying potential areas for improvement through EB/EC. This guidance describes the logical decision-making processes for evaluating the potential of functional areas for EB/EC and the specific steps for promoting an initiative through the Planning, Programming, Budgeting, and Execution System (PPBES) using the EB/EC Integrated Process Team (EB/EC IPT) as a focal point. This Plan initiates an effort for improving Army business practices by providing a preliminary assessment of the Army functional areas. This

[1] Army EB/EC, as defined in the EB/EC Policy document, is "electronic techniques for accomplishing business transactions, including electronic mail or messaging, World Wide Web technology, electronic bulletin boards, purchase cards, electronic funds transfers, and electronic data interchange."

assessment identifies areas of high cross-functional activity that are likely to benefit from process improvement through EB/EC.

Finally, the Plan provides guidance for any EB/EC proponent on how to properly measure the success of an initiative. While EB/EC shares much with information technology (IT) solutions, the ways to measure success differ radically. Success for an IT solution may focus on technical measures, such as capacity, bandwidth, and seat licenses. Success for an EB/EC solution focuses more on process change, reduction in activity time, and overall business activity improvement. The Plan provides a foundation for establishing these measures and assessing progress and success throughout the EB/EC initiative's life cycle.

The *Army Electronic Business/Electronic Commerce Implementation Plan* presents the Army the tools necessary to change its business environment so that it is able to meet its goals of information dominance, improved business practices, and realization of the EB/EC vision. Through the application of EB/EC Service-wide, the Army will transform from an organization using 20th Century practices to a 21st Century Army employing technology to achieve full spectrum dominance.

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1. Introduction

So, readiness for [EB/EC] has little to do with [EB/EC] at all. It is more a matter of readiness to change your business culture, readiness to rethink your intracompany business procedures, readiness to provide a systems environment that supports automated decision making and transaction processing, in short readiness to change.

Phyllis K. Sokol, **From EDI to Electronic Commerce**, McGraw Hill 1995, p. 74

The *Army Electronic Business/Electronic Commerce Implementation Plan* provides the roadmap for successfully implementing Electronic Business/Electronic Commerce (EB/EC) within the Army as defined in the *Army Strategic Plan for Electronic Commerce* (ASPEC).[1] The ASPEC, approved in March 1998, directly supports the strategic objectives of the National Partnership for Reinventing Government, the Defense Reform Initiatives, and the Department of the Army to achieve savings through modern business practices.

As a key component of the Revolution in Business Affairs, EB/EC has become an imperative for achieving greater efficiency within the Services. The ASPEC proposes a series of actions, or "strategies," to create the policies, research, and events required to ensure the coordinated implementation of this Revolution within the Army's business activities. This implementation plan elaborates how the strategies of the ASPEC will be implemented and how EB/EC can be brought to its fullest potential within the Army's functional areas.

EB/EC is more than the mere automation of various components of business transactions. The intelligent application of EB/EC within the Army and across functional boundaries through a comprehensive business process assessment has the potential to achieve significant and lasting cost savings. EB/EC is proven as a valuable tool to government and industry for achieving cost reductions and process improvements. For example:

- Defense Commissary Agency reduced operating costs by $331M over four years by implementing an EB/EC-enabled computer assisted ordering system.[2]
- Defense Medical Logistics Standard Support System projects $3.2B in savings over 12 years based upon an initial $122M investment for another EB/EC-enabled computer assisted ordering system.[3]

[1] In conformance with the recently published *DoD Electronic Business/Electronic Commerce Strategic Plan* (May 1999) and evolving commercial practices, this plan has also adopted the "electronic business/electronic commerce" terminology to refer to conducting business transactions electronically.
[2] *Army Electronic Commerce Strategic Plan*, 10 March 1998, page 1–11.
[3] Ibid, page 1–11.

The benefits derived from EB/EC require the continual improvement of business processes and the application of cutting-edge information technology to create a seamless, integrated business environment.[4] To create this environment, the tenets of the ASPEC are implemented through this plan.

1.1 Purpose

The purpose of this implementation plan is to translate the Army vision for EB/EC, as described in the ASPEC, into executable tasks that can be performed by the required participants throughout the Army community. This vision for the Army after full implementation of EB/EC presents a radical redirection away from today's office-based, paper-based environment and towards an integrated, virtual environment where data is available to those who need it at any time and from any place. Through this vision, the Army will "plug-in" to a global information network to share tactical, logistical, and business information without geographic constraints.

Achieving this vision means changing the entire culture of the present Army. The Army must view information and knowledge not as sources of power but as a tools to be leveraged in a collaborative environment. Army processes must be re-thought to ensure that maximum efficiencies are achieved. The Army must take advantage of emerging technologies to bring critical information to the worker and the Warfighter. This plan, therefore, provides a roadmap of tasks and processes whose accomplishments are necessary to achieve the Army vision, goals, and objectives.

1.2 Scope

Army EB/EC, as defined in the EB/EC Policy document, is "electronic techniques for accomplishing business transactions, including electronic mail or messaging, World Wide Web technology, electronic bulletin boards, purchase cards, electronic funds transfers, and electronic data interchange." The translation of the EB/EC vision into this implementation plan manifests itself in a multi-tiered approach. First, the plan assigns appropriate roles and responsibilities to Army organizations to ensure that EB/EC is encouraged throughout the Army culture. Second, the plan defines the tasks required to change the view of EB/EC within the Army by incorporating new standards, integrating EB/EC within the planning and budgeting cycles, collecting best practices and lessons learned, and fostering EB/EC education at all levels of the Army workforce. Third, the plan provides an approach describing how organizations seeking to implement EB/EC solutions should plan, develop, and implement them. This approach includes both a conceptual framework for such initiatives (the EB/EC policy document defines an Army EB/EC initiative "as the use of electronic techniques to accomplish Army business transactions in support of defined mission objectives ") as well as guidance for planning for and securing the necessary

[4] *From EDI To Electronic Commerce*, Phyllis Sokol, McGraw Hill, Inc., 1995, pp. 51–52.

funding to actualize the initiatives. Finally, the plan provides an evaluation framework that the Army and EB/EC proponents can use to judge the success of their EB/EC efforts.

Section 2 (Roles and Responsibilities) of this plan details the responsibilities for the key stakeholders in implementing the Army vision for EB/EC. While the primary driver for EB/EC will be the Office of the Director of Information Systems for Command, Control, Communications, and Computers (ODISC4), the Office of the Secretary of the Army (OSA), the Army Staff (ARSTAF), major Army commands (MACOMs), and Materiel Developers—as well as proponents of EB/EC initiatives—will be involved in implementing EB/EC. The total Army business structure plays a role in implementing the necessary changes to maximize the use of EB/EC.

Section 3 (Implementing the Army Vision for Electronic Commerce) describes the actions required to realize the Army vision for EB/EC through the execution of the near-term, mid-term, and long-term implementation strategies of the ASPEC. This section of the plan was developed not to merely add to the existing ASPEC. Rather, this section describes implementable tasks and explicitly documents the relationships between the implementation tasks and the ASPEC strategies. As a result, some of the tasks in this plan mirror ASPEC strategies exactly while others help satisfy multiple strategies. A further intent in creating this implementation plan was to reassess the allocation of tasks among near-, mid-, and long-term implementation periods—based on resources that have been allocated to date and on current Army needs. As a result of this analysis, some tasks initially placed logically under mid-term ASPEC strategies appeared capable of near-term implementation. Accordingly, they were reassigned as near-term implementation tasks. Finally, this portion of the plan further adjusts other milestones to incorporate revised estimates of completion dates—revisions necessitated by implementation realities since the original publication of the ASPEC (e.g., some planned activities have been delayed in their implementation owing to resource shortages).

Sections 4 and 5 (Developing EB/EC Pilot Programs and Initiatives, and Performance Measures for Electronic Business/Electronic Commerce, respectively) provide the beginnings of the Army-wide identification and assessment of opportunities for employing EB/EC. These sections of the plan also begin the process of implementing EB/EC by providing a high-level assessment of the Army's business activities and where potential high-value, cross-functional integration may be achieved through EB/EC. (The primary premise of this analysis is that EB/EC provides the maximum value to an organization when it can reduce the number of manual transactions required between organizations.) The cross-functional analysis provided in this plan details how such an analysis was performed (and could be again to reflect future changes in the Army as it realizes *Force XXI* and the *Army After Next*) as well as where current processes may benefit from the application of EB/EC. This portion of the plan then provides sufficient information, guidelines, and a logical decision-making process to permit Army personnel to select and implement EB/EC solutions in a manner that provides the greatest benefits to the Army enterprise. Finally, Section 5 concludes the plan with a guide for developing and using outcome-based performance measures.

This plan includes five appendices of additional information relevant to the main portions of the document. Appendix A, Acronyms, summarizes the acronyms used in this document. Appendix

B, Summary of Implementation Plan Milestones, displays the major Implementation Plan milestones presented in Section 3 in a graphical, Gantt-chart format. Appendix C, Functional View of the Army, shows an initial assessment of Army functional boundaries that formed the basis for the Initial EB/EC Pilot Programs identified in Section 4 of the plan. Appendix D, which will be completed by the end of FY1999, will provide a detailed action plan for the Army to follow in implementing its Public Key Infrastructure (PKI). Finally, Appendix E, which will be completed by the end of 1QFY00, will present a similar action plan to guide the Army's implementation of Smart Cards.

The *Army Electronic Business/Electronic Commerce Implementation Plan* provides the Army with: a roadmap for achieving the Army vision for EB/EC and for reaching the goals of the ASPEC; a preliminary process assessment of where EB/EC may provide the most benefit; a process for assessing and implementing EB/EC (including information on planning for and securing the necessary financial resources); and guidance on measuring the success of EB/EC implementation to the Army.

1.3 Sources Reviewed

The following sources were reviewed in preparation of this implementation plan:

- Army Regulation 1-1, *Planning, Programming, Budgeting and Execution System* (30 January 1994).
- Army Regulation 10-5, *Headquarters, Department of the Army* (30 November 1992).
- Army Regulation 10-87, *Major Army Commands in the Continental United States* (30 October 1992).
- Army Regulation 25-1, *The Army Information Resource Management Program* (25 March 1997).
- Army Regulation 70-1, *Research, Development, and Acquisition, Army Acquisition Policy* (15 December 1997).
- Army Regulation 70-35, *Information for Industry Programs, Research, Development and Acquisition* (17 June 1988).
- HQDA General Order 10*, Assignment of Functions, Responsibilities, and Duties within the Army Secretariat* (12 August 1997).
- Department of the Army Pamphlet (DA PAM) 70-3, *Army Acquisition Procedures* (28 February 1995).
- *Army Strategic Plan for Electronic Commerce* (10 March 1998).
- *The Army Plan (TAP) 2000 2015* (24 March 1998).
- *U.S. Army Information Technology/Command, Control, Communication, and Computers (IT/C4) Strategic Plan* (6 August 1997).
- *U.S. Army Electronic Commerce Policy* (Draft) (19 February 1999).
- *How the Army Runs: A Senior Leader s Reference Handbook 1997 1998*, Army War College.
- *Management Decision Package (MDEP), A Procedures Guide*, Draft (10 June 1998).
- *The Army Resource Formulation Guide*, Volume 3: Integrated POM/BES Data Call (2nd Edition) (3 February 1998).

- *Information Management Performance Measures,* National Association of Public Administrators (January 1996).
- Executive Guide: Measuring Performance and Demonstrating Results of Information Technology Investments, General Accounting Office (March 1998).
- *Department of Defense Guide for Managing Information Technology (IT) as an Investment and Measuring Performance*, Version 1.0, Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (10 February 1997).
- GAO, *Executive Guide: Effectively Implementing the Government Performance and Results Act* (GAO/GGD-96-118), June 1996.
- DoD, *Guide for Managing Information Technology (IT) as an Investment and Measuring Performance*, February 1997.
- DoD, CIO Guidance and Policy Memorandum (G&PM) Number 2-8190-031199, 11 March 1999, Subject: *Defense-Wide Electronic Business/Electronic Commerce*.
- DoD, *DoD Electronic Business/Electronic Commerce Strategic Plan*, May 1999.
- DoD, *Information Technology Management (ITM): Supporting National Defense (ITM Strategic Plan)*, Version 1.0, March 1997.
- GAO, *Assessing Risks and Returns: A Guide for Evaluating Federal Agencies' IT Investment Decision-making* (Version 1 GAO/AIMD-10.1.130), February 1997. (http://www.gao.gov/policy/guidance.htm).
- GAO–Comptroller General of the United States, *Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology Learning From Leading Organizations* (GAO/AIMD-94-115), May 1994. (http://www.gao.gov/special.pubs/publist.htm).
- *Information Management Performance Measures: Developing Performance Measures and Management Controls for Migration Systems, Data Standards, and Process Improvement*, National Academy of Public Administration (NAPA), Report by a Panel of the NAPA for the DoD (GAO/T-AIMD-96-132), January 1996. (http://relm.lmi.org/napa/pubsindex.html).
- *Performance-Based Management: Eight Steps to Develop and Use Information Technology Performance Measures Effectively*, GSA, April 1997. (http://www.itpolicy.gsa.gov/mkm/pathways/pp08how.htm).
- *Primer on Performance Measurement: Alliance for Redesigning Government*, National Academy of Public Administration (NAPA), September 10, 1996.
- Charter for the Enterprise Strategy Control Structure, 19 January 1995.

1.4 Changes from the *Army Strategic Plan for Electronic Commerce*

This plan differs from the *Army Strategic Plan for Electronic Commerce* in several regards, as noted below:

- The ASPEC refers to “electronic commerce,” whereas this plan refers to “electronic business/electronic commerce.” This change in language has been made to ensure that this plan is consistent with the recently promulgated *DoD Electronic Business/Electronic Commerce Strategic Plan* as well as to keep the plan in step with current industry

terminology. The widespread usage of this new terminology reflects a broad desire to eliminate a common misperception that EB/EC is limited to buying and selling activities.

- The ASPEC refers to "Materiel Developers" as the group responsible for implementing EB/EC at the lowest levels; this implementation plan uses the term "EB/EC Proponents". This change was made to reflect the fact that a proponent (or sponsor) of an EB/EC initiative represents the process owner or owners who are most affected by any EB/EC initiative. An EB/EC Proponent may not become a Materiel Developer (defined in Army Regulation 70-1 as "the command or agency responsible for research, development, and production validation, of an item") unless a particular initiative is undertaken and that office develops the initiative (an eventuality quite possible in the context of shrinking Defense budgets and competition for scarce resources within the Army). Thus, within the context of this plan, EB/EC proponents may include Materiel Developers.
- As noted earlier, several of the near-term tasks in this plan reflect (at least partial) accomplishment of mid- and long-term strategies described in the ASPEC. Such instances are noted specifically in this plan under the appropriate portions of the task write-ups and are summarized below.

Near-term Implementation Task	ASPEC Strategy
Task 3—The ODISC4 will be responsible for coordinating the integration of EB/EC into current and future Army policies and programs	Create a Virtual Working Environment to Support the Needs of the Warfighter (Long-term strategy)
Task 7—The ODISC4, in coordination with the Office of Civilian Personnel Policy, OASA (M&R), ODCSPER, ODCSOPS, and TRADOC, will address EB/EC training and training materiel for the Army military and civilian workforce at the technical, managerial, and executive levels.	Capitalize on Industry Best Practices (Mid-term strategy)
Task 11—The ODISC4 will publish information on additional sources of funding for EB/EC initiatives	Promote EB/EC (Mid-term strategy)
Task 16—The ODISC4, OSA, ARSTAF, and MACOMs will promote EB/EC-related pilot programs and pilot projects	Promote EB/EC (Mid-term strategy)

- Also as noted earlier, several near-term milestones outlined in the ASPEC have been overtaken by events. First, the ASPEC near-term strategy #2 (Evaluate and Incorporate Electronic Commerce Training into Existing Schools) defines starting and ending dates of 3QFY98 and 4QFY99, respectively. Following Army-wide coordination of the Implementation Plan, the scope of the associated Implementation Plan task (near-term Task 7) has been narrowed to focus largely on developing EB/EC-related training materials (especially those associated with distance learning) and supporting EB/EC training requirements, as appropriate. Furthermore, the dates associated with these activities now span from November 1999 through July 2000. Second, the ASPEC near-term strategy #3 (Capitalize on Current Initiatives) establishes a milestone for establishing an EB/EC IPT by 4QFY98; this milestone has been revised to 1QFY00. Third, the ASPEC near-term strategy #4 (Identify and Resolve Security Concerns)

defines a starting milestone for developing, staffing, and publishing a policy on digital electronic signature and encryption of 2QFY98; this milestone has been revised in this plan to 3QFY00 (see Task 12). Fourth, the ASPEC near-term strategy #7 (Develop Outcome Oriented Performance Measures) establishes starting and ending milestones of 2QFY98 and 4QFY99, respectively; these milestones have been revised to 1QFY00 and 3QFY00, respectively. Included within this near-term strategy, the ASPEC anticipated developing, staffing, and publishing this Implementation Plan by 4QFY98. It is now expected that this plan will be fully staffed and published by 4QFY99.

- The ASPEC (page 3-3) establishes an ODISC4 responsibility to sponsor a biannual study to identify, evaluate, and address security and infrastructure concerns. This plan revises this study to an annual one (see near-term Task 12). The revision was made to permit security concerns to be included within the EB/EC Survey (see near-term Task 9) and its annual updates.
- This plan defines an additional near-term task related to ASPEC near-term strategy #4 (Identify and Resolve Electronic Business/Electronic Commerce Security Concerns): Task 17—Implement Emerging Technologies. This task provides a high-level overview of Army efforts to implement emerging EB/EC technologies. At present, there are two such technologies under consideration: Public Key Infrastructure (PKI) and Smart Cards. Because these technologies are emerging, this plan will incorporate them as separate appendices that have yet to be developed. An action plan for implementing an Army Public Key Infrastructure will be developed and incorporated into Appendix D of this plan by the end of fiscal year 1999. A similar action plan will be incorporated as Appendix E for Smart Cards by the end of 1QFY00. As additional emerging technologies that require implementation by the Army are identified, they will similarly be incorporated as separate appendices to this plan.
- The ASPEC envisioned chartering and establishing a full-fledged EB/EC Integrated Process Team (IPT) to facilitate the Army's adoption of EB/EC techniques and technologies. As explained in Section 2.10, this plan now anticipates a ***virtual*** IPT comprising the already-established network of EB/EC Points of Contact from the OSA, ARSTAF, and MACOMs.
- The ASPEC defines near-term as through FY1999, mid-term as FY2000–FY2002, and long-term as FY2003–2010. This plan redefines near-term as FY1999–FY2000, mid-term as FY2001–2003, and long-term as FY2004–FY2010.

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Having provided an overview of the Army Electronic Business/Electronic Commerce Implementation Plan, the next section details the key players in implementing EB/EC within the Army. Section 2, *Roles and Responsibilities*, provides descriptions of the Army components involved in EB/EC and what they will contribute to achieving the goals of the ASPEC.

2. Roles and Responsibilities

The Army requires a long-term commitment and active involvement by business process owners and senior Army leadership to create an integrated EB/EC environment. This section of the *Army Electronic Business/Electronic Commerce Implementation Plan* details the roles and responsibilities of specific organizations within the Army that have specialized involvement in implementing EB/EC Army-wide. The roles and responsibilities outlined herein focus primarily on implementation activities for EB/EC and have been drawn or derived from the existing roles and responsibilities assigned in:

- Army Regulation 10-5, *Headquarters, Department of the Army* (30 November 1992).
- Army Regulation 10-87, *Major Army Commands in the Continental United States*, (30 October 1992).
- Army Regulation 25-1, *The Army Information Resource Management Plan*, (25 March 1997).
- HQDA General Order 10, *Assignment of Functions, Responsibilities, and Duties within the Army Secretariat*, (12 August 1997).
- *Army Strategic Plan for Electronic Commerce* (10 March 1998).
- *Army Policy for Electronic Commerce* (Draft; numbered HQDA Letter 25-xx-x) (19 February 1999).

These roles and responsibilities define the organizational structure for the Army EB/EC Program by identifying process owners, creating reporting functions, and clarifying oversight for EB/EC within the Army business structure. This section aids in understanding the responsibilities identified throughout this plan.

2.1 Office of the Director of Information Systems for Command, Control, Communications, and Computers

The Director of Information Systems for Command, Control, Communications, and Computers (DISC4) is the Army's Chief Information Officer (CIO) and serves as the functional proponent for business process improvement with a Command, Control, Communications and Computers/Information Technology (C4/IT) impact. Additionally, the Office of the DISC4 (ODISC4) is responsible for conducting performance measurements and requirements reviews, and developing investment strategies for Command, Control, Communications, Computers, and Intelligence (C4I) systems. The ODISC4 also has Army responsibility for the management of C4/IT that supports total Army management and command and control requirements and is responsible for the information management policy of the Army. In addition to these duties, the ODISC4 will support the goals of Army EB/EC by:

- Serving as the Army focal point for all EB/EC activities within the Department of the Army (DA).

- Providing oversight and guidance to the OSA, ARSTAF, and MACOMs for all issues pertaining to EB/EC implementation.
- Developing, staffing, and publishing EB/EC policies and procedures, and ensuring that necessary changes are incorporated into all existing information management policies and regulations.
- Serving as the Chair and providing administrative support for an EB/EC Integrated Process Team (EB/EC IPT) consisting of appropriate representatives from the OSA, ARSTAF, and the MACOMs to review existing and future EB/EC programs within the Army.
- Coordinating appropriate recommendations of the EB/EC IPT with the Enterprise General Officer Steering Committee (Enterprise GOSC) for final resolution.
- Providing up-to-date information on Army EB/EC activities by maintaining a current repository of EB/EC initiatives.
- Providing guidance to the Army community on implementation and integration of EB/EC initiatives during all facets of business process improvement.
- Coordinating implementation and integration of EB/EC initiatives into existing and future infrastructure requirements.
- Researching and promoting additional sources of funding for EB/EC initiatives along with Headquarters, Department of the Army (HQDA) functional proponents.
- Identifying and coordinating appropriate incentive programs with the OSA, ARSTAF, EB/EC Proponents, and MACOMs and recommending evaluation criteria for inclusion in existing Army, DoD, and other Federal recognition programs.
- Developing and publishing consensus driven outcome-oriented performance measures in coordination with the EB/EC IPT and the Enterprise GOSC.
- Serving as the Army's central point of contact for all Army-wide EB/EC activities when dealing with external organizations (e.g., Congress, Office of the Secretary of Defense (OSD), Office of management and Budget (OMB), General Accounting Office (GAO), and industry).
- Developing and coordinating Public Key Infrastructure (PKI) policies and procedures ensuring that PKI is integrated throughout all EB/EC activities.
- Developing and coordinating Smart Card and other emerging technology policies and procedures and ensuring that they are integrated throughout all appropriate EB/EC activities.

2.2 The Office of the Secretary of the Army

The OSA is responsible for "…act(ing) as the HQDA subject area functional proponent for all management information system requirements, development and operations within the assigned areas of functional responsibilities" unless otherwise specified by the Secretary of the Army.[5] As the functional proponents, these offices are the primary proponents for EB/EC within their functional areas and, as such, are integral to the successful implementation of EB/EC. Thus, the OSA will support the goals of Army EB/EC by:

[5] Section 2.4 (h) of Army Regulation 10-5, *Organization and Function, Headquarters, Department of the Army*, 30 November 1992.

- Serving as the functional proponent for all EB/EC pilots or initiatives within assigned areas of functional responsibility.
- Ensuring that actions involving EB/EC initiatives comply with the guiding principles identified in the ASPEC.
- Designating appropriate personnel to serve as members on the EB/EC IPT.
- Developing training and educational requirements for both soldiers and Army civilians on EB/EC within their assigned areas of responsibility, as required.
- Providing the ODISC4 inputs to the EB/EC repository to maintain a central knowledge base of current EB/EC initiatives, techniques, and concepts that can be promulgated throughout the Army.
- Planning, programming, and budgeting for EB/EC initiatives and implementation within their respective functional communities in compliance with the Army Program Objective Memorandum (POM) Preparation Instructions.
- Incorporating requirements for EB/EC into functional area operational architectures.

2.3 The Army Staff

The Secretary of the Army has assigned the ARSTAF, where appropriate, those aspects of research and development that relate to military requirements, test, and evaluation. The role in defining the Warfighter requirements is critical for understanding the needs of battlefield information systems to create the seamless information system envisioned in the *Army Strategic Plan for Electronic Commerce*. As such, the involvement of the ARSTAF is crucial to the success of EB/EC in the Army. The ARSTAF will support the goals of Army EB/EC by:

- Serving as the HQDA subject area functional proponent for all EB/EC requirements, development, and operations within assigned areas of functional responsibility.
- Ensuring that actions involving EB/EC initiatives comply with the guiding principles identified in the ASPEC.
- Designating appropriate personnel to serve as members on the EB/EC IPT.
- Being active participants in leveraging EB/EC technologies and, as such, providing insight and information to the ODISC4 that may be applicable to other organizations and staff elements within DA.
- Coordinating with the ODISC4 in the development of training and educational requirements for both soldiers and Army civilians on EB/EC within their assigned areas of responsibility, as required.
- Providing the ODISC4 inputs to the EB/EC repository to maintain a central knowledge base of current EB/EC initiatives, techniques, and concepts that can be promulgated throughout the Army.
- Planning, programming, and budgeting for EB/EC initiatives and implementation within their respective functional communities in compliance with the Army POM Preparation Instructions.

2.4 The Major Army Commands

Major Army commands are the commands designated by HQDA to fulfill specific missions. The MACOMs serve as the agents for action for the Army. As such, much of the cross-functional changes realized by implementing EB/EC will occur at the MACOM level. Each MACOM will support the goals of Army EB/EC by:

- Designating a point of contact who will serve as the MACOM EB/EC focal point. (As noted later, such an individual should also serve as a member of the EB/EC IPT.)
- Implementing EB/EC technologies to the maximum extent practicable in all facets of systems design, development, and operations for MACOM-unique requirements.
- Serving as the functional proponent for all MACOM EB/EC-unique requirements, development, and operations within their assigned areas of functional responsibility, as required.
- Ensuring that actions involving EB/EC initiatives comply with the guiding principles identified in the ASPEC.
- Designating appropriate personnel to serve as the members on the EB/EC IPT as required.
- Participating in leveraging EB/EC technologies and, as such, providing insight and information to the ODISC4 that may be applicable to other organizations and staff elements within DA.
- Planning, programming, and budgeting for EB/EC initiatives and implementation within their respective organizations in compliance with the MACOM POM Development Instructions and Program Budget Guidance (PBG) and incorporating specific requirements into their MACOM POM.
- Providing the ODISC4 inputs to the EB/EC repository to maintain a central knowledge base of current EB/EC initiatives, techniques, and concepts that can be promulgated throughout the Army.
- Establishing an appropriate MACOM EB/EC reporting mechanism for EB/EC activities under its purview.
- Establishing a management structure for overseeing and managing the EB/EC activities under its purview.

2.5 Training and Doctrine Command

The Training and Doctrine Command is the designated MACOM for all Army training. As such, TRADOC is responsible for conducting all concept and doctrine development not assigned by HQDA to other commands and agencies, integrating the Army's total doctrine development, developing and maintaining the training system by which the total Army trains to fight, conducting all combat developments not assigned by HQDA to other commands and agencies, and approving warfighting requirements. TRADOC will support the goals of Army EB/EC by:

- Assisting the DISC4 (SAIS-IAE) and Materiel Developers as required to identify and analyze EB/EC training requirements and, when appropriate, updating existing courseware.

2.6 Civilian Career Program Functional Chiefs/Functional Chief Representatives

Civilian Career Program Functional Chiefs/Functional Chief Representatives (FCs/FCRs) will, in coordination with the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs), ODISC4, and EB/EC Proponents, identify, analyze, and develop EB/EC training requirements for Army civilians at the technical, managerial, and executive levels.

2.7 Proponents of Electronic Business/Electronic Commerce Initiatives (EB/EC Proponents)

Electronic Business/Electronic Commerce Proponents are program offices or organizations that are the process owners or key sponsors for the development of EB/EC pilot programs, initiatives, or solutions. An EB/EC Proponent represents the primary point of contact (POC) for a particular EB/EC activity (pilot, initiative, or solution) and is responsible for resouring the EB/EC activity. The EB/EC Proponent is the ultimate end-user of an EB/EC Solution and, as such, plays a critical role in the overall achievement of the EB/EC Vision. The EB/EC Proponent may also represent the Materiel Developer of an EB/EC Solution if they also perform the system development effort. The EB/EC Proponent will support the goals of Army EB/EC by:

- Implementing each associated EB/EC pilot, initiative, or solution in accordance with predetermined functional requirements to the maximum extent practicable in all facets of developing, fielding, training, integrating, and testing of the particular EB/EC pilot, initiative, or solution.
- Ensuring that actions involving implementation of EB/EC initiatives comply with the guiding principles identified in the *Army Strategic Plan for Electronic Commerce*, the *U.S. Army Electronic Commerce Policy*, numbered HQDA letter 25-xx-x, and this implementation plan.
- Coordinating with the ODISC4 and the FCs and FCRs in identifying the EB/EC training requirements for the proposed or fielded EB/EC pilot, initiative, or solution.
- Providing the ODISC4 inputs to the EB/EC repository to maintain a central base of current EB/EC initiatives, techniques, and concepts that can be promulgated throughout the Army.

2.8 Enterprise Strategy Control Structure

The Enterprise Strategy Control Structure (ESCS) assesses, integrates, and prioritizes recommendations for all C4/IT materiel solutions that meet operational and technical requirements across the enterprise. The ESCS establishes a forum for the Army community to identify and resolve C4/IT issues among the Army, Department of Defense (DoD), Allies, and other agencies. The ESCS consists of:

- *Vice Chief of Staff Army/Under Secretary Army*. These individuals jointly provide the ultimate direction and approval authority over the ESCS.

- *The Army C4I Executive Board.* This three-star, executive-level forum serves to resolve C4/IT issues that cannot be resolved by the Enterprise General Officer Steering Committee (GOSC). This board serves as a fall-back decision-making body for major issues that the Enterprise GOSC is unable to resolve and would involve itself in EB/EC issues only under extraordinary situations.
- *The Enterprise GOSC.* In addition to other responsibilities, the Enterprise GOSC is responsible for: determining what EB/EC-related issues need to be brought before the Army C4I Executive Board; developing the EB/EC resource strategy; and developing EB/EC community consensus on goals and strategies for the future.

The ESCS will also assess, integrate, and prioritize recommendations for EB/EC solutions that meet operational and technical requirements across the enterprise. An EB/EC IPT will be established as part of the ESCS and report directly to the Enterprise GOSC. Specific roles and responsibilities relating to EB/EC for the Enterprise GOSC and EB/EC IPT are detailed below.

2.9 Enterprise General Officer Steering Committee

The Enterprise GOSC (with advice and assistance from the Army C4I Executive Board, as appropriate) will support the goals of Army EB/EC by:

- Reviewing and approving EB/EC IPT recommendations on implementing EB/EC within the Army.
- Reviewing status and providing guidance to the EB/EC IPT on EB/EC implementation within the Army.
- Reviewing and approving all performance measures provided for EB/EC pilots, initiatives, and solutions.
- Reviewing and approving all guidance provided by the EB/EC IPT for the planning, programming, and budgeting for EB/EC initiatives and implementation within the Army.

As highlighted in the 19 January 1995 charter for the ESCS, membership includes representatives from the OSA, ARSTAF, and MACOMs along with others, including the Commanders in Chief (CINCs) and DISA.

2.10 *Virtual* Electronic Business/Electronic Commerce Integrated Process Team

The use of an IPT for EB/EC is critical to achieving buy-in and consistently coordinated EB/EC activities across the Army. Consistent with recent OSD guidance (3 May 1999, Director, Administration and Management memorandum, subject: Department of Defense Committee Management Program) to establish a ceiling on the number of Component committees, the Army will implement its EB/EC IPT by capitalizing on existing working relationships. Accordingly, the EB/EC IPT will consist of the already-established network of EB/EC Points of Contact (POCs) from the OSA, ARSTAF, and MACOMs. Moreover, the EB/EC IPT will conduct its activities as a "***virtual***" organization to the greatest extent possible, employing EB/EC techniques whenever possible to avoid the need for face-to-face meetings or other such sessions.

Office of the Secretary of the Army representation will include the Assistant Secretary of the Army (ASA) for Financial Management and Comptroller, the ASA for Civil Works, the ASA for Manpower and Reserve Affairs, the ASA for Acquisition, Logistics, and Technology, the ASA for Installations and Environment, the Army General Counsel, the Director of Information Systems for C4, the Deputy Under Secretary for International Affairs, the Deputy Under Secretary for Operations Research, The Inspector General, The Auditor General, Chief of Legislative Liaison, Chief of Public Affairs, Director of Small and Disadvantaged Business Utilization, and the Administrative Assistant to the Secretary of the Army. Army Staff representation will include the Deputy Chief of Staff (DCS) for Intelligence, the DCS for Logistics, the DCS for Operations and Plans, the DCS for Personnel, the Chief of Engineers, the Surgeon General, the Assistant Chief of Staff for Installation Management, Chief of the Army Reserve, Director Army National Guard, the Judge Advocate General, and the Chief of Chaplains. Major Army command representation will include the Army Materiel Command, Forces Command, Training and Doctrine Command, US Army Europe and Seventh Army, Eighth US Army, US Army Special Operations Command, US Army Pacific, Army Corps of Engineers, Army Medical Command, Military Traffic Management Command, US Army Criminal Investigation Command, Intelligence and Security Command, US Army South, and the Military District of Washington. The EB/EC IPT will report to the Enterprise GOSC as part of the ESCS. The EB/EC IPT will support the goals of Army EB/EC by:

- Monitoring the execution of tasks and milestones within this implementation plan.
- Facilitating involvement within the Army offices, agencies, and MACOMs regarding the implementation of EB/EC.
- Reviewing initiatives and identifying opportunities for cross-functional application of EB/EC initiatives.
- Promoting the synchronization of EB/EC initiatives within the Army.
- Based on a review and assessment of existing battlefield and non-battlefield systems for cross-functional integration opportunities, making recommendations to the DISC4 on systems that expand EB/EC capabilities to enable cross-functional integration.
- Looking for opportunities to reduce the distinction between battlefield and non-battlefield information systems.
- Capturing lessons learned and reviewing emerging EB/EC technologies and standards.
- Providing input to and support for the development of the Army C4/IT Investment Strategy.
- Recommending changes to the Army's Technical Architecture (i.e., the Joint Technical Architecture–Army (JTA–A)) that help achieve integration and more widespread use of EB/EC techniques and technologies.
- Recognizing those MACOMs/Installations that have established aggressive and effective programs for implementing EB/EC initiatives that are compatible with the JTA–A and established policies. The criteria for evaluation will include categories such as: best reengineered business processes that capitalize on emerging EB/EC technologies; best integration of battlefield and non-battlefield information systems using EB/EC; and best return on investment.
- Prioritizing and promoting candidate EB/EC initiatives that offer important opportunities for cross-functional integration in furtherance of the Army's EB/EC goals and objectives.
- Performing annual re-evaluations of the goals, objectives, and strategies for Army EB/EC as called out in the ASPEC and of the strategies and actions detailed in this plan.

- Establishing and providing oversight of Working Integrated Process Teams (WIPTs) to oversee the assessment, development, and implementation of potential EB/EC pilots as they transition from pilot to initiative to solution.
- Assisting in the development of performance measures for any proposed Army EB/EC pilot, initiative, or solution, and working in coordination with the relevant pilot WIPT.
- Facilitating the sharing of information across functional boundaries and across the Army's global mission areas by identifying opportunities for accelerating the adoption of national and international standards across the Army.
- Reviewing consolidated reports submitted by participants and analyzing trends in EB/EC for factors that should be considered in future process improvement or pilot testing initiatives. This process will ensure the Army maintains a central knowledge base of current EB/EC initiatives, techniques, and concepts that can be promulgated to HQDA and the MACOMs.
- Reviewing ongoing EB/EC initiatives, identifying lessons learned, and making recommendations for those initiatives that should be centrally supported.
- Coordinating with the PKI Working Group (PKIWG).

Additional information on the EB/EC IPT can be found in Section 3.2.1.8, Task 8: Establish an Integrated Process Team with representatives from the OSA, ARSTAF, and MACOMs to review current and future EB/EC initiatives across functional communities.

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With the roles and responsibilities clearly defined, this plan turns to specifying the steps required to achieve the vision for Army EB/EC. Section 3, *Implementing the Army Vision for Electronic Business/Electronic Commerce*, elaborates on the strategies of the ASPEC by providing additional tasks, milestones, and the assignment of appropriate responsibilities.

3. Implementing the Army Vision for Electronic Business/Electronic Commerce

The *Army Strategic Plan for Electronic Commerce*—which the DISC4 approved on 10 March 1998—provides the roadmap for the Army to achieve an integrated electronic business environment. The plan establishes the vision, goals, and strategies for Army EB/EC based on the Army's assigned missions. It also provides guiding principles and roles and responsibilities for implementing EB/EC across all functional areas. The plan presents strategies that describe how the Army EB/EC goals and objectives are to be accomplished over the near-, mid-, and long-term planning horizons.[6] The strategic plan provides the foundation to effectively implement and achieve an integrated electronic business environment. It serves as a framework for the development of more detailed plans that include specific initiatives relating to the overall Army mission and its EB/EC component.

This Implementation Plan builds on the ASPEC and, in turn, provides the basis for more detailed planning and actions to develop and institutionalize the Army EB/EC program. Section 3.1 presents a brief summary of the strategic plan's goals, objectives, and strategies. Section 3.2 then describes the tasks and milestones required to implement this plan. Section 3.3 summarizes the milestones for this section in a consolidated graphical format.

3.1 Review of Goals, Objectives, and Strategies

The ASPEC defines goals, objectives, and strategies to guide the Army in meeting its EB/EC vision. Goals establish long-term intentions. Objectives support goals. Strategies describe approaches to achieving goals and objectives. The sections below review these goals, objectives, and strategies.

3.1.1 Goals

The ASPEC defines five key goals, reflecting the critical success factors that will enable the Army to achieve its EB/EC vision. These goals are:

Goal 1. Develop an organizational structure that provides the focus and foundation for implementing electronic commerce that is both Warfighter and business driven.

Goal 2. Achieve cultural and business practice changes through guidance and education in implementing [EB/]EC.

[6] The Strategic Plan defines near-term as through FY1999, mid-term as FY2000–FY2002, and long-term as FY2003–2010. This plan defines near-term as FY 1999–FY 2000, mid-term as FY 2001–FY 2003, and long-term as FY 2004–FY 2010.

Goal 3. Achieve effective responses to changing environments by introducing reengineered processes and leveraging [EB/]EC technologies.

Goal 4. Achieve an integrated electronic business environment for the sharing of information across functional boundaries.

Goal 5. Achieve global flexibility, increased productivity, and a dynamic working environment through the use of electronic commerce.

3.1.2 Objectives

The ASPEC also defines ten objectives that support these goals. They are:

- Develop, staff, and publish policy and procedures for the implementation of [EB/]EC in the Army.
- Create a cross-functional collaborative environment for [EB/]EC implementation that fosters the cultural changes necessary to do business electronically.
- Leverage [EB/]EC technologies as part of business process reengineering and business process improvement.
- Acquire necessary resources to support implementation of Army [EB/]EC initiatives.
- Empower process owners to implement innovative [EB/]EC initiatives through pilot projects.
- Integrate emerging [EB/]EC technologies with high cross-functional potential through the establishment of a central repository to capture and maintain initiative information and successful pilot projects.
- Build necessary skills across the Army to apply [EB/]EC technologies.
- Create an integrated environment to promote global information sharing and improve operational effectiveness between battlefield and non-battlefield information systems.
- Promote an army-wide [EB/]EC information security infrastructure that facilitates data sharing across multiple organizations.
- Reduce the cost of, and lead time for, implementing [EB/]EC technologies.

3.1.3 Strategies

The ASPEC identifies 15 strategies to achieve these goals and objectives, divided into near-term (through FY99), mid-term (FY00–02), and long-term (FY03–10) categories. The following are the strategies and their main elements:

3.1.3.1 Near-Term Strategies. The seven near-term strategies defined in the ASPEC are:

- Promote, Implement, and Coordinate [EB/]EC Initiatives.
- Evaluate and Incorporate [EB/]EC Training into Existing Schools.
- Capitalize on Current Initiatives.
- Identify and Resolve [EB/]EC Security Concerns.
- Identify and Promote Solutions to Address Current Capabilities and Future Requirements.
- Advocate Funding.
- Develop Outcome Oriented Performance Measures.

3.1.3.2 Mid-Term Strategies. The ASPEC's five mid-term strategies are as follows:

- Facilitate Cross-Functional Integration.
- Promote [EB/]EC.
- Promote Global Information Sharing.
- Capitalize on Industry Best Practices.
- Refine Outcome Oriented Performance Measures.

3.1.3.3 Long-Term Strategies. The ASPEC also defines three long-term strategies:

- Implement Targeted Initiatives and Practices.
- Create a Virtual Working Environment to Support the Needs of the Warfighter.
- Refine and Calibrate Outcome Oriented Performance Measures.

The ASPEC further establishes milestones for the completion of actions under each of the strategies. These milestones, by fiscal year quarter for near- and mid-term strategies and by fiscal year for long-term strategies, establish initial planning factors for use in implementing the plan.

3.2 Action Plan for Implementation Tasks

This section summarizes near-term, mid-term, and long-term implementation tasks that the Army will execute to establish, develop, and institutionalize its EB/EC program. This "Action Plan" describes the actions required to implement these tasks. The description of each task includes the following information:

- Task Description—a general statement of the task and its primary participants.
- Lead Organization—the Army organization with primary responsibility for executing the task.
- Coordinating Organizations—the Army organization(s) with responsibility for supporting the execution of the task.
- Milestones—a listing of dates by which certain actions must be completed to ensure successful completion of the task.

In defining implementation tasks and identifying target milestones, this plan is based on the ASPEC. This plan does not, however, simply elaborate that plan for several reasons. First, it focuses on implementation tasks rather than strategies. Consequently, some tasks mirror ASPEC strategies exactly while others represent actions that contribute to the execution of two or more ASPEC strategies. Second, this plan reflects a reassessment of the allocation of tasks among near-, mid-, and long-term implementation periods—based on an analysis of the resources available as well as on current needs since the ASPEC was published. In particular, some tasks associated with ASPEC mid-term strategies appear capable of near-term implementation; accordingly, this Action Plan includes such tasks under the near term. Third, the Action Plan also reflects some adjustments to some milestones to reflect updated estimates of completion. (Section 1.4 summarizes these changes.)

NOTE: All near- and mid-term tasks listed herein will continue beyond the near- and mid-term periods (i.e., they represent recurring efforts). For clarity and to avoid redundant

presentation of information, such tasks are not repeated in the respective mid- and long-term task sections. Rather, such tasks—and the appropriate milestones—are annotated as continuing into the mid- and long-term periods (as appropriate) at the conclusion of the associated Task Description as well as with each of the relevant Milestones.

3.2.1 Near-Term Implementation Tasks

There are 17 near-term implementation tasks; each is fully described in the sections below. Near-term tasks are those that occur during FY 1999 and FY 2000. The tasks are as follows:

- Task 1: Create a central office to promote EB/EC information sharing.
- Task 2: Represent the Army at the appropriate DoD, Federal Government, national, and international EB/EC standards bodies and consortiums.
- Task 3: Integrate EB/EC into current and future Army policies and programs.
- Task 4: Recommend and coordinate with the OSA, ARSTAF, and MACOM representatives for the development of EB/EC planning guidance for inclusion in the Army's PPBES.
- Task 5: Ensure that EB/EC is incorporated into the PPBES.
- Task 6: Promote awareness and understanding of current and emerging EB/EC processes, technologies, and business practices throughout the Army workforce.
- Task 7: Evaluate existing training programs and policies to recommend changes and maximize training on EB/EC processes, technologies, and business practices.
- Task 8: Establish an EB/EC IPT with representatives from the OSA, ARSTAF, and MACOMs to review current and future EB/EC initiatives across the functional communities.
- Task 9: Conduct a data call to establish and maintain a central repository of EB/EC initiatives to collect lessons learned and promote data sharing.
- Task 10: Maintain a World Wide Web site that provides access to the EB/EC repository and insight into current initiatives, trends, and upcoming events.
- Task 11: Publish information on additional sources of funding for EB/EC initiatives.
- Task 12: Identify and document EB/EC security requirements for inclusion in the technical, operational, and systems architectures. Publish appropriate EB/EC information security policies and compliance procedures.
- Task 13: Provide information on commercial off-the-shelf (COTS)/government off-the-shelf (GOTS) products that support EB/EC.
- Task 14: Promote EB/EC-related pilot programs and projects.
- Task 15: Incorporate incentives for EB/EC use into existing awards and excellence programs.
- Task 16: Develop outcome-oriented EB/EC performance measures.
- Task 17: Implement Emerging Technologies.

3.2.1.1 Task 1: Create a central office to promote EB/EC information sharing.

Task Description: Within the ODISC4, SAIS-IAE will serve as the focal point for all Army EB/EC activities. SAIS-IAE will serve as the Army's liaison between OSD Principal Staff

Assistants (PSAs), SECARMY PSAs, ARSTAF, and MACOMs for all issues pertaining to programs, policy, and standards. MACOMs will establish EB/EC POCs who will serve as EB/EC focal points for their respective organizations. These POCs must address all EB/EC related activities within their MACOM (e.g., addressing EB/EC standards, EB/EC IPT participation, responding to data calls). MACOMs will establish the appropriate management structure and the mechanisms required for their own EB/EC actions. SAIS-IAE will coordinate functional participation in DoD, Army, and related EB/EC working groups, standards bodies, and consortiums. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, ASA (RDA), MACOMs.

Milestones:

- Submit EB/EC mission to ODISC4 Executive Office for inclusion in the ODISC4 Organization and Functions Manual—June 1998. (Completed)
- Establish Army focal-point for Electronic Business/Electronic Commerce—June 1998. (Completed)
- Issue U.S. Army Electronic Business/Electronic Commerce Policy—4QFY99.
- Assess need for Army EB/EC Project Office—4QFY99. (Completed)
- Prepare decision package to establish Army EB/EC Project Office—October–December 1999. (Overtaken by events as result of above assessment)
- Review U.S. Army Electronic Business/Electronic Commerce Policy—1QFY00 and subsequent quarters. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.2 Task 2: Represent the Army at the appropriate DoD, Federal Government, national, and international EB/EC standards bodies and consortiums.

Task Description: SAIS-IAE, in coordination with the ODISC4 Standards and Interoperability Division (SAIS-PAA-S), will represent the Army at standards policy forums that involve EB/EC. Specifically, SAIS-IAE will serve as the Army voting member on the Defense Electronic Data Interchange Standards Management Committee (EDISMC). SAIS-IAE will also serve as the Army voting member on the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12 Committee for electronic data interchange (EDI). SAIS-IAE will represent the Army position on EB/EC at other standards bodies as appropriate. OSA, ARSTAF, and MACOMs will report, via the EB/EC Repository, the standards used for implementing EB/EC initiatives. SAIS-IAE will report any changes to existing standards to the Army community. When applicable, MACOMs will review/recommend standards where none exist or where ODISC4 does not have the requisite expertise. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: EB/EC IPT.

Milestones:

- Determine appropriate EB/EC standards bodies and consortiums—On-Going.
- Meeting participation—dependent on standards bodies' meeting schedules (most Defense EDISMC and Functional Working Group (FWG) activities involve electronic coordination via e-mail). *[This milestone continues into the mid- and long-term periods.]*

3.2.1.3 Task 3: Integrate EB/EC into current and future Army policies and programs.

Task Description: The ODISC4 will coordinate the integration of EB/EC into existing Army C4/IT programs. ODISC4 will review existing information systems and information management policies and regulations to identify and recommend the inclusion of EB/EC direction and guidance. When required, the ODISC4 will recommend interim guidance on EB/EC and publish approved guidance on the Army EB/EC Website. The ODISC4, in coordination with OSA, ARSTAF, and MACOMs through the EB/EC IPT, will routinely review Army policies to ensure that these policies reflect current EB/EC trends, laws, regulations, and best practices. Functional area policies and regulations (e.g., AR 25-1, *The Army Information Resource Management Program*, AR 70-1, *Research, Development, and Acquisition, Army Acquisition Policy*) will be routinely reviewed to ensure that requisite EB/EC policy statements are reflected in Army Regulations. Where no EB/EC policy statement is provided, SAIS-IAE will prepare the required language for inclusion in the appropriate Army Regulation. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: ASA (ALT), other OSA, ARSTAF, and MACOMS as appropriate.

Milestones:

- Conduct ODISC4 internal review of EB/EC-related Army policies and programs:
  - Review of higher-level policies and programs (e.g., Presidential, OMB, DoD) for implications on Army policies and programs—1QFY00.
  - Review of EB/EC-related aspects of Army Enterprise Architecture (AEA) Master Plan and policies—1QFY00.
  - Review of EB/EC-related aspects of JTA–A revisions—1QFY00.
  - Review of EB/EC-related aspects of Installation Information Infrastructure Architecture (I3A) revisions—1QFY00.
  - Review of functional area policies and programs for incorporation of EB/EC language—1QFY00.
  - Review of EB/EC-related aspects of Army software management policies—1QFY00.
  - Review of EB/EC-related aspects of Army Data Management Program and Army Data Encyclopedia—1QFY00.
  - Review of EB/EC-related aspects of Army Information Standards Management Program—1QFY00.
  - Review of EB/EC-related aspects of Army VI program—1QFY00.

  - Review of EB/EC-related aspects of Army C4/IT systems and programs—1QFY00.
- Report results of review, with recommendations, to EB/EC IPT—1QFY00.
- Inclusion of EB/EC-related recommendations in ODISC4 POMs—March 2000 and subsequent even years (March 1999 and subsequent odd years for mini-POM). *[This milestone continues into the mid- and long-term periods.]*
- Participate in Army-wide reviews of Army policies and programs—dependent on AEA, JTA–A, I3A, and C4/IT system and program milestones. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.4 Task 4: Recommend and coordinate with the OSA, ARSTAF, and MACOM representatives the development of EB/EC planning guidance for inclusion into the Army s PPBES.

Task Description: The ODISC4 will review existing planning documents and develop recommendations for EB/EC-related aspects of Army planning guidance. ODISC4 will address EB/EC aspects of Army planning documents such as: the Army Long Range Planning Guidance (ALRPG), the Army Modernization Plan (AMP), the Army Research, Development and Acquisition Plan (RDAP), The Army Plan, and the Army Program Guidance Memorandum (APGM). (See Task 5 (budget) for related tasking.) *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: ASA (FM&C) (PPBES), ASA (ALT) (systems acquisition), ASA (M&RA), DCSOPS, DCSPER, MACOMs, and other OSA and ARSTAF as appropriate.

Milestones:

- Develop EB/EC language for incorporation into RDAP guidance document—February–March 1999 and subsequent odd years for inclusion in the April release of the RDAP. *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the Final TAP—June–July 1999 and subsequent odd years for inclusion in the August release of the Final TAP. *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the Final APGM—June–July 1999 and subsequent odd years (even years for mini POM) for inclusion in the August release of the Final APGM. *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the Preliminary TAP—October–November 1999 and subsequent odd years for inclusion in the December release of the Preliminary TAP. *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the ALRPG—August–September 2000 and subsequent years for inclusion in the October release of the ALRPG. *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the AMP—August–September 2000 and subsequent even years for inclusion in the October release of the AMP. *[This milestone continues into the mid- and long-term periods.]*

- Update EB/EC language in existing RDAP based on Budget Estimate Submission (BES)—October 2000 and subsequent even years (BES due 15 September). *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the Draft TAP—October–November 2000 and subsequent even years for inclusion in the January release of the Draft TAP. *[This milestone continues into the mid- and long-term periods.]*
- Develop EB/EC language for incorporation into the Draft APGM—October–November 2000 and subsequent even years (odd years for mini POM) for inclusion in the January release of the Draft APGM. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.5 Task 5: Ensure that EB/EC is incorporated into the Planning, Programming, Budgeting, and Execution System.

Task Description: The ODISC4 will serve as the budget advocate for Army EB/EC initiatives in the programming and budgeting phases of the PPBES process. The ODISC4 will advise Army Program Evaluation Groups (PEGs) on EB/EC initiatives and activities. The ODISC4 will perform this role during all phases of the PPBES process, but especially during Management of Change (MOC) windows during the spring and fall of each calendar year (i.e., the third and first quarters of successive fiscal years). *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: ASA (FM&C) (PPBES), ASA (ALT) (systems acquisition), ASA (M&RA), DCSOPS, DCSPER, MACOMs, and other OSA and ARSTAF as appropriate.

Milestones:

- Review Army EB/EC initiatives in the OSD revision of the Future Years' Defense Plan (FYDP) submitted to Congress—January 1999 and subsequent odd years (January 2000 and subsequent even years for the mini-POM). *[This milestone continues into the mid- and long-term periods.]*
- Review Army EB/EC initiatives in the President's Budget—January 1999 and subsequent odd years (January 2000 and subsequent even years for amended President's budget). *[This milestone continues into the mid- and long-term periods.]*
- Review EB/EC aspects of Army POM Preparation Instructions (APPI)—February 2000 and subsequent even years following release in January 2000 (February 1999 and subsequent odd years for the mini-POM). *[This milestone continues into the mid- and long-term periods.]*
- Prepare EB/EC aspects of Army Congressional budget justifications and responses to queries—February 1999 through September 1999 and subsequent years. *[This milestone continues into the mid- and long-term periods.]*
- Provide support of Army EB/EC-related OSD Program Review Proposals (PRPs)—April–July 2000 and subsequent even years (April–July 1999 and subsequent odd years for the mini-POM). *[This milestone continues into the mid- and long-term periods.]*

- Review EB/EC portions of the Army POM—April 1999 for the mini-POM released on 1 April 1999 and subsequent odd years (1 April 2000 and subsequent even years for the POM.). *[This milestone continues into the mid- and long-term periods.]*
- Prepare EB/EC aspects of PBG issued with the Final TAP and APGM—June–July 1999 for release in August 1999 and subsequent odd years (June–July 2000 and subsequent even years for the mini-POM (APGM only)). *[This milestone continues into the mid- and long-term periods.]*
- Prepare EB/EC aspects of MACOM POM Development Instructions (MPDIs)—June–July 1999 and subsequent odd years for release in August 1999 (June–July of 2000 subsequent even years for the mini-POM). *[This milestone continues into the mid- and long-term periods.]*
- Review EB/EC initiatives and activities in MACOM/Program Executive Office (PEO) Resource Management Updates (RMUs) and related PBGs—July–August 1999 and subsequent odd years for the mini-POM (July–August 2000 and subsequent even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Review Army EB/EC implications of Program Decision Memorandum (PDM)—July–August 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Review EB/EC aspects of MACOM/PEO Command Budget Estimates (CBEs)—July–August 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Provide Army EB/EC budget preparation support—July–September 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Review EB/EC aspects of BES-related FYDP and PBG updates—September 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Support PEG reviews of draft Program Budget Decision (PBD) effects on Army EB/EC initiatives—November–December 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Support preparation of Major Budget Issues (MBIs) on proposed decrements to EB/EC initiatives—November–December 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Support PEGs' analyses of the final PBD's implications for Army EB/EC initiatives and updates of relevant MDEPs to reflect program changes—November–December 1999 and subsequent odd years (even years for the POM). *[This milestone continues into the mid- and long-term periods.]*
- Prepare EB/EC aspects of PBG for President's Budget—December 1999 and subsequent odd years for the amended President's Budget (December 2000 and subsequent even years for President's Budget). *[This milestone continues into the mid- and long-term periods.]*
- Provide research and analytical support for all EB/EC-related Information Management/Information Technology (IM/IT) MDEPs—December 1999–February 2000 and subsequent biennial periods (December 2000–February 2001 and subsequent biennial periods for the mini-POM). *[This milestone continues into the mid- and long-term periods.]*

- Provide EB/EC-related programming support to PEGs during review of MACOM/PEO POM submissions and the development of the Army POM—December 1999–February 2000 and subsequent biennial periods (December 2000–February 2001 and subsequent biennial periods for the mini-POM). *[This milestone continues into the mid- and long-term periods.]*

3.2.1.6 Task 6: Promote awareness and understanding of current and emerging EB/EC processes, technologies, and business practices throughout the Army workforce.

Task Description: The ODISC4, in coordination with the Office, Chief of Public Affairs (OCPA), will develop, publish, and distribute informational and educational materials on EB/EC processes, technologies, and business practices that support Army missions and programs. Where possible, the ODISC4 will use GOTS and COTS materials for such purposes. SAIS-IAE will make the materials available on the Army EB/EC Website and in hard copy. [*This task continues into the mid- and long-term periods]*

Lead Organization: ODISC4.

Coordinating Organizations: OCPA, EB/EC IPT.

Milestones:

- Develop the Army EB/EC outreach strategy to develop and integrate Army EB/EC information and education materials for the Army civilian and military workforce—April–May 2000.
- Assess existing GOTS and COTS EB/EC informational materials—May 2000.
- Assess opportunities for joint development of EB/EC informational materials—May–June 2000.
- Develop initial Army EB/EC e-mail messages and other informational materials—June 2000.
- Pretest and validate Army EB/EC informational materials—July 2000.
- Publish Army EB/EC informational materials and post on Army EB/EC Website—July 2000.

3.2.1.7 Task 7: Evaluate existing training programs and policies to recommend changes and maximize training on EB/EC processes, technologies, and business practices.

Task Description: The ODISC4, in coordination with the Office of Civilian Personnel Policy, OASA (M&RA), ODCSPER, ODCSOPS, TRADOC, and EB/EC proponents, will address EB/EC training and training materiel for the Army military and civilian workforce at the technical, managerial, and executive levels. The ODISC4 will review policy regarding EB/EC training to promote the use of distance learning, and interactive, web-enabled training applications. The ODISC4 will develop a multi-media presentation to support senior-level

education that can be conducted within each organization and that is accessible via the World Wide Web. The ODISC4 will also promote opportunities for EB/EC-related training with industry (e.g., forums, seminars, job assignments) through the Training with Industry (TWI) program for military and civilian personnel when opportunities are available. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: ASA (M&RA) (civilian personnel), DCSPER (military personnel), DCSOPS (training requirements), TRADOC (advisory support and, as appropriate, training development), ASA (ALT), ASA (FM&C), AWC, AMSC, ALMC, CGSC.

Milestones:

- Review existing training programs—November–December 1999.
- Identify need for additional EB/EC-related training requirements—November 1999–January 2000.
- As appropriate, support development, staffing, and publishing of EB/EC-related training materials, especially distance learning materials—January–July 2000.
- Develop a multi-media presentation to support senior-level education that can be conducted within each organization and that is accessible via the World Wide Web—February–July 2000.
- Support EB/EC training requirements in Army Civilian Training, Education, and Development System (ACTEDS) plans—dependent upon plan schedules. *[This milestone continues into the mid- and long-term periods.]*

(References: TRADOC Regulation 350-70, Systems Approach to Training Management, Processes, and Products (9 Mar 1999); AR 690-950, Civilian Personnel Career Management (11 Oct 1988); AR 1-1.)

3.2.1.8 Task 8: Establish an EB/EC Integrated Process Team with representatives from the OSA, ARSTAF, and MACOMs to review current and future EB/EC initiatives across the functional communities.

Task Description: The EB/EC IPT will monitor and report to the Enterprise GOSC on the status of implementing EB/EC in the Army. The EB/EC IPT will be responsible for promoting the synchronization of EB/EC initiatives within the Army. The EB/EC IPT will review initiatives to identify and prioritize opportunities for cross-functional application of EB/EC techniques and technologies. To the greatest extent possible, the EB/EC IPT will conduct its activities "***virtually***", employing electronic means such as e-mail, video-teleconferences, and existing or developing collaborative tools (e.g., the Document Coordination System) to preclude the need for face-to-face sessions and their associated travel expenses. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Assess readiness of collaborative tools to support initial EB/EC IPT meeting—1QFY99 (Completed).
- Develop and coordinate the Army EB/EC IPT Terms of Reference—1QFY00.
- Conduct virtual EB/EC IPT activities—as needed. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.9 Task 9: Conduct a data call to establish and maintain a central repository of EB/EC initiatives to collect lessons learned and promote data sharing.

Task Description: The Army EB/EC repository will target EB/EC initiatives with high cross-functional potential. This repository will include both commercial and DoD solutions, best business practices, and lessons learned. This database will identify proven tools and solutions that have effectively reduced cost and increased organizational efficiencies. In addition, the database will identify tools that have accelerated implementation of improved processes and technologies. The EB/EC Repository will also include an ongoing survey for which EB/EC proponents or EB/EC POCs will provide information on EB/EC initiatives, lessons learned, and best business practices. [*This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Develop Army EB/EC repository software—3QFY98–4QFY98. (Completed)
- Develop Army EB/EC Survey—3QFY98–2QFY99. (Completed)
- Request data from POCs—2QFY99. (Completed)
- Perform annual update to Army EB/EC Survey—2QFY00 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Share the results of the EB/EC survey with appropriate CIO proponents—4QFY99 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Issue follow-up requests for additional information—4QFY99.
- Monitor and facilitate data entry into central EB/EC repository—November 1998–June 1999. (Completed)
- Make repository of EB/EC initiatives available with on-line access to the Army EB/EC Website and designated Army websites—4QFY99.
- Monitor EB/EC initiatives entered into EB/EC repository to ensure that Army community is aware of new entries—1QFY00 and quarterly thereafter. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.10 Task 10: Maintain a World Wide Web site that provides access to the EB/EC repository and insight into current initiatives, trends, and upcoming events.

Task Description: The Army EB/EC Website [URL: www.armyec.sra.com] will serve as the Army-wide dissemination point for information about Army EB/EC policies, plans, procedures, programs, initiatives, training, best practices, process improvements, and technologies. The EB/EC Website will support two-way communications with the Army workforce on EB/EC issues. The EB/EC Website will include links to other DoD and Federal Government informational sites. The ODISC4 will coordinate with OCPA to ensure that only non-sensitive information is available through the public website. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OCPA.

Milestones:

- Develop and review prototype enhanced website—June 1998. (Completed)
- Demonstrate website to Director, SAIS-IA—June 1998. (Completed)
- Connect Army EB/EC Website to Army Knowledge Office website—June 1998. (Completed)
- Develop DISC4 letter announcing EB/EC Website to Assistant Secretaries of the Army (ASAs), ARSTAF, and MACOMs—July 1998. (Completed)
- Develop press article announcing EB/EC Website—July 1998. (Completed)
- Develop marketing brochure—July 1998. (Completed)
- Demonstrate the enhanced website—August–September 1998. (Completed)
- Maintain and enhance the Army EB/EC Website—commencing August 1998 and subsequent quarters. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.11 Task 11: Publish information on additional sources of funding for EB/EC initiatives.

Task Description: SAIS-IAE, in coordination with ASA(FM&C), will make available information on additional sources of funding for EB/EC initiatives and post such information on the Army EB/EC Website. Information on such funding might be available on the Internet and from other public sources. Other information might come from OSA, ARSTAF, and other Army, DoD, or Federal Government sources. For example, the ODISC4, in coordination with the EB/EC IPT, will promote candidate applications to the Innovation Fund Committee. This committee is composed of members from the Interagency Management Council and the Government Information Technology Services Board, and finances creative IT pilot projects in the Government (see Section 4.5 herein). *[This task continues into the mid- and long-term periods.]*

Lead Organizations: ODISC4.

Coordinating Organizations: ASA (FM&C), OSA, ARSTAF, MACOMs.

Milestones:

- Identify additional funding sources—December 1999 and semi-annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Make available information on additional funding sources—January 2000 and semi-annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Post information on the Army EB/EC Website—January 2000 and semi-annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Support MACOM, PEO, and EC Proponent applications for funding—January–February 2000 and semi-annually thereafter. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.12 Task 12: Identify and document EB/EC security requirements for inclusion in the technical, operational, and systems architectures. Publish appropriate EB/EC information security policies and compliance procedures.

Task Description: SAIS-IAE will assess the security requirements and risks for existing and future EB/EC initiatives. Such security requirements will include information on data security, electronic signatures, firewalls, PKI, smart cards, authentication, non-repudiation, and encryption. SAIS-IAE will provide the cognizant ODISC4 organization information on EB/EC security requirements for incorporation into existing C4/IT architectures. ODISC4 will develop and provide proposed EB/EC security policy/procedures to ODISC4 Information Assurance and will conform to the guidance for policy development described in Task 3. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: Administrative Assistant to the Secretary of the Army (SAAA) (for HQDA IT systems), DCSINT, and MACOMs.

Milestones:

- Solicit security requirements from EB/EC community (in conjunction with the EB/EC survey)—2QFY99 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Perform EB/EC information security risk analysis—4QFY99 and annual updates thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Submit recommendations for EB/EC information security requirements to DISC4—November 1999 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Develop draft PKI and EB/EC information security policy and compliance procedures—October–December 1999.
- Submit recommendations for EB/EC information security policy and compliance procedures to DISC4—January 2000.

- Publish EB/EC information policy and compliance procedures on the Army EB/EC Website—2QFY00–3QFY00.

3.2.1.13 Task 13: Provide information on COTS/GOTS products that support EB/EC.

Task Description: Federal, DoD, and Army policy encourages the use of existing COTS/GOTS products to the maximum extent appropriate. To support Army EB/EC, such products must be compliant with the JTA–A. To ensure that the Army has current, accurate, and comprehensive information on JTA–A-compliant COTS and GOTS solutions for EB/EC, the ODISC4 will maintain information on such products in the EB/EC central repository and identify relevant sources of information. The ODISC4 will also sponsor periodic assessments of available COTS and GOTS products in terms of their ability to reduce costs and enhance efficiencies. The ODISC4 will survey each functional proponent and identify existing Army and other DoD solutions that have successfully integrated COTS applications to maximize EB/EC efficiencies. SAIS-IAE will post the results of the survey on the Army EB/EC Website for Army-wide access. The ODISC4 will also include such information in the JTA–A where appropriate. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Collect information on EB/EC-related COTS and GOTS products as part of the EB/EC survey—March 1999 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Enter information into EB/EC central repository—April 1999 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Post information on Army EB/EC Website—4QFY99 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Establish links to websites on EB/EC-related COTS and GOTS products—June 1999 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Assess performance of EB/EC-related COTS and GOTS products—June 1999 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Conduct survey of Army use of EB/EC-related COTS and GOTS products (in conjunction with the EB/EC survey—see Task 9)—2QFY00 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Post survey results on Army EB/EC Website—4QFY00 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Include information on EB/EC-related COTS and GOTS products in JTA–A—during regularly scheduled revisions of JTA–A. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.14 Task 14: Promote EB/EC-related pilot programs and projects.

Task Description: The OSA, ARSTAF, MACOMs, and ODISC4 will promote the use of pilot programs and pilot projects to facilitate EB/EC-related improved business processes and technologies. Such pilot programs and projects will include existing and proposed EB/EC initiatives that support the Army EB/EC goals and objectives. This task will assist EB/EC proponents in preparing the necessary information to promote their respective EB/EC initiatives through the PPBES process. This task will begin with a review/assessment by the EB/EC IPT of the Candidate EB/EC Initiatives identified in Section 4 of this plan. The EB/EC IPT will also contact the ODISC4 CIO Integration Office (SAIS-IMC) to identify existing process improvement activities that have the potential to become EB/EC initiatives. See Section 4.4, "Promoting EB/EC Through the PPBES Process", for further details. SAIS-IAE will disseminate the results of these pilot programs and projects via the EB/EC IPT and EB/EC Website for Army-wide dissemination and incorporation where appropriate. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Review existing EB/EC-related pilot programs and projects, including the Candidate EB/EC initiatives—December 1999.
- Review current process improvement initiatives for potential EB/EC pilot projects (in coordination with SAIS-IMC)—December 1999.
- Recommend existing EB/EC-related pilot programs and projects to EB/EC IPT—January 2000.
- Support EB/EC IPT and Enterprise GOSC review of existing EB/EC-related pilot programs and projects—February–March 2000.
- Identify EB/EC initiatives for designated POM years—April 2000 and subsequent years. *[This milestone continues into the mid- and long-term periods.]*
- Review proposed additional EB/EC initiatives—April–June 2000 and subsequent years. *[This milestone continues into the mid- and long-term periods.]*
- Recommend EB/EC initiatives for the Army Studies Program—3QFY00 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Support EB/EC IPT and Enterprise GOSC review of EB/EC-related pilot programs and projects—August–September 2000 and annually thereafter (see near-term Tasks 4 and 5 for details). *[This milestone continues into the mid- and long-term periods.]*
- Promote EB/EC Initiatives through the PPBES process (see near-term Tasks 4 and 5 for details). *[This milestone continues into the mid- and long-term periods.]*

3.2.1.15 Task 15: Incorporate incentives for EB/EC use into existing Army awards and excellence programs.

Task Description: Rewards of promoting new efficiencies and garnering savings associated with EB/EC should be submitted by via current government suggestion/recognition programs such as the Army Ideas for Excellence Program (AIEP) described in Army Regulation 5-17. This will allow soldiers and civilian employees to promote EB/EC by submitting time- and money-saving suggestions that, if approved for implementation, will reward them according to set guidelines. The ODISC4, in coordination with the EB/EC IPT, will identify and recommend evaluation criteria to the program approval authority. *[This task continues into the mid- and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs, and other awards program approval authorities.

Milestones:

- Review existing Army, DoD, and other Federal Government awards programs—November 1999 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Develop proposed changes and evaluation criteria—December 1999–February 2000 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Coordinate proposed changes and evaluation criteria—March–May 2000 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*
- Publish memorandum by program approval authority—June 2000.
- Post approved EB/EC incentives in Army awards programs on the Army EB/EC Website—July 2000 and annually thereafter. *[This milestone continues into the mid- and long-term periods.]*

3.2.1.16 Task 16: Develop EB/EC outcome-oriented performance measures.

Task Description: The ODISC4, in coordination with the EB/EC IPT members empowered to speak for their respective MACOMs, will develop an initial set of consensus-driven measurable performance goal thresholds (minimums) (e.g., 50 percent reduction in cycle time, 30 percent return on investment, 25 percent reduction in process error rates). The EB/EC IPT will establish these performance goal thresholds as a baseline that the functional communities can use as a basis on which to establish project-specific measures for evaluating their individual EB/EC projects. As noted in Section 5, EB/EC Proponents, in developing their project-specific performance measures, may specify performance objectives that are more stringent than the generic thresholds established by the EB/EC IPT. [*This task continues into the mid and long-term periods.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Develop draft performance measures—October 1999.
- Coordinate draft performance measures within ODISC4—November–December 1999.
- Coordinate draft performance measures with OSA, ARSTAF, and MACOMs—January–February 2000.
- Achieve EB/EC IPT consensus on performance measures—February 2000.
- Submit recommended measures to DISC4/Vice DISC4 (VDISC4) for review—March 2000.
- Publish approved performance measures—April 2000.
- Post approved measures on the Army EB/EC Website—April 2000.
- Report OSA, ARSTAF, MACOM results of performance measures—May 2000 or as agreed.
- Report coordinated results of performance measures—July 2000 or as agreed.

3.2.1.17 Task 17: Implement Emerging Technologies.

Task Description: Essential to the growth of EB/EC within the Army is evaluating and appropriately implementing emerging technologies that can add value to Army processes. Two emerging technologies are presently in such status: Public Key Infrastructure (PKI) and Smart Cards. Both of these technologies are in the early stages of being implemented within DoD and the Army. Other related technologies are expected to emerge over the planning horizon envisioned in this plan (i.e., through FY2010). Though related, each of these technologies is different and requires the accomplishment of largely independent milestones, perhaps by different organizations within the Army. Accordingly, this plan will reflect the Army's plans for implementing such technologies as separate appendices. Two such appendices are presently under development: Appendix D will provide an Action Plan for Implementing PKI within the Army by the end of calendar year 1999 and Appendix E will present an analogous Action Plan for Implementing Smart Cards sometime thereafter. Other appendices will be added over time as the Army identifies and begins to implement additional emerging EB/EC-related technologies. *[This task continues into the mid- and long-term periods.]*

Lead Organizations: ODISC4

Coordinating Organizations: OSA, ARSTAF, and MACOMs

Milestones:

- To be specified in appropriate appendices once developed—see Appendix D for PKI efforts (appendix expected by end of 4QFY99) and Appendix E for Smart Cards (appendix expected by end of 1QFY00). *[This milestone continues into the mid- and long-term periods.]*

3.2.2 Mid-Term Implementation Tasks

There are 4 mid-term implementation tasks; each is fully described in the sections below. [Mid-term tasks are those that occur from FY2001 through FY2003.]

- Task 1: Continue to integrate EB/EC into current, programmed, and planned Army C4/IT policies and programs.
- Task 2 Establish a program for recognizing MACOM and Installation EB/EC initiatives.
- Task 3: Promote information on EB/EC.
- Task 4: Implement and Refine Army EB/EC initiatives.

All of the near-term tasks continue into the mid-term period.

3.2.2.1 Task 1: Continue to integrate EB/EC into current, programmed, and planned Army C4/IT policies and programs.

Task Description: Conduct a review and assessment of existing battlefield and non-battlefield/sustaining base systems currently in use for cross-functional integration opportunities. Based on the review and assessment, the EB/EC IPT will make recommendations with respect to Army C4/IT policies and programs, including the JTA–A, to expand EB/EC capabilities to achieve cross-functional integration and promote cost savings. The EB/EC IPT will identify opportunities for EB/EC technologies that reduce the distinction between battlefield and non-battlefield information systems. *[This task continues into the long-term period.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs, EB/EC IPT.

Milestones:

- Conduct review of existing battlefield and non-battlefield/sustaining base systems for cross-functional integration—2QFY01–4QFY01.
- EB/EC IPT review of battlefield/non-battlefield assessment for incorporation into key Army C4/IT documents—Review in 1QFY02, incorporation dependent on AEA, JTA–A, I3A, and C4/IT system and program milestones. *[This milestone continues into the long-term period.]*

3.2.2.2 Task 2: Establish a program for recognizing MACOM and Installation EB/EC initiatives.

Task Description: The ODISC4, in coordination with the EB/EC IPT, will identify and establish requirements and guidelines for recognizing MACOM and installation EB/EC initiatives. Each fiscal year, based on a review of MACOM/Installation EB/EC initiatives, the EB/EC IPT will recognize those MACOMs/Installations that have established an aggressive and

effective program for implementing EB/EC initiatives that are compatible with the JTA–A and established policies. The evaluation criteria will include categories such as: best reengineered business processes that capitalize on emerging EB/EC technologies; best integration of battlefield and non-battlefield information systems using EB/EC; and best return on investment. *[This task continues into the long-term period.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Develop a program for recognizing EB/EC initiatives—1QFY01.
- Staff and publish the recommended program—January–February 2001.
- Solicit MACOM and installation EB/EC initiatives—March 2001 and annually thereafter. *[This milestone continues into the long-term period.]*
- Evaluate MACOM/Installation EB/EC initiatives—3QFY01 and annually thereafter. *[This milestone continues into the long-term period.]*
- Publish recognition of MACOM/Installation EB/EC initiatives—August 2001 and annually thereafter. *[This milestone continues into the long-term period.]*
- Post the approved program on the Army EB/EC Website—August 2001 and annually thereafter. *[This milestone continues into the long-term period.]*

3.2.2.3 Task 3: Promote information on EB/EC.

Task Description: The ODISC4 will promote the use of EB/EC in the Army by continuing the information initiatives begun under near-term implementation tasks. Such actions will include the expansion and regular updating of the EB/EC website and the EB/EC repository of EB/EC initiatives, lessons learned, and best practices. The ODISC4 will also publish information on changes to Army, DoD, and Federal Government EB/EC-related laws, regulations, policies, and programs; Army, DoD, Federal Government, national, and international EB/EC standards; sources of funding and applicable contract vehicles; and industry and academic EB/EC forums, training, best practices, and other relevant activities. *[This task continues into the long-term period.]*

Lead Organization: ODISC4.

Coordinating Organizations: OSA ARSTAF, MACOMs.

Milestones:

- Conduct electronic survey update—October–November 2000 and annually thereafter. *[This milestone continues into the long-term period.]*
- Facilitate data entry into central EB/EC repository—1QFY01 and annually thereafter. *[This milestone continues into the long-term period.]*
- Share the results of the EB/EC survey with appropriate I3A proponents—1QFY01 and annually thereafter. *[This milestone continues into the long-term period.]*

- Post data on Army EB/EC Website—1QFY01 and annually thereafter. *[This milestone continues into the long-term period.]*
- Develop analysis of data—1QFY01 and annually thereafter. *[This milestone continues into the long-term period.]*
- Update information on Army EB/EC Website—December 2000 and annually thereafter, as information becomes available. *[This milestone continues into the long-term period.]*

3.2.2.4 Task 4: Implement and refine Army EB/EC Initiatives.

Task Description: The ODISC4, in coordination with OSA, ARSTAF, and MACOMs, will implement and refine actions initiated under near-term implementation tasks that support Army EB/EC funding, training, pilot programs, and performance measures. The ODISC4 will promote the inclusion of EB/EC initiatives in the PPBES process and documents, Army military training, and training for applicable career programs. The EB/EC IPT will evaluate pilot programs, recommend additional EB/EC initiatives, and recommend initiatives for adoption as Army-wide programs. The EB/EC IPT will refine EB/EC-related performance measures, collection procedures and methods, and reporting responsibilities and schedules based on experience in implementation of near-term measures. *[This task continues into the long-term period.]*

Lead Organization: ODISC4.

Coordinating Organizations: ASA (FM&C) (PPBES), ASA (ALT) (systems acquisition), ASA (M&RA) (civilian personnel), DCSPER (military personnel), DCSOPS (training requirements), TRADOC (training development), and other OSA, ARSTAF, and MACOMs as appropriate.

Milestones:

- Promote EB/EC initiatives in Army planning—dependent on schedules for planning documents (see near-term Task 4 for details). *[This milestone continues into the long-term period.]*
- Promote EB/EC initiatives in Army PPBES process—dependent on schedules for PPBES documents (see near-term Tasks 4 and 5 for details). *[This milestone continues into the long-term period.]*
- Promote EB/EC-related military and civilian training—1QFY01–4QFY03 (see near-term Task 7 for details). *[This milestone continues into the long-term period.]*
- Develop plans for EB/EC pilot programs and projects—1QFY01–1QFY03 (see near-term Task 4 for details). *[This milestone continues into the long-term period.]*
- Develop recommendations for EB/EC pilot programs and projects—2QFY01–2QFY03 (see near-term Task 5 for details). *[This milestone continues into the long-term period.]*
- Report results of EB/EC pilot programs and projects—2QFY01 and subsequent quarters. *[This milestone continues into the long-term period.]*
- Assess the effectiveness of Army EB/EC pilot programs and projects—4QFY01 and subsequent years. *[This milestone continues into the long-term period.]*
- Assess the effectiveness of initial EB/EC performance measures—4QFY01 and subsequent years. *[This milestone continues into the long-term period.]*

3.2.3 Long-Term Implementation Tasks

There are 3 long-term implementation tasks; each is fully described in the sections below. [Long-term implementation tasks are those that will occur from FY2004 through FY2010.]

- Task 1: Continue to integrate EB/EC into current, programmed, and planned Army C4/IT policies and programs.
- Task 2: Promote information on EB/EC.
- Task 3: Promote the creation of a virtual working environment to support the needs of the Warfighter.

All near- and mid-term tasks continue until all goals and objectives are accomplished.

3.2.3.1 Task 1: Continue to integrate EB/EC into current, programmed, and planned Army C4/IT policies and programs.

Task Description: ODISC4, in coordination with OSA, ARSTAF, and MACOMs, will integrate EB/EC policy into Army C4/IT policies and programs. As appropriate, ODISC4 and the EB/EC IPT will make recommendations on the Army C4/IT policies and programs, including the JTA–A, to expand EB/EC capabilities to achieve cross-functional integration and promote cost savings. The EB/EC IPT will identify opportunities for EB/EC technologies that reduce the distinction between battlefield and non-battlefield information systems. As part of this task, SAIS-IAE, in coordination with other ODISC4 offices, the OSA, ARSTAF, and MACOMs, will continue to identify opportunities for creating a virtual working environment. In addition, the ODISC4, in coordination with the appropriate OSA, ARSTAF, and MACOMs, will develop policy that addresses the legal constraints of the virtual office, infrastructure, security, and readiness concerns.

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- None specific—dependent on AEA, JTA–A, I3A, and C4/IT system and program milestones.

3.2.3.2 Task 2: Promote information on EB/EC.

Task Description: The ODISC4 will promote the use of EB/EC in the Army by continuing the information initiatives begun under near-term and mid-term implementation tasks. Such actions will include the expansion of the central repository of EB/EC initiatives, lessons learned, and best practices. The ODISC4 will also publish information on changes to Army, DoD, and Federal Government EB/EC-related laws, regulations, policies, and programs; Army, DoD, Federal Government, national, and international EB/EC standards; sources of funding and

applicable contract vehicles; and industry and academic EB/EC forums, training, best practices, and other relevant activities.

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Conduct electronic survey update—1QFY04 and annually thereafter.
- Facilitate data entry into central EB/EC repository—November–December 2003 and annually thereafter.
- Post data on Army EB/EC Website—November–December 2003 and annually thereafter.
- Develop analysis of data—January 2004 and annually thereafter.
- Update information on Army EB/EC Website—February 2004 and annually thereafter, as information becomes available.

3.2.3.3 Task 3: Promote the creation of a virtual working environment to support the needs of the warfighter.

Task Description: The ODISC4 will promote an integrated electronic business environment in Army C4/IT policies, programs, and systems. Such a virtual working environment (a working environment "without walls" in which business information and activities are connected electronically rather than physically) will enable information sharing among Army personnel at different locations and using battlefield and non-battlefield information systems. The ODISC4 will identify opportunities for creating and enhancing a virtual working environment. SAIS-IAE will include information on such opportunities in the EB/EC central repository and post it on the Army EB/EC Website. Working through the EB/EC IPT, the ODISC4 (in coordination with the appropriate OSA, ARSTAF, and MACOMs) will assess the implications of a virtual working environment for Army functions and cross-functional activities. If appropriate, the EB/EC IPT will develop recommendations for changes to Army policy that address the legal constraints of the virtual office and its implications for infrastructure, security, and readiness.

Lead Organization: ODISC4.

Coordinating Organizations: OSA, ARSTAF, MACOMs.

Milestones:

- Collect information on opportunities for virtual working environment—1QFY04–2QFY04 and annually thereafter (to coincide with electronic survey updates).
- Enter information on opportunities into the EB/EC central repository—2QFY04 and annually thereafter.
- Post information on opportunities on the Army EB/EC Website—March 2004 and annually thereafter.

- Collect and assess information on a virtual working environment based on independent research—April–May 2004 and annually thereafter.
- Conduct assessments of opportunities for C4/IT policies and programs—2QFY04 and annually thereafter prior to POM and mini-POM submissions.
- Assess implications for Army activities—4QFY04 and annually thereafter.
- Develop recommendations for changes in Army policies—FY04–FY05.
- Staff and publish approved changes in Army policies—FY04–FY05.
- Conduct pilot projects to validate virtual office policies and programs—FY04–FY06.
- Implement virtual office policies and programs—FY07–FY10.
- Staff and publish incentives and evaluation criteria to promote a virtual working environment—FY04–FY10.

3.3 Summary of Implementation Task Milestones

Appendix B, Summary of Implementation Plan Milestones, provides a summary of the milestones associated with the implementation tasks in this action plan. It identifies major milestones for each task by quarter of Fiscal Years 1999 through 2000 and by fiscal year for FY2001 through FY2010. It identifies both discrete and recurring events associated with implementing the tasks.

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With this description of tasks for Army-wide EB/EC implementation, the plan turns to the development of a standard methodology for identifying and assessing candidate EB/EC pilot programs and translating them into EB/EC initiatives in Section 4, *Developing EB/EC Pilot Programs and Initiatives*.

4. Developing EB/EC Pilot Programs and Initiatives

This section presents a standard methodology for Army-wide use in identifying and implementing Army EB/EC Pilot Programs and Army EB/EC Initiatives. Section 4.1 provides general background information concerning the selection and implementation of EB/EC initiatives and pilot programs. Section 4.2 describes a conceptual approach to selecting, implementing, and evaluating EB/EC initiatives. Section 4.3 then presents a methodology for developing Army EB/EC pilot programs. It also presents the results of some initial research that defined several candidate Army EB/EC pilot programs that appear to offer benefits sufficient to justify their field testing in the form of official Army EB/EC Pilot Programs. Section 4.4 then turns to a discussion of how Army EB/EC proponents should promote their initiatives through the PPBES process to ensure that they are able to successfully plan for and secure funding for EB/EC initiatives or pilot programs. Section 4.5 describes some alternative means of securing funding for EB/EC initiatives and pilot programs. Finally, Section 4.6 outlines some important policy considerations that all proponents of EB/EC initiatives or pilot programs must consider as they plan for and execute EB/EC initiatives or pilot programs.

Immediately below are definitions of certain terms that are used throughout the rest of this section as they pertain to EB/EC pilot programs, initiatives, and solutions.

Army EB/EC Initiative—a proposed (or ongoing) EB/EC effort that has been determined to offer sufficient benefits as to warrant implementation and for which a formal decision has been forthcoming directing its implementation. Such an initiative may result as the logical follow-on to a successful Army EB/EC Pilot Program.

Cross-Functional Integration Opportunity—an Army EB/EC initiative that shows such significant cross-functional applicability as to warrant consideration for development as an Army EB/EC Pilot Program.

Army EB/EC Pilot Program—an Army EB/EC initiative that is undergoing a test implementation to determine whether it offers sufficient benefits (compared to costs) to warrant wide-scale adoption within the Army.

Candidate Army EB/EC Pilot Program—a potential Army EB/EC Pilot Program that, based on analysis, appears to merit a formal, limited test. (Section 4.3.2 presents an initial list of such candidates.)

Army EB/EC Solution—the resulting product of an Army EB/EC initiative.

4.1 Overview

Implementing the practices necessary to achieve meaningful EB/EC requires careful examination and evaluation of available alternatives. It is not necessarily prudent to simply automate existing paper-based processes. Likewise, enhanced automation or upgraded data processing systems do not, in and of themselves, equate to an EB/EC solution or improvement. Successfully implementing EB/EC within the Army means determining the available alternatives and selecting the appropriate ones that simultaneously provide sufficient return on investment and contribute materially to meeting the objectives of the *Army Strategic Plan for Electronic Commerce.* Moreover, consistent with both Army and DoD policy, implementing EB/EC requires, as a first step, a process improvement analysis intended to streamline and otherwise improve the underlying processes before the application of EB/EC technologies. (Section 4.6 presents a complete set of policy considerations that must taken into account when implementing EB/EC).

Moving to an EB/EC environment, and establishing optimal solutions, requires thorough examination of the means available. There may be a number of viable alternative solutions available at any point in time and choosing the "right" ones requires a careful review of expected benefits and costs as well as lessons learned from prior EB/EC projects. It also requires that processes first be improved to afford the greatest benefits available from EB/EC techniques and technology.

The purpose of this section of the Implementation Plan is to provide sufficient information, guidelines, and a logical decision-making process to permit Army personnel to plan, program, budget, and implement EB/EC solutions in a manner that provides the greatest benefits to the Army enterprise.

4.2 Selecting, Implementing, and Evaluating EB/EC Initiatives

This section describes a three-phase approach to operationalizing EB/EC initiatives. The three phases are: (1) selecting Army EB/EC initiatives; (2) developing and executing a plan to implement selected initiatives; and (3) evaluating the success of implemented initiatives in terms of performance objectives and measures. These phases are interdependent, overlapping, and not wholly sequential. Moreover, the results of evaluation provide feedback both for the selection of new initiatives and the modification (or termination) of ongoing initiatives. Figure 4-1 illustrates this three-phase approach to selecting, implementing, and evaluating Army EB/EC Initiatives. (Section 4.4 revisits this conceptual approach within the context of the PPBES process.)

4.2.1 Selecting EB/EC Initiatives

The process of selecting EB/EC initiatives for implementation involves successive screening that passes candidate initiatives through a series of filters to identify and prioritize those initiatives based on their benefits to the sponsoring organization and the Army as a whole. To perform this process, each organization should establish an IPT or comparable body composed of "stakeholder" representatives. Stakeholders include all groups (and key individuals such as

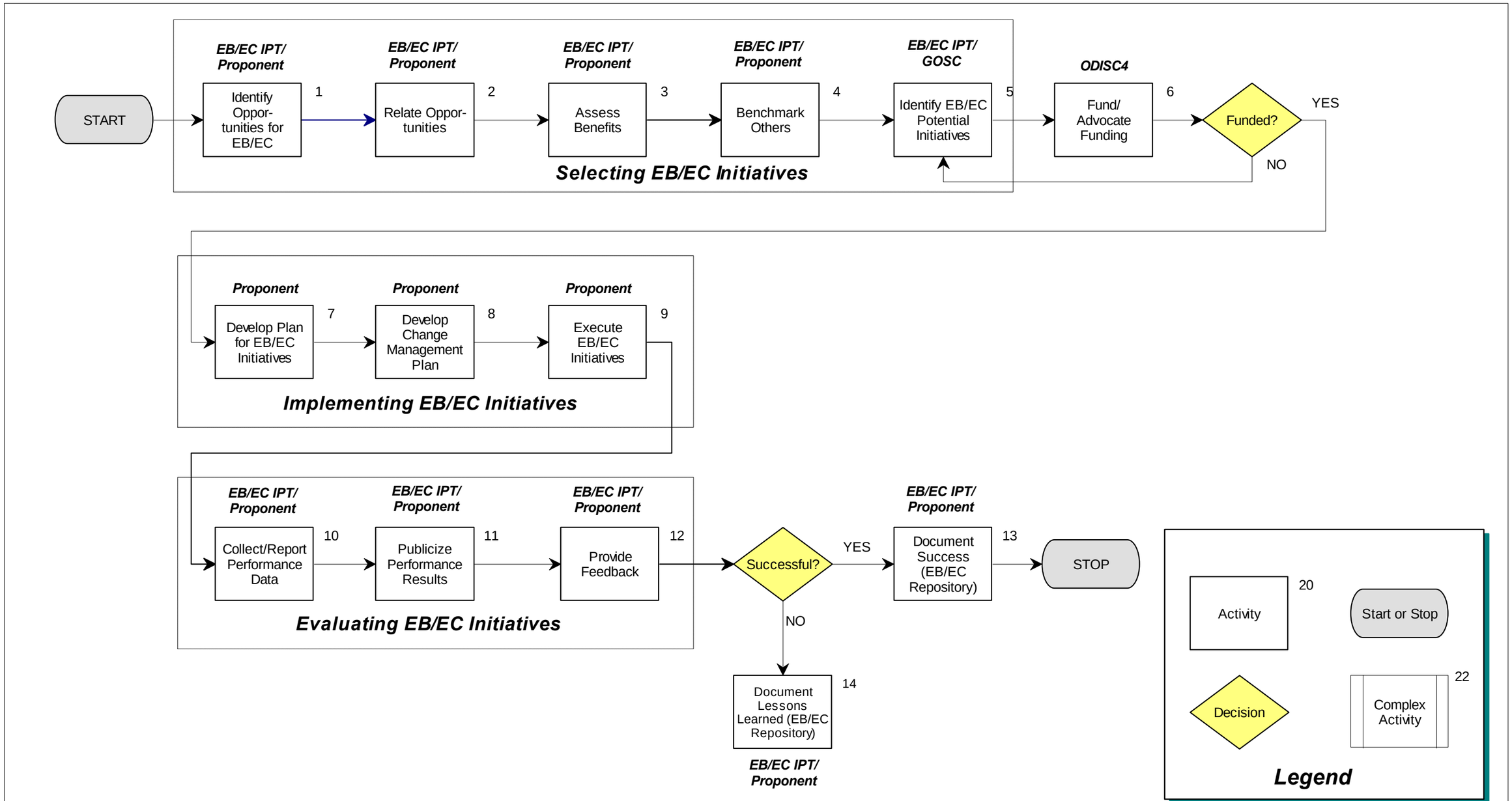


Figure 4-1. The Army Process for Developing EB/EC Initiatives.

senior executives) that have an interest in the functional areas to be addressed. Involving stakeholders throughout the selection process is essential to achieving their support ("buy-in") during implementation of individual EB/EC initiatives and for the Army EB/EC program generally. Much of this phase will occur during selection and review of pilot programs. Each of the six major activities for selecting EB/EC initiatives is described below.

- Identify Opportunities for Electronic Business/Electronic Commerce. The first step in identifying EB/EC initiatives is to identify areas where application of EB/EC will produce substantial improvements in efficiency and effectiveness, including economic benefits in terms of return on investment (ROI) (Activity 1 on Figure 4-1). Successful Army EB/EC pilot programs will already meet this test. For other potential initiatives, this step includes an analysis of Army business functions and activities. Section 4.3 and Appendix C describe an organizational "view" of the Army as a whole that identifies functional boundaries and cross-functional activities. Developing comparable views of major component organizations (e.g., MACOMs) will enable identification of boundaries and cross-functional activities within these organizations. Such a view provides the basis for identifying areas of potential EB/EC application, including areas that share common information and business processes. Such areas are candidates for integration into a seamless electronic business environment. Other sources for EB/EC initiatives are current and planned process improvement activities. These activities, ongoing at all levels of the Army, will identify areas of business practices that are being streamlined and may benefit from EC.

- Relate Opportunities to EB/EC Goals, Objectives, and Strategies. Each EB/EC initiative must support one or more of the goals, objectives, and strategies set forth in the ASPEC. Therefore, the second step in identifying EB/EC initiatives is to assess the above areas in terms of their support of the ASPEC's goals and objectives (Activity 2). Developing a "scorecard" that rates areas based on the extent to which they support goals and objectives, both individually and collectively, provides a basis for assigning priorities to different areas and identifying the "low-hanging fruit" where improvements are most promising.

- Assess Potential Benefits, Including Cost Savings. The third step in identifying potential initiatives is to estimate potential benefits, including cost savings of implementing initiatives that support EB/EC goals and objectives (Activity 3). Like other support activities, EB/EC aims at efficient and effective service to the Warfighter, the ultimate customer. An important objective of EB/EC is to reduce the cost of Army business activities while maintaining or improving quality and timeliness of support. One means of assessing benefits is to perform a preliminary cost-benefit analysis of potential EB/EC initiatives. This involves estimating effects of achieving performance goals (e.g., 25% reduction in resources needed to perform a process, 25% reduction in time required to complete a process). Initiatives likely to translate such gains into substantial savings typically address processes that are labor intensive and time consuming, involving multiple steps within and across organizational boundaries, repeated reviews, and/or frequent revisions to documentation. Stakeholder representatives can often make general esti-

mates of time and effort required by various processes. They can use such estimates to establish priorities among initiatives based on likely benefits.

- Benchmark Others' Performance. A complementary method of estimating potential benefits of process improvements is to compare internal assessments with data from other organizations that perform similar functions (Activity 4). Such organizations might be within the Army, DoD, other Federal Government agencies, or industry. (For example, travel arrangements are common activities in the Army, DoD, civilian agencies, and industry.) Information on how well (e.g., in cycle time and resources) leading public and private organizations perform such functions can provide both a guide to potential benefits and a set of performance goals.

- Identify Potential EB/EC Initiatives. The preceding steps will enable Army organizations to identify individual processes and groups of related processes that are prime candidates for EB/EC initiatives. The OSA, ARSTAF, and MACOMs must then decide which processes are sufficiently promising to merit developing specific initiatives (Activity 5). For those processes, stakeholder representatives first perform business process improvement activities. They develop and review descriptions of existing ("as-is") activities to perform the processes. They assess the value each activity contributes to the product of the process. They identify actions to improve or eliminate activities and the information requirements that support them. Such actions include both changes in existing processes and introduction or enhancement of EB/EC-related technologies. Together, the recommended actions constitute the desired ("to-be") description of the improved process. Benchmarking other organizations' best practices for comparable processes can serve as a source of ideas and a "sanity check" for recommended actions.

  As part of this effort, stakeholder representatives identify the investment required to implement the recommended actions and the benefits (cost, quality, timeliness) of the process improvements. This approach uses activity-based costing (ABC) to assign labor, IT, and other resource costs to individual activities within processes, based on observation, benchmarking, or best estimates. If appropriate, analysts use ABC data to prepare a formal functional economic analysis (FEA) package that compares costs and benefits of alternative initiatives.

  Stakeholder representatives also identify recommendations that are likely to have strong stakeholder support and senior management commitment and to yield visible results in a relatively short period (e.g., 6 months). These "critical success factors" are essential to achieving the early successes necessary to sustain and institutionalize Army EB/EC. Based on this analysis, senior officials decide which recommendations to approve as EB/EC initiatives and integrate them into the PPBES process (Activity 6).

4.2.2 Implementing EB/EC Initiatives

The process of implementing EB/EC initiatives involves both planning and execution. Because implementation planning starts during the selection process, this phase overlaps that process. It also includes obtaining participants' and other stakeholders' "buy-in" to the initiatives and using

change management to ease the transition from the "old" to the "new" processes. Each of the three primary activities associated with implementing EB/EC initiatives is described below.

- Develop Plan to Implement EB/EC Initiatives. Either after the selection of EB/EC initiatives or as part of the decision process, action officers prepare a plan and schedule to implement individual initiatives (Activity 7). If appropriate and at higher levels, they also prepare an overall plan that synchronizes the implementation of multiple initiatives. Each plan identifies the implementation actions, responsible action offices (RAOs), milestones, performance measures, and estimated resources. The plans build on the work of stakeholder representatives in identifying required actions and projected investments. Performance measures link actions and initiatives to EB/EC goals and objectives.

- Develop Change Management Plan. EB/EC initiatives involve changes in the way the Army does business. Even though they improve results, they require adjustments in behavior. To gain support and avoid disruption, implementation planning should include actions to minimize the adverse aspects of this adjustment (Activity 8). Successful change management begins early in the selection process and continues throughout execution. It emphasizes communications with the affected workforce, other stakeholders, and the broader Army and electronic business/electronic commerce communities. Such messages explain the mission, goals, and objectives of Army EB/EC, the purposes of proposed initiatives, and decisions on implementation. Change management includes training of managers and technical personnel in process improvements and new technologies. It also links the initiatives to incentive and compensation programs. The change management plan identifies actions and milestones during selection and execution and assigns responsibilities to senior executives, managers, and "change leaders" at each level of organization.

- Execute EB/EC Initiatives. This step applies and adapts implementation and change management plans to exploit opportunities and overcome barriers (Activity 9). An important aspect of execution is the "cut-over" from existing processes and systems to improved processes and technologies. To ensure continuing support to the Warfighter, this transition requires careful preparation, training, testing, and communication. It might also include a period of parallel operation.

  Successful execution of EB/EC initiatives requires strong and continuing involvement by senior officials to provide a consistent vision and to counter skepticism. It also requires participation by the stakeholder representatives who developed the initiatives. They can help gain support by process owners and others whose assistance is important to successful implementation. Execution should emphasize collaboration across functional boundaries, shared rewards, constructive criticism, and a focus on leading the way.

4.2.3 Evaluating Success of EB/EC Initiatives

The process of evaluating EB/EC initiatives includes the collection, reporting, and analysis of performance measurement data. It also involves the publication of lessons learned and the application of feedback from performance to decisions on new and continuing initiatives. The

three major activities involved in evaluating the success of EB/EC initiatives are described below.

- Collect and Report Performance Data. An integral part of execution is establishing a collection and reporting system for performance metrics (Activity 10). The system should focus on a few key measures that support management of the initiative and are consistent with Army-wide EB/EC performance measures and goals. Measures should address multiple goals to highlight potential trade-offs (e.g., between cost and quality). Where possible, the system should be automated and rely on existing management reports, to minimize collection costs and reporting burdens. Senior executives, managers, and technical personnel involved in implementing EB/EC initiatives should use metrics to modify actions and reallocate resources as required to achieve the initiatives. (Section 5 provides additional information on performance measures.)

- Publicize Performance Results. Sponsoring organizations should issue progress reports on their EB/EC initiatives to their workforce and other stakeholders (Activity 11). Reports should include both success stories and lessons learned in overcoming challenges. As stated in the *U.S. Army Electronic Commerce Policy*, the Director, Army Electronic Commerce will consolidate performance data and reports in the Army EB/EC central repository and provide Army-wide access through the Internet and other means. Success stories and lessons learned will be available on the Army EB/EC Website.

- Provide Feedback for Decisions on Initiatives. The EB/EC IPT, and analogous MACOM oversight bodies, should review performance measurement data at regular intervals. They should apply successes and lessons in providing guidance to stakeholder representatives and making decisions on recommended future initiatives (Activities 12, 13, and 14). They should also evaluate progress toward reaching EB/EC goals and objectives in deciding whether to continue funding for current or follow-on initiatives. Performance measurement thus ensures a “closed loop” management process of selecting, implementing, and evaluating EB/EC initiatives. (Section 5 provides additional information on performance measures as they apply to implementing Army EB/EC Initiatives.)

4.3 EB/EC Pilot Program Development Methodology

This section outlines a means to develop Candidate Army EB/EC Pilot Programs. The methodology described below was used in creating a functional view of the Army and a list of potential Candidate EB/EC Pilot Programs, found in Appendix C and Section 4.3.2 of this document, respectively. The methodology outlined in this section could be adopted by proponents of EB/EC efforts that offer potential benefits that do not span the Army enterprise (e.g., an effort that might only provide benefits to a single MACOM) and thus don’t qualify as Candidate Army EB/EC Pilot Programs. (Proponents of more limited Candidate EB/EC Pilot Programs are encouraged to use this methodology or a derivative thereof and to share their approaches and lessons learned.)

4.3.1 Creating Candidate Army EB/EC Pilot Programs

Creating Candidate Army EB/EC Pilot Programs is a six-step process:

- Identify functional boundaries.
- Identify cross-functional activities.
- Highlight areas in which information flows and business processes are extensive.
- Target business processes in which EB/EC may offer the greatest benefits.
- Assess the targeted processes for compliance with the ASPEC.
- Identify candidate pilot programs.

Each of these steps is elaborated upon below (Section 4.3.2 presents the results of this process as it was applied in developing an initial list of candidate pilot programs). Though presented as a set of six discrete steps, portions of the process are likely to be iterative in nature. For example, candidates that are not cost beneficial at a given point in time may subsequently become cost effective following an Army investment in its supporting IT infrastructure.

Identify functional boundaries. The first step in the enterprise analysis is to identify functional boundaries. This can be done by arraying in a matrix the enterprise's organizational entities (e.g., offices) against a listing of its primary functions. In determining functions, an official organization and functions document (e.g., Army Regulation 10-5, Army General Order 10 (1997)) or another document that describes how the organization operates (e.g., *How the Army Works*) will likely prove most informative. In the event that such documentation is unavailable, a short facilitated work shop or other brainstorming session might be employed to develop the list of functions. If the latter approach is taken, it is important to have representation from across the enterprise.

Identify cross-functional activities. The next step in the process is to identify cross-functional activities. To do so requires analysis of the matrix established above with the intent of determining which of the functions undertaken by the enterprise involve the participation of multiple organizations. Although common sense and the reference materials used in identifying functional boundaries often provide useful information, it is important that this analysis be done by individuals familiar with the enterprise. Annotating the matrix in this step is done by marking all the cells in a given functional row in which the various organizations of the enterprise participate in accomplishing that function.

Highlight areas of extensive cross-functional information flow. After the cross-functional activities have been determined, the next step is to determine which of these activities involves extensive information flows or other interactions. Here again it is important to involve individuals familiar with the enterprise because this analysis requires making informed judgements about the frequency and volume of information exchanged among the various organizations that mutually accomplish a function. As an aid in accomplishing this task, it is useful to attempt to identify, for each function on the matrix, the system, process, or document associated with it.

Target processes that offer greatest benefits. The next step is to examine the areas of high cross-functional information flow and seek to determine which of them are most likely to benefit from the application of EB/EC techniques and technology. In some cases, many of the information exchanges will have already been automated, but in others there may be little or no automation in place. The latter instances may present the best opportunities for deriving benefits from EB/EC. However, existing automation should be examined carefully because many legacy systems are both expensive to maintain and not particularly user friendly or flexible. Moreover, as required by Army and DoD policy, it is important to perform a process improvement analysis and seek to streamline the associated business processes before applying EB/EC technologies.

Assess compliance with the ASPEC. Once a series of prospective applications of EB/EC has been developed, the proponent should carefully review each of them within the context of the ASPEC. Because this document lays out the Army's strategic goals and objectives with respect to electronic business/electronic commerce, possible pilot programs should conform to those goals and objectives or they are unlikely to receive the needed support and funding to ensure their implementation.

Identify candidate EB/EC pilot programs. The last step in the process is to formally identify candidate EB/EC pilot programs and submit them in response to the Army's solicitation in the appropriate time and manner (the ODISC4 will define the specific requirements for submitting candidate EB/EC pilot programs). In this step, the proponent should consider such additional factors as the expected benefits to the enterprise from ultimately implementing a successful pilot program on an Army-wide basis as well as the expected return on investment.

4.3.2 Initial Army EB/EC Pilot Programs

This section presents the findings of an initial assessment of the functional boundaries of the Army along with an analysis of the functional areas within the Army where there is a high potential for cross-functional integration through EB/EC. It also summarizes an initial set of candidate Army EB/EC Pilot Programs. These results were developed in accordance with the methodology described in Section 4.3.1 of this document.

Electronic business/electronic commerce has been adapted by industry over the last twenty years as companies have migrated from purely technical solutions to true business solutions. Many industry leaders have found the value of EB/EC in improving the business processes and achieving significant operating cost savings. The lessons learned from these and other industry implementations of EB/EC have identified four situations in which EB/EC is likely to improve a particular functional area: (1) functional areas where processes are paper intensive; (2) functional areas where processes are labor-intensive; (3) functional areas with processes that require rapid information processing and delivery of goods; and (4) functional areas with numerous bottlenecks.[7]

To begin the process of assessing high-potential areas for EB/EC implementation within the Army, an initial assessment was performed of the functional boundaries of the Army. Using Army Regulation 10-5 (1992), Army General Order 10 (1997), *The Army Green Book 1997*

[7] *From EDI to Electronic Commerce*, Phyllis Sokol, McGraw Hill, Inc., 1995, pp. 27–28.

1998, and *How the Army Works, A Senior Leadership Reference Handbook, 1997 1998*, a matrix of these functional boundaries was developed (see Table C-1 at Appendix C). The matrix presents a baseline against which further assessment and analysis of the Army's functional and cross-functional activities may be conducted.

Table C-1 describes the Army's functional boundaries based upon the descriptions provided in *How the Army Works*. Each functional activity was categorized into three activity types: **Process**—for functional activities that reflected ongoing or continuous information flow, **Document**—for functional activities that terminated in the development of a final product, and **System**—for functional activities that are reliant upon a computer-based system to support the activity.

After defining the functional activities, responsibilities were assigned to various Army organizations and functions. A blue mark below an organization's name indicates that the organization provided coordinating responsibility for the functional activity. A red mark below an organization's name indicates primary responsibility for the functional activity.

After creation of the matrix, several criteria were developed to identify potential areas for EB/EC pilots. These criteria serve to pinpoint the functional areas where there could be potential for cross-functional integration. The following criteria were used to identify the initial set of pilots:

1. Each pilot should involve multiple Army offices, organizations, and entities and cut across the Army business spectrum;
2. Each pilot should have high-level, senior-leadership visibility and affect the central operating functions (Title X functions) of the Army; and
3. Each pilot should have the potential for significant process improvements through the application of EB/EC.

The functional matrix developed from the preliminary research highlighted several functional areas that offer opportunities for cross-functional integration through EB/EC. Further review of these areas using the criteria stated above resulted in the development of a list of potential Army EB/EC Pilot Programs. This list, provided below, is by no means exhaustive and indicates only a set of potential candidate areas that warrants further investigation using the methodology identified in Section 4.3.1 of this document.

4.3.2.1 The Army Plan. At the beginning of each POM development cycle, the Secretary of the Army/Chief of Staff of the Army issues a statement of broad Army priorities that are translated into specific programmatic priorities and integrated into *The Army Plan*. *The Army Plan* provides planning, policy, and resource prioritization guidance that constitutes the Army's blueprint for the future. This document assigns responsibilities and provides specific guidance to be used by HQDA, the MACOMs, and Army agencies in providing input to the POM development process. In this respect, it translates the Army's goals, objectives, and priorities into action steps that lead to preparation of the POM. *The Army Plan* establishes priorities for resource allocations, both dollars and manpower, and is published biennially in the fall of odd numbered years.

EB/EC Rationale. *The Army Plan* and its component pieces (Section I—Army Strategic Planning Guidance; Section II—Planning Guidance; Section III—Army Program Guidance Memorandum (APGM)) address the spectrum of mission requirements, capabilities, and resource tasks that lead to the development of Program Budget Guidance. The application of EB/EC to the publication and distribution of the TAP could provide for more timely and accurate updates required by the process of resourcing the Army. Development of TAP using web-based collaborative solutions could also force the on-line migration of other such documents as the PBG and the APGM. Moreover, electronic staffing of TAP could help speed the coordination of the document by DCSOPS.

4.3.2.2 The Army Force Planning Data and Assumptions (AFPDA). The AFPDA is published in three volumes and is a single-source reference document and repository of planning factors for theater-level studies and modeling. The AFPDA contains theater-specific information concerning logistics and personnel planning, consumption, and workload factors; host nation support offsets; and other planning factors crucial to theater force development. A critical step during the Force Guidance development is the update and revision of the AFPDA data by the TRADOC, the Combined Arms Support Command (CASCOM), the theater MACOMs, and elements of the HQDA staff (Operations, Personnel, Logistics).

EB/EC Rationale. AFPDA, as the primary reference and repository for reference material, lends itself to EB/EC through the on-line publication methods to expand the data repository and providing instantaneous access to the repository for users. Viewers might access the information through protected intranets or encrypted sites (given the sensitive nature of the information) for planning and analysis purposes. The AFPDA site might also be equipped with the ability to receive updated information from the MACOMs (including the U.S. CASCOM) to reflect theater force development and assumptions in planning.

4.3.2.3 Army Mobilization and Operations Planning and Execution System (AMOPES). AMOPES provides the interface between combatant command plans for utilization and deployment of Army forces and Army plans for providing mobilized forces and resources. It also serves as the Army supplement to the Joint Strategic Capabilities Plan (JSCP). It provides guidance to Army staff agencies, Army commands, and Army components of unified combatant commands for the employment and/or support of Army forces in the near-term period. It reflects specific tasks and capabilities attainable within existing program and budget limitations. It also documents the Army forces available to execute contingency plans and presents the mobilization schedule and major combat forces together with planned availability for deployment of these forces. AMOPES sets priorities for apportionment of combat support and combat service support units; presents joint strategic concepts; assigns tasks to commanders of major Army commands; provides personnel, intelligence, and logistics guidance; provides guidance for development of plans with and without mobilization; and provides guidance required to plan for mobilization of units and individuals to meet established force requirements in the event of the need to expand the Active Army. The goal of AMOPES is to ensure that the Army can adequately support all future combat operations of the combatant commanders, as opposed to concentrating only on getting our forces into the theater of operations.

EB/EC Rationale. EB/EC provides an opportunity to ensure that electronic systems used by the Active Army can fully support mobilized units, are up-to-date and adequate, and support the Army input to the JSCP. The interfacing of the AMOPES system using EB/EC into the senior-leadership combat systems would create a seamless information system that gives leaders insights into the status of support activities prior to and during force mobilization. The role of EB/EC in optimizing the use of AMOPES would be to tie the system's capabilities into joint and Army planning systems so that current planning information is provided from AMOPES and decisions regarding troop movement and combat activities are communicated through AMOPES to the commands.

4.3.2.4 Army Planning, Programming, Budgeting, and Execution System. The PPBES is the Army's primary resource management system. A major decisionmaking process, the PPBES interfaces with joint strategic planning and planning conducted by OSD. Linking directly to OSD programming and budgeting, the PPBES develops and maintains the Army portion of the defense program and budget. The PPBES supports Army planning and it supports program development and budget preparation at all levels of command. It also supports execution of the approved program and budget by both headquarters and field organizations. During execution, it provides feedback to the planning, programming, and budgeting processes. The PPBES ties strategy, program, and budget together. It assists in building a comprehensive plan in which budgets flow from programs, programs from requirements, requirements from missions, and missions from national security objectives. Documents produced within the PPBES support defense decisionmaking, and the review and discussion that attend their development help shape the outcome. A main objective of the PPBES is to provide essential focus on Departmental policy and priorities for Army functional activities during all phases of the PPBES.

EB/EC Rationale. EB/EC applications can be critical to the Army's primary resource management system, PPBES, by providing speed and accuracy to program developers and budget preparers across all levels of the Army. The complex and lengthy PPBES process would benefit greatly by the application of EB/EC technologies. First, creating an EB/EC solution for the PPBES process would automate the process and institutionalize its paths and linkages. In doing so, the users of the PPBES would no longer need to understand the intricacies of how the process works, but could focus more on providing the needed inputs to the process. Furthermore, by maintaining the process within the tool, the Army would not be so reliant on personnel familiar with its nuances. Second, by automating the process, information and responses would not need to go back and forth between digital and paper formats. Because the PPBES process affects all organizations, time is wasted when budgets are prepared electronically, forwarded in paper format, then re-converted into digital format. Creating systems that dynamically access databases relieves the need to print or send information. Rather, budget information could be prepared, then forwarded electronically (or access granted) to a particular database for review and further action. Third, by having information available on-line, budget requirements and mission priorities may be updated more quickly to reflect changing threats. As the mission changes, so too can the budget priorities.

4.3.2.5 Manpower and Personnel Integration Program (MANPRINT). MANPRINT is the Army's application of the DoD Human System Integration (HSI) requirements in systems

acquisition (DoD Directive 5000.1 and DoD Regulation 5000.2-R) in compliance with Title 10 United States Code. MANPRINT is a comprehensive management and technical program designed to improve total system (soldier and equipment) performance by focusing on the human requirements for optimal system performance. This is achieved by continuous integration of the "domains" of Personnel Capabilities, Manpower, Training, Human Factors Engineering, System Safety, Health Hazards, and Soldier Survivability considerations throughout the entire system acquisition process. The goal of MANPRINT is to optimize total system performance, which includes the human dimension. The program integrates all the above listed domains. MANPRINT constraints must be treated as an integral part of performance in acquisition decisions to ensure that the optimum balance in the soldier-materiel system is achieved. MANPRINT issues are considered throughout the requirements generation, early analysis, solicitation, system review, and test and evaluation processes, with emphasis on design influence in the early phases. MANPRINT is evaluated throughout all aspects of design, development, integrated logistics support, and program management.

EB/EC Rationale. MANPRINT lends itself to EB/EC due to the requirement to constantly evaluate, update, and provide changes to the data input throughout the entire MANPRINT requirements generation process. Through existing tools, such as the Joint Computer-aided Acquisition and Logistics Support (JCALS) infrastructure, the MANPRINT process could be supported to automatically develop requirements, test the validity of the issues related to the requirements, and update requirements accordingly.

4.3.2.6 Horizontal Technology Integration (HTI). HTI is the Army's modernization strategy for the future—upgrading existing weapon systems instead of developing new ones. HTI is defined as the application of common enabling technologies across multiple systems to improve the overall warfighting capability of the force; lowering research and development costs and development time; and obtaining lower production costs by procuring larger quantities of the same subsystem for different weapons systems. The Army also benefits from a common logistics base for the same subsystems on multiple platforms. Above all, HTI provides the Warfighter with the necessary improvements in lethality, survivability, and tempo to defeat any threat on the 21st century battlefield. HTI depends upon the use of Combat Development-led Integrated Concept Teams for horizontal requirements integration and Materiel Development-led Integrated Process Teams for program development and integration. As a process, HTI supports an integrated battlefield architecture that exploits the capabilities of combat, materiel and training developers, national laboratories, industry, and academia to achieve total force synergism. Its purpose is to provide increased modernization efficiency and responsiveness while enhancing overall force warfighting effectiveness.

EB/EC Rationale. Since HTI is used as a force and budget enabler (upgrading rather than introducing new weapons systems), EB/EC could serve as a further enabler in this process to planning the integrated battlefield architecture. EB/EC, through collaborative tools such as chat areas, internet-based conferences, and document review and collaboration, would allow Combat Development and Materiel teams to come together individually and jointly to resolve outstanding HTI issues prior to and during system development. The ability to meet in a virtual environment could save significant travel dollars and would result in faster decisions by teams that can come together quickly and make decisions on-line without team members leaving their desks.

4.3.2.7 Other Potential Programs. In addition to the initial set of Army EB/EC Pilot Programs, there were other potential Army EB/EC Pilot Programs that did not result from the analysis of the matrix but were identified through other means, including research into DoD and Army-proposed initiatives and contacts with the Army Reinvention Centers. These potential programs may meet one or more of the three selection criteria described and, in the context of their current business processes, appear likely to benefit from the application of EB/EC. However, these programs require assessment for the potential application of EB/EC using the methodology described in Section 4.3.1 of this document. The other potential Army EB/EC Pilot Programs are:

- *Automated Document Commenting and Staffing* One of the more labor-intensive efforts within the Army is the process of coordinating documents such as policies, instructions, pamphlets, and technical manuals. The process of sending hard copies of the documents throughout the field for comment, and the acceptance of comments on paper forms, dramatically slows coordinating efforts. Moreover, individuals providing comments must do so in a vacuum since they must work without the benefit of knowing what other Army components have said about a particular document (or a particular section of a document). The application of EB/EC to this process includes the development of solutions to consolidate staffing around an on-line site, collecting information in a structured environment, and allowing commenters to review and concur with other organizations' comments.

- *Paperless Travel Voucher Processing* The government currently processes up to 390 million copies of travel-related documents, resulting in millions of dollars and labor hours to process. The Defense Reform Initiative (DRI) marked this process as an ideal candidate for re-engineering and the application of electronic business/electronic commerce solutions. FORSCOM initially chartered a Travel Reengineering Process Action Team to improve the process for reimbursement for Temporary Duty (TDY) expenses. This effort became one of the 27 pilot sites established by the DoD Reengineering Travel and Transportation Office (RTTO). Some of the key issues holding back the implementation of EB/EC to this process include the need to authenticate submissions (which could be resolved through digital signatures) and the logistics of handling paper receipts to justify expenses. However, the ultimate benefits of such a system would be significantly reduced time and costs required to submit travel claims.

- *Self-Service Supply Centers* Self-Service Supply Centers (SSSCs) have been a traditional source to Table of Organization and Equipment (TOE) and Table of Distribution and Allowance (TDA) units for replenishment of consumable/expendable and accountable supplies. The advent of the International Merchants Purchase Authorization Card (IMPAC) card has eliminated the requirement for SSSCs at some installations (e.g., Ft. Belvoir and Ft. Myer). Other installations have outsourced the responsibilities (e.g., Ft. Bragg). However, all of the duties of the SSSCs could be handled using automated EB/EC ordering solutions. Initiatives such as the Army A-Mart or the Defense Logistics Agency (DLA) E-Mall could be expanded to encompass the SSSC catalog of items, thus pushing the centers out of existence and saving resources for more critical Army needs.

- *Serious Incident Reporting System*—Currently, the Serious Incident Reporting System (SIRS) is a message-based system initiative at the Post/Camp/Station or unit levels by the Military Police. This system provides essential information to the appropriate senior leadership at the post, unit, MACOM, or HQDA level. However, this system results in delayed message delivery (because of the need for manual intervention in creating and submitting the messages) and slows the process up to one week after the incident. The system could be improved through the use of a web-based tool to manage incident reports with automated e-mail notification rules so that higher commands (1) are more quickly notified of the incident and (2) could use the web-based system to recover additional information. One key developmental point to this pilot is the need to protect the information for privacy purposes.

- *Smart Cards* One of the latest advances in technology is the ability to store large amounts of information on a credit card-sized instrument. Such cards, generally called "Smart Cards," retain a variety of information using integrated circuitry or magnetic encoding. Such cards have been successfully employed by various government agencies to exchange information about a person's identification, health records, employment history, and other personal information. Smart Cards have also functioned in the Electronic Business/Electronic Commerce arena as debit or purchase cards and as a method for digital signatures. The Army has tested the use of Smart Cards for Electronic Business/Electronic Commerce in this manner, but the full deployment of Smart Card technology has not been achieved. Several issues, including standardization and security, must be addressed for Smart Cards to realize their full potential.

4.4 Promoting EB/EC Through the PPBES Process

Sections 4.2 and 4.3, respectively, described general approaches to developing EB/EC initiatives and pilot programs. However, neither of these sections explicitly addresses a critical aspect of the overall process—planning for and securing the necessary budgetary resources to permit EB/EC proponents to fund and execute their initiatives. The purpose of this section is to address this budgetary aspect by describing how EB/EC proponents should work with various participants in the PPBES process.

In promoting EB/EC through the PPBES process, it is important to recognize that funding for all Army initiatives—including EB/EC initiatives—must be accomplished through the PPBES process. From a simplified viewpoint, there are several key players in this process:

- the Strategy and Planning Committee (SPC).
- the Army Resources Board (ARB).
- the ARB Support Group (ARBSG).
- the Prioritization Steering Group (PSG).
- the Program and Budget Committee (PBC).
- the Program Evaluation Groups (PEGs).

In a systematic manner, the development and execution of all Army activities involves these players, in whole or in part, beginning with planning efforts, evolving through programming and budgeting efforts, and concluding with execution.

Furthermore, there is also an ESCS, whose role is to assess, integrate, and develop prioritization recommendations for all C4I materiel solutions that meet operational and technical requirements across the system development spectrum. The primary participants in the ESCS (from an EB/EC perspective) include:

- the C4I Executive Board.
- the Enterprise GOSC.
- the EB/EC IPT.

Thus, a major role of the ESCS—and the EB/EC IPT—is to prioritize recommendations for C4I material solutions—including electronic business/electronic commerce initiatives—from an Army perspective.

However, since the ESCS doesn't play a direct role in the PPBES process, the EB/EC IPT (and the rest of the ESCS, as appropriate) must influence the outcomes of planning, programming, budgeting, and execution activities through their ODISC4 and other representatives on each of the Army's six PEGs and to their other organizational counterparts within each level of the PPBES oversight infrastructure. Thus, if an EB/EC initiative were deemed of such importance that it merited additional attention at a level "higher" than the PEGs, the Enterprise GOSC could approach the Program and Budget Committee or the Prioritization Steering Group in an effort to influence these latter bodies to change a PEG-level recommendation (similarly, the C4I Executive Board might attempt to influence the ARB Support Group if the issue were deemed serious enough). Figure 4-2 illustrates these relationships in a very simplified portrayal.

The following subsections further elaborate how proponents should seek to promote their EB/EC initiatives in each of the four phases of the PPBES process: Planning (Section 4.4.1), Programming (Section 4.4.2), Budgeting (Section 4.4.3), and Execution (Section 4.4.4). Each section contains a brief narrative that outlines key activities and a figure that illustrates the process from the ESCS' perspective. Within each figure, certain key PPBES events are highlighted for events that drive EB/EC IPT (and other ESCS) activities. For example, in Figure 4-3, the *Army Modernization Plan* (AMP) is prepared by HQDA/DCSOPS in coordination with TRADOC. The AMP is published annually during January. If the EB/EC IPT is to successfully influence the language contained in these documents so that it provides sufficient justification for programming and budgeting for EB/EC initiatives, it is necessary that the EB/EC IPT determine from all Army organizations the types of EB/EC initiatives they would like to undertake before the planning documents are released.

It should be noted that Figures 4-3 through 4-6 reflect the two-year PPBES process and do not explicitly reflect the so-called "mini-POM" activities. With the exception of the release of certain key planning documents (e.g., the ALRPG and TAP, which are issued only every two years, and the *Army Modernization Plan*, which is published annually in January), most of the activities labeled on these figures can be assumed to occur in all years—in one year for the formal PPBES process and in the succeeding year for the less formal "mini-POM" process. It should also be

noted that although the phases are discussed as if they were sequential in nature, in reality there is considerable overlap between them (particularly between planning and programming).

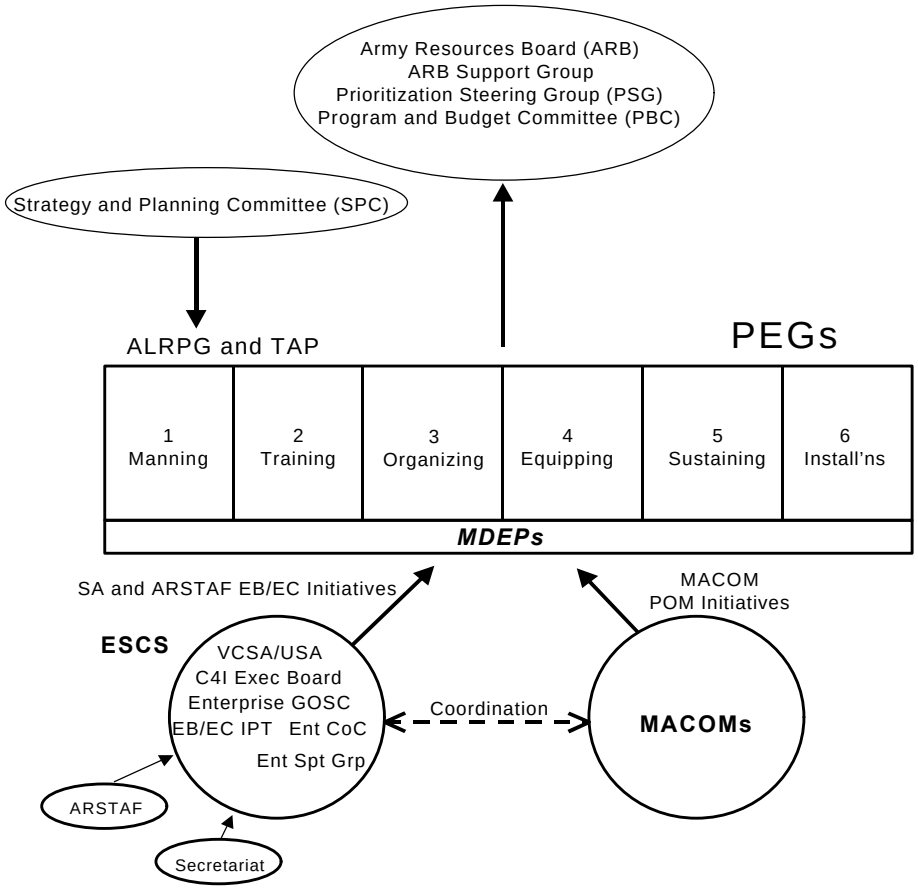
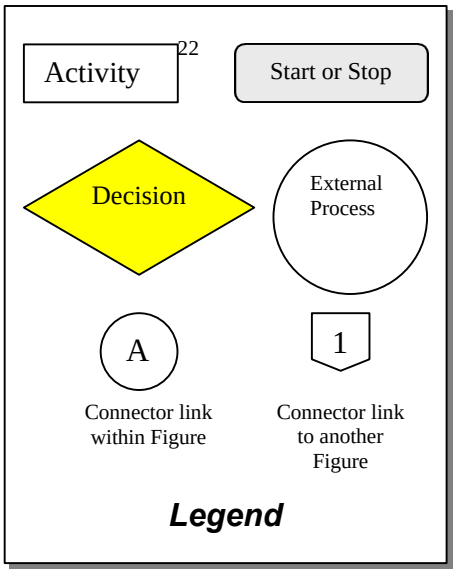


Figure 4-2. Relationship of the ESCS to the PPBES Process.

The illustration on the top of the next page provides a legend for the various graphical representations of the activities that are presented in Figures 4-3 through 4-6. As a matter of further explanation, the so-called "external processes" mean activities that occur outside of the ESCS' perspective (i.e., they are completed by parties other than the ESCS, though they are important to understanding what the ESCS does). In addition, the dates used throughout the following sections are based on information provided in Army Regulation 1-1 (Planning, Programming, Budgeting, and Execution System). As such, these dates represent Army doctrine (i.e., the "should be" world) and are consistent with OSD doctrine; in reality, however, actual activities may occur somewhat later than the dates indicated (e.g., OSD may be late in providing guidance to the Army, which causes the Army to be late in developing and issuing its own guidance). Finally, since the publication of Army Regulation 1-1, the Army has revised its programming and budgeting process to provide better linkages between them. In doing so, it has consolidated its procedural guidance into a nine-volume set called the *Army Resource Formulation Guide* (RFG). As an aid to the reader, the following sections also cite the RFG

references in addition to those called out in Army Regulation 1-1, the latter of which remains the basis for the processes described herein.



4.4.1 Planning Phase

The first phase in the PPBES process is the Planning Phase (Figure 4-3 provides an overview of this phase). During this period, the Army prepares and issues three key planning documents: the Army Long-Range Planning Guidance document, the *Army Modernization Plan,* and *The Army Plan.* Prepared under the cognizance of the Strategy and Planning Committee, the ALRPG is issued in September of even years and the AMP is published annually during January to coincide with submission of the President's Budget to Congress. Shortly thereafter, in January of odd years, the DCSOPS issues the third key planning document: a draft version of TAP. (In conjunction with the draft TAP, the Army also issues its first round of programming documents: PBG [primarily guidance to the MACOMs for their POM preparation] and the draft APGM.)

In addition to these key Army planning documents, it is important to note two additional significant planning documents: the Joint Planning Document (JPD), prepared by the Joint Staff, and the Defense Planning Guidance (DPG), issued by OSD. Each is distributed in draft form, affording the Army the opportunity to provide comments and suggested changes (e.g., language pertaining to EB/EC).

The three key Army planning documents—along with the JPD and the DPG—provide much of the foundation for the remaining phases of the PPBES. Because of these documents' importance in setting the direction the Army intends to move, proponents of EB/EC initiatives need to work closely with the EB/EC IPT and the rest of the ESCS to ensure that appropriate language is included within them so that suitable references to such language can be made later (during programming and budgeting) as justification for why the Army should undertake such initiatives.

As shown in Figure 4-3, proponents of EB/EC initiatives have several opportunities to influence the content of these key planning documents. The most important "window" occurs before the documents are issued (i.e., before the month of September in even years). At this time, the EB/EC IPT will survey the community to determine the types of EB/EC initiatives (Activity 1 in Figure 4-3) that the community desires to undertake. With this information in hand, the EB/EC IPT will then develop and prioritize cross-functional integration opportunities (CFIOs) (Activity 2),[8] develop suitable EB/EC language for inclusion within the ALRPG and AMP (Activity 3),

[8] The EB/EC IPT may need to validate this prioritization of EB/EC CFIOs with the GOSC. This caveat applies to all EB/EC IPT prioritization activities mentioned throughout this document.

Planning Phase

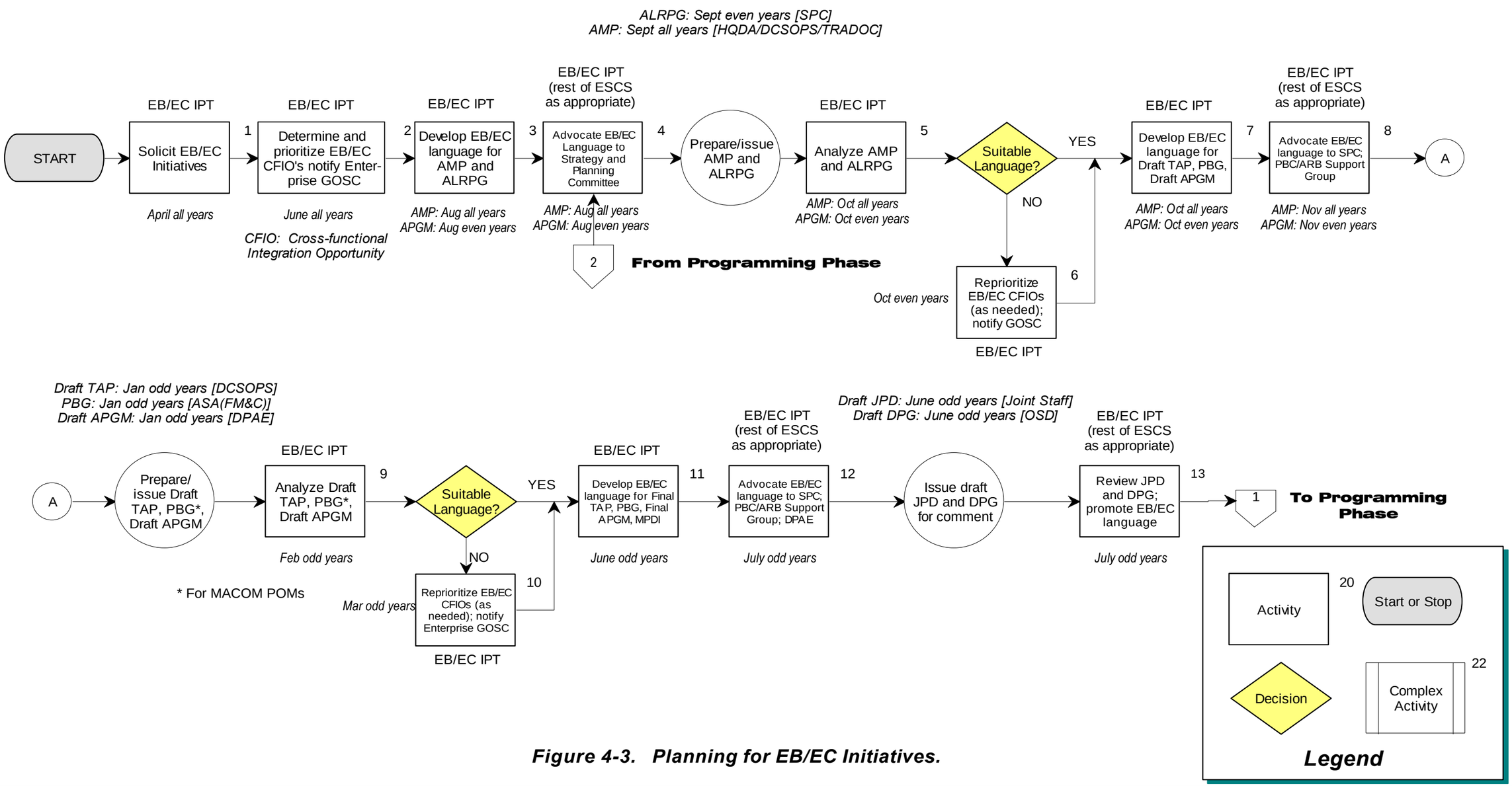


Figure 4-3. Planning for EB/EC Initiatives.

and work with the rest of the ESCS (as appropriate) to promote this language to the SPC (Activity 4) to ensure that suitable language is included within the ALRPG and AMP.

Once the ALRPG and AMP have been issued, the EB/EC IPT should examine the documents to determine whether they reflect the desired language from an EB/EC perspective (Activity 5). At this point, the EB/EC IPT may wish to reprioritize its list of CFIOs to reflect the language contained in these documents (Activity 6) and should then seek to promote EB/EC language for inclusion within the draft TAP (Activities 7 and 8)—especially if the earlier promotion efforts were only marginally successful. After the draft TAP has been issued, the EB/EC IPT should examine this document (Activity 9), reprioritize EB/EC CFIOs, if needed (Activity 10), and seek to promote EB/EC language for inclusion within the final TAP (Activities 11 and 12), which is issued in August of the odd years. Finally, the EB/EC IPT should also seek to promote EB/EC language for inclusion in the JPD and DPG (Activity 13) when these documents are distributed in draft form for comments in June of the odd years. In fact, securing suitable language in the JPD and DPG may more than counterbalance any failure to successfully influence the language contained in the key Army planning documents.

4.4.2 Programming Phase

Figure 4-4 provides an overview of the Programming Phase of the PPBES, though as noted above under planning, certain programming documents (i.e., the January PBG and the draft APGM) are shown on Figure 4-3. Because of this early programming activity, which is primarily targeted at the MACOMs, it is especially important that MACOM EB/EC proponents work with the EB/EC IPT to promote EB/EC initiatives (Activities 7 and 8 in Figure 4-3) to ensure appropriate language is included within these early programming documents.

As shown in Figure 4-4, programming activities begin in earnest in August with the issuance of four key documents: the final TAP, PBG, the final APGM, and MPDI [Chapter 2, Volume 3 RFG]. Here again, the EB/EC IPT should review these documents to ascertain whether suitable language exists within them to provide programming and budgeting justification (Activity 14). If the answer is “no”, the EB/EC IPT may want to consider ceasing to promote such initiatives in this PPBES cycle, perhaps retaining them for the start of the planning phase of the next PPBES cycle. If the answer is “yes”, then the EB/EC IPT should reprioritize its list of EB/EC CFIOs, if necessary (Activity 15), and then begin to work with the remainder of the ESCS to advocate those EB/EC initiatives that offer the greatest opportunities for cross-functional integration as part of the Army’s formal programming efforts. Key efforts at this point include examining (Activity 16) and integrating and revalidating MACOM EB/EC initiatives as they are reflected in the MACOM POM submissions (Activity 17). At this point, the EB/EC IPT can play an important role in supporting MACOM initiatives by ensuring that the ODISC4 representatives to each of the Army PEGs fully understand each initiative and its rationale. Similarly, the EB/EC

[9] The EC IPT may need to validate this prioritization of EC CFIOs with the GOSC. This caveat applies to all EC IPT prioritization activities mentioned throughout this document.

Programming Phase

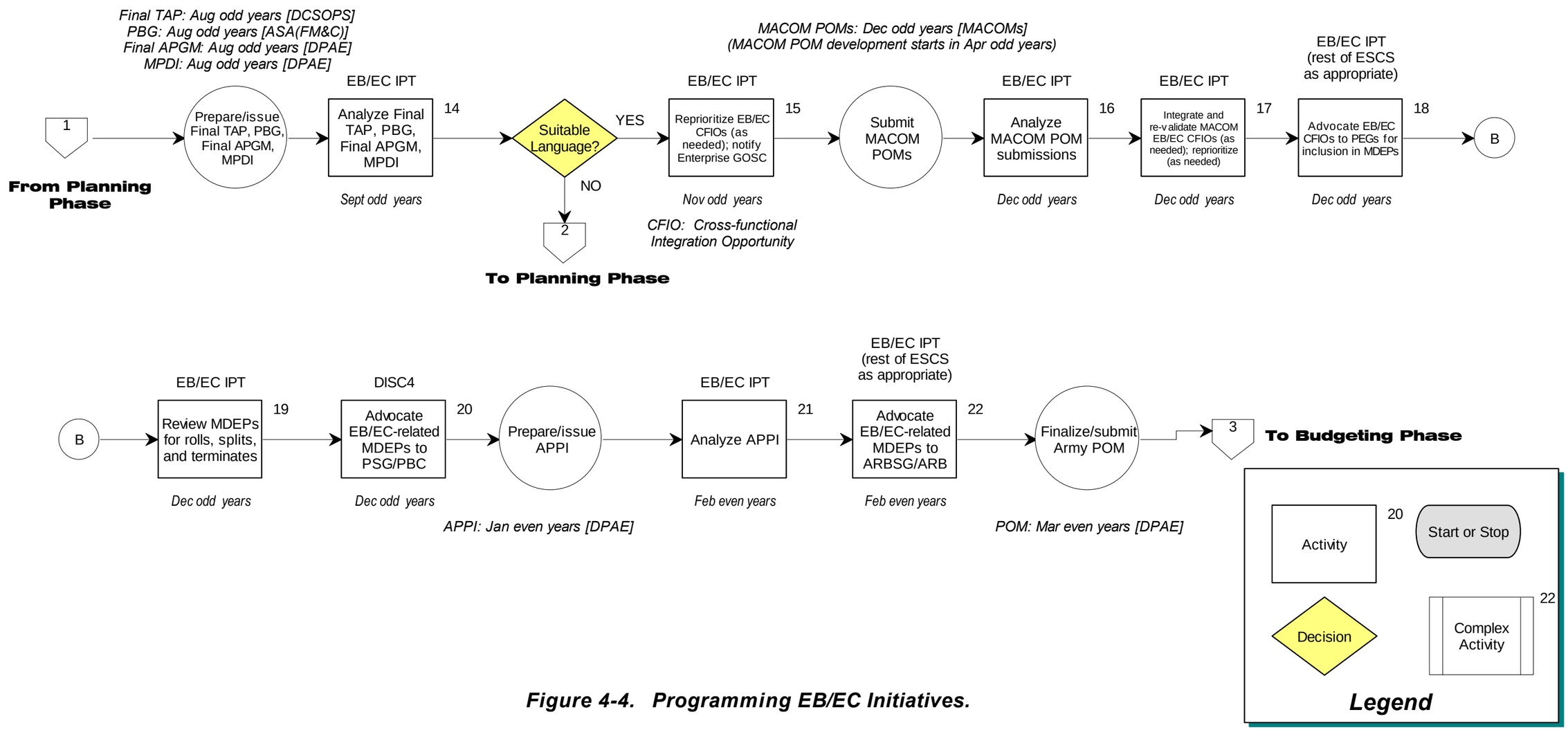


Figure 4-4. Programming EB/EC Initiatives.

IPT (and the rest of the ESCS, as appropriate or desirable) can help promote headquarters-level EB/EC initiatives by advocating them to the PEG representatives (Activity18) for inclusion within an existing MDEP (or several MDEPs, as appropriate) or to support the creation of a new MDEP. In addition, the EB/EC IPT should review the MDEPs for rolls, splits, and terminates (Activity 19).

Once each PEG has prioritized the various MDEPs under its purview, the program development process moves to the PBC and PSG level (and above). The PBC is concerned primarily with determining whether each of the MDEPs is complete, accurate, and fully justified while the PSG focuses on prioritizing the complete set of MDEPs to ensure that they accurately reflect the Army's desires. At this point in the process, the ability to make substantial programming changes is limited. However, the EB/EC IPT can still provide valuable assistance to the DISC4 if he chooses to actively advocate EC-related MDEPs to the PBC and the PSG (Activity 20).

In January, the Director of Policy Analysis and Evaluation (DPAE) issues the Army POM Preparation Instructions (APPI) [Volume 4 RFG]. The issuance of the APPI marks a transition from pure programming to preparation of the actual POM. The role of the EB/EC IPT now revolves around familiarizing itself with the APPI (Activity 21) and working with the rest of the ESCS to advocate EB/EC-related MDEPs to the ARBSG and the ARB (Activity 22). Such assistance will normally end in March, when the DPAE submits the Army POM to the OSD.

4.4.3 Budgeting Phase

Once the POM has been submitted, the ESCS's focus shifts to budgeting activities. As shown in Figure 4-5, such activities normally begin in April with the issuance by the Assistant Secretary of the Army for Financial Management and Comptroller (ASA(FM&C)) of another PBG—this one directed at the MACOMs with instructions for developing the command budget estimates (CBEs) [Volume 5 RFG]. At this stage, the EB/EC IPT members should familiarize themselves with the content of the POM and the PBG and seek to determine EB/EC unfunded requirements (UFRs) resulting from the POM (Activities 23 and 24).

Since the Army's POM is just one part of DoD's programming efforts, OSD must consolidate all the Services' submissions, make appropriate adjustments, and then notify the Services of any changes they have made prior to submitting the DoD budget to the OMB. This notification of changes comes in the form of a PDM in July. Also in July, the MACOMs finalize and submit their respective CBEs. At this time, the EB/EC IPT should analyze the content of both documents (Activities 25 and 26) and revalidate (and adjust, as appropriate) the EB/EC-related UFRs in the context of both (Activity 27).

The role of the EB/EC IPT should now focus on supporting the budget preparation process by providing any necessary support (e.g., briefings, information papers) that continues to justify EB/EC-related programs. With such information, the DISC4 will be better able to support EB/EC-related programs during the translation of programs into budgets as he advocates EB/EC-related programs to the PBC (Activity 28).

Budgeting Phase

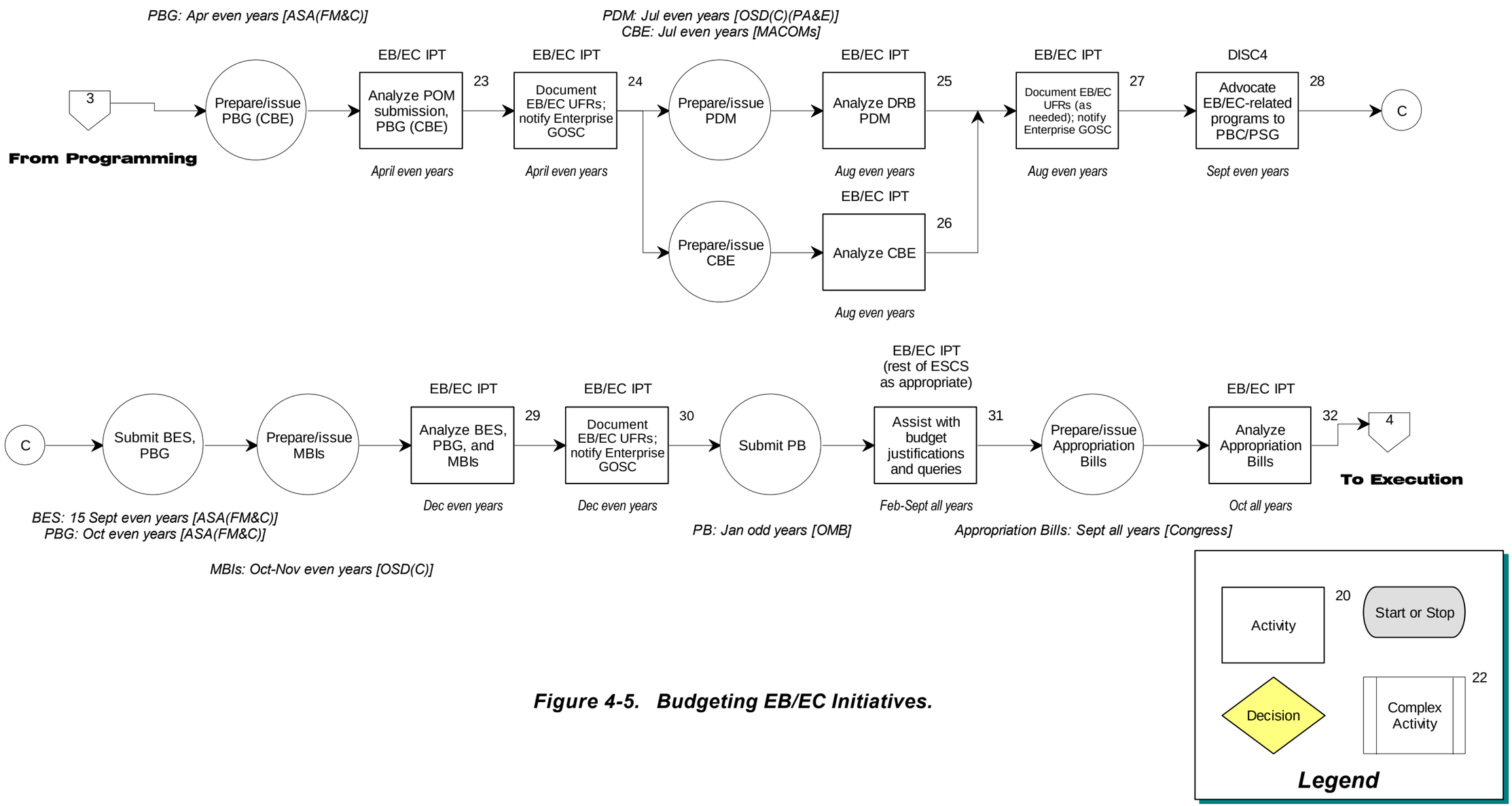


Figure 4-5. Budgeting EB/EC Initiatives.

In a process analogous to submission of the POM, OSD must consolidate all of the Services' budget estimate submissions, make adjustments as needed, and then submit the DoD budget to OMB. The process for making such adjustments—referred to as the PBD process—results in a set of "Major Budget Issues" and typically occurs in October and November. The EB/EC IPT should analyze the Army BES (submitted by ASA(FM&C) on 15 September) and the October PBG [Volume 6 RFG] as well as any of the MBIs that are forthcoming from OSD (Activity 29). As a result of the MBIs, it may become necessary to revise the list of EB/EC-related UFRs (Activity 30).

After the President's Budget (PB) is submitted in January, the role of the EB/EC IPT (and the rest of the ESCS, as appropriate) is to assist with budget justifications and various queries arising from Congress (Activity 31). This process may extend from the time the PB is submitted until the relevant appropriations bills are passed in September. Assuming there is no continuing resolution (i.e., the appropriation bills are enacted in a timely manner), the EB/EC IPT should analyze the appropriation bills (Activity 32) in preparation for moving on to the last PPBES phase: execution.

4.4.4 Execution Phase

During the Execution Phase, shown in Figure 4-6, the primary role of the EB/EC IPT/ESCS shifts to one of monitoring the execution of funded programs (including EB/EC initiatives) to determine whether additional funding might become available. Such funding might become available because an existing program is canceled or because it misses certain milestones and can no longer meet its "spend plan".

This process begins when the Congress passes the DoD Authorization Bill (in September). As soon as the bill is passed, the EB/EC IPT should analyze it (Activity 33) to establish differences from the earlier submitted PB (if any). The EB/EC IPT should also monitor the actual execution of Army programs (Activity 34) to seek to identify available monies that might be applicable to EB/EC Initiatives. At this point, it is especially important that the EB/EC IPT maintain a current, properly prioritized list of EB/EC UFRs (and associated justifications) so that advocacy for any monies that become available (Activity 35) can proceed with the greatest likelihood of success.

If monies do not become available or if advocacy for funding does not prove successful, the EB/EC IPT should continue in its monitoring role. If, however, monies become available and an EB/EC UFR becomes funded, the EB/EC IPT must then also turn its attention to evaluating the execution of the newly funded initiative (Activity 36). [While the discussion here focuses on monitoring recently funded UFRs, the same analysis and evaluation steps should be followed for all EB/EC-related initiatives. That is, the EB/EC IPT should attempt to monitor all EB/EC-related initiatives to help secure termination of efforts that are not providing added value to the Army.] Similarly, the EB/EC IPT should document lessons learned and best practices from all EB/EC-related initiatives to help guide future efforts.

Execution Phase

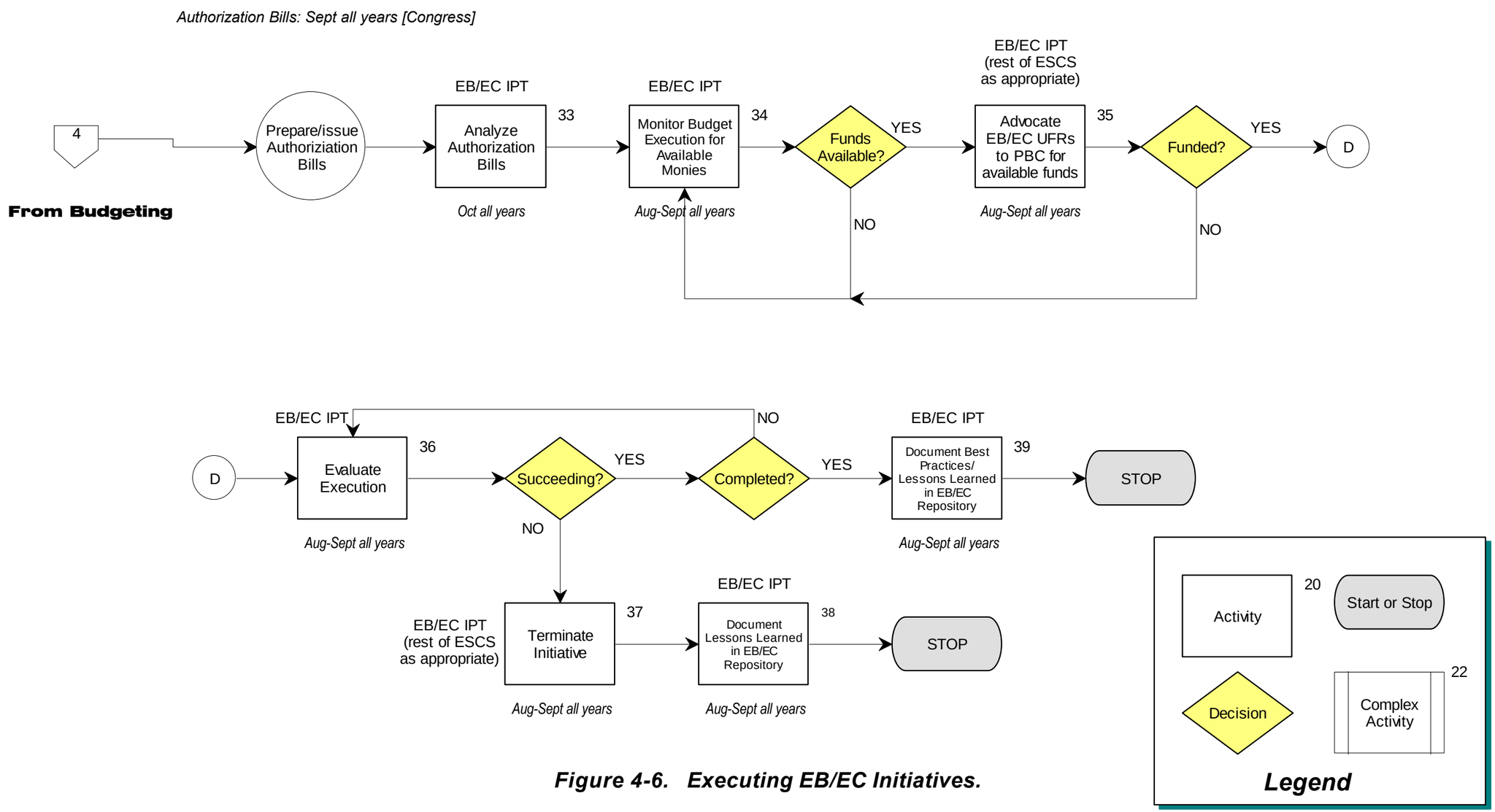


Figure 4-6. Executing EB/EC Initiatives.

Working with the rest of the ESCS, the EB/EC IPT should analyze whether the initiative is "succeeding" (e.g., meeting its milestones and intended objectives). If not, the EB/EC IPT/ESCS should work to terminate the initiative (Activity 37) and thereby free up monies for other UFRs. The EB/EC IPT should also document "lessons learned" from the failed initiative within the EB/EC Repository (Activity 38) so that the rest of the Army community can avoid similar mistakes. On the other hand, if an initiative is succeeding, the EB/EC IPT should continue to periodically follow progress (Activity 36) until the project has been successfully completed. At this point, the EB/EC IPT should document best practices from the initiative in the EB/EC Repository along with any lessons learned (Activity 39).

4.5 Promoting EB/EC Through Alternate Means

Although the PPBES process represents the predominant means of securing funding for EB/EC initiatives, there are other avenues available. These other avenues represent offices or organizations that provide grants or funding assistance to programs involved in electronic business/electronic commerce. Two such sources of additional funding that the EB/EC IPT should seek to exploit are the Information Technology Innovation Fund (administered by the Government Information Technology Services Board (GITSB)) and the Joint Electronic Commerce Program Office (JECPO). Finally, there may be opportunities to partner with private industry through consortiums or associations to develop EB/EC within the Army or to address specific issues related to EC. Each of these alternative funding means is discussed briefly in the numbered paragraphs below.

Moreover, the Army should seek to promote its EB/EC efforts in ways other than merely seeking additional sources of funding. For example, sharing EB/EC information and technologies with the other Services in particular will be beneficial to both the Army and DoD as a whole. In this context, the EB/EC IPT should proactively seek out working relationships with other analogous Tri-Service organizations.

4.5.1 Information Technology Innovation Fund

The Information Technology Innovation Fund was created in FY 1995 to provide "seed" money for innovative, federal agency IT projects. Using funds from the FTS2000 long-distance telecommunications program, the GITSB fund selects projects that provide more efficient and effective delivery of service to the public. GITSB encourages projects involving multiple agencies and single agency projects that demonstrate easy portability to other agencies. GITSB manages the fund and solicits proposals for innovative IT projects annually (in some years—e.g., FY 96 and FY 97—there were two calls for proposals).

One point to mention regarding the IT Innovation Fund is that there is a requirement that the sponsors of funded initiatives reimburse the fund for some of the initial grant and that such repayments be derived from actual savings realized by the initiative.

4.5.2 Joint Electronic Commerce Program Office

The JECPO, established as part of the Defense Reform Initiative, provides the DoD-level guidance for electronic business/electronic commerce implementation. As such, JECPO maintains some funding for innovative programs within DoD. Because of the relatively recent formation of JECPO, it is uncertain how these funds will be used to support innovative EB/EC initiatives. However, as JECPO develops processes for requesting proposals for EB/EC initiatives and begins managing funded projects, the EB/EC IPT should be prepared with a prioritized list of potential projects to propose for funding.

4.5.3 Public/Private Consortium Efforts

In addition to the above described sources of known funding, there may be opportunities for co-funding of EB/EC initiatives with industry. Various consortiums and associations have pilot and demonstration programs underway to test concepts related to EB/EC and to further refine the EB/EC environment for government and industry. The EB/EC IPT should explore possible joint activities with such organizations to identify activities and initiatives within the Army that might be developed through partnerships with the private sector. However, in exploring any such joint activities or partnerships with the private sector, the EB/EC IPT should closely coordinate its proposed activities with the Office of General Counsel to ensure that any such activities or partnerships are legally permissible.

4.6 Policy Considerations

During the development of an Army EB/EC Initiative, proponents must consider applicable Army policy. Formal Army policy on Electronic Business/Electronic Commerce is defined in the Numbered HQDA Letter 25-xx-x. The twelve key aspects of that policy are summarized below and should be accommodated by all proponents as they consider and develop EB/EC initiatives. More complete guidance can be found in the Numbered HQDA Letter and proponents are urged to read the complete text of the policy document (available on the Army EB/EC Website at URL: www.armyec.sra.com).

- Process Improvement. Prior to procuring or implementing any Army EB/EC solution, the proponent of the associated EB/EC initiative must conduct a process analysis and simplify the associated processes by eliminating those that add no value and, where appropriate, streamlining and integrating the others.

- Authentication. Army EB/EC solutions must be capable of ensuring authentication and confidentiality commensurate with the risk and magnitude of the harm from loss or unauthorized access to the information and such authentication control mechanisms must comply with the standards defined in the current version of the Army (JTA–A).

- Intellectual Property. Proponents of Army EB/EC initiatives, when designing and implementing an EB/EC solution, must comply with the Federal requirements precluding the disclosure of proprietary information to unauthorized users. Army EB/EC initiatives

incorporating COTS products within the EB/EC solution must comply with all data restrictions and copyright provisions accompanying such products.

- Privacy. Proponents designing and implementing EB/EC solutions that contain information pertaining to individuals or business entities must ensure that such information is not disclosed to or modified by unauthorized persons. Proponents must (1) incorporate appropriate safeguards to limit the collection of information that identifies individuals or business entities to that which is legally authorized and necessary for the proper performance of the supported business functions and (2) limit the sharing of information that identifies individuals or business entities to that which is legally authorized.

- Security. Army EB/EC solutions must comply, at a minimum, with the provisions of the Secretary of Commerce's security standards, the Army Automated Information System Security Program (AISSP), and the security provisions of the JTA–A. Army EB/EC solutions must incorporate security features designed to control loss or unauthorized modification or disclosure of sensitive information commensurate with the risk and magnitude of the harm from loss or unauthorized access to the information.

- Technology Standards. Army EB/EC solutions must comply with the standards specified in the JTA–A for the transfer of data and information to ensure that such solutions are based on commercial "open systems" architectures. Proponents of EB/EC initiatives deviating from the JTA–A must receive a waiver from the Army Chief Information Officer (CIO), or designee, prior to implementing such an initiative. In those instances in which the JTA–A does not state a standard, proponents shall comply with appropriate voluntary standards. EB/EC solutions employing Electronic Data Interchange (EDI) components must comply with Federal Information Processing Standards (FIPS) Publication 161-2 (Electronic Data Interchange).

  Proponents of Army EB/EC initiatives that require compliance with a standard that does not reflect commercially acceptable or Federally approved use (e.g., foreign national, state, local, or tribal government standards) must request and receive a waiver from the Army CIO, or designee, prior to implementing a solution conforming to such a standard.

  Proponents of Army EB/EC initiatives must undertake them in a manner that ensures Year 2000 (Y2K) compliance.

- Content. Army EB/EC solutions are intended for use in transacting official business. The use of Army EB/EC solutions for official and approved non-official business must be in accordance with the DoD Joint Ethics Program. Furthermore, electronic dissemination of information for public release shall comply with DoD Directive (DoDD) 5230.9, "Clearance of DoD Information for Public Release". In those instances in which electronic information has been deleted for legitimate exemptions under *The Freedom of Information Act* or *The Privacy Act* prior to public release, the absence of such information must be appropriately indicated.

- Training. Proponents of EB/EC initiatives must develop and maintain documentation on the resulting EB/EC solution that describes both technical and functional features such that appropriate training for users and system administrators can be derived therefrom. Such training should address, at a minimum, system functions, maintaining information security, system maintenance, and protection against information warfare.

- Transaction Integrity and Tracking. Proponents of EB/EC initiatives must ensure that appropriate features are incorporated to ensure the preservation of data integrity throughout all electronic transactions. Such features should incorporate, at a minimum, transaction audit, message receipt, record keeping, and non-repudiation functions.

- Assured Availability. Proponents of EB/EC initiatives must develop and maintain contingency and crisis management plans for use in the event of system unavailability; they must conduct such planning efforts commensurate with the criticality of the information within the EB/EC solution. They must also comply with the requirements of the Vital Records Program to ensure that information required by headquarters is available for essential operation during a national emergency.

- Record Keeping. Proponents of EB/EC initiatives must ensure that they design, develop, and implement EB/EC solutions to incorporate economical and efficient record management and archival functions; they must manage EB/EC records in accordance with the Army Information Resources Management Program and the Modern Army Record Keeping System (MARKS), and they must archive a copy of the associated executable program(s) to ensure future access to data manipulated by EB/EC solutions.

- Support Infrastructure. Proponents and materiel developers of Army EB/EC initiatives must coordinate the deployment of any EB/EC solution into local networking environments to ensure interoperability at the required level for executing the operational concept. If necessary, EB/EC proponents and materiel developers must plan for and fund the needed infrastructure enhancements to ensure that the EB/EC solution operates within the local networking environment. Such enhancements shall incorporate the total package of needed resources (e.g., new equipment training, databases, documentation, logistics support), not merely the prime mission automation IT. Such enhancements shall also adequately accommodate the new system's compatibility, interoperability, and integration with the existing support infrastructure, including the installation's information infrastructure. Such enhancements must also comply with the specifications of the current version of the JTA–A.

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Having defined the methods used to identify and assess candidate EB/EC pilot programs and EB/EC initiatives, how to seek funding for such initiatives, and policy considerations that must be addressed in planning and implementing EB/EC, the plan now turns, in Section 5, *Performance Measures for Electronic Business/Electronic Commerce*, to a discussion of the use of performance measures in evaluating the success of EB/EC solutions.

5. Performance Measures for Electronic Business/Electronic Commerce

Performance measurement is an essential element of management. Management planning involves specifying what is to be done and what result is expected (based at least in part on quantifiable factors). Management control depends upon feedback that compares reality to the plan (again by counting things). Performance measurement is meant to expand beyond the traditional measurement areas of input and output to encompass the outcomes, or results, at all levels. Also, EB/EC solutions should be viewed as a strategic investment rather than as an organizational unit, process, or program.

This section provides a "how to" reference for the development, use, and evaluation of outcome performance measures for potential EB/EC solutions. It explains performance measurement principles from a management science perspective. Most users should be able to develop and use performance measures using only the Army EB/EC and related policy documents and this section. The focus of the section is on outcome measurement—that is, how well the EB/EC Solution accomplishes the mission or function assigned to it in support of the organization's mission. Consequently, the section looks beyond measures of input (resource consumption) and output (counts of what are produced), which are more directly related to operational performance rather than to outcome (results or impact). This does not mean that there is no need to measure input and output. Acquisition managers must monitor cost and schedule and determine if performance standards are met. Contracts are fulfilled only if goods and services are delivered on time and meet specifications. Operational managers need to monitor resource consumption and production. Information technology operators and maintainers need to monitor technical aspects of system operations. There are different kinds of performance measures and different users—this section concentrates on measuring EB/EC Solutions' support to outcome.

5.1 How To Develop and Implement Outcome Performance Measures

Developing and implementing outcome performance measures for EB/EC Solutions provide value because they aid the proponents in improving mission performance, they substantiate the requirements for the EB/EC solution, they increase the potential for successful leveraging of EC, and they facilitate the reporting of an EB/EC Solution's success.

Outcome performance measures are the chosen tool to support investment planning through systematic feedback to manage EB/EC Solutions. Programs cannot be managed effectively unless they are measured.

Development of EB/EC Solution outcome performance measures should be accomplished in steps by using requirements documents and/or the existing activity (As-Is) and desired activity (To-Be) assessments from any business process improvement business case. No investment in an EB/EC Solution should be made without a clearly defined need and set of requirements. The need and requirements drive performance measurement. Users are encouraged to employ whatever need and requirements documents are required for the level and type of investment being proposed.

General principles of performance measurement are described in the following six steps (see Figure 5-1). While the steps are provided in logical sequence, in practice a certain amount of iteration is necessary. If one step is difficult to accomplish, it may be that the output of a previous step is inadequate. In this case, return to the earlier step and make revisions as appropriate.

Six Steps to Performance Measurement

1. Scope the Mission
   Describe critical success factors of the mission
2. Define Improvement
   What needs to change in mission capabilities
3. Describe Success
   How can IT effect those improvements?
4. Implement Performance Measurement Process
   Assign Collection Activities
5. Report Results
   Summarize IT contribution to mission
6. Review Performance Measurement Process
   Perform periodic review

Figure 5-1. Six Steps to Creating Performance Measures

Army enterprise decisions are normally made from decentralized execution of performance measurement concepts. The overriding principle that should be considered by the EB/EC proponent in developing performance measures is this: the EB/EC Solutions that win funding will be those that contribute most to mission performance.

5.2 Step 1 Scope the Mission

Effective performance measures are driven by the requiring activity defining the critical success factors of its mission. Executive agencies must establish goals for improving the efficiency and effectiveness of operations through the effective use of EB/EC. The critical element of this step is linking any EB/EC Solution to these

Key Element

The EB/EC Solution must contribute to the mission performance

goals.

Performance measures for EB/EC Solutions should link to strategic visions, goals, and objectives. The joint strategic vision for DoD is found in the Quadrennial Defense Review (QDR) and Joint Vision 2010; the Army strategic vision is Army Vision 2010. Army EB/EC vision is established through the *Army Strategic Plan for Electronic Commerce*. Major Army commands, agencies, and functional managers develop their own strategic plans and goals to meet these strategic visions. These vision documents can be used to link EB/EC Solutions to DoD and Army goals and objectives (see Figure 5-2).

An understanding of organizational goals and objectives is necessary for stakeholders as they work through the development of performance measures.

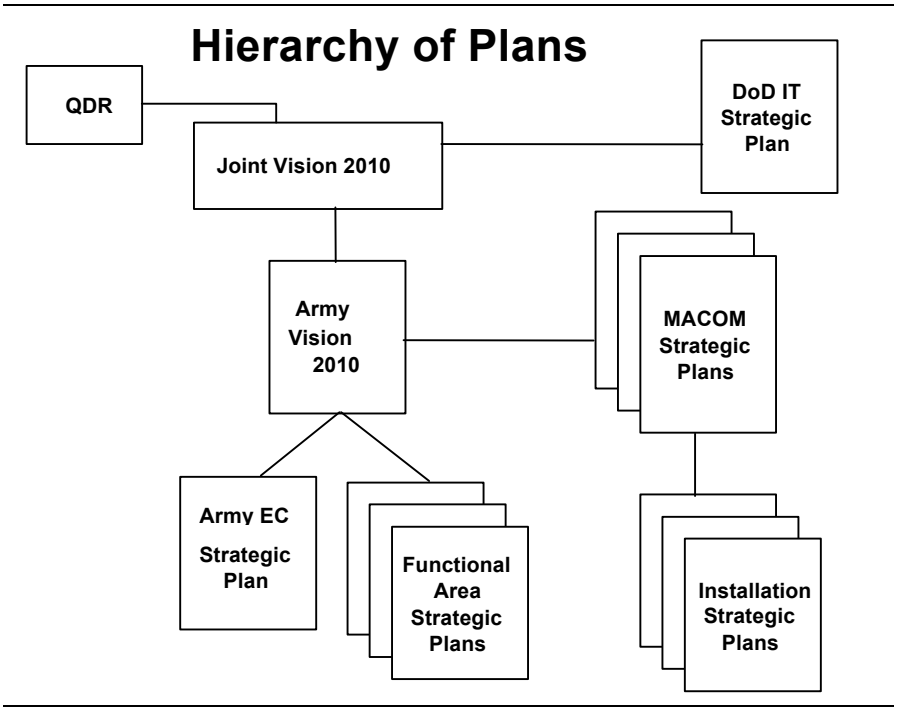

Figure 5-2. A Hierarchy of Plans Where Lower Level Plans Support the Army s Vision and Strategy.

To start the scoping of the mission, prepare a list of the goals and objectives that are clearly supported by the proposed EB/EC Solution. Clarify the level of the strategic effect (e.g., division, installation, MACOM, Army, DoD). Record in writing any linkage between the document goals and missions.

Next, determine whether there are other related EB/EC Solutions that also support the selected goals and objectives. Understand the relationships between various EB/EC Solutions and other IT initiatives that may address the same or similar needs and requirements. If necessary, deconflict any overlaps in goals and objectives.

Put all of those linkages in writing for later use in preparing the baseline analysis and business case for implementing an EB/EC Solution. As an example, consider a solution that would automate a hospital's appointment system. Such a solution may provide faster medical service time to personnel, which results in more people available for duty, or for return to duty faster. That availability improves unit effectiveness at all levels and in all activities, thereby indirectly improving warfighting mission effectiveness.

5.3 Step 2 Define Improvement

Key Element

Express the measurable effect on the mission

The statement of the requirement for an EB/EC Solution is provided through the development of a Business Case. A Business Case may be used to describe an opportunity to establish a new operational capability, to improve an existing capability, or to exploit an opportunity to reduce costs or enhance performance. A Business Case defines the requirements that identify the way things are currently being executed (the "As-Is" model) and presents recommendations on what should be changed (the "To-Be" models). If a Business Case is well written as a quantifiable statement of needed improvement, then any of the proposed EB/EC Solutions contained within the Business Case may be described and evaluated by one or more performance measures.

The Business Case provides the vehicle for development and agreement on associated performance measures for an EB/EC Solution. Key stakeholders should be involved in determining what to measure and in setting the target performance levels. Stakeholders include functional users and customers as well as the implementing office. If a proposed EB/EC Solution does not support accomplishment of higher-level goals and objectives, the value of the planned solution is suspect.

The Business Case should describe gaps between the levels of efficiency and effectiveness proposed in the set of strategic goals and the actual effectiveness and efficiency of the Army as described by the performance baseline of existing processes and activities. For existing activities being incrementally advanced, by either modification of the existing process and/or the implementation of an EB/EC solution, sponsors should baseline the current EB/EC solutions within the business processes in place, and compare that to the goals. That will provide a gap that not only defines a need, but is the basis for determining what success would look like—i.e., "success" would be closure of the gap by "x" amount through fielding of the system. This process leads to defining "success" for each requirement of the Business Case, because each requirement should be specific about system outcome characteristics that will contribute to gap closure (see Figure 5-3).

The baseline and gap analysis concept discussed above and other performance measurement concepts discussed herein apply to all EB/EC Solutions. The baseline and gap analysis should be included in whatever needs and requirements documents are mandated for the EB/EC Solution

proposed. The resources and effort devoted to performance measurement must be scaled to the EB/EC Solution performance metric to be measured.

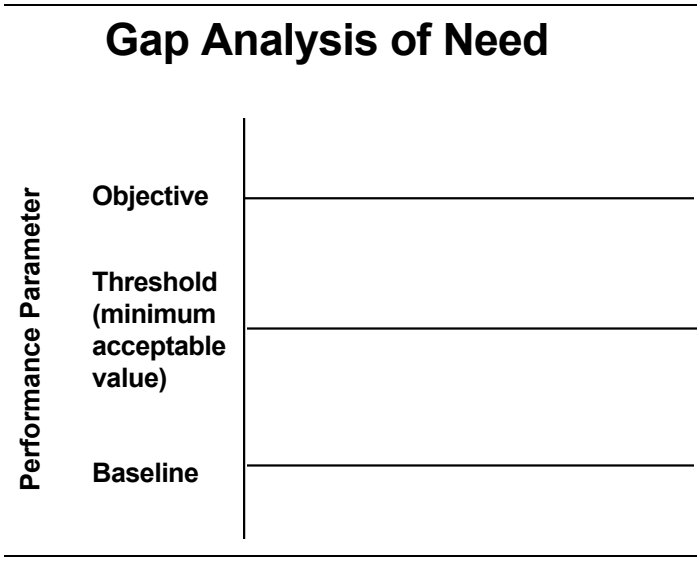

Figure 5-3. The Gap Analysis of Needs Marks EB/EC Solution Performance Requirements

Requirements and performance measures are inextricably linked. A well-written requirement readily lends itself to performance measurement. Because of the relationship between requirements and performance measures, much of what is written about performance measures applies as well to the development of requirements. The requirements will incorporate the concepts described above. If not, then the development of performance measures becomes more difficult and it may be necessary to periodically return to the requirements to modify them.

5.4 Step 3 Describe Success

Describing success requires involvement of stakeholders and generally involves six steps. These steps are described in more detail in the following sections.

Key Element

Establish the stakeholders agreement for the definition of success

5.4.1 Develop Performance Measures

Development of performance measures requires a high level of analysis and extensive involvement from all stakeholders. It is critical that, while developing requirements for an EB/EC Solution, the performance measures accurately and adequately convey the intent of the proposed solution and the benefits to be gained from implementing that solution. The same organizations

or proponents who develop the requirements of the EB/EC Solution should also develop the measures and the processes to track the data and report on the results.

A well-designed set of performance measures describes what success will look like at the end of implementation and it describes metrics that are usable, understandable, and simple. A well-designed set of performance measures provides the rationale to determine that a proposed EB/EC Solution will meet its performance targets and therefore will enable the organization to accomplish its goals and objectives. The product of this step is agreement that the EB/EC Solution will support the organizational goals and objectives.

EXAMPLE: For an EB/EC solution designed to track which employees are certified to handle hazardous materials, the performance requirements should include a need for employees to access computer-based training material at their own pace with training available 24 hours a day. The solution itself provides immediate feedback with automated record keeping while ensuring security. The solution enables a consistent training process that results in the approval of the training process and certification of all employees in the handling of hazardous materials mandated requirement.

5.4.2 Select the Most Critical Requirements

To focus management and oversight on the requirements that are most important and to reduce the burden of performance measurement, EB/EC proponents should identify the requirements that are most essential to the success of the higher-level goals and objectives. Consensus among the stakeholders about which requirements are the most critical should be achieved when the EB/EC Solution requirements are developed.

Stakeholder considerations need to be integrated into the determination of critical success requirements and the establishment of performance measures. Stakeholder considerations include:

- What is the output of our activities?
- How will we know if we met stakeholder requirements?
- How will the system be used and for what purpose?
- What information will be produced, shared, or exchanged? With what organization will information be exchanged?
- Who will use the results?
- For what purpose will the results be used? Why do the output and results matter?
- How do the results contribute to the critical success factors?
- How does this EB/EC solution improve capabilities over the current method (manual or automated)?

5.4.3 Select the Performance Indicators

Once the requirements to be measured are identified, the next step is to decide how to determine when each requirement is achieved. If the requirements are specific, the performance indicators will easily flow from them. However, it will be necessary to work with other stakeholders to specify the requirements so that each requirement is measurable.

A performance indicator is a description of what is to be measured. This may include: the type of metric to be used; the scale of the metric (example: dollars, hours); how the metric calculation formula is to be applied (examples: percent of "a" compared to "b," mean time between failures, annual cost of maintenance); and the conditions under which the measurement will be taken (examples: measurement taken only after system is operational for more than 12 hours, adjusted for constant dollars).

Types of Metrics that are available include:

- **Conformance Metrics**, which include metrics used to measure whether the particular EB/EC solution conforms to the processes or standards in place within the existing infrastructure or compliance with the use of standard data elements.
- **Efficiency Metrics**, which includes metrics related to process time, cycle time, action time, and other time-based measures related to the performance of tasks within the EB/EC solution.
- **Effectiveness Metrics**, which include metrics used to measure the degree of effectiveness of an EB/EC Solution to accomplish the tasks required, the error rate for the solution, and other such measures. Related measures may focus on the quality of the solution data, the availability of the EB/EC Solution, the reliability and maintainability of the solution, and the response time to repair the solution.
- **Cost Metrics,** related to (1) the costs of performing the process with the EB/EC solution in place (including its developmental costs) versus the cost of the prior process and (2) the costs of the EB/EC solution itself versus the costs of all other possible solutions. This is also where any cost/benefit analysis may be undertaken to ensure a comprehensive assessment of the value of the solution.
- **Customer Satisfaction Metrics**, which relates to the end-user's or warfighter's reaction to the utility, availability, and satisfaction with the EB/EC Solution compared to the prior process.

In some instances, it may not be possible to measure the outcome directly. For example, measuring the value or outcome of implementing a computer based training (CBT) program, a recruiting prospect tracking system, or a secure communications network may be difficult. In such a situation, "surrogate" performance measures may be collected to measure outcomes. With the CBT example, the percentage of staff achieving certifications through this means and the total cost of training each student in this way may adequately substitute. For the recruiting system, an estimate by recruiters as to number of additional promising contacts the system made possible and time saved by recruiters may serve well. Finally, for the secure communications network, the number of messages passed, availability of the service, or an estimate of time saved versus the baseline may work as performance measures.

Of the possible performance indicators, it may be possible to select one performance indicator to measure multiple requirements. Likewise, multiple performance indicators may measure one requirement. The objective is to select the fewest number of performance indicators that will provide adequate and complete information about progress. The set of selected performance indicators should be usable, understandable, and simple. Figure 5-4 depicts how a single performance indicator may satisfy several key requirements.

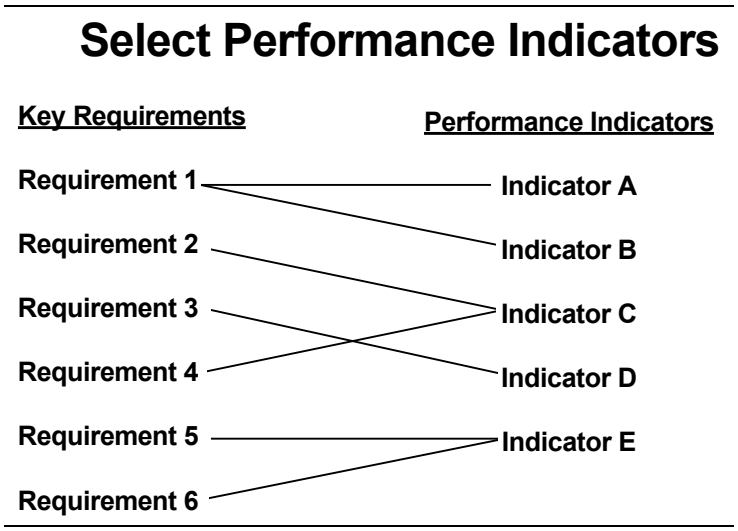

Figure 5-4. Select Performance Indicators Are Used to Map Requirements to Performance

5.4.4 Consider Cost and Feasibility

Collection and analysis of performance data has a cost. The cost is acceptable if the benefit of the information received is worth more than the cost of the performance measurement. Cost may be incurred in dollars or in the time and effort of the staff to collect and analyze the performance data. If customers are involved in performance measurement, their time and effort should be recognized. The effort of collecting performance data should not hinder accomplishment of primary missions.

When considering the costs of collecting and analyzing performance data, it should be understood whether the costs are largely confined to initial or up-front costs, or will occur throughout the EB/EC Solution's life cycle. For example, the cost of developing and populating an EB/EC solution may be large initially, but diminish significantly later during routine operations and maintenance. The following questions will help clarify the costs related to tracking a particular performance indicator:

- What data are required to calculate the performance measure?
- When and by whom are the data collected?
- What is the verification and validation strategy for the data collection?
- What is the method to ensure the quality of the information that is reported?

If a requirement cannot be associated with a feasible performance indicator, the requirement should be reevaluated to ensure that it is specific enough to be measured. If after a re-evaluation a suitable performance indicator cannot be developed for a particular requirement, the requirement may be unrealistic. Consider rewriting the requirement in light of this new understanding of the issue.

When this step is complete, the selected number of performance indicators will be large enough to address all critical requirements yet will be small enough to manage easily.

5.4.5 Select the Performance Baseline and Target

After mapping performance indicators to requirements, each performance indicator should have a standard for measurement. The standard should reflect today's situation (or the baseline), what the EB/EC Solution should accomplish (the target), and by when (the milestone).

The baseline value is the start point for future change. If there are performance measures currently in use, the data collected can provide the baseline. Otherwise the manager will have to determine the baseline by a reasonable analysis method. Baseline sources may include: benchmarking of other agencies and private organizations with similar processes, pre-existing requirements documents (policy, procedures, Mission Needs Statement (MNS)/Operational Requirements Document (ORD)) describing the processes, internal historical data from existing systems, or imposed standards and requirements

The target value indicates what the EB/EC proponent expects to achieve. It is the understanding reached among stakeholders during the requirements identification process as to the quantifiable benefits of the EB/EC Solution. Success will be measured by the EB/EC Solution's ability to meet the target values.

Standards need to be time phased (see Figure 5-5). The baseline is recorded as the start point for future measurement. Targets may be plotted as a function over time, especially for EB/EC Solutions that are being installed or upgraded or as environmental factors change. However, incremental improvement in and of itself is not necessarily success. The targeted improvement from the baseline must be achieved within the time frame defined to indicate true success.

5.4.6 The Completed Performance Measure

The EB/EC Solution, once implemented, has expected outcomes (or results) that satisfy a requirement or set of requirements. The result will be expressed in measurable terms relating to effectiveness, efficiency, customer satisfaction, etc. At any point in the development process, the requirements, objectives, goals, and even the mission of the EB/EC Solution may be enhanced through revision. Such a revision should be taken through the appropriate approval process. After revision, the entire set of measures must be reviewed to determine how the enhancements affect the measures. This revision and review process may occur several times throughout the

development process. The rigorous application of revisions is essential to the development of a meaningful set of measures.

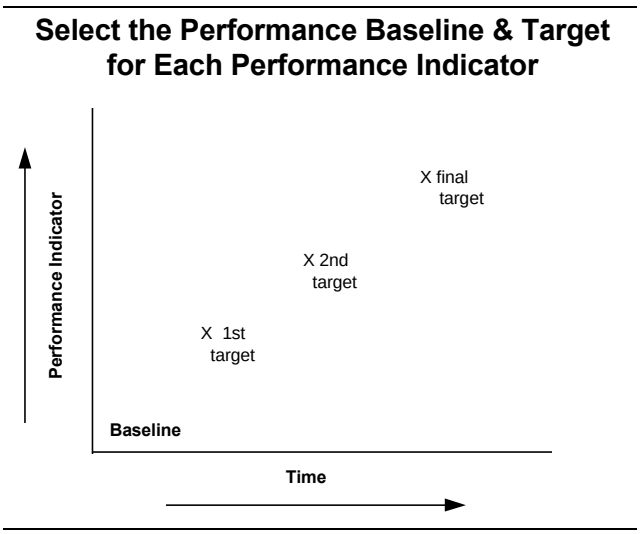

Figure 5-5. Performance Targets Change Over Time to Accommodate Changing Factors

A manageable number of performance measures should be applied against the most critical requirements and goals. The set of measures applied addresses both short- and long-term requirements. For example, a short-term outcome of an EB/EC Solution could be a reduction in paperwork processed as the existing hard-copy forms are thrown away and all incoming orders are placed on-line. The long-term outcome might then be the reduction in warehouse space utilized at each processing site for archived forms.

The outcomes of EB/EC Solutions may not be visible until the solution has been operational for a period of time—perhaps years. Outcome-based performance measures can be difficult to articulate and quantify. However, outcome performance measures provide valuable information for senior management decision making. Effective performance measures have the following characteristics:

- Are strategically relevant and facilitating.
- Are directed to factors that are critical.
- Promote continuous and perpetual improvement.
- Focus on the customer.
- Are agreed to by the stakeholders.
- Are short, clear, and understandable.
- Are appropriate to the organizational level.
- Are capable of being measured (i.e., accurate and reliable data are available and capable of being gathered at reasonable cost).
- Link to activity so a clear relationship exists between cause and effect.
- Focus more on managing resources and inputs, not simply costs.
- Are discarded when utility is lost or when new, more relevant measures are discovered.

Performance measures focus on achievement. A few, well chosen measures that emphasize the vital and critical success factors of the mission are better than many system-oriented output measures. Questions that facilitate development of such performance measures include:

- What product will be produced, shared, or exchanged?
- Who will use the results?
- What decisions or actions will result from delivery of products from this system?

5.5 Step 4 Implement Performance Measurement Process

Key Element

Collect the data

Having decided what data to collect, the EB/EC Solution proponent and stakeholders must now determine how to collect the performance data. Key to this effort is the selection of an action office or officer. The action office or officer will act to organize and lead the team and will take responsibility for implementation of the performance measurement process. Usually, the developer of the performance measures does not implement them.

The first step in implementing a performance measures process is the preparation of a collection plan. The collection plan will provide detailed instructions on how performance measures will be collected for a particular EB/EC Solution. The collection plan should provide details on the following items: activities to be performed; resources to be consumed; target completion dates; decision process; measurement collection responsibilities; and reporting responsibilities. The collection plan should answer the following questions for each performance measure:

- How is the measurement taken?
- What constraints apply?
- Who measures?
- When (how often) are the measurements taken?
- Where are the measurement results sent?
- Where are the results stored and who is the keeper?
- What is the cost of data collection?
- Who provides the resources to collect data?

While estimated costs are considered in the development of each performance measure, the true cost of the set of measures becomes more evident during the collection process. Costly performance measures may require a review to find a different, less costly mix of performance measures to assess the EB/EC Solution. Innovation in data collection can also reduce collection cost. For example, in many situations, a sampling will produce accurate enough results at far less cost than counting every occurrence. Moreover, some results may be automatically generated by the EB/EC Solution and could thereby be accessed through a standard report.

5.6 Step 5 Report Results

Performance measures are effective in monitoring the investment against promises and expected costs. This evaluation enables adjustments and application of lessons learned. The action office or officer responsible for collecting performance data should also prepare the reports presenting the performance information.

Key Element

Compare new mission capabilities to promised improvements

The EB/EC proponent is the key stakeholder responsible for evaluating the results, once an EB/EC Solution has been fielded. It is critical that the stakeholders evaluate the results and assess the actual performance against targets. In evaluating performance results, the following questions should be asked:

- Did return on investment exceed expectations? By how much?
- Did investment fall short of expectations? By how much?
- What were unexpected benefits or other opportunities to positively affect the mission?
- What were unexpected negative effects on the mission?

After assessing the actual results against promised returns, there may be a need to review the performance measures, perceived targets, and implementation of the EB/EC Solution to adjust the EB/EC Solution or goals as required. Should there be significant differences reported between the promised returns and the results, then there should be a re-evaluation of the EB/EC Solution.

5.7 Step 6 Review Performance Measurement Process

Performance measures provide feedback to managers. This information allows informed decision making to influence the future. If performance measures confirm that everything is on track, action may not be needed. Such analyses should include asking the following questions about the data collected:

Key Element

Evaluate plans, requirements, goals, and performance measurement itself

- Do the data appear valid?
- How useful and timely were the data collected?
- Do the data indicate variance from the target and, if so, why?
- Is performance really bad?
- Have we selected poor performance indicators?
- Is the target realistic?
- If the data indicates targets are successfully reached or exceeded, does that match other perceptions of the situation?
- What adjustments can and should be made to the measures, data, or baseline?
- What actions or changes would improve performance?

Strategic goals may change over time. When they do, supporting requirements are subject to review, and, subsequently, the measures that support them are also subject to review.

A response to poor performance is to examine the EB/EC Solution with a view toward making it better. Management must decide what to do; the performance measures provide some useful information to support those decisions.

Periodically, the performance measures should be reassessed for validity. Appropriate times for the review are when the requirements are revised, at pre-set milestones in the development and implementation life-cycle, and in annual reports.

Consistency in application of performance measures is a virtue—until a performance measure is no longer useful. EB/EC proponents should consider the following questions.

Are the Measures Still Valid?

- Have higher level mission, goals, objectives, and critical success factors changed?
- Have this EB/EC Solution's goals, objectives, and critical success factors changed?
- Are the threshold and any objective target levels appropriate in light of recent performance and changes in technology and requirements?
- Can success be defined by these performance measures?
- Can improvement in mission operations be defined by these performance measures?
- Can improvement in efficiency of operations be defined by these performance measures?
- Have more relevant measures been discovered?

Are We Measuring the Right Things? Does the set of measures:

- Address improvements in performance of mission?
- Help determine if the set of measures indicates improvements?
- Address improvement in performance of goals and objectives?
- Cover all objectives by at least one measure?
- Address the value-added contributions made by overall investment in information management and/or individual programs or applications?
- Capture non-EB/EC or non-C4/IT benefits?
- Capture the requirements of external and internal customers?
- Address costs, benefits, savings, risks, or return on investment?
- Emphasize the critical aspects of the business?
- Draw attention to the right concerns?

Do We Have the Right Measures? Is the set of measures:

- Targeted to a clear outcome (results rather than inputs or outputs)?
- Linked to a specific and critical process in the organization?
- Understood at all levels that have to evaluate and use the measures?
- Supportive of effective management decisions?
- Communicative of achievements to internal and external stakeholders?

- Consistent with stakeholder motivations?
- Credible and suitable for effective communications to internal and external stakeholders?
- Accurate, reliable, valid and verifiable?
- Built on data that are available at reasonable costs, appropriate, and timely for the purpose?
- Able to show interim progress by using short-term measures?
- Able to provide performance-motivating or performance-sustaining achievement factors?

Are the Measures used in the Right Way? Is the set of performance measures used?

- In strategic planning (for example, to identify baselines, gaps, goals, and strategic priorities)?
- To guide prioritization of program initiatives?
- In resource allocation decisions?
- In management of tasks, dollars, and personnel?
- To communicate results to stakeholders?

5.8 Iteration

Revisiting and modifying the output of earlier steps is not a sign of failure. Rather it is a natural way to apply lessons learned to improve the products of each step. Figure 5-6 shows some of the reasons for iteration.

Iterations of Performance Measurement Development

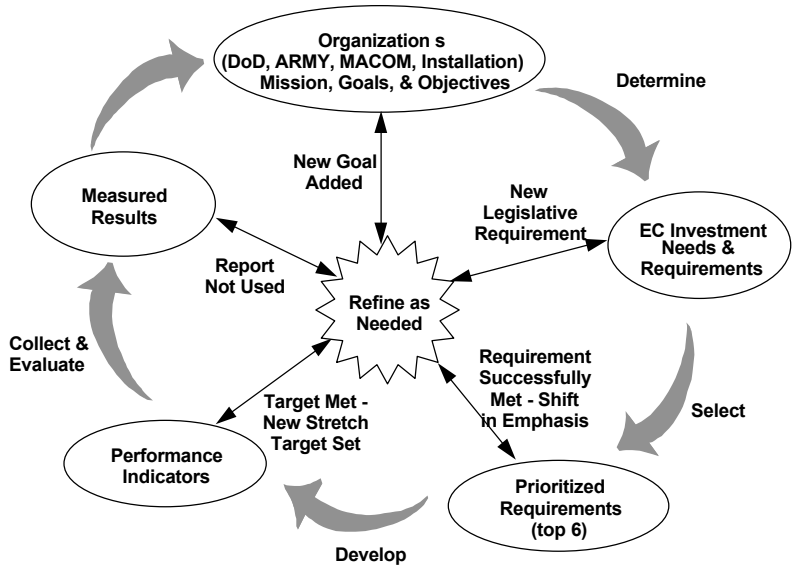

Figure 5-6. Developing Performance Measures Requires an Iterative Process.

Required steps for implementing an iterative process involves key management emphasis on periodic review of the EB/EC Solution's implementation process. This review should include periodic testing of performance measures in light of (1) changing strategic goals, (2) higher or lower than expected performance data, and (3) adjustments in indicators, measures, and other elements.

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This concludes the *Army Electronic Business/Electronic Commerce Implementation Plan*. Following this section are three appendices: Appendix A, Acronyms, summarizes the acronyms used in this plan; Appendix B, Summary of Implementation Plan Milestones, displays major Implementation Plan milestones; Appendix C, Functional View of the Army, presents an initial functional view of the Army.

This document should not be viewed as static and cast in stone. Rather, the strategies, actions, and guidance provided in the *Army Electronic Business/Electronic Commerce Implementation Plan* should be considered part of a living document. The EB/EC IPT, as the primary advocacy entity for EB/EC within the Army, should be considered the point of contact and main supporter of the initiatives described in this plan. This plan serves as a detailed map to achieve the vision for EB/EC within the Army. As that vision changes, so too should this document. An annual iterative review process, implemented by the EB/EC IPT, will keep the plans, actions, and processes of this plan current and focused on the overall goal of Information Dominance for the Army.

Appendix A
Acronyms

AAE	Army Acquisition Executive
ABC	Activity Based Costing
ABCS	Army Battle Command System
ACTEDS	Army Civilian Training, Education and Development System
AEA	American Enterprise Architecture
AFPDA	Army Force Planning Data and Assumptions
AGCCS	Army Global Command and Control System
AIEP	Army Ideas for Excellence Program
AISSP	Automated Information System Security Program
ALMC	Army Logistics Management College
ALRPG	Army Long Range Planning Guidance
AMOPES	Army Mobilization and Operations Planning and Execution System
AMP	Army Modernization Plan
AMSC	Army Management Staff College
ANSI	American National Standards Institute
APGM	Army Program Guidance Memorandum
APPI	Army POM Preparation Instructions
ARB	Army Resources Board
ARBSG	Army Resources Board Support Group
ARSTAF	Army Staff
ASA	Assistant Secretary of the Army
ASC	Accredited Standards Committee
AS-IS	Existing Activities
ASPEC	Army Strategic Plan for Electronic Commerce
ATCCS	Army Tactical Command and Control System
AVICE	Assistant Vice Chief of Staff of the Army
AWC	Army War College
BES	Budget Estimate Submission
BPI	Business Process Improvement
BPR	Business Process Reengineering
CASCOM	Combined Arms Support Command
C4/IT	Command, Control, Communications, and Computers/Information Technology
C4I	Command, Control, Communications, Computers and Intelligence
CBE	Command Budget Estimate
CBT	Computer Based Training

CCB	Configuration Control Board
CECOM	Communications and Electronics Command
CFIO	Cross-Functional Integration Opportunities
CGSC	Command and General Staff College
CIO	Chief Information Officer
COTS	Commercial Off-The-Shelf
CSA	Chief of Staff of the Army
DA	Department of the Army
DACM	Director of Acquisition Career Management
DA PAM	Department of the Army Pamphlet
DAU	Defense Acquisition University
DII	Defense Information Infrastructure
DII COE	Defense Information Infrastructure Common Operating Environment
DISA	Defense Information Services Agency
DISC4	Director of Information Systems for Command, Control, Communications, and Computers
DLA	Defense Logistics Agency
DoD	Department of Defense
DoDD	Department of Defense Directive
DPAE	Director of Policy Analysis and Evaluation
DPG	Defense Planning Guidance
DRI	Defense Reform Initiative
DTS	Defense Travel System
EB/EC	Electronic Business/Electronic Commerce
EB/EC IPT	Electronic Business/Electronic Commerce Integrated Process Team
EDI	Electronic Data Interchange
EDISMC	Electronic Data Interchange Standards Management Committee
EFT	Electronic Funds Transfer
ESCS	Enterprise Strategy Control Structure
FC/FCR	Functional Chief/Functional Chief Representative
FEA	Functional Economic Analysis
FIPS	Federal Information Processing
FM&C	Financial Management and Comptroller
FWG	Functional Working Group
FYDP	Future Years Defense Plan
GAO	General Accounting Office
GC	General Counsel
GITSB	Government Information Technology Services Board

GOSC	General Officers Steering Committee
GOTS	Government Off-The-Shelf
HQDA	Headquarters, Department of the Army
HSI	Human Systems Integration
HTI	Horizontal Technology Integration
IC	Implementation Convention
ICT	Integrated Concept Team
IG	Inspector General
IM/IT	Information Management/Information Technology
IMPAC	International Merchants Purchase Authorization Card
IPT	Integrated Process Team
IT	Information Technology
ITAA	Information Technology Association of America
JCALS	Joint Computer-aided Acquisition and Logistics Support
JECPO	Joint Electronic Commerce Program Office
JPD	Joint Planning Document
JSCP	Joint Strategic Capabilities Plan
JTA	Joint Technical Architecture
JTA–A	Joint Technical Architecture–Army
LRA	Local Registration Authority
MACOM	Major Army Command
MAISRC	Major Automated Information Systems Review Council
MANPRINT	Manpower and Personnel Integration Program
MARKS	Modern Army Record Keeping System
MBI	Major Budget Issue
MDEP	Management Decision Package
MNS/ORD	Mission Need Statement/Operational Requirements Document
MOC	Management of Change
MPDI	MACOM POM Development Instructions
NDU	National Defense University
OASA (M&RA)	Office of the Assistant Secretary of the Army Manpower and Reserve Affairs

OCPA	Office of the Chief of Public Affairs
ODCSINT	Office of the Deputy Chief of Staff, Intelligence
ODCSLOG	Office of the Deputy Chief of Staff, Logistics
ODCSOPS	Office of the Deputy Chief of Staff, Operations and Plans
ODCSPER	Office of the Deputy Chief of Staff, Personnel
ODISC4	Office of the Director of Information Systems for Command, Control, Communications and Computers
OMB	Office of Management and Budget
OSA	Office of the Secretary of the Army
OSD	Office of the Secretary of Defense
PB	President's Budget
PBC	Program and Budget Committee
PBD	Program Budget Decision
PBG	Program Budget Guidance
PDM	Program Decision Memorandum
PEG	Program Evaluation Group
PEO	Program Executive Office
PKI	Public Key Infrastructure
PKI WG	Public Key Infrastructure Working Group
POC	Point of Contact
POM	Program Objective Memorandum
PPBES	Planning, Programming, Budgeting and Execution System
PRP	Program Review Proposal
PSA	Principal Staff Assistant
PSG	Prioritization Steering Group
QDR	Quadriennial Defense Review
RA	Registration Authority
RAO	Responsible Action Office
RDA	Research, Development and Acquisition
RDAP	Research, Development and Acquisition Plan
RDP	Requirements Determination Process
RFG	Resource Formulation Guide
RMU	Resource Management Update
ROI	Return on Investment
RTTO	(DoD) Reengineering Travel and Transportation Office
SA	Secretary of the Army
SIRS	Serious Incident Reporting System
SMDR	Structure Manning Decision Review

SPC	Strategy and Planning Committee
SSSC	Self Service Supply Center
TAA	Total Army Analysis
TAP	The Army Plan
TAW	Total Army Workforce
TDA	Table of Distribution and Allowance
TDY	Temporary Duty
TO-BE	Desired Activity
TOE	Table of Organization and Equipment
TRADOC	Training and Doctrine Command
TWI	Training with Industry
UFR	Unfinanced Requirement
USAECP	U.S. Army Electronic Commerce Policy
VCSA	Vice Chief of Staff of the Army
VDISC4	Vice Director for Information Systems for Command, Control, Communication and Computers
VI	Visual Information
WIPT	Working Integrated Process Team
WWW	World Wide Web

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Appendix B
Summary of Implementation Plan Milestones

This appendix presents a summary of the milestones described in Section 3 of the Implementation Plan. The milestone summary provided gives a high-level view of the activities to be executed in the near-term, mid-term, and long-term periods described in the plan. The years presented in the timelines for the milestones reflect Federal Government Fiscal Years (beginning in October), not calendar years. Also, please note that for Tasks 4 and 5 in the near-term implementation tasks, the solid bars represent activities during a normal POM cycle and the striped bars represent activities during a mini-POM cycle.

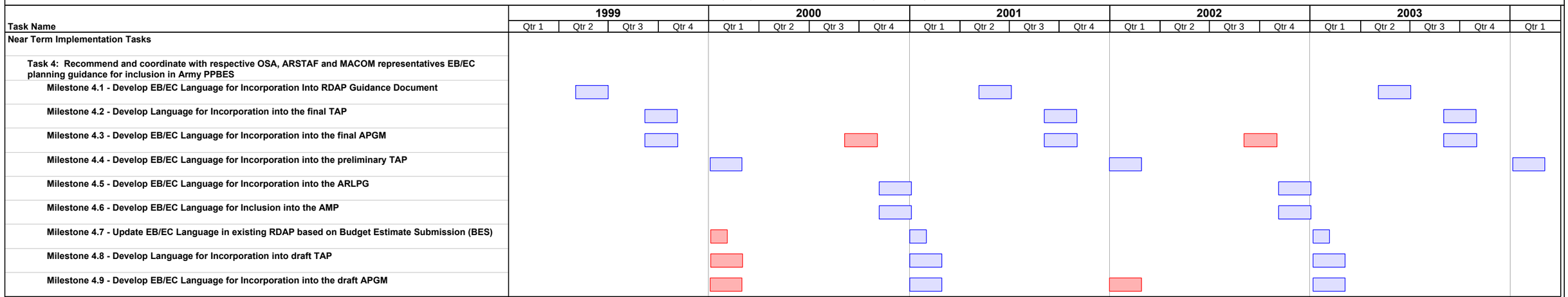
Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	98		1999				2000				2001				2002				2003				
	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
Near Term Implementation Tasks																							
Task 1: Create a central office to promote EB/EC information sharing																							
Milestone 1.1 - Issue ODISC4 Organization and Functions Manual, Change 1 [COMPLETED]																							
Milestone 1.2 - Issue DISC4 Letter Naming Army Focal Point for EB/EC [COMPLETED]																							
Milestone 1.3 - Issue U.S. Army EB/EC Policy																							
Milestone 1.4 - Assess need for Army EB/ EC Program Office																							
Milestone 1.5 - Prepare and Staff Decision Package to establish Army EB/EC Program Office																							
Milestone 1.6 - Quarterly Review of U.S. Army EB/EC																							
Task 2: Represent the Army at the appropriate DoD, Federal Government, National, and International EB/EC standards bodies and consortiums																							
Milestone 2.1 - Determine appropriate standards bodies and consortiums																							
Milestone 2.2 - Meeting Participation (Dependent upon standards bodies' schedules)																							
Task 3: Integrate EB/EC into current and future Army policies and procedures																							
Milestone 3.1 - Perform review of higher level policies and programs																							
Milestone 3.2 - Perform ODISC4 Review of EB/EC-related aspects of AEA Master Plan																							
Milestone 3.3 - Perform ODISC4 Review of EB/EC-related aspects of JTA-A revisions																							
Milestone 3.4 - Review EB/EC-related aspects of I3A revisions																							
Milestone 3.5 - Perform Review offunctional area policies and programs for incorporation of EB/EC language																							
Milestone 3.6 - Perform ODISC4 Review of EB/EC-related aspects of Army software management policies																							
Milestone 3.7 - Perform ODISC4 Review of EB/EC-related aspects of Army Data Management Program and Army Data encyclopedia																							
Milestone 3.8 - Perform ODISC4 Review of EB/EC-related aspects of Army Information Standards Management Program																							
Milestone 3.9 - Perform ODISC4 Review of all EB/EC-related aspects of Army VI Program																							
Milestone 3.10 - Perform ODISC4 Review of all EB/EC-related aspects of Army C4/IT systems and programs																							
Milestone 3.11 - Report results of ODISC4 Review to EB/EC IPT																							
Milestone 3.12 - Include EB/EC-related recommendations in ODISC4 POM																							
Milestone 3.13 - Participate in Army-wide reviews of Army Policies and programs																							

Dependent upon AEA, JTA-A, and C4/IT system and program milestones

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)



Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	1999				2000				2001				2002				2003				
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
Near Term Implementation Tasks																					
Task 5: Ensure that EB/EC is incorporated into the Planning, Programming, Budgeting, and Execution System (PPBES)																					
Milestone 5.1 - Review Army EB/EC Initiatives in the OSD revision of the FYDP submitted to Congress																					
Milestone 5.2 - Review Army EB/EC Initiatives in the President's Budget or Amended Budget																					
Milestone 5.3 - Review EB/EC portions of Army POM Preparation Instruction (APPI)																					
Milestone 5.4 - Prepare EB/EC portions of Army Congressional Budget justifications and responses to queries																					
Milestone 5.5 - Provide support of Army EB/EC-related OSD Program Review Proposals (PRPs)																					
Milestone 5.6 - Review EB/EC portions of the Army POM																					
Milestone 5.7 - Prepare EB/EC portions of PBG issued with the final TAP and APGM																					
Milestone 5.8 - Prepare EB/EC portions of MACOM POM Development Instructions (MPDI)																					
Milestone 5.9 - Review EB/EC initiatives and activities in MACOM/PEO RMUs and related PBGs																					
Milestone 5.10 - Review Army EB/EC Implications of PDM																					
Milestone 5.11 - Review EB/EC aspects of MACOM/PEO CBEs																					
Milestone 5.12 - Provide Army EB/EC budget preparation support																					
Milestone 5.13 - Review EB/EC portions of BES-related FYDP and PBG updates																					
Milestone 5.14 - Support PEG reviews of draft PBD effects on Army EB/EC initiatives																					
Milestone 5.15 - Support preparation of MBIs on proposed decrements to EB/EC initiatives																					
Milestone 5.16 - Support PEGs analyses of final PBDs implications for Army EB/EC initiatives and updates of relevant MDEPs																					
Milestone 5.17 - Prepare EB/EC portions of PBG for President's Budget																					
Milestone 5.18 - Provide research and analytic support for all EB/EC-related IM/IT Management Decision Packages (MDEPs)																					
Milestone 5.19 - Provide EB/EC-related programming support to PEGs during review of MACOM/PEO POM submissions and the development of the Army POM																					

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	1999				2000				2001				2002				2003				2004		
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
Near Term Implementation Tasks																							
Task 6: Promote awareness and understanding of current and emerging Electronic Commerce processes, technologies, and business practices in the Army workforce.																							
Milestone 6.1 - Develop the Army EB/EC Communications Plan																							
Milestone 6.2 - Assess existing GOTS and COTS EB/EC informational materials																							
Milestone 6.3 - Assess opportunities for joint development of EB/EC informational materials																							
Milestone 6.4 - Develop initial Army EB/EC e-mail messages and other information materials																							
Milestone 6.5 - Pretest and validate Army EB/EC informational materials																							
Milestone 6.6 - Publish Army EB/EC informational materials and post on Army EB/EC Website																							
Task 7: Evaluate existing training programs and policies in order to rEB/ECommend changes for EB/EC Training.																							
Milestone 7.1 - Review existing training programs																							
Milestone 7.2 - Identify need for additional EB/EC-related training requirements																							
Milestone 7.3 - As appropriate, support development, staffing, and publishing of EB/EC-related training materials, especially distance learning materials																							
Milestone 7.4 - Develop multi-media presentation for senior-level training to be conducted via the World Wide Web																							
Milestone 7.5 - Support EB/EC training requirements in ACTEDS plans		**Dependent upon plan schedules**																					
Task 8: The ODISC4 will establish the EB/EC Integrated Process Team (EB/EC IPT) with representatives from the OSA, ARSTAF and MACOMs to review current and future EB/EC initiatives across the functional																							
Milestone 8.1 - Assess readiness of collaborative tools for initial EB/EC IPT meeting [COMPLETED]																							
Milestone 8.2 - Develop and coordinate Army EB/EC IPT Terms of Reference																							
Milestone 8.3 - Conduct Virtual EB/EC IPT Activities					**As Needed**																		

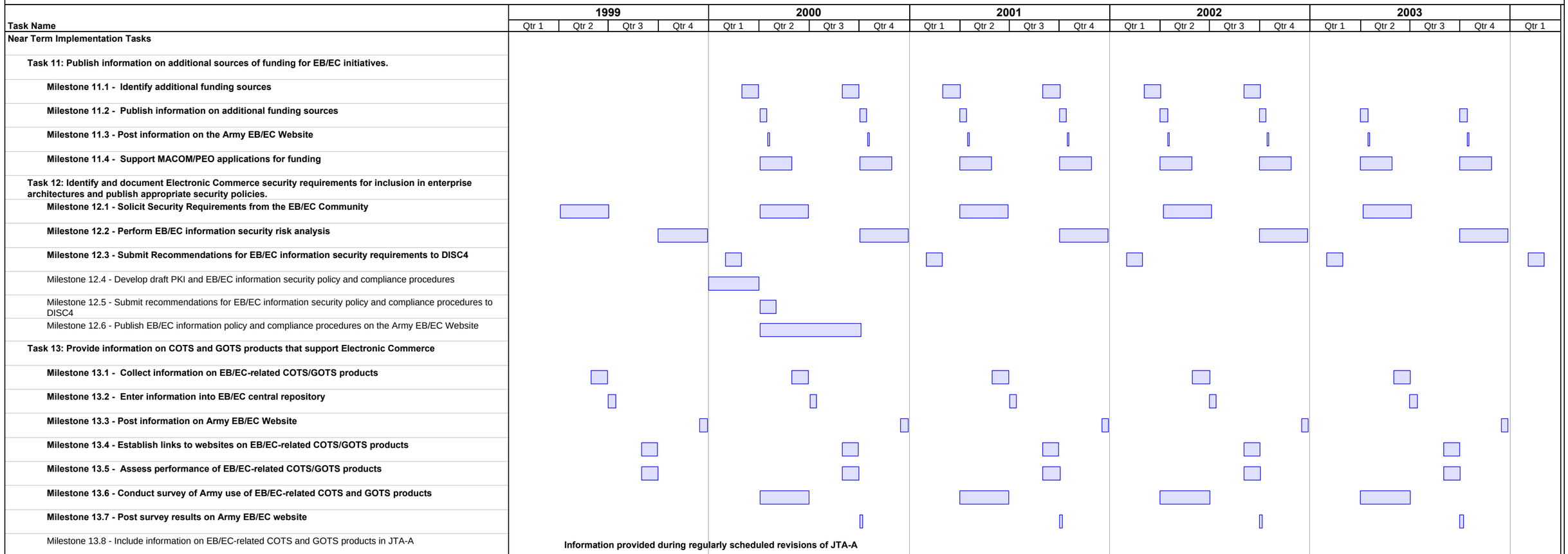
Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	98		1999				2000				2001				2002				2003				2004				2005				
	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
Near Term Implementation Tasks																															
Task 9: The ODISC4 will conduct a data call to establish and maintain a central repository of Electronic Commerce initiatives to collect lessons learned and promote data sharing.																															
Milestone 9.1 - Develop Army EB/EC repository software [COMPLETED]																															
Milestone 9.2 - Develop Army EB/EC Survey [COMPLETED]																															
Milestone 9.3 - Request data from EB/EC initiative POCs [COMPLETED]																															
Milestone 9.4 - Perform Annual Update of Army EB/EC Survey																															
Milestone 9.5 - Share the results of the EB/EC Survey with the appropriate CIO proponents																															
Milestone 9.6 - Issue follow-up requests for additional information																															
Milestone 9.7 - Monitor and facilitate data entry into central EC Repository [COMPLETED]																															
Milestone 9.8 - Make Repository operational with on-line access to the Army EB/EC web site and designated Army web sites																															
Milestone 9.9 - Monitor EB/EC initiatives entered into EB/EC Repository																															
Task 10: Maintain a World Wide Web site that provides access to the Electronic Commerce repository and insight into current initiatives, trends, and upcoming events.																															
Milestone 10.1 - Develop and review prototype enhanced website [COMPLETED]																															
Milestone 10.2 - Demonstrate website to Director, SAIS-IA [COMPLETED]																															
Milestone 10.3 - Connect Army EB/EC Website to Army Knowledge Office website [COMPLETED]																															
Milestone 10.4 - Develop DISC4 letter to ASAs, ARSTAF, and MACOMs [COMPLETED]																															
Milestone 10.5 - Develop press article [COMPLETED]																															
Milestone 10.6 - Develop marketing brochure [COMPLETED]																															
Milestone 10.7 - Demonstrate the enhanced website [COMPLETED]																															
Milestone 10.8 - Maintain and Enhance Website as needed																															

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)



Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	1999				2000				2001				2002				2003		
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
Near Term Implementation Tasks																			
Task 14: Promote EB/EC-related pilot programs and projects.																			
Milestone 14.1 - Review existing EB/EC-related initiatives, including Candidate EB/EC initiatives																			
Milestone 14.2 - Review current BPR initiatives for potential EB/EC pilot products																			
Milestone 14.3 - REB/ECommend existing EB/EC-related initiatives to EB/EC IPT																			
Milestone 14.4 - Support EB/EC IPT and Enterprise GOSC review of existing EB/EC-related initiatives																			
Milestone 14.5 - Identify EB/EC initiatives for designated POM years																			
Milestone 14.6 - Review proposed additional EB/EC initiatives																			
Milestone 14.7 - Recommend initiatives for study (Army Studies Program)																			
Milestone 14.8 - Support EB/EC IPT and Enterprise GOSC review of additional EB/EC-related initiatives									**See Near-Term Tasks 4 and 5 for details**										
Milestone 14.9 - Promote additional EB/EC-related initiatives through PPBES process									**See Near-Term Tasks 4 and 5 for details**										
Task 15: Incorporate incentives for use of Electronic Commerce into existing Army awards and excellence programs.																			
Milestone 15.1 - Review existing Army, DoD, and Federal awards programs																			
Milestone 15.2 - Develop proposed changes and evaluation criteria																			
Milestone 15.3 - Coordinate proposed changes and evaluation criteria																			
Milestone 15.4 - Publish memorandum by program approval authority																			
Milestone 15.5 - Post approved EB/EC incentives in Army awards programs on the Army EB/EC Website																			

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	1999				2000				2001				2002				2003		
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
Near Term Implementation Tasks																			
Task 16: Develop outcome-oriented performance measures for Electronic Business/Electronic Commerce.																			
Milestone 16.1 - Develop draft performance measures																			
Milestone 16.2 - Coordinate draft performance measures within ODISC4																			
Milestone 16.3 - Coordinate draft performance measures with OSA, ARSTAF, and MACOMs																			
Milestone 16.4 - Achieve IPT consensus on performance measures																			
Milestone 16.5 - Submit recommended measures to DISC4/VDISC4 for review																			
Milestone 16.6 - Publish approved performance measures																			
Milestone 16.7 - Post approved measures on the Army EB/EC Website																			
Milestone 16.8 - Report OSA, ARSTAF, MACOM results of performance measures																			
Milestone 16.9 - Report coordinated results of performance measures																			
Task 17: Implement Emerging Technologies																			
Milestone 17.1 - PKI Action Plan (See Appendix D)																			
Milestone 17.2 -Smart Card Action Plan (See Appendix E)																			

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	2001				2002				2003				2004				2005				2006		
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
Mid Term Implementation Tasks																							
Task 1: Continue to integrate Electronic Commerce into current, programmed, and planned Army C4/IT policies and programs.																							
Milestone 1.1 - Conduct review of battlefield/non-battlefield systems for cross-functional integration																							
Milestone 1.2 - Review of battlefield/non-battlefield system cross-functional integration report																							
Task 2: Establish a program for recognizing MACOM and Installation EB/EC initiatives.																							
Milestone 2.1 - Develop a program for recognizing EB/EC initiatives																							
Milestone 2.2 - Staff and publish the recommended program																							
Milestone 2.3 - Solicit MACOM and Installations Initiatives																							
Milestone 2.4 - Evaluate MACOM/Installation EB/EC Initiatives																							
Milestone 2.5 - Publish recognition of MACOM/Installation EB/EC initiatives																							
Milestone 2.6 - Post approved program information on the Army EB/EC Website																							
Task 3: Promote Information on Electronic Commerce																							
Milestone 3.1 - Conduct Survey Update/Data Call																							
Milestone 3.2 - Facilitate data entry into EB/EC Repository																							
Milestone 3.3 - Share the results of the EB/EC Survey with appropriate I3A proponents																							
Milestone 3.4 - Post Data to EB/EC Website																							
Milestone 3.5 - Develop Analysis of Data																							
Milestone 3.6 - Update information on Army EB/EC Web																							
3.2.2.4 Task 4: Implement and Refine Army Electronic Commerce Initiatives																							
Milestone 4.1 - Promote EB/EC initiatives in Army planning	**See NT Task 4 for details**																						
Milestone 4.2 - Promote EB/EC initiatives in Army PPBES process	**See NT Task 4 and 5 for details**																						
Milestone 4.3 - Promote EB/EC-related military and civilian training	**See Near-Term Task 7 for details**																						
Milestone 4.4 - Develop plans for EB/EC pilot programs and projects	**See Near-Term Task 4 for details**																						
Milestone 4.5 - Develop recommendations for EB/EC pilot programs and projects		**See Near-Term Task 5 for details**																					
Milestone 4.6 - Report results of EB/EC pilot programs and projects																							
Milestone 4.7 - Assess the effectiveness of Army EB/EC pilot programs and projects																							
Milestone 4.8 - Assess the effectiveness of initial EB/EC performance measures																							

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Table B-1: Summary of Implementation Plan Milestones (Fiscal Years)

Task Name	2004	2005	2006	2007	2008	2009	2010	2011	2012
Long Term Implementation Tasks									
Task 1: ODISC4 will continue to integrate Electronic Commerce into current, programmed, and planned Army C4/IT policies and programs	**Dependent upon AEA, JTA-A, and C4/IT system and program milestones**								
Task 2: Promote Information on Electronic Commerce									
Milestone 2.1 - Conduct Electronic Survey Update									
Milestone 2.2 - Facilitate data entry into EB/EC Repository									
Milestone 2.3 - Post Data to EB/EC Website									
Milestone 2.4 - Develop Analysis of Data									
Milestone 2.5 - Update information on Army EB/EC Website									
Task 3: Promote the Creation of a Virtual Working Environment to Support the Needs of the Warfighter									
Milestone 3.1 - Collect information on opportunitites for virtual working environment									
Milestone 3.2 - Enter information on opportunities into the EB/EC repository									
Milestone 3.3 - Post information on opportunities on the Army EB/EC Website									
Milestone 3.4 - Collect and Assess information on a virtual working environment based on independent research									
Milestone 3.5 - Conduct assessment of opportunities for C4/IT policies and programs									
Milestone 3.6 - Assess implications for Army activities									
Milestone 3.7 - Develop recommendations for changes in Army policies									
Milestone 3.8 - Staff and publish approved changes in Army policies									
Milestone 3.9 - Conduct pilot projects to validate virtual office policies and programs									
Milestone 3.10 - Implement virtual office policies and programs									
Milestone 3.11 - Staff and publish incentives and evaluation criteria to promote a virtual working environment									

Note: For Tasks 4 & 5, Solid Bars represent POM cycle tasks and Striped Bars represent Mini-POM cycle tasks

Appendix C
Functional View of the Army

This appendix presents the results of the initial assessment of functional boundaries of the Army discussed in Section 4.3.2. Table C-1 describes the Army's functional boundaries based largely upon the descriptions provided in *How the Army Works*. Each functional activity was categorized into three activity types: **Process**—for functional activities that reflected on-going or continuous information flow, **Document**—for functional activities that terminated in the development of a final product, and **System**—for functional activities that are reliant upon a computer-based system to support the activity.

After defining the functional activities, responsibilities were assigned to various Army organizations and functions. A blue mark below an organization's name indicates that the organization provided coordinating responsibility for the functional activity. A red mark below an organization's name indicates primary responsibility for the functional activity.

After creation of the matrix, several criteria were developed to identify potential areas for EB/EC pilots. These criteria serve to pinpoint the functional areas where there could be potential for cross-functional integration. The following criteria were used to identify the initial set of pilots:

1. Each pilot should involve multiple Army offices, organizations, and entities and cut across the Army business spectrum;
2. Each pilot should have high-level, senior leadership visibility and affect the central operating functions (Title X functions) of the Army; and
3. Each pilot should have the potential for significant process improvements through the application of EB/EC.

The functional matrix developed from the preliminary research highlighted several functional areas that offer opportunities for cross-functional integration through EB/EC. Further review of these areas using the criteria stated above resulted in the development of a list of potential Army EB/EC Pilot Programs. This list, provided in Section 4.3.2, is by no means exhaustive and indicates only a set of potential candidate areas that warrant further investigation using the methodology identified in Section 4.3.1 of this document.

Army Electronic Business/Electronic Commerce Implementation Plan
Table C-1 Functional View of the Army
Dated October 1999

Legend
Primary Responsibility
Coordinating Responsibility

Org/Div columns: USA, DUSA(IA), DUSA(OR), SAAA, ASA(CW), ASA(FM), ASA(I&E), ASA(ALT), ASA(MRA), DISC4, Gen Con, AG, TIG, CLL, CPA, SB, CSA, VCSA, DAS, DCS OPS, DCS PER, DCS LOG, DCS I, ACSIM, COE, TSG, CHAP, JAG, NGB, AR, AMC, INSCOM, ISC, AMEDD, MTMC, FORSCOM, TRADOC, EUSA, USASOC, USARPAC, EUR, USARSO, MDW, HSC, DSSW, CIC, USAFMSA

Function				Type Activity
Army Force Development				
	Force Management & Integration			
	New Methods for Determining Requirements			
		Requirements Determination Process		Process
		Future Operational Capabilities (FOCs)		Document
		DTLOMS Requirements		Process
		Army Modernization Plan		Document
		Army Science & Technology Master Plan		Document
		Doctrine and Literature Master Plan		Document
		Training/Leader Development Process		Process
		Warfight Lens Analysis		Process
	Design Organizations			
		Force Design Update		Process
		Unit Reference Sheet		Document
		TOE Development		Process
		TAA		Process
	Develop Organizational Models			
		Requirements Documentation System		System
		BOIP		Document
		TOE		Document
		Incremental TOE		System
		Base TOE		Document
	Determine Organizational Authorizations			
		Total Army Analysis		Process
		The Army Plan (TAP)		Document
		TAA Phase I - Requirements Determination		Process
			Force Guidance	Process
			AFPDA	Document
			Allocation Rules	Document
			SAGs	Process
			TRANSMO	System
			CEM	System
			FASTALS	System
			MERLIN	System
		TAA Phase II - Resource Determination		Process
			Qualitative Analysis	Process
			Resourcing Conference	Process
			Force Feasibility Review	Process
			Leadership Review	Process
	Document Organizational Authorizations			
		Structure and Manpower Allocation System		System
			Force File	Document
			Budget File	Document
		The Army Authorization Documents System-Redesigned		Document
			Centralized Documentation (CENDOC)	Document
			Command Plan (CPLAN)	Process
			Concept Plan	Process
			Automatic Update Transaction System	System
			Personnel Management Authorization Document	Document
			Structure and Component System	System
			PERSACS	System
			LOGACS	System
		Authorization Documents		
			Modification Table of Organization and Equipment	Document
			Table of Distribution and Allowances	Document
			Mobilization TDA	Document
			Augmentation TDA	Document
	Force Development System Modernization			
		Centralized Documentation System		System
Mobilization and Deployment				
	Planning System			
		AMOPES		System
			FORSCOM Mobilization Plan	Document
			FORMDEPS	System
	Crisis Action Planning			
	Army Mobilization			
		Army Mob Plan		Document
		UDDS		System
		WARTRACE		Program
	Mobilization Management			
	Industrial Preparedness			
		DoD Key Facilities List (KFL)		Document
		DA Critical Items List (DACIL)		Document
		IPPL		
Reserve Components				
	National Guard			
	Army Reserve			
		Army Reserve Forces Policy Committee (ARFPC)		
	RC Role in Total Army			
	RC Management Structure			
	Training			
	Equipment			
	Readiness/Mobilization Assistance			
	Wartrace			
	RC Pay, Benefits, Entitlements			Process
Force Readiness				
	Managing			
	Chairman's Readiness System			System
			Joint Monthly Readiness Review (JMRR)	Process
	Status of Resources and		(SORTS)	System
	Army Readiness			Process
Army PPBES				
	PPBES Structure			
	Army PPBES Role			Process
	Organizing for PPBES Activity			Process
	Planning Phase			System
			Requirements Determination Process (RDP)	Process
	PPBES Planning			System
	Operational Planning Link to PPBES			System
	Programming Phase			
			DPAE	
			,Army/MACOM POM Preparation Instructions	Document
			Budget Guidance	Document
			Program Development	Process
	Budgeting Phase			
	Execution Phase			
Resource Management				
	Fund Management Responsibilities			
			Director of the Army Budget (DAB)	
	PPBES Execution			Process
	Administrative Control of Funds			Process
	Financial Management Systems			Systems
	Financial Reporting			Documents
	Business Practice Improvement			Process
Materiel System Research, Development & Acquisition Managment				
	Army Organization and Management			
			Army Acquisition Executive (AAE)	Process
			DA System Coordinator	System
			PEO	System
	Materiel Requirements Determination Process			Process
	Materiel Systems Acquisition Management Process			Process
	Acquisition Phases and Milestones			Process
	Acquisition Documentation			Documents
	Acquisition Oversight and Review Process			Process
			ASARC	Process
			MAISRC	Process
	Testing and Evaluation			Process
	Integrated Logistics Support			Process
	MANPRINT			Process
	Acquisition Streamlining			Process
		Horizontal Technology Integration (HTI)		Strategy
	Acquisition Resources Management			Process
	Acquisition Reform			Process
		Army XXI Reinvention Centers		
		Fast Track		Process
Materiel System - Logistics Policy and Procedures				
	Logistics Tasks and Roles			Process
	Missions, Organization, and Management Functions			Process
			Logistics Integration Agency (LIA)	
			Army Materiel Systems Analysis Activity	
	Standards Systems			
		MILSTRIP		System
		UMMIPS		System
		MILSTAMP		System
		MILSTEP		System
		DSS		System
		DSS-ALOC		System
		DAAS		Activity
		CBS-X		System
		LIF		Document
		SAAS		System
		SAMS		System
		SARSS-1		System
		ULLS		System
		AFMIS		System
		SPBS-R		System
		DS4		System
		SAILS		System
		DAMMS-R		System
		TOPS		System
	Funding			Process
	Security Assistance			Process
Military Personnel				
	Military Personnel Management System			System
			Manpower vs Personnel Mgt	Systems
			Total Army Personnel Data Base	
			SIDPERS	System
			PMAD	Document
			MILPER functions	Process
			MILPER Multifunctional Programs	Process
	Procurement System			System
	Distribution and Assignment			System
	Professional Development and Motivation			Process
	Transition and Separation			Process
	Army Equal Opportunity			
Civilian Personnel Management				
	DA Civilians			
	Civilian Manpower Management System			System
	Federal/Army Organization for Civilian Personnel			
	Civilian Personnel Management Regionalization			
	Civilian Personnel Systems Modernization			
	Personnel Management at Installation/Activity Level			
	Senior Executive Service			
	Army Civilian Training, Education, and Dev System (ACTEDS)			
	Mobilization Planning			
	Civilian Intelligence Personnel Management System			
Training				
	Army Training Overview			
		Combined Army Training Strategy		Process
		Army Distance Learning Plan		Document
			Army Distance Learning	System
	Policy, Requirements and Resources System			System
		Organization Involvement		Process
		Training Program Evaluation Group		Process
		Army Training Requirements and Resourcing System		Process
			Development of Individual Training Requirements	Process
			Resourcing Required Courses (SMDR)	Process
			ARPRINT	Document
			Mobilization Planning System (MPS)	System
	Training Development System			
		Systems Approach to Training		Process
		Structure Manning Decision Review (SMDR)		Process
	Training in Schools System			
		Enlisted Initial Entry Training		Process
		Noncommissioned Officer Education System		Process
		Reserve Component NCOES		Process
		Warrant Officer Training		Process
		Commissioned Officer Training		Process
		Officer Training		Process
		Mobilization Training Base		Process
	System of Training in Units			
		Organization for Training in Units		Process
		Training of Soldiers and Leaders in Units		Process
			Soldiers Manual	Document
		Noncommissioned Officer Development Program		Process
		Collective Training		Process
		Training Safety		Process
		Army Training and Evaluation Program		Process
			ARTEP Mission Training Plans and Drills	Process
			Drill Training	Process
		Combat Training Center Program		Process
		Training Management		Process
			Standard Army Training System	Process
		Army Modernization Training		Process
		Security Assistance Training Program		Process
		System Training Plan		Document
	Training Support System			Process
		Training Support Process		Process
		Simulators and Simulations		Systems
		Tactical Engagement Simulation Training System		System
		New Training Technology		System
		Army Master Range Plan		Document
		Army Range and Training Land Program		Process
		Integrated Training Area Management		Process
		Training Ammunition Management System		Process
		Automated Instructional Management System		System
	Training Issues			Process
Information Management				
	Chief Information Officer			
	Army Enterprise Strategy			Process
		AES Vision		Process
		Enterprise Implementation Plan		Document
	Architecture			
		Army Operational Architecture		Document
		Army Systems Architecture		Document
		Army Technical Architecture		Document
	Business Process Reengineering			Process
	Organization and Resources for Information Management			Process
	Information Security (INFOSEC)			Process
	Army Records Management			Process
Installation Command and Management				
	MACOM Installation Management Organization			Process
	Key Installation Positions			Process
	Installation Management Professional Development			Process
	Installation Strategy			Document
	Major Installation Management Initiatives and Programs			Process
Intelligence Organization and Management				
	Intelligence			Product
	Intelligence Products			Process
	Intelligence Disciplines			Process
	Other Uses of Intelligence			Process
	National Foreign Intelligence System			Process
	Management of Intelligence			Process
	Defense Intelligence			Process
	Army Intelligence			Process
		TIARA Programs		Process
		Intelligence Data Handling System		System
		Civilian Intelligence Pesonnel Management System		System
		Army Intelligence Electronic Warfare master Plan		Document
		IEW Modernization Plan		Document
		Information Operations		Process
Army Health Services Support System				
	Medical Readiness			Process
	Mission			Document
	Army Medical Department System			Process
	Command and Management			Process
Legal Affairs Management				
	Administrative and Civil Law			Process
		Standards of Conduct		Process
		Federal Labor Relations		Process
	Military Justice			Process
	International/Operational Law			Process
	Contract/Fiscal Law			Process
	Ethics			Process
Civil Functions				
	Leadership and Organization			Document
	Civil Works Program			Process
	Support to Other Government Agencies			Process
	Panama Canal Commission and Treaty			Document
		Panama Canal Treaty Implementation Plan		Document
	National Cemetaries			Process
	Engineer Overseas Activtiies to Support US Foreign Policy			Process
	Support to CINCs			Process
Public Affairs				
	Army Public Affairs Mission			Document
	Army Public Affairs Strategic Goal			Document
	Public Affairs Vision			Document
	Public Affairs Doctrine and Parameters			Doctrine
	Public Affairs Operations			Process
	Command Information			Process
	Community Relations			Process
	Army Public Affairs Organizations			
	Joint/Combined Public Affairs Organizations			
	Media Organizations			

Appendix D
PKI Action Plan

This appendix will present an action plan for the Army's use as it implements a public key infrastructure. This appendix is expected to be completed by the end of 4QFY99.

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Appendix E
Smart Card Action Plan

This appendix will present an action plan for the Army's use as it implements Smart Cards. This appendix is expected to be completed by the end of 1QFY00.

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