



Veterans Health Administration Electronic Health Record Modernization Implementation/Deployment Plan

(Companion Document for OI&T Deployment Plan)

Department of Veterans Affairs

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Approved By:

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Once approved, this Deployment/Implementation Plan will be reviewed quarterly and will be revised on an as-needed basis. The decision to revise the Plan other than quarterly will be made by the VistA Evolution Program Executive(s). All requests for changes should be submitted at the [EHR Modernization Deployment IPT Team Discussion Site](#).

The two graphics below display the Deployment Lifecycle. These are to be used for planning purposes and suggested timing for components of the deployment process. “**Control-Click**” on each phase in the graphic to be taken directly to the summary of the phase and links to additional information, artifacts and resources.

Project Level Deployment Lifecycle Processes in collaboration with National Release



Site-Level Deployment Processes: Tailored (based on Pattern) to Prepare for National Release & Go-Live



1. Introduction

This Deployment Plan outlines and defines Veterans Health Administration (VHA) expectations for the deployment and implementation of new or enhanced software. It includes planning, analysis, business process change, training, organizational change management, and communications for its stakeholders. It emphasizes gaining clinical adoption for the use of EHR software applications with the transformation of clinical practice to improve patient care. This comprehensive plan applies to all of VHA, from product teams involved in enterprise deployments down to local sites that need support at the local facility level. Section 3 and sub-sections of this plan refer to deployments at the Program and Project level. Section 4 and sub-sections addresses processes at the site level and Section 5 includes information on Optimization from both the site and project level. The linked documents provide guidance to develop project level plans.

2. Deployment: Overarching Approach

This document is intended to be a companion to the Office of Information and Technology (OI&T) Technical Deployment Plan. Successful system deployments are dependent upon a lifecycle consistent with the principles of change management. They require preparation, implementation and optimization. The Deployment Lifecycle incorporates Organizational Change Management (OCM) principles, Business Process Reengineering (BPR) activities, and Communication best practices across all its phases. The deployment lifecycle activities focus on the People and Process parts of a system implementation. At the project level, effective deployment depends on development of a [Communications Plan](#) and an [Organizational Change Management Plan](#) early in the lifecycle and executing those plans throughout the phases of deployment.

In addition, EHR modernization projects will be deployed in patterns. Deployment Patterns are an approach to the distribution of software intended to efficiently and effectively build adoption of new technology by users. It is viewed by many as a significant departure from traditional enterprise deployment in VA; however, distribution of software has always been based on some form of a pattern. Web-based technology offers the opportunity to introduce new patterns of deployment beyond VHA's traditional approach phased across facilities and VISNs. More details about patterning can be found in the [Program and Project Deployment Initiation Planning Guide \(page 5\)](#).

3. Program and Project Level Deployment

The deployment and implementation of EHR Modernization products and capabilities is grouped into two distinct phases: 1) Program/Project level processes, and 2) Facility level processes. The EHR Modernization project deployment teams are responsible for leading and ensuring the success of both project level and facility level deployment and implementation. This section provides guidance for the program and project level activities.

3.1 Initiation

The Initiation Phase is crucial to the success of the project as it establishes the foundation for the deployment and implementation work to be performed by VHA. Thorough planning for implementation should be conducted by cross-functional teams early in the project to reduce implementation risks. Planning should address both government and vendor aspects of deployment as well as ongoing operation and sustainment. This phase contains the following three tasks:

- Project Deployment planning.
- Test Site Selection.
- Test Site Readiness.

VHA will work in conjunction with OI&T to plan and drive the deployment process; coordinate release planning to minimize negative impact to sites, estimate resources to support the deployment plan, optimize the delivery of training and adoption of changes in workflow, manage tasks, and facilitate communication with the field Deployment teams. A [Program and Project Deployment Initiation Planning Guide](#) provides guidance on necessary [resources](#) (page 10), [schedule](#) (page 20), and [risk management](#) (page 22), the [decision making](#) process (page 23), and [lessons learned](#) (page 23). Depending on the complexity of the deployment, project teams can tailor the plan to fit their needs.

3.2 Validation

During the Validation Phase, future state design for accurate representation of the intended use of the system (referred to as a product) and its functionality is verified. This is critical to determining if the degree of approximation is acceptable for the end users and also to see what changes must happen to transition from the as-is to the to-be. A product must be deployed within the context of the end-users' daily activities. Workflow is looked at from multiple angles. Once the development team has designed the future state workflows, a validation process must occur at each facility participating in user

acceptance testing and IOC evaluation. Since the future state workflows will have an impact on development of training, organizational change management efforts, and adoption at a national level, the project Deployment team will work with the sites to ensure the use of the system and supporting processes meets functional requirements and makes sense from a clinical integration perspective. The [Program and Project Deployment Validation Planning Guide](#) provides a general overview of the Validation phase, including guidance for [Future State Workflow Development](#) (page 4) and [Workflow Validation](#) (page 5). There is also a section describing [User Acceptance Testing](#) activities and deliverables (page 7) and IOC [facility roles and responsibilities](#) (page 9). In addition, the [Organizational Change Management Plan](#) provides direction on how to develop user-focused “To Be” workflows prior to deployment. It is important to ensure these workflows are reflected in testing, training, user aids, and measurement plans in order to maximize effectiveness and efficiency gains from new systems.

3.3 Training Development

During the training development phase, a complete training plan is developed that will prepare staff to use the new product effectively to support workflow needs and to achieve the intended objectives and benefits for the system. Training resources are created in the form of classes, training manuals, quick reference cards, and other forms of training material. This phase focuses on ensuring end users are ready to use the newly developed solution once implemented nationally. This will mitigate risks associated with transitioning from the as-is to the to-be. Training will be role based and process based. Classes and lesson plans will be organized by role. Future state workflows, including clinical care, policy and operational changes will be defined before training. Incorporating these workflow changes into training is essential to deployment and change management success. For each set of deployed capabilities, the end-user population should be segmented by functional domain and workflow. Refer to the [Training Development and Delivery EHR Modernization Plan](#) for more detail.

3.4 Technical Readiness

Technical Readiness for Deployment is the responsibility of OI&T (PD and SDE), but can impact the VHA portion of deployment, so VHA needs to be cognizant of technical deployment plans. Project teams will create the VHA and OI&T technical deployment plans for each release, in a jointly developed document that covers IOC testing deployments, enterprise availability, and deployment patterns for National Release. Templates and examples of jointly created release deployment plans will be provided to project teams.

3.5 National Release

National release occurs following successful IOC testing, through establishing enterprise availability typically followed by patterns of deployment. Before proceeding to National Release, the project team must receive approvals from the VHA Release Management Team, and the appropriate teams within OI&T - the VIP "Three in a Box" and the Configuration Change Board. Communication is paramount during this phase and the [VistA Evolution Communications Plan](#) is an excellent source for identifying resources,

tools and methodologies for a successful national release. Another source of guidance is the [Organizational Change Management Plan](#) with recommendations to maximize the success of the deployment.

4. Site-Level Deployment/Implementation

This section covers deployment planning at the site. In order to support the best possible outcome from the implementation of a new product and supporting business processes, each VA facility must plan ahead for the National Release of EHR Modernization products and capabilities. Each site will go through a cycle of implementation planning, process and job impact analysis, training, pre-production validation and local process adaptation, potential policy and procedure revisions, system Go-Live, and post-deployment evaluation and process optimization.

4.1 Site-Level Deployment Planning and Readiness

Even at the site level, Deployment/Implementation requires rigorous project planning because of the number of activities to be accomplished and stakeholders involved. Project planning facilitates an understanding of completion criteria at the outset of the project, and provides the basis for managing project work. It contributes to overall project success by documenting important information, and clearly defining roles and responsibilities, and defining processes that will be carried out during project execution. Planning for National Release and use of the new product should begin when sites receive notification from the EHR Modernization Project Team with information about the upcoming release, including the deployment approach and timeline. At the time of the release of this document, planning is underway to provide staff at the site level, based on recommendations from the VE OCM Plan.

The [Site Level Deployment/Implementation Planning Guide](#) provides an overview of the necessary steps to site readiness. It includes information about identifying [resources](#) (page 5) and their [responsibilities](#) (page 7), as well as [schedule](#) (page 10), [risk](#) (page 11) and [communication](#) needs (page 12). A comprehensive [Site Readiness Checklist](#) supports planning at the site-level. Project teams should tailor this checklist to meet the unique needs of their project.

4.2 Workflow Analysis and Job Impact Assessment

By the time sites begin preparing for National Release, future-state workflows to support use of the product have been developed and validated by the SMEs on the Project team and by end users at IOC test sites. Documentation of the future state workflows will be provided to sites not only for training purposes, but also to perform a local assessment of how the upcoming software release and workflows will impact current state operations and clinical workflow at the site. This assessment will allow sites to tailor local training, organizational change management, and communication needs about the product, and support clinical integration and adoption. The [Organizational Change Management Plan](#) serves as a resource for the steps included in a workflow analysis and job impact assessment.

4.3 Training Delivery

Training is a vital part of deployment that ensures clinicians and other end users have the skills they need to utilize the system and to incorporate the system into their daily workflow effectively. EHR Modernization Project Teams are encouraged to follow the guidance in the [Training Development and Delivery EHR Modernization Plan](#) to develop the project-level training plan and resulting training content. Training will be both role and process based. Future state workflows, including clinical care, policy, and operational changes will be defined before training is conducted. Each project's training Plan should be tailored for the specific requirements of each individual product.

4.4 Site Technical Preparation

The amount of technical preparation needed at the site level will vary by the product or capability being deployed. For EHR Modernization projects, the national project team should be assisting sites with coordination of technical preparation activities, providing readiness assessment tools and Go-Live checklists, and communicating to regional and local OI&T support through SDE implementation managers and field operations staff. Ongoing project communications should be issued to stakeholders keeping them informed of project progress and any updates to the deployment schedule. The [VIP SharePoint](#) site provides details.

4.5 Workflow Adaption

Following National Release of a product, especially those with high complexity, significant changes to the user interface, and new workflows, it is highly recommended to have the primary users work with the application in a pre-production environment initially. For products that introduce a significant process change for end users, national level resources may be able to assist sites during Go-Live Readiness with comparing their as-is and to-be workflows, and assist with process redesign and additional training support to close the gap. The additional site resources that are referenced in section 4.1 will also support process redesign and training. In addition, they will focus on the people side of change management, supporting the local facilities in the business transformation that will be integral to EHR Modernization. Refer to the [Organizational Change Management Plan](#) for more information on workflow adaption.

4.6 Go-Live

Product Go-Live activities may begin after National Release is approved by VHA and OI&T, the release announcement is distributed, and the product is made available to the field. The [Organizational Change Management Plan](#) and [VistA Evolution Communications Plan](#) serve as resources for necessary activities and deliverables associated with Go-Live. Coordinators and implementation teams should ensure the readiness and maturity of the system at Go-Live in order to avoid user dissatisfaction and adoption issues.

5. Optimization

The optimization phase has two goals: determine the success of the project in meeting the desired end state identified in the Validation phase, and identifying remaining gaps

for future efforts. It continues the Business Process Redesign and Organizational Change Management efforts that have occurred throughout the deployment and strives to ensure that the business transformation goals are realized. Rather than a specific “phase”, the optimization period should be considered an ongoing, iterative process to continually refine and maximize the benefit of the software system. The ultimate expectation is maximum utilization of system capabilities to transform patient care through universal clinical adoption and more efficient/effective workflows.

5.1 Post Go-Live Assessment/Measurement

The Post Go-Live assessment review will consist of a standard set of questions to identify potential improvements and a comparative analysis across facilities. For the current set of EHR Modernization products, this assessment will be performed by the Product Effectiveness Benefits Realization Team. Key Performance indicators are measured along with users' perceptions. Assessing system adoption and retraining requirements are included, as well as an assessment of the new workflows. Most importantly, the impact to patient care and safety is measured.

A key component of this phase is the creation of Lessons Learned from this phase, and ensuring that Lessons Learned from the entire project are collated and forwarded to Product Effectiveness for dissemination. Lessons Learned are critical inputs to the Validation phase of projects.

5.2 Clinical Adoption and Sustainment

Maintaining and advancing clinical adoption is the key post implementation strategy and requires structure and governance. Sustaining the change requires monitoring of the performance metrics developed during the project. Specific staff needs to be assigned to this role, and plans need to be created to remedy issues as they arise. This should start at the local level, without immediate escalation unless it is not resolved.

A national oversight committee will be established to monitor and drive the optimization phase based on Value Management. Opportunities for improvements are forwarded to this committee. As findings of this phase may result in new deployments, activities will include an iteration of pre Go-Live deployment tasks, specifically assessment, workflow and product redesign, retraining, and communication. This governance structure will be tightly integrated with the field and include Clinicians, Clinical Informatics, and OI&T staff.