U.S. Department of Transportation

DOT Enterprise Program Management Review (EPMR) Framework

June 2016

Table of Contents

1 Purpose 5

2 Goals 5

3 Scope 5

4 Applicability 6

5 EPMR Methodology 6

5.1 EPMR Standards 6

5.2 EPMR Requirements 7

5.3 EPMR Alignment 7

5.4 Approach 8

5.4.1 Create 8

5.4.2 Review 9

5.4.3 Approve 9

6 EPMR Framework Overview 9

6.1 Major Components 9

6.1.1 Phase Overview 9

6.1.2 Stage Gate Reviews 9

6.1.3 Agile Software Development Methodology 11

7 EPMR Framework 12

7.1 Business Need Phase 12

7.1.1 Business Need Activities 13

7.1.2 Business Need Stage Gate Review 13

7.2 Vision Phase 13

7.2.1 Vision Activities 13

7.2.2 Vision Stage Gate Review 14

7.3 Sprint Cycle Phase 14

7.3.1 Sprint Cycle Activities 14

7.3.2 Sprint Cycle Stage Gate Review 15

7.4 Release Phase 15

7.4.1 Release Activities 16

7.4.2 Release Stage Gate Review 16

7.5 Operations and Maintenance Phase 16
7.5.1 Operations and Maintenance Activities 16
7.5.2 Operations and Maintenance Stage Gate Review 16
7.6 Disposition Phase 16
7.6.1 Disposition Activities 16
7.6.2 Disposition Stage Gate Review 17
7.7 EPMR Operations 17
7.7.1 Tailoring 17
7.7.2 Reporting and Monitoring 17
7.7.3 Periodic Reviews 18
8 Responsibilities 18
8.1 DOT Chief Information Officer (CIO) 18
8.2 DOT Enterprise Program Management Board (EPMB) 18
8.3 DOT IT Investment Review Board (IRB) 18
8.4 OA Chief Information Officers (CIOs) 18
8.5 Stage Gate Authority 19
8.6 Business Owner 19
8.7 Program Manager (PM) 19
8.8 Integrated Project Team (IPT) 19
8.9 Critical Partners 20
9 Legislative Background and Related Guidance 20
Appendix A - Glossary 21
Appendix B: Phase/Stage Gate Matrix (Agile model) 25
Appendix C: Phase/Stage Gate Matrix (Waterfall model) 29
Appendix D: Deliverables by Phase (Waterfall model) 33
Appendix E: Stage Gate Review Decision Memo 35

Table of Figures

Figure 1: EPMR Alignment with Departmental Functions 8
Figure 2: Stage Gate Review Process 10
Figure 3: EPMR Alignment with Agile Methodology 12

Table of Tables

Table 1: Glossary 24
Table 2: Phase/Stage Gate Matrix (Agile model) 28
Table 3: Phase/Stage Gate Matrix (Waterfall model) 32
Table 4: Deliverables by Phase (Waterfall model) 34

Version Control

This document is the culmination of a collaborative effort by the Department of Transportation (DOT) Federal Information Technology Acquisition Reform Act (FITARA) Workgroup, consisting of representatives from the entire department. This document will go through a formal Chief Information Officer (CIO) review, approval process, and sign off for each new release prior to Agency-wide distribution. This document is intended to be a living document with periodic review and updates that are under the control of the Office of the CIO (OCIO) Information Technology (IT) Governance Office. Versions and descriptions of change will be recorded in the table below.

Version	Date	Description
1.0	June 30, 2016	Initial document

1 Purpose

The purpose of this document is to describe the Department of Transportation (DOT) Enterprise Program Management Review (EPMR) Framework, hereafter referred to as EPMR, as the Department-wide standard Information Technology (IT) investment management methodology for ensuring that DOT investments achieve consistently successful outcomes that maximize alignment with business needs and meet approved cost, schedule, and performance milestones.

EPMR serves as the authoritative framework used to promote the integrated management oversight and life cycle review among the DOT stakeholder communities responsible for initiating, reviewing, approving, and monitoring DOT IT investments. EPMR provides users a common and executable understanding of program management processes and activities to navigate for the efficient and effective procurement and sustainment of information technologies. In addition, EPMR aids in the implementation of the Federal Information Technology Acquisition Reform Act's (FITARA) new accountability and oversight responsibilities that have been designated for the Chief Information Officer (CIO) and Senior Agency Official (CXO) communities.

EPMR supersedes DOT's Integrated Program Planning and Management, commonly referred to as IPPM.

2 Goals

DOT established the following goals for EPMR implementation:

- Provide a coherent and effective methodology to guide IT investment management and ensure that enterprise needs are met
- Promote the effective use of investment management principles and industry best practices to consistently deliver IT capabilities that provide maximum support to the Department's business needs within approved cost and schedule baselines
- Enhance the IT governance process by effectively integrating IT investment planning, execution, management, and oversight
- Ensure Critical Partner and stakeholder reviews are performed throughout the life cycle
- Ensure timely, effective, multi-disciplinary reviews of IT investments for assessment within the context of the enterprise-wide IT portfolio

3 Scope

EPMR applies to the management of all IT, including:

- Core utilities and/or cloud services, including: telephony, network, wireless contracts, server, laptop/desktop, remote access, storage, IT security, back-up, and email
- Hardware and/or software licensing or maintenance
- Embedded computing, industrial control systems, and "internet of things" technologies, including: monitoring and control systems for building automation and energy management, physical access control systems, physical security systems, and smart devices or sensors

- Services which consume, produce, and/or publish conventional, web, or mobile applications, data, or information products
- Mission and non-mission IT contract services in support of the above

4 Applicability

EPMR applies to DOT and its Operating Administrations (OAs). Organizations conducting business for and on behalf of the Department through contractual relationships shall utilize EPMR or a similar methodology. For Federal Aviation Administration (FAA), this plan applies only to the extent that such requirements and recommendations are consistent with the language contained in the FAA authorization, FAA General Procurement Authority, and FAA Air Traffic Control Modernization Reviews[1].

All organizations collecting or maintaining information or using or operating information systems on behalf of the Department are also subject to the stipulations of EPMR. EPMR will be implemented as appropriate in association with applicable Federal Acquisition Regulation (FAR), Transportation Acquisition Regulation (TAR), and Transportation Acquisition Manual (TAM) rules that are promulgated on this subject.

EPMR applies to all DOT IT Investments throughout their life cycle, regardless of funding source, whether owned and operated by DOT or operated on behalf of DOT. EPMR shall be applied in conjunction with all DOT CIO policies, which include but are not limited to: Enterprise Architecture, Capital Planning and Investment Control (CPIC), Security, Privacy, Records Management, Electronic Information and Accessibility, and the DOT Earned Value Management.

OAs shall use EPMR or may create a more restrictive policy, but not one that is less restrictive or less compliant with all applicable requirements.

5 EPMR Methodology

EPMR is organized by the principles of program management as outlined below.

5.1 EPMR Standards

EPMR instills investment management maturity by providing consistent and repeatable processes for managing DOT IT investments through the incorporation of the following standards:

- A standard approach for planning, managing, and governing each IT investment over its entire life cycle
- Six standard life cycle phases with associated deliverables

[1] 49 U.S.C. §§ 106, 40110, 40121

- Stage Gate Reviews to formally compare investment progress against expected phase outcomes prior to advancing to the next life cycle phase
- Incremental/modular development as a standard approach to development

5.2 EPMR Requirements

IT investments must be structured to meet the following requirements:

- Use a life cycle approach to investment management in order to establish accountability and transparency
- Use incremental development or justify a varied approach
    - Incremental development must adhere to modular development principles.
    - EPMR stage gate reviews must be performed for each increment.
- Produce usable functionality at intervals of no more than six months regardless of whether the investment uses modular development principles
- Follow clearly established requirements to meet cost, schedule, and performance baselines
- Report on developmental and operational performance metrics throughout the EPMR life cycle
- Be responsive to variances from established baselines to reduce the risk of cost overruns, schedule delays, and scope creep
- Show value through the improvement of production timelines, operational support, and the ability to re-use processes and products across multiple investments
- Have an Acquisition Plan approved by the DOT CIO prior to contract award, and approved by the Acquisition Strategy Review Board (ASRB), if applicable

Business Owners are required to:

- Actively participate throughout the IT investment life cycle to ensure the investment remains focused on high-priority business needs
- Improve the competitiveness of IT investments in the budget process through improved performance management and alignment with the organization mission

5.3 EPMR Alignment

The EPMR is aligned with critical DOT business processes to effectively integrate IT investment planning, execution, management, and oversight. The intersection points are shown in Figure 1.

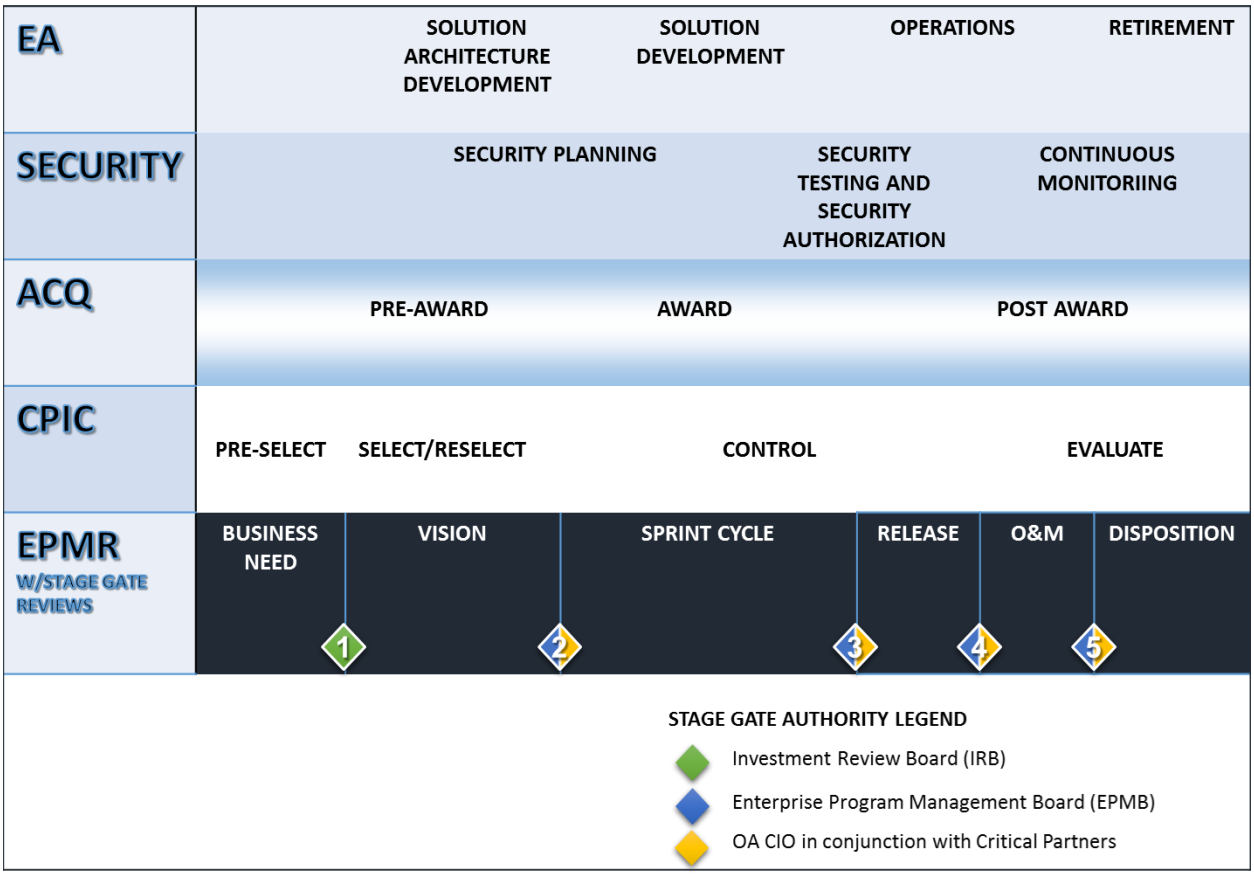

Figure 1: EPMR Alignment with Departmental Functions

5.4 Approach

This subsection describes the basic approach used in the EPMR framework. All framework activities fall into three categories: create, review, and approve.

5.4.1 Create

The Program Manager (PM) is responsible and accountable for planning and conducting phase activities within established investment cost, schedule, and performance baselines.

The primary means for planning, executing, and maintaining accountability for investment activities is the collection of managerial documents defined as the Project Management Plan. DOT uses the plan as the principal tool for organizing and managing IT investments throughout the EPMR framework. The plan establishes the baselines and benchmark activities used to track and report investment performance. PMs must keep the plan current by updating, as required, its subordinate-level plans that reflect changes and refinements during the life cycle.

5.4.2 Review

Critical Partners represent the Department's key functional areas. They have the primary responsibility to review progress of IT investments at specified Stage Gate Reviews to ensure that the investment meets the Critical Partners' respective requirements. Critical Partners are responsible for evaluating the completeness, accuracy, and adequacy of phase deliverables before advancement to the next phase. Critical Partners also provide recommendations and identify issues and risks during the Stage Gate Review process.

5.4.3 Approve

The DOT IT Investment Review Board (IRB) is ultimately responsible for selecting investments for the DOT IT Investment Portfolio.

The DOT IT Enterprise Program Management Board (EPMB) is responsible for conducting Stage Gate Reviews and approving Stage Gate completions. The EPMB establishes a minimum set of core activities and deliverables for all IT investments, as well as tools and templates to assist with investment activities.

The EPMB can delegate Stage Gate Reviews to OA CIOs, in conjunction with Critical Partner reviews. OA CIOs shall use EPMR guidelines when conducting Stage Gate reviews. OA CIOs may create a more restrictive policy than EPMR, but not one that is less restrictive or less compliant with applicable requirements.

6 EPMR Framework Overview

6.1 Major Components

EPMR consists of phases that align with common program management touchpoints. Each phase has an associated Stage Gate Review.

6.1.1 Phase Overview

EPMR consists of six life cycle phases. There are defined activities, responsibilities, reviews, and deliverables for each phase. Stage Gate reviews are conducted to ensure that the investment's management quality, soundness, and technical feasibility remain adequate and that the investment is ready to move forward to the next phase. EPMR provides guidance to PMs, Business Owners, IT Governance Executives, other stakeholders, and Critical Partners throughout the life of the investment.

6.1.2 Stage Gate Reviews

The Stage Gate Review ensures that defined activities, responsibilities, reviews, and deliverables have been met. No IT investment moves to the next EPMR phase without satisfactorily producing the deliverables in the current phase and passing the Stage Gate Review, except as tailored (Refer to Section 7.1.1 for additional information.) The process for conducting Stage Gate Reviews is shown in Figure 2.

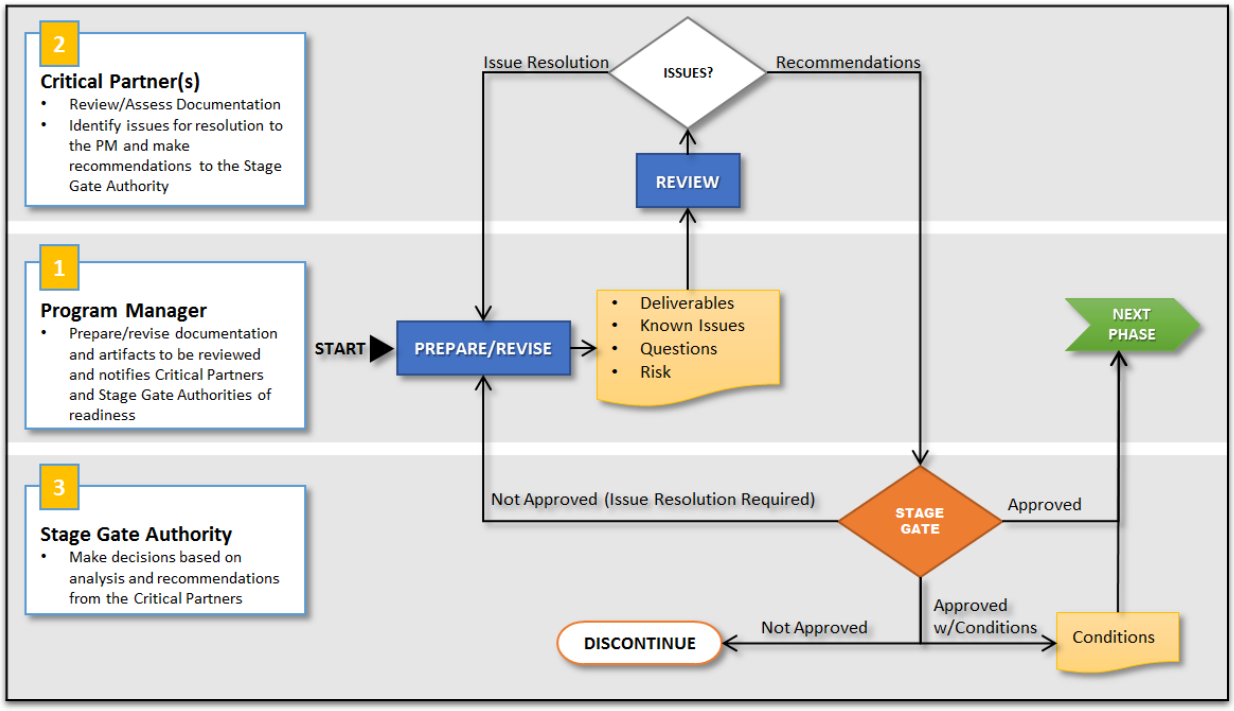

Figure 2: Stage Gate Review Process

The PM's responsibilities in the process are to:

- Determine that all deliverables and requirements are completed in order to move to the next phase
- Notify the Stage Gate Authority that the investment is ready for the phase Stage Gate Review

The Critical Partners' duties in the process are to:

- Review and assess documentation from the PM
- Identify issues and risks
- Make a recommendation for approval, approval with conditions, or disapproval to the Stage Gate Authority

The Stage Gate Review Authority will conduct Stage Gate Reviews that include formal reviews by the Business Owner, appropriate Critical Partners, and applicable stakeholders to determine if the investment should proceed to the next phase.

Based on these reviews and recommendations, the Stage Gate Authority will exercise its decision authority to:

- Approve moving the investment to the next phase;
- Conditionally approve moving to the next phase; or
- Recommend discontinuing the investment.

Approval with conditions requires that a process be established for maintaining oversight of the investment to ensure conditions are met. Issue resolution may include a TechStat before approving continuation. The Stage Gate Authority may recommend to the DOT IRB the discontinuation of any investment that fails to resolve serious issues.

6.1.3 Agile Software Development Methodology

The DOT is committed to establishing an incremental software development process that adheres to modular development principles. The Agile software development methodology, as a major component of EPMR, supports this effort. Agile is an iterative process that emphasizes flexibility and adaptation to change. The Agile methodology, in keeping with DOT policy and guidance, enables the delivery of useful functionality in increments of six months or less.

A key principle of Agile is its recognition that requirements may change and that unpredictable challenges cannot be easily resolved by traditional software development methodologies. Agile addresses these concerns through the use of cross-functional, collaborative teams. A typical, cross-functional Agile team includes the Business Owner, the technical development team, and the Program Manager. The Agile team collaboratively plans each iteration or sprint by determining the requirements to be developed during the sprint and the duration of the sprint. After a working product has been developed, it is tested and a demo is provided to the Business Owner. Each sprint produces a working product that is capable of being released to the production environment. In typical Agile methodology, each release contains one or more sprint work products. The sprint concludes with a sprint retrospective, which evaluates what went well and what can be improved. The cycle then begins again with the planning of the next sprint.

An overview of each EPMR phase, the deliverables, and the associated Stage Gate Review can be found at Appendix B: Phase/Stage Gate Matrix (Agile model). For current projects that are using the Waterfall model, Appendix B and Appendix C provide an overview of each EPMR phase, the deliverables, and the associated Stage Gate Review.

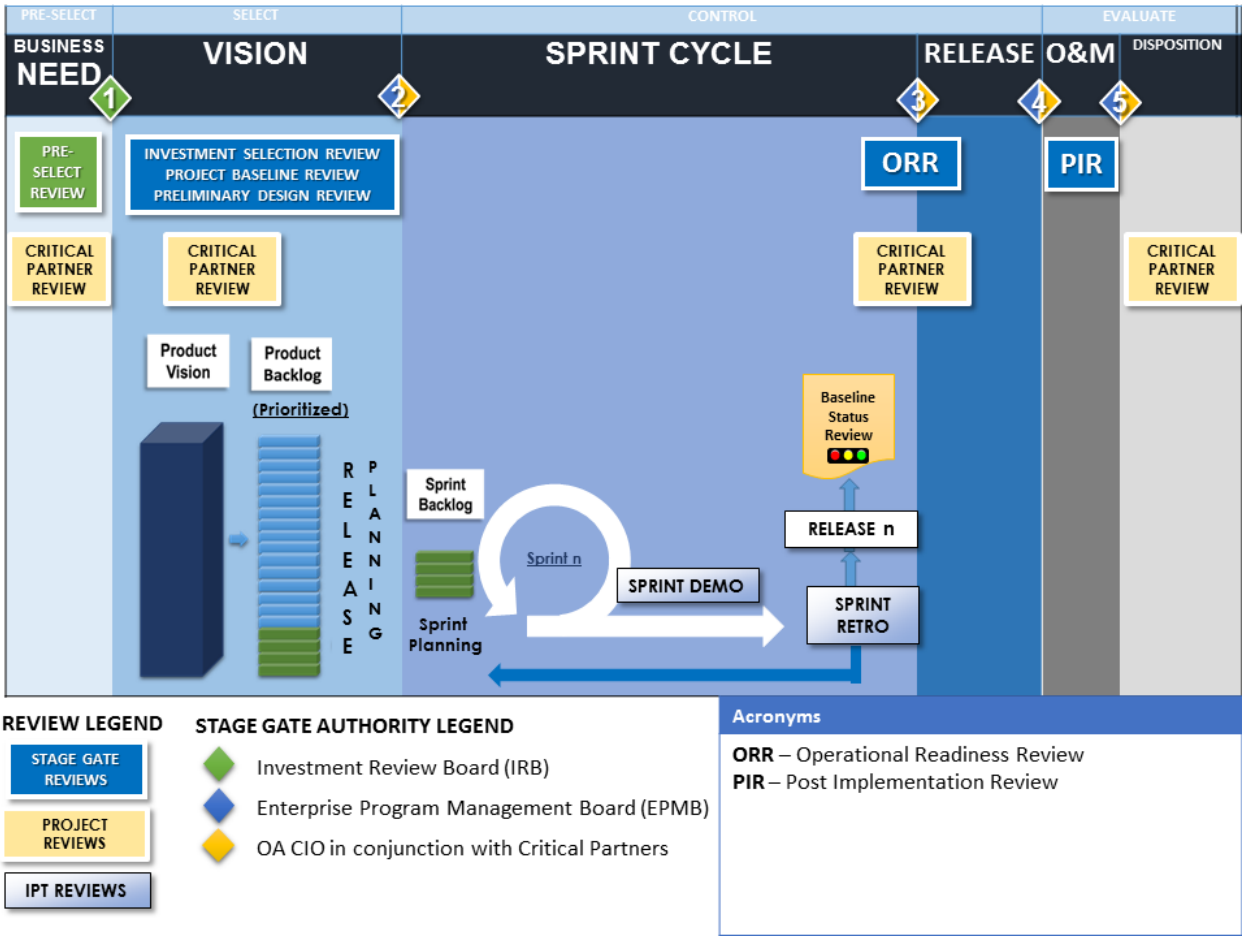

Figure 3: EPMR Alignment with Agile Methodology

7 EPMR Framework

The EPMR Framework is an integrated management oversight and life cycle review process that includes the DOT stakeholder communities responsible for initiating, reviewing, approving, and monitoring DOT IT investments. The EPMR Framework consists of six life cycle phases, each with specific activities, deliverables, and Stage Gate Reviews. The Stage Gate Reviews evaluate the completed activities and deliverables and determine if the investment is ready to proceed to the next life cycle phase.

7.1 Business Need Phase

The purpose of the Business Need Phase is to analyze and understand the scope of an identified problem, need, or gap within the Department at a high level before fully committing the Department's resources. The Business Needs Statement should clearly define the Business Owner's problem, root causes, desired outcomes and scope. The Business Needs Statement will be reviewed by Critical Partners whose recommendations will be given to the Stage Gate Authority, in this case the DOT IRB, which will decide whether it warrants further analysis and inclusion into the DOT IT Portfolio.

7.1.1 Business Need Activities

The Business Needs Phase consists of analysis activities that culminate in a Business Needs Statement. During this phase, the Business Owner completes due diligence to adequately describe the desired business capability and explain how the proposed investment aligns with Department and OA strategic goals, as well as how it fits within the DOT Portfolio. Additionally, a rough order of magnitude estimate for cost and schedule is completed, and a planned acquisition approach.

7.1.2 Business Need Stage Gate Review

The Business Need Stage Gate Review evaluates if the requested business capability is a valid need. The Business Needs Statement is created by the Business Owner and should be reviewed and approved before additional resources are committed. The Business Needs Statement is reviewed and evaluated by the Critical Partners, which include, but are not limited to, Enterprise Architecture, Security, Privacy, and Acquisition. The Critical Partners provide recommendations to the DOT IRB. The DOT IRB will make a final determination on whether the investment will be included in the DOT IT Portfolio and whether additional resources should be committed to the effort. Additionally, the IRB decides whether the Stage Gate Authority for future phases will be at the Departmental level or the OA level, based on the investment's total life cycle cost, risk and criticality to DOT as outlined in the Investment Management Process Guidance. The Departmental Stage Gate Authority is the EPMB and the OA Stage Gate Authority is the OA CIO.

7.2 Vision Phase

The purpose of the Vision Phase is to comprehensively define the business solution to ensure the investment's cost, schedule and performance are adequately documented and that the strategy is appropriate for moving the project forward.

7.2.1 Vision Activities

During this phase, rigorous analysis is conducted to establish the preferred business solution's design, strategy and baseline. The Integrated Project Team (IPT) is formed, which acts as an Agile cross-functional, collaborative team, comprised of the Business Owner, technical development team, and Program Manager. One of the primary goals of the IPT is ensuring the customer's needs are identified and satisfied. The following major deliverables and activities are completed in the Vision Phase.

Business Case: The Business Case is created by the Program Manager, in conjunction with the Business Owner. The Business Case defines the goals and objectives of the investment and includes an alternative analysis and cost benefit analysis.

Product Vision: The Product Vision describes the desired future state to be achieved by developing and deploying a product. A good vision should be simple to state and provide a coherent direction to developers.

Product Backlog: Using the high-level functionality described in the Business Case, the IPT develops the Product Backlog. The Product Backlog identifies and documents the requirements of the product to be developed. The requirements are captured in user stories and provide enough detail to be clearly understood by all members of the IPT. The requirements also need to be prioritized and sized. The Business Owner is responsible for determining the relative importance of each requirement, while the development team is responsible for determining the size or level of effort needed to develop each requirement. Once the Product Backlog has been defined and documented, the release planning can begin.

Release Plan: The IPT works collaboratively to determine the number of releases that will be required to provide the finished product, the number of sprints in each release, and the release timeline or schedule. The Release Plan captures and documents the information that serves to baseline the project's cost, schedule, and performance.

Project Process Agreement: The Project Process Agreement is used to request and document tailoring of the EPMR activities and deliverables that will be included in the project.

7.2.2 Vision Stage Gate Review

The Vision Stage Gate Review includes an Investment Selection Review, Baseline Review, and Design Review. The Investment Selection Review evaluates the preferred solution to determine its adequacy and appropriateness with respect to the business need and DOT's needs. The Baseline Review considers whether the scope, cost, and schedule have been adequately documented and if the investment management strategy is appropriate. The Design Review determines if functional and non-functional requirements have been satisfied. Also, the Project Process Agreement is evaluated to determine if the EPMR activities and deliverables have been appropriately tailored based on the specific needs of the project. The Critical Partners provide recommendations to the Vision Stage Gate Review Authority.

7.3 Sprint Cycle Phase

The purpose of the Sprint Cycle Phase is development of the product. The goal of the Sprint Cycle Phase is a product that is ready to be released to the production environment. The Sprint Cycle Phase is composed of one or more sprints and one or more releases. Each sprint includes sprint planning, product development, testing, a Sprint Demo, and a Sprint Retrospective. A release is composed of one or more sprints and may be deployed to a production or non-production environment, e.g., a test or staging environment. The Sprint Cycle Phase also includes a Baseline Status Review, which evaluates the progress of the project against the baseline.

7.3.1 Sprint Cycle Activities

A sprint is a dynamic, interactive activity that not only includes traditional development of the product, but also includes design, testing, and evaluation. The IPT works as a collaborative team in the Sprint Cycle Phase to complete these activities. As the product is developed, it is tested and evaluated. Test results that affect design and development are immediately addressed. In this way, the product is

developed incrementally with the collaboration of the entire IPT. The following deliverables and activities are completed in the Sprint Cycle Phase.

Sprint Backlog: The IPT plans each sprint, beginning with the development of the Sprint Backlog. The IPT determines the requirements from the Product Backlog that will be included in the Sprint Backlog. The Sprint Backlog captures and documents the requirements to be included in the sprint and defines the specific tasks that will be performed by the development team to satisfy the requirements. Once the Sprint Backlog has been determined, product development can begin.

Sprint Demo: At the end of each sprint, the product is demonstrated to the Business Owner. The Business Owner evaluates the product to determine if it meets requirements and fulfills the customer's need. If the Business Owner approves the product, it can be included in the next release.

Sprint Retrospective: The goal of the Sprint Retrospective is to improve the sprint process. All members of the IPT participate in the Sprint Retrospective and evaluate the performance of the sprint. The IPT's recommendations are then incorporated into future sprints.

Baseline Status Review: The Baseline Status Review evaluates the cost, schedule, and performance of the project with respect to the project's baseline. The current status of the project is documented to show its progress in relation to the baseline. The documentation must include the following, as applicable:

- Schedule changes that may cause a delay of six months or more in the project schedule
- Project cost overruns of 15 percent or more
- Significant changes to functional or non-functional requirements
- Performance issues that may affect the delivery of the product or its ability to satisfy customer needs and expectations

Significant issues identified in the Baseline Status Review may require the development of Corrective Action Plans and/or a TechStat.

7.3.2 Sprint Cycle Stage Gate Review

The Sprint Cycle Stage Gate Review determines if the product is ready to be released to the production environment. The Critical Partners participate in an Operational Readiness Review (ORR) and provide recommendations to the Sprint Cycle Stage Gate Review Authority. The Stage Gate Authority decides whether the product can be released to the production environment.

7.4 Release Phase

The purpose of the Release Phase is to deploy the product to the production environment and ensure it can be properly supported in an operations and maintenance environment.

7.4.1 Release Activities

The product is deployed to the production environment in the Release Phase. Additional activities of the Release phase include the creation of training materials and user manuals, if necessary, and the development of the Operations and Maintenance manual. Service level agreements are established, if necessary.

7.4.2 Release Stage Gate Review

The Release Stage Gate Review evaluates the documentation created to determine if the product can be properly supported by the operational support team. The Critical Partners provide their recommendations and issues. The Stage Gate Authority approves entering into the Operations and Maintenance Phase.

7.5 Operations and Maintenance Phase

The purpose of the Operations and Maintenance Phase is to ensure the continued operation of the product in the production environment.

7.5.1 Operations and Maintenance Activities

The Post Implementation Review (PIR) is conducted during the Operations and Maintenance phase. The PIR is usually performed three to six months after the product's release and evaluates if the product met the Business Owner's objectives and the project's cost, schedule, and performance baselines. The PIR is intended to produce lessons learned that can be applied to future projects.

During the Operations and Maintenance Phase, planned activities are conducted to ensure performance goals are met, the product is maintained, and risk mitigation is completed. If performance goals are not being met, activities are completed to determine whether the product remains viable or should be disposed.

7.5.2 Operations and Maintenance Stage Gate Review

The Operations and Maintenance Stage Gate Review verifies that the product is managed and supported in a robust production environment and determines whether it is still cost-effective to operate, or if it should be retired. The Critical Partners provide recommendations to the Operations and Maintenance Stage Gate Review Authority.

7.6 Disposition Phase

The purpose of the Disposition phase is to ensure the proper disposal of the investment.

7.6.1 Disposition Activities

The business product is retired and the life cycle of the investment is completed. The Critical Partners should be consulted during the Disposition phase in order to identify potential concerns and issues.

7.6.2 Disposition Stage Gate Review

The Disposition Stage Gate Review evaluates if the investment has been properly disposed. This review is completed as part of CPIC activities in conjunction with Critical Partners.

7.7 EPMR Operations

7.7.1 Tailoring

Tailoring of the EPMR may be approved based on the specific needs of the project, such as investment size, risk, scope of influence, or development methodology.

The PM shall submit a request for tailoring that includes the justification and identifies the specific elements of the framework to be consolidated or supplemented, including the following:

- Consider options including waiving particular life cycle phases, activities, deliverables or reviews
- Consider cost, risk, schedule, acquisition strategy, and development methodology in determining the tailoring strategy
- Recognize that some investments require less documentation to maintain appropriate oversight and control

PMs may propose a tailoring plan that excludes any of the EPMR requirements, with the exception of the following fundamental elements:

- Identifying the business need
- Documenting correct, clear, and adequate functional and non-functional requirements
- Following processes that ensure the product operates within the as-is and/or target enterprise architecture
- Adequate testing of the IT solution
- Appropriate operations and maintenance documentation

7.7.2 Reporting and Monitoring

All PMs shall:

- Report developmental and operational performance metrics throughout the EPMR life cycle
- Report proposed changes to capabilities, scope, and/or requirements to the EPMB before enacting changes
- Report to the EPMB if any significant changes to the project have occurred, to include the following:
    - The product failed to achieve implementation.
    - There is a schedule change or a projected schedule change that will cause a delay of six months to one year or more in any investment milestone or significant event from the original schedule.
    - The estimated total acquisition cost or total life cycle cost for the investment has increased by 15 percent or more over the original estimate.

    - There has been a change in the expected performance of the product that will affect its ability to deliver the functional or non-functional requirements.
- Report to the EPMB missed milestones and/or variances in percentage of investment cost, schedule, or performance outside DOT policy for Earned Value Management
- Develop Corrective Action Plans and/or Baseline Change Requests as appropriate

7.7.3 Periodic Reviews

The EPMB and OA CIOs, when delegated oversight responsibility, shall conduct periodic reviews of investments managed under the EPMR framework to ensure investments are managed according to the EPMR methodology.

8 Responsibilities

8.1 DOT Chief Information Officer (CIO)

The DOT CIO is responsible for EPMR implementation across the Department.

8.2 DOT Enterprise Program Management Board (EPMB)

The EPMB, chaired by the DOT CIO or delegate, is responsible for execution of the EPMR. The EPMB ensures that the EPMR is integrated and implemented effectively throughout the Department.

The EPMB conducts Stage Gate Reviews to ensure investments are technically sound, follow established IT investment management practices, and align with Departmental strategy. The EPMB responds to Critical Partner reviews and facilitates resolution of issues that arise during the investment life cycle.

The EPMB can delegate Stage Gate Reviews to OA CIOs, in conjunction with Critical Partner reviews. OA CIOs must use EPMR guidelines when conducting Stage Gate reviews.

8.3 DOT IT Investment Review Board (IRB)

The DOT IRB is a cross-functional executive review committee responsible for overseeing the management of the DOT IT portfolio, approving and prioritizing IT investments to best achieve DOT strategic goals and objectives, and leveraging opportunities for collaboration across DOT OAs on IT investments that support common lines of business. The DOT IRB shall ensure that the DOT IT investment portfolio is of the highest quality and meets the business needs of the Department in the most effective and efficient manner.

The DOT IRB is the only governance body that can approve an investment's entry into the DOT IT portfolio. Therefore, the DOT IRB is the Stage Gate Authority for phases that approve entry of investments into DOT's portfolio or remove investments from DOT's portfolio, including the decision to discontinue an investment.

8.4 OA Chief Information Officers (CIOs)

The OA CIOs ensure that the EPMR is implemented within the OAs in accordance with DOT policies and guidance. When delegated by the EPMB, the OA CIO is responsible for ensuring that Stage Gate Reviews

are completed in their entirety per EPMR guidelines. Additionally, OA CIOs use the EPMR guidance as defined herein or may create a more restrictive policy, but not one that is less restrictive or less compliant with Federal and/or Departmental requirements.

8.5 Stage Gate Authority

The Stage Gate Authority gives the approval for the investment to proceed to the next EPMR phase. The Stage Gate Authority is responsible for conducting Stage Gate Reviews, which includes evaluating recommendations by Critical Partners and applicable stakeholders to determine if the investment should proceed to the next phase.

8.6 Business Owner

The Business Owner is responsible for the following:

- Identifying the business needs and performance measures to be satisfied by the investment
- Validating and endorsing the business process models and requirements documentation for their investments
- Securing funding for the IT investment
- Establishing and approving changes to cost, schedule, and performance goals
- Participating in Stage Gate Reviews
- Validating that the IT investment initially meets business requirements and continues to meet business requirements
- Validating that users completed User Acceptance Testing

8.7 Program Manager (PM)

The PM is responsible and accountable for the following:

- Ensuring that staff and contractors comply with the requirements of this policy for day-to-day management of the investment
- Ensuring that all appropriate business stakeholders and technical experts are involved throughout the life cycle of an IT investment
- Completing all reporting and monitoring as outlined in the Reporting and Monitoring Section
- Maintaining information on investment status, control, performance, risk, corrective action, and outlook
- Planning and conducting phase activities and verifying that the set of deliverables for each phase is complete
- Conducting formal reviews at specified points in the life cycle
- Requesting tailoring

8.8 Integrated Project Team (IPT)

The IPT functions as an Agile cross-functional, collaborative team, comprised of the Business Owner, technical development team, and Program Manager. The IPT works collaboratively to determine the

number of releases that will be required to provide the finished product, the number of sprints in each release, and the release timeline or schedule. The IPT also plans each sprint by determining the requirements to be developed during the sprint and the duration of the sprint. During a sprint, the IPT functions as a collaborative team to manage sprint activities and ensure the product meets the needs of the Business Owner.

8.9 Critical Partners

Critical Partners are functional managers at the Departmental level, unless delegated, in the areas of Enterprise Architecture, Privacy, Security, Acquisition, Finance, Budget, Human Resources, Electronic Information and Accessibility, IT Shared Services, CPIC, and Performance. The Critical Partners review progress of IT investments at specified Stage Gate Reviews to ensure that the investments meet their respective requirements and provide recommendations on any issues and risks identified.

9 Legislative Background and Related Guidance

There are a variety of legislative and regulatory drivers for implementing the EPMR throughout the Department. These legislative and regulatory drivers establish a foundation for building and maturing the EPMR process.

These directives include, but are not limited to, the following:

- The Clinger-Cohen Act of 1996 (CCA)
- The Federal Information Technology Acquisition Reform Act (FITARA) Act of 2014
- The Chief Financial Officers Act of 1990 (CFO)
- The Government Performance and Results Act of 1993 (GPRA)
- The Federal Acquisition Streamlining Act of 1994 (FASA)
- The Paperwork Reduction Act of 1995 (PRA)
- The Government Paperwork Elimination Act of 1998 (GPEA)
- The Federal Information Security Management Act (FISMA)
- The E-Government Act of 2002
- OMB M-03-22, OMB Guidance for Implementing the Privacy Provisions of the E-Government Act of 2002
- Office of Management and Budget (OMB) Circular A-11
- Federal Acquisition Regulation (FAR)
- DOT Earned Value Management Policy (Order 1351.22.1)

Appendix A - Glossary

Term	Definition
Baseline	Baselines are the standard against which actual work is measured. Baseline cost and schedule goals should be realistic projections of total cost, total time to complete the project, and interim cost and schedule goals. Performance (scope) goals should be realistic assessments of what the investment or project is intended to accomplish, expressed in quantitative terms, if possible.
Business Owner	The executive in charge of the organization, who serves as the primary customer and advocate for an IT project. The Business Owner is responsible for identifying the business needs and performance measures to be satisfied by an IT project; providing funding for the IT project; establishing and approving changes to cost, schedule and performance goals; and validating that the IT project initially meets business requirements and continues to meet business requirements.
Capital Planning and Investment Control (CPIC)	The CPIC process is an integrated, structured methodology for managing IT investments. It ensures that IT investments align with DOT's mission and supports business needs, while minimizing risks and maximizing returns.
CIO Council	The DOT CIO Council, a review committee comprised of the OA CIOs and chaired by the DOT CIO, is responsible for reviewing the technical and managerial soundness of IT investments and providing technical recommendations to the Department.
Critical Partner	The Critical Partners are functional managers in Enterprise Architecture, Security, Acquisition, Finance, Budget, Human Resources, Electronic Information and Accessibility, IT Shared Services, CPIC, Performance, and Records Management that participate in IT project reviews and governance decisions to ensure compliance with policies in their respective areas and to make timely tradeoff decisions where conflicts arise during the planning and execution of a project.
CXO	Senior Agency Official such as Chief Acquisition Officer (CAO), Chief Financial Officer (CFO), Chief Human Capital Officer (CHCO), Chief Information Officer (CIO), Chief Operating Officer (COO)
DOT Chief Information Officer (CIO)	The Office of the Chief Information Officer advises the Secretary on matters pertaining to the use of information and related technologies to accomplish Departmental goals and program objectives. The mission of the Office is to establish and provide: assistance and guidance on the use of technology-supported business process reengineering; investment analysis; performance measurement; strategic development and application of information systems and infrastructure; policies to provide improved management of information resources and technology; and better, more efficient service to our clients and employees.

Term	Definition
Enterprise Architecture (EA)	Enterprise Architecture is a strategic information asset base which defines business mission needs, the information content necessary to operate the business, the information technologies necessary to support business operations, and the transitional processes necessary for implementing new technologies in response to changing business mission needs. Enterprise architecture includes baseline architecture, target architecture and a sequencing plan.
Enterprise Program Management Board (EPMB)	The EPMB is ultimately responsible for approving baselines and controlling changes to those baselines, monitoring performance against baselines, requiring corrective actions where necessary, conducting Stage Gate Reviews through Critical Partners, and approving Stage Gate completion.
Enterprise Program Management Review (EPMR)	The EPMR is a framework to enhance IT Governance through rigorous application of sound investment and project management principles and industry best practices. The EPMR provides the context for the DOT IT Governance process and describes interdependencies between its project management, investment management, and capital planning components. The EPMR is comprised of six phases – from business need through disposition – and identifies the activities, roles and responsibilities, and Stage Gate Reviews for each phase. The EPMR complies with federal regulations and policies, industry best practices, and DOT policies and standards.
Functional Requirements	Functional requirements specify what the product must do. They are directly derived from the objectives defined in the Project Management Plan. A functional requirement is a tangible service, or function, that the product must provide and is a non-technical requirement. See also Non-functional Requirements.
Investment Review Board (IRB)	The DOT IRB is a cross-functional executive review committee responsible for overseeing the management of the DOT IT portfolio, approving and prioritizing IT investments to best achieve DOT strategic goals and objectives, and leveraging opportunities for collaboration across OAs on IT investments that support common lines of business. The DOT IRB shall ensure that the IT investment portfolio is of the highest quality and meets the business needs of the Department in the most effective and efficient manner.
IT Governance Organization	The IT Governance organization at DOT and at each OA is responsible for ensuring that projects are technically sound, follow established IT project management practices, and meets the Business Owner's needs. Components of the IT Governance organization are the DOT IRB, the CIO Council, the DOT and OA Chief Information Officers, and CPIC Managers.
IT Investment	An organizational investment employing or producing IT or IT-related assets. Each investment has or will incur costs for the investment, has expected or realized benefits arising from the investment, has a schedule of project activities and deadlines, and has or will incur risks associated with engaging in the investment.

Term	Definition
IT Portfolio	The combination of all IT assets, resources, and investments owned or planned by an organization in order to achieve its strategic goals, objectives, and mission.
IT Project	A project is a temporary planned endeavor funded by an approved information technology investment; thus achieving a specific goal and creating a unique product, service, or result. A project has a defined start and end point with specific objectives that, when attained, signify completion.
Non-functional Requirements	Non-functional requirements specify the criteria that are used to judge the operation of a Business Product, rather than specific behaviors (in contrast to functional requirements, which describe behavior or functions). Typical non-functional requirements are reliability, scalability, accessibility, performance, availability, and cost. Other terms for non-functional requirements are “constraints”, “quality attributes”, and “quality of service requirements". Non-functional requirements also specify the laws, regulations, and standards with which the Business Product must comply.
Project	A project is a temporary planned endeavor funded by an approved investment; thus achieving a specific goal and creating a unique product, service, or result. A project has a defined start and end point with specific objectives that, when attained, signify completion.
Program Manager	The Program Manager is responsible for project performance in relation to approved cost, schedule and performance baselines. The Program Manager maintains information project status, control, performance, risk, corrective action and outlook. This person is accountable to the Business Owner for meeting business requirements and to IT Governance for meeting IT project management requirements. The Program Manager shall develop the business case in conjunction with the Business Owner to clearly define and capture business need requirements, conduct project planning to adequately define and execute the tasks required to meet approved cost, schedule and performance baselines and conform to DOT policies that apply to IT projects. Program Managers shall be responsible for timely reporting of significant variances from approved baselines and providing corrective action plans or rebaselining proposals as appropriate.
Requirements	Requirements specify what should be produced. They are descriptions of either how the Business Product should behave (functional requirements), or of how the Business Product must comply with laws, regulations, and standards (non-functional requirements).
Stage Gate	Phase-driven go/no-go decision points where EPMR activities are reviewed to ensure that appropriate OMB and DOT requirements are observed. A project cannot proceed without a “go” decision or a conditional approval granted by the Stage Gate Authority for the specific control gate.

Term	Definition
TechStat	TechStat is a face-to-face, evidence-based accountability review of an IT program with agency leadership. TechStat sessions are a tool for getting ahead of critical problems in an investment, turning around underperforming investments, or terminating investments if appropriate.
Unique Investment Identifier (UII)	Upon DOT IRB approval of new investments, the OCIO issues the requisite Unique Investment Identifier (UII) to track the investment through the capital planning process.

Table 1: Glossary

Appendix B: Phase/Stage Gate Matrix (Agile model)

Phase	Phase Description and Activities	Deliverables	Stage Gate Review Description and Outcome	Stage Gate Authority
1. Business Need	The business need is identified and documented in a Business Needs Statement. This includes a description of the business need, the goals and objectives, a Rough Order of Magnitude (ROM) of cost and schedule, and a planned acquisition approach.	Business Needs Statement	The Business Need Stage Gate Review considers whether the Business Needs Statement justifies the investment being added to the DOT IT portfolio. The Business Statement is reviewed and evaluated by Critical Partners, including Enterprise Architecture, Security, Privacy, and Acquisition. The DOT IRB is the only governance body that can approve an investment and its addition to the DOT IT portfolio.	DOT IRB
2. Vision	The Business Case and the Project Charter, if required, are defined and documented. The product requirements are captured in the Product Backlog and product releases are planned in the Project Management Plan. The Design document and Acquisition Plan are developed. Project activities and deliverables are tailored to meet the specific needs of the project using the Project Process Agreement.	• Project Charter • Business Case • Requirements Definition • Design Document • Project Process Agreement • Acquisition Plan • Project Management Plan • Privacy Threshold Assessment	The Vision Stage Gate Review includes an Investment Selection Review, Baseline Review and Design Review and requires the Critical Partners' assessments. The Investment Selection Review evaluates the preferred solution for the business need. The Baseline Review considers whether the cost, schedule and performance baselines have been adequately documented and if the investment management strategy is appropriate. The Design Review determines if functional and non-functional requirements have been satisfied and Critical Partners' concerns have been addressed. The Project Process Agreement is evaluated to determine if the project activities and deliverables have been appropriately tailored based on the specific	EPMB or OA CIO

Phase	Phase Description and Activities	Deliverables	Stage Gate Review Description and Outcome	Stage Gate Authority
			needs of the project.	
3. Sprint Cycle	The Sprint Cycle is the development phase of the project and is coordinated and conducted by the Integrated Project Team (IPT). At a minimum, the IPT includes the Business Owner, Program Manager, and IT development team. The Sprint Cycle includes the individual sprints for the next release. Each sprint includes the following activities: planning, coding, testing, demo, and retrospective. The result of a sprint is a working product; a release usually includes multiple sprints. At the time of release a Baseline Status Review is completed, which evaluates the cost, schedule, and performance of the project with respect to the project's baseline.	• Privacy Impact Assessment • SORN • Test Plan • Computer Match Agreement • System Categorization • System Inventory • e-Authentication Determination • Information System Security Plan • Interconnection Security Agreements / MOUs • Security Assessment Plan • Security Assessment Report • Risk Assessment • Authorization Recommendation • Authorization Decision Letter • Information System	The Sprint Cycle Stage Gate Review determines if the product is ready to be released to the production environment. The Critical Partners participate in the Operational Readiness Review (ORR) and provide their recommendations to the Stage Gate Authority.	EPMB or OA CIO

Phase	Phase Description and Activities	Deliverables	Stage Gate Review Description and Outcome	Stage Gate Authority
		Contingency Plan • Information System Contingency Plan Test Report • Incident Response Plan • Continuous Monitoring Plan • Test Reports • Implementation Plan		
4. Release	The product is deployed to the production environment. The Operations and Maintenance (O&M) Manual and all training and users manuals are also developed in this phase.	• Contingency / Disaster Recovery Plan • O&M Manual • Training Plan • User Manual • Project Completion Report	The Release Stage Gate Review evaluates the O&M Manual and user manuals to determine if the product can be properly supported by the operational support team. This includes determining if adequate service level agreements are in place.	EPMB or OA CIO
5. O&M	The Post Implementation Review (PIR) is conducted. Operations and Maintenance Phase planned activities are conducted to ensure performance goals are met, the product is maintained and risk mitigation is completed	• Plan of Action and Milestones • Disposition Plan	The O&M Stage Gate Review verifies that the product is adequately managed and supported in the production environment and determines whether it is still cost-effective to operate or if it should be retired.	EPMB or OA CIO

Phase	Phase Description and Activities	Deliverables	Stage Gate Review Description and Outcome	Stage Gate Authority
6. Disposition Phase	The business product is retired and the life cycle of the investment is completed. Security, privacy and records management issues should be considered during this phase.	• Project Archives • System Disposal Assessment	The Disposition Stage Gate Review evaluates if the system has been completely and appropriately disposed, thereby ending the life cycle of the IT investment.	This review is completed as part of CPIC activities in conjunction with Critical Partners

Table 2: Phase/Stage Gate Matrix (Agile model)

Appendix C: Phase/Stage Gate Matrix (Waterfall model)

Phase	Phase Definition and Outcome	Stage Gate Review Definition and Outcomes	Stage Gate Authority
1. Initiation	Identify the business need, Rough Order of Magnitude (ROM) cost and schedule, and basic business and technical risks. The outcome of the Initiation Phase is the decision to invest in a full business case analysis and preliminary Project Management Plan.	The Initiation Stage Gate Review considers whether the Business Needs Statement justifies proceeding to the Concept Phase for development of a full Business Case and preliminary Project Management Plan. It is important to note that an IT solution is not generally approved / developed at this stage, but rather, the business need, which enables the OA to proceed with activities outlined in the Concept Phase. The outcome of the Initiation Phase is selection to the DOT IT Investment Portfolio.	DOT IT Investment Review Board (IRB)
2. Concept	Identify the high-level business and functional requirements required to develop the full business case analysis and preliminary Project Management Plan for the proposed investment to include initial investment cost, schedule and performance baselines; and a Project Charter. With DOT IRB approval of the Initiation Phase, a UII can be disseminated and the investment estimates developed in the Concept Phase and be put in the CPIC tool.	The outcomes of the Concept Phase approval of initial investment cost, schedule and performance baselines; and issuance of a Project Charter.	OA CIO in conjunction with Critical Partners

Phase	Phase Definition and Outcome	Stage Gate Review Definition and Outcomes	Stage Gate Authority
3. Planning Phase	Complete development of the full Project Management Plan – and refinement of cost, schedule and performance baselines as necessary. The outcomes of the Planning Phase are complete and adequate planning and sufficient requirements determination to validate the planning and baselines. Develop the Acquisition Plan	The Project Baseline Review (PBR) is a formal inspection of the entire project and performance measurement baseline initially developed for the IT investment. This review is one of the Stage Gate Reviews that cannot be delegated by the IT governance organization. The PBR is conducted to obtain management approval that the scope, cost and schedule that have been established for the investment are adequately documented and that the investment management strategy is appropriate for moving the investment forward in the life cycle. Upon successful completion of this review, the Project Management Plan is officially baselined. The PBR includes review of the budget, risk, and user requirements for the investment. Emphasis should be on the total cost of ownership and not just development or acquisition costs. Support and training issues may become very important from this perspective	Enterprise Program Management Board (EPMB)
4. Requirements Analysis	Develop detailed functional and non-functional requirements, create the Work Breakdown Structure (WBS), identify/address issues including (but not limited to) intellectual and data rights issues, Electronic Information and Accessibility compliance. Compete and award contracts. The outcomes of the Requirements Analysis Phase are Business Owner approval of the requirements and award of required contracts.	The Requirements Analysis Stage Gate Review considers whether the investment should proceed to the Design Phase.	EPMB

Phase	Phase Definition and Outcome	Stage Gate Review Definition and Outcomes	Stage Gate Authority
5. Design	Develop the Design Document. The outcomes of the Design Phase are completion of Business Product design and successful completion of Preliminary and Detailed Design Reviews.	The Preliminary Design Review (PDR) is a formal inspection of the high-level architectural design of an automated system, its software and external interfaces, which is conducted to achieve agreement and confidence that the design satisfies the functional and non-functional requirements and is in conformance with the enterprise architecture. Overall investment status, proposed technical solutions, evolving software products, associated documentation, and capacity estimates are reviewed to determine completeness and consistency with design standards, to raise and resolve any technical and/or investment-related issues, and to identify and mitigate project, technical, security, and/or business risks affecting continued detailed design and subsequent development, testing, implementation, and operations & maintenance activities.	OA CIO in conjunction with Critical Partners
6. Development	Develop code and other deliverables required to build the Business Product and conduct an Independent Verification & Validation (IV&V) Assessment. The outcomes of the Development Phase are completion of all coding and associated documentation; user, operator and maintenance documentation, and test planning.	The Development Stage Gate Review evaluates whether the investment should proceed to the Test Phase.	OA CIO in conjunction with Critical Partners
7. Test Phase	Thorough testing and audit of the Business Product's design, coding and documentation. The outcomes of the Test Phase are completed acceptance testing, IV&V, Test Results, development of the Implementation Plan (migration strategy)	The Test Stage Gate Review evaluates whether the investment should proceed to the Implementation Phase.	EPMB

Phase	Phase Definition and Outcome	Stage Gate Review Definition and Outcomes	Stage Gate Authority
	and readiness for training and implementation.		
8. Implementation	Conduct user and operator training, determine readiness to implement, and execute the Implementation Plan, including any phased implementation. The outcomes of the Implementation Phase are successful establishment of full production capability and completion of the Post-Implementation Review.	The Operational Readiness Review (ORR) is a formal inspection conducted to determine if the final IT solution or automated system/application that has been developed or acquired, tested, and implemented is ready for release into the production environment for sustained operations and maintenance support. The IT governance organization cannot delegate this review.	EPMB
9. O&M	Operate and maintain the production system and conduct annual operational analyses. The outcome of the Operation and Maintenance Phase is the successful operation of the asset against current cost, schedule and performance benchmarks.	The Operations & Maintenance Stage Gate Review evaluates whether the investment should be released into the full-scale production environment for sustained use and operations/maintenance support. (occurs for all investments at least annually)	EPMB
10. Disposition Phase	Retires the asset when operational analysis indicates that it is no longer cost-effective to operate the asset. The outcomes of the Disposition Phase are the deliberate and systematic decommissioning of the Business Product with appropriate consideration of data archiving and security, migration of data or functionality to new assets, and incorporation of lessons learned over the investment life cycle. Contract(s) closeout if not already closed	Disposition Phase Review A Disposition Review is conducted to ensure that a system/application or other IT situation has been completely and appropriately disposed, thereby ending the life cycle of the IT investment. This phase-end review shall be conducted again within six months after retirement of the system. The Disposition Review Report also documents the lessons learned from the shutdown and archiving of the terminated system.	This review is completed as part of CPIC activities (in conjunction with Critical Partners)

Table 3: Phase/Stage Gate Matrix (Waterfall model)

Appendix D: Deliverables by Phase (Waterfall model)

EPMR Deliverables by Phase Legend P - Preliminary FD - Final Draft F - Final	Initiation	Concept	Planning	Requirements Analysis	Design	Development	Test	Implementation	Operations & Maintenance	Disposition
Business Needs Statement	F									
Business Case		F								
Project Charter		F								
Acquisition Plan		P	F							
Project Management Plan		P	F							
Privacy Threshold Assessment		P	FD	F						
Privacy Impact Assessment					P	F				
Project Process Agreement			F							
Requirements Definition				F						
Design Document					F					
Computer Match Agreement					F					
Test Plan				FD	F					
Contingency / Disaster Recovery Plan					FD			F		
Systems of Records Notice					P	F				
Operations and Maintenance Manual						FD		F		
System Inventory					P		F			
System Categorization				P		F				
Information System Security Plan					P	FD	F			
e-Authentication Determination					P	F				
Interconnection Security Agreements / MOUs					P	FD	F			
Security Assessment Plan						P	F			
Security Assessment Report						P	F			
Risk Assessment				P		FD	F			
Plan of Action and Milestones							FD		F	
Authorization Recommendation							F			
Authorization Decision Letter							F			
Information System Contingency Plan						P	F			
Information System Contingency Plan Test Report							F			
Incident Response Plan					P	FD	F			

EPMR Deliverables by Phase Legend P - Preliminary FD - Final Draft F - Final	Initiation	Concept	Planning	Requirements Analysis	Design	Development	Test	Implementation	Operations & Maintenance	Disposition
Continuous Monitoring Plan					P	FD	F			
Training Plan						FD		F		
User Manual						FD		F		
Business Product						FD		F		
Test Reports							F			
Implementation Plan							F			
Project Completion Report								F		
Annual Operational Analysis									F	
Disposition Plan									F	
Project Archives										F
System Disposal Assessment										F

Table 4: Deliverables by Phase (Waterfall model)

Appendix E: Stage Gate Review Decision Memo

Stage Gate Review: <Vision, Sprint Cycle, Release, O&M, or Disposition>

Investment Name: <from CIMS>

Investment Description: <from CIMS>

Project Name: <from CIMS>

Project ID: <from CIMS>

Purpose: This <Vision, Sprint Cycle, Release, O&M, or Disposition> Stage Gate Review was conducted on <month, day, yyyy> to determine if the investment is approved to proceed to the next phase of the EPMR Framework.

Discussion: <Provide a brief description of the findings of the Stage Gate Review, including issues, risks and key discussion points.>

Decision: <Place an "X" in the appropriate box in the table below. Provide the rationale for the decision, and if approved with conditions, list and describe the conditions.>

Stage Gate Review Decision	
	Approved
	Approved with conditions
	Recommend to discontinue

Tasking / Action Items: <List and describe any tasks or action items resulting from the Stage Gate Review.>

Point of Contact: <List a point of contact for this Stage Gate Review.>

_____ _____

Signed Date

<Name>

<Title>