

5 FAM 620 INFORMATION TECHNOLOGY (IT) PROJECT MANAGEMENT

*(CT:IM-92; 08-01-2007)
(Office of Origin: IRM/BPC/PRG)*

5 FAM 621 GENERAL

(CT:IM-80; 11-13-2006)

- a. The strategic importance of Information Technology (IT) to the mission of the State Department and the U.S. Government is increasing, and projects are becoming more complex. This means that the IT project manager's role must now shift from a peripheral function to that of a more demanding career discipline. The Office of Management and Budget (OMB) requires the Department to use qualified project managers to manage its major IT projects in accordance with the Federal Chief Information Officer (CIO) Council's guidance to ensure the successful achievement of cost, schedule, and performance goals (see OMB Circular A-11, 2005). In response the Department expanded its IT Project Management Program to include qualifications and continuing education requirements for managers responsible for managing both major and non-major IT projects.
- b. All IT project managers of major and non-major IT projects must be qualified in accordance with the Department's IT Project Manager Program guidance (see Department IT Project Management Support guidance at the E-Gov PMO Web site).
- c. Project managers must be identified as a project manager responsible for a major or non-major IT project.
- d. The E-Government Program Management Office (E-Gov PMO) determines the classification of IT projects as major or non-major in accordance with OMB Circular A-11.
- e. Project managers must respond to reporting requirements (i.e., business case, control reviews) for major and non-major IT projects administered by the E-Gov PMO.
- f. Project managers must complete the Department approved Project

Management course training as a required element towards project manager validation.

- g. All IT projects must be defined by a project plan that includes the name of the IT project manager.
- h. The preferred methodology in the Department for IT projects is Managing State Projects (MSP) for managing the development of IT projects. Project managers must prepare a strong business case for projects as the basis for mission specific results (see the Capital Planning and Investment Control Program Guide at the E-GovPMO Web site).
- i. Project managers must define performance measures with their project plans (see 5 FAM 670).
- j. Project managers should not begin a project without the documented approval of a comprehensive Project Plan, which must be kept up to date by the project manager throughout the project cycle. (See 5 FAH-5 H-213).
- k. Prior to beginning any project, project managers must complete a "requirements analysis" document that clearly defines and sets forth all the requirements approved by management for development, modification, or integration prior to beginning any project.
- l. Project managers must apply earned value management (EVM). (See 5 FAM 680.)

5 FAM 622 IT PROJECT MANAGEMENT PROGRAM

(CT:IM-80; 11-13-2006)

- a. Effective October 1, 2005, the Department established the IT Project Manager Program, which outlines the qualifications and continuing education requirements for project managers responsible for managing both major and non-major IT projects.
- b. The IT Project Manager Program ensures the continuing development of IT project manager proficiency with a qualifications baseline, followed by continuing education requirements and professional development.
- c. Project managers must meet the requirements established in the Project Management Program. Refer to the Department's IT Project Manager Program guidelines to ensure that you are meeting the established

requirement. (See Department IT Project Management Support guidance at the E-GovPMO Web site.)

5 FAM 622.1 Project Categories

(CT:IM-80; 11-13-2006)

The Department IT projects are classified into two categories, major and non-major, and are categorized below based on the following IT project management standards:

- (1) Major IT projects are evaluated through the OMB A-11, Exhibit 300 and require review by the E-Gov Program Board (PB) based on specific standards which are categorized according to three project levels as follows:
 - (a) Level Three: Large, inter-Governmental or Government-wide, complex, high risk IT project;
 - (b) Level Two: Cross-cutting project or agency-wide system integration project across the Department;
 - (c) Level One: Project within a division, bureau, or agency; and
- (2) Non-Major IT Projects involve projects that do not require an Exhibit 300, but still required an E-Gov PB review and the estimated cost is \$500,000 (excluding capital expenditures) or greater and/or exceeds one year in duration to complete.

5 FAM 622.2 Project Manager Training Requirements

(CT:IM-80; 11-13-2006)

- a. Under the IT Project Management Program, project managers must meet the four basic requirements for managing major IT projects and two requirements for non-major IT projects. These requirements are:
 - (1) Acceptable levels of experience, education, and training;
 - (2) Successful completion of the (MSP) course;
 - (3) Successful completion of the Department's mandatory leadership training program; and
 - (4) Successful completion of continuing education requirements.

- b. See IT Project Manager Program Requirements Matrix at the E-Gov PMO Web site or at the Information Resources Management Web site.
- c. Check with e-Gov PMO web site for further details on more training opportunities.

5 FAM 622.3 Professional Development Program

(CT:IM-80; 11-13-2006)

- a. Project managers currently managing IT projects must adhere to the Department's IT Project Management Program, which includes a continuing education requirement that focuses on core aspects of project management for each of the three project categories (see IT Project Manager Program guidance at the E-Gov PMO Web site).
- b. Project management training may be classroom, distance learning or blended learning (combination of classroom and distance learning) as made available through the Department's Foreign Service Institute (FSI) Fastrac distance learning courses. FSI courses are aligned with the industry's leading "Project Management Body of Knowledge" (PMBOOK) project management curriculum.
- c. Non-FSI training costs must be paid using funds from the sponsoring Bureau requiring the training.

5 FAM 622.4 Project Manager Program Evaluation

(CT:IM-80; 11-13-2006)

- a. The IT Project Management Program must be evaluated annually to ensure that program requirements are met and remain appropriate based upon desired competency and skill proficiency ranges (see IT Project Management Program guidance at the E-Gov PMO Web site). The reporting process must include:
 - (1) The number of IT project managers that meet established requirements;
 - (2) A status for those who are becoming proficient based on the qualification criteria; and
 - (3) The number of project managers requesting waivers from established requirements based on prior years of successfully managed projects. (See IT Project Management Program guidance at the E-Gov PMO Web site.)

- b. Performance measures must be identified to ensure that program requirements are met and IT project manager competency skill levels are in accordance with 5 FAM 670.

5 FAM 623 BUSINESS CASE

(CT:IM-80; 11-13-2006)

- a. Provide a business case, as is required in OMB A-11, Exhibit 300 as part of the budget request process.
- b. The business case submitted with the budget request process must:
 - (1) Justify why the program or project is necessary;
 - (2) Demonstrate how the program or project will add value in meeting the Department's strategic and organizational goals and objectives; and
 - (3) Show how the program or project is the most cost-effective approach.
- c. The business case must be aligned to the agency's mission statements, goals, objectives, and performance plans.
- d. Project managers must develop strong business cases that link projects to the organization's and bureau mission, goals and objectives. Business cases must clearly justify the business need based on defined business requirements, identification of the funds to be spent and the timeframe for accomplishing mission critical results. (See the E-GovPMO Web site.)

5 FAM 624 PERFORMANCE MEASURES

(CT:IM-80; 11-13-2006)

- a. A project manager must define an IT project's performance measures within the project plan. Performance measures must clearly:
 - (1) Define a project's milestones and goals in terms that can be measurable and attainable;
 - (2) Measure how the project achieved the project's milestones, objectives, and goals (see 5 FAM 670); and
 - (3) Show how the project manager completed the milestones and goals

documented in the project plan.

- b. For performance measures to be meaningful and effective, project managers must:
 - (1) Establish baselines against which to measure progress;
 - (2) Gather relevant data throughout the year; and
 - (3) Track project performance and analyze and report the results of their analysis through the Capital Planning and Investment Control (CPIC) process.
- c. Project managers should select performance measures that:
 - (1) Show progress or the lack of progress towards a project's milestones and goals, and the Department's mission;
 - (2) Yield results for business, customer, and processes; and
 - (3) Demonstrate a measurable improvement in technology.
- d. Performance measures must work toward ensuring:
 - (1) Effective system or product delivery;
 - (2) Efficient program administration; or
 - (3) A reduction of burden, including information collection, imposed on the public or the internal user.

NOTE: See 2 FAM 1160 for a discussion of the Department's information collection program, including responsibilities of Department offices.

5 FAM 625 PROJECT TYPES

(CT:IM-80; 11-13-2006)

- a. A project type is vital to accomplishing the business need when managing projects. Project managers must select the appropriate project type at the beginning of the project cycle, where the definition of the problem is analyzed.
- b. A project type contains a pattern of characteristics for comparison purposes. Project types are important in helping to accomplish the following:

- (1) Identify the characteristics of a specific project;
- (2) Understand the risks associated with certain types of projects; and
- (3) Provide information on how to plan, tailor, and manage a specific project.

c. The project types listed below represent the types of projects undertaken throughout CPIC process.

5 FAM 625.1 Mission Systems

(CT:IM-80; 11-13-2006)

Mission systems directly support a business process associated with the mission of the organization, and involve the collection, processing, maintenance, transmission, and dissemination of information that supports the organization's mission.

5 FAM 625.2 Business Systems

(CT:IM-80; 11-13-2006)

Business systems directly or indirectly support a program service or management of resources, such as human resource and financial management.

5 FAM 625.3 IT Infrastructure

(CT:IM-80; 11-13-2006)

IT Infrastructure consists of the hardware and software necessary to support the operation of the mission and business systems and involves components that include network-related hardware such as communications, utilities, operating system software, telecommunications, and services.

5 FAM 625.4 IT Services

(CT:IM-80; 11-13-2006)

IT services encompass special IT-related services outside the scope of a typical mission or business system project, such as IT investment management support or help desk services.

5 FAM 625.5 General Office Automation

(CT:IM-80; 11-13-2006)

General Office Automation includes hardware, software, and telecommunications equipment that provide support for office functions (i.e., word processing, email, voicemail, scheduling, spreadsheet, and Power Point presentation) that do not directly support one of the other IT project types.

5 FAM 625.6 Web Site Developments and Maintenance

(CT:IM-80; 11-13-2006)

Web site development projects create and maintain Web sites for the Internet, Department intranets, and Secret Internet Protocol Router Network (SIPRNet). Design and maintenance efforts center on meeting the statutory requirements of Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d) and the needs of stakeholders to provide information and content to a specified audience. (See 5 FAH-8 H-200.)

5 FAM 626 PROJECT CYCLE

(CT:IM-80; 11-13-2006)

- a. By using the project cycle, project managers can establish project goals, provide direction, and encourages teamwork more effectively. A project cycle consists of periods, phases, and activities. Regardless of the type or development model used, the following are common to any project:
 - (1) Benefit and/or cost and requirements analyses;
 - (2) Formal review and approval procedures;
 - (3) Schedule of activities;
 - (4) Standard documentation;
 - (5) Quality assurance; and
 - (6) Configuration management.
- b. MSP cycle consists of three distinct periods: study, acquisition, and operations, explained in below paragraphs. The periods, phases, and activities within a project cycle can be tailored depending upon the

project's type, size, and complexity (see 5 FAM 625).

- c. Project managers must be familiar with Public Law 106-229 (E-Sign) and how it relates to the project life cycle (see 4 FAM 050).

5 FAM 626.1 Study Period

(CT:IM-80; 11-13-2006)

- a. Major activities occur within the study period. Define **what** of the particular requirement, not the **how**, which is defined in the design phase. Study Period activities include, but are not limited to, the following:
 - (1) Define business, user, and system requirements. Business requirements must be linked to the project's mission and Bureau of Information Resource Management (IRM) goals. Business requirements should not be expressed in terms of solutions, but statements of need for specific functions (e.g., output from the system). User requirements are expressed as attributes that describe the features and capabilities needed to fit the system with the work environment and business process. Examples include usability, office environment versus a manufacturing environment, and location (domestic versus abroad). System requirements can be expressed as attributes (i.e., system function, and usage), constraints (e.g., interfaces, communication protocols), regulatory requirements, and/or specifications (i.e., performance characteristics, interfaces and operations);
 - (2) Identify risks and assess technical feasibility;
 - (3) Ensure alignment with the Joint Enterprise Architecture (JEA) by identifying what business requirements are being satisfied;
 - (4) Prepare a benefit and/or cost analysis (BCA). Any project that requires approval by the E-Gov PB through the Capital Planning and Investment Control (CPIC) process must be accompanied by a BCA (see 5 FAM 660);
 - (5) Prepare a project plan for approval by executive management. Any IT project that requires approval by the E-Gov PB through the Capital Planning and Investment Control (CPIC) process and must be accompanied by a project plan. All project plans must include objectives and goals, performance measures, activities or tasks to be completed resources (i.e., funds and personnel), name of project manager, roles and responsibilities, and schedule, including

milestones (i.e., control gates), begin date and completion date (see 5 FAM 616); and

- (6) All new projects must be submitted with required documentation through the Pre-Select process before they are approved. During the PreSelect process, the Enterprise Architecture and the IT Strategic Planning teams review each project submission to ensure the business need for the project and ensure that it does not duplicate existing projects, systems, and capabilities (see CPIC Guide at the E-Gov PMO Web site); and
 - (7) Conduct necessary reviews.
- b. Executive management, through the E-Gov process, decides whether or not to commit resources based on the requirement. How the requirement is defined will shape the analyses and decisions of the feasibility study (if appropriate) and subsequent phases of the life cycle. Management also determines whether or not staff and/or other resources will be devoted to defining and evaluating alternative ways to respond to the identified requirement.
 - c. During execution of the project plan, the project manager must conduct reviews (i.e., control gates/milestones) to ensure that schedules and budgets are being met, work is satisfactorily completed, and problems are addressed as they arise and promptly resolved.

5 FAM 626.2 Acquisition Period

(CT:IM-80; 11-13-2006)

- a. The acquisition period encompasses the source selection and system implementation phases. Configuration management of all hardware and software items (including documentation) must be in place. Major activities are as follows:
 - (1) Develop requirement document(s);
 - (2) Prepare request for contract proposals;
 - (3) Include acquisition planning and market research data;
 - (4) Negotiate contracts;
 - (5) Develop preliminary and detailed system designs assembling system items;

- (6) Conduct quality assurance;
 - (7) Prepare system for shipment or installation;
 - (8) Audit contract deliverables; and
 - (9) Conduct necessary reviews.
- b. Project managers must first consider the use of commercial off-the-shelf software (COTS) and Government off-the-shelf software (GOTS) during the acquisition period to eliminate or significantly reduce the need for costly and time-consuming new development efforts.

5 FAM 626.3 Operations Period

(CT:IM-80; 11-13-2006)

- a. The operations period encompasses the deployment, operations and maintenance, and deactivation (system retirement) phases. Some major activities are:
- (1) Installation of a system;
 - (2) System or product verification and validation;
 - (3) On-site training;
 - (4) Final review of documentation;
 - (5) Conducting reviews as necessary;
 - (6) System operation and maintenance; and
 - (7) Retirement of a system or product.
- b. The decision to retire an IT system must be supported with a benefit and/or cost analysis and should be approved by the system sponsor (see 5 FAM 660). The manager assigned to implement the retirement prepares a plan to remove active support by the operation and maintenance organizations. The plan will include the following:
- (1) Stopping full or partial support after a certain period of time;
 - (2) Archiving software products and associated documentation;
 - (3) Responsibility for any future residual support issues;
 - (4) Transitioning to the new system, if applicable; and

- (5) Providing accessibility for archiving copies of data.
- c. The project manager must notify users of the retirement plan and activities as follows:
 - (1) Describe replacement or upgrade with its date of availability;
 - (2) Explain why the product(s) or function is no longer supported; and
 - (3) Describe other support options available, since support has been removed.
- d. The project manager should conduct parallel operations of the retirement and new software products, when necessary.
- e. When the scheduled retirement date arrives, the project manager must notify all concerned and archive all associated development documentation, logs, and code in accordance with records disposition schedules (see 5 FAM 430). These schedules are established by the Department's Records Management Office (A/ISS/IPS) and approved by the National Archives and Records Administration (NARA). Data used by or associated with the retired system will be made accessible in accordance with Department security and privacy regulations.

5 FAM 627 PROJECT TAILORING

(CT:IM-80; 11-13-2006)

- a. Project managers must tailor the project based on type, unique characteristics, and complexity factors (i.e., size, costs, and schedule constraints).
- b. Project managers should eliminate tasks and data that add unnecessary costs or that do not add value to the activity or product. Projects may be tailored as follows:
 - (1) Delete unnecessary phases, tasks, control gates, and documentation;
 - (2) Alter phases to more explicitly reflect the application and interdependencies of the task to be performed;
 - (3) Ensure phases consist of tasks that need to be completed before control gates are executed; and
 - (4) Add tasks, control gates, and documentation as needed.

- c. Project managers should use those periods, phases, activities and/or products, and control gates that will establish a logical sequence for the development strategy or implementation to yield successful results.

5 FAM 628 SYSTEM PRODUCT ASSURANCE

(CT:IM-29; 02-04-2000)

- a. Project managers must follow Department product assurance procedures to ensure that project deliverables for IT systems development meet the Department's standards for data management (DM), quality assurance (QA), and configuration management (CM) (see 5 FAH-5).
- b. Project managers must ensure that all IT systems development, modification, and integration projects are implemented with integrity and timeliness.