

Business Requirements & Architecture Management Plan

Veterans Health Administration
Office of Informatics and Information Governance
Strategic Investment Management



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Revision History

NOTE: *The revision history cycle begins after modifications are requested after the initial Business Requirements and Architecture Management Plan has been finalized and approved.*

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1. Overview

1.1. Purpose

The purpose of the Business Requirements and Architecture Management Plan (BRAMP) is to provide guidance for the development and management of business requirements and architecture to support senior Veterans Health Administration (VHA) leadership in the decisions to adopt, buy, or create solutions to address particular business needs or capabilities. The BRAMP describes the guidelines and procedures used by the Requirements Development and Management (RDM) and Business Architecture (BA) services within the Strategic Investment Management (SIM) division of the Office of Informatics and Information Governance (OIIG). This Business Requirements and Architecture Management Plan is written in a manner that it can be leveraged by other organizations performing business requirements and architecture support. These services work in collaboration with the Office of Information and Technology (OI&T) for the collection and management of business requirements and architecture. A well-defined, integrated business requirements and architecture process, as outlined below, ensures effective and efficient development of artifacts that accurately describe the needs of both the business and clinical end-users. This process ensures enterprise level analysis, traceability, and effective communication throughout the requirements and project life cycle to ensure business needs are met by the delivered Information Technology (IT) solution, providing value to the following stakeholders:

- **Business Owners/Program Offices:** The Requirements and Architecture Package (RAP), a deliverable resulting from this management plan, can assist senior leadership in making informed business decisions by providing insight into the As-Is and To-Be business areas, and presents a business case for weighing the cost-benefit of funded or unfunded needs.
- **VHA Subject Matter Experts (SME):** Efficient processes maximize clinical SME time, eliminating the need for multiple re-engagements to provide the same information. Current and desired processes and requirements are documented effectively to ensure end users' needs are clearly articulated.
- **Office of Information and Technology:** Fosters an ongoing technical and clinical partnership to efficiently collaborate and discuss workflow processes and identify problems prior to the Veteran-focused Integration Process (VIP) Initiation and throughout the Software Development Life Cycle (SDLC). This type of collaboration results in consensual decision-making about the appropriate solution to meet functional needs.

1.2. Intended Audience

The intended audience of this document includes VHA business and program offices that require new or enhanced IT system(s) such as Connected Care, Office of Community Care, My HealthVet, Veterans Health Information Systems and Technology Architecture (VistA) Evolution, and select departments within OI&T, for example, Information Technology Account Management (ITAM), Enterprise Program Management Office (EPMO) Intake and Analysis, Product Development, and Service Delivery and Engineering (SDE).

1.3. Scope

The BRAMP applies to work efforts involving analysis and elaboration to define and develop business requirements and architecture needed to implement or enhance health IT systems. This work effort involves collecting and adjudicating business needs, generating and managing business requirement statements, and developing and managing associated architecture products using agile techniques. These projects are staffed by teams called Work Effort Teams (similar to Work Groups, Tiger Teams, or Integrated Project Teams [IPT]).

This document addresses the collaboration between VHA and OI&T to effectively utilize VHA business customers' time in capturing the information needed to inform business requirements and architecture, business case documents, and solution architecture. As business requirements and architecture are delivered, OI&T is able to reference BRAMP artifacts and analyze IT capability requests, focusing on enterprise alignment with Department of Veterans Affairs (VA) solution standards and strategic priorities, cost estimation, and planning requirements in preparation for VIP project initiation.

For more information on OI&T processes and deliverables, please reference the [VIP SharePoint](#).

The scope and content of this plan will be reviewed periodically and refined by the collaborative BRAMP workgroup and VHA SIM.

2. Business Requirements and Architecture Life Cycle

2.1. Business Requirements and Architecture Methodology

BRAMP activities begin once an IT business need has been identified and a New Service Request (NSR) has been submitted. Business requirements and architecture are collected and documented in three stages, which are noted below and discussed in more detail in [Section 3](#).

1. Define and Prioritize VHA Needs
2. Coordinate Planning and Scope
3. Develop VHA Business Requirements & Architecture

The methodologies and techniques utilized by SIM during requirements and architecture development include “Business Process-framed Requirements” and Voice of Customer Analysis (VoCA). The term, business process-framed requirements, refers to an approach that actively links processes to textual-based business requirements and information concepts. Voice of Customer Analysis refers to proactive engagement of the customers and end users throughout the process to understand and validate customer requirements, expectations, areas of dissatisfaction with the current processes, and desired needs for a future state¹. In addition, an agile methodology is used to guide the Business Owner (BO) to continuously review and refine the business need to ensure approval of the final product, with minimal delays. Flexible and collaborative processes enable development and refinement of business processes, information models, and business requirements, resulting in delivery of an agreed upon business package (see [Section 2.2](#) for more information on business packages) of high value to the BO.

¹ Guide to the Business Analysis Body of Knowledge [BABOK] – Agile Extension

Processes are developed at the outset to verify and validate the work effort scope and identify target areas for detailed decomposition. Generally, As-Is high-level processes are identified prior to the development of To-Be high-level processes. While the high level processes are being developed with the business customers and SMEs, requirements analysts and information architects are eliciting business requirements in the form of epics, sub-epics, user stories, acceptance criteria and data relationships for validation and approval. When process decomposition begins, the process architects elicit and develop the detailed processes and, as opportunities present themselves, information architects and requirements analysts review related user stories and information models that have been captured. This interplay among process, requirements, and information continues until the entire scope of the work effort has been decomposed to stakeholder satisfaction. The artifacts produced by these elicitation sessions are compiled into a RAP that is leveraged by OI&T for their development and acquisition processes.

The stages performed prior to starting business process-framed requirements activities (Define and Prioritize VHA Needs, Coordinate Planning and Scope, and Develop VHA Business Requirements & Architecture) are crucial preparation stages for each work effort. Through extensive best practice and lessons learned capture, SIM has identified that these preparation stages are key to ensuring productive stakeholder sessions.

Another key component of our business process-framed requirements methodology is termed “Maintaining a Line of Sight”. This is a critical set of activities performed throughout a work effort to ensure that processes, information, and requirements are not only integrated with each other, but that they are also integrated with the VHA Business Function Framework (BFF). The BFF describes the operational functions of VHA, and as such, can be aligned to many functional inventories such as VA and VHA Strategic Priorities, and the VA System Inventory (VASI), among others. The value of maintaining a line of sight is that the Work Effort Analyst Team may discover that the work effort inherits unstated relationships that help provide greater context and impetus for IT prioritization and decision making. SIM is responsible for the development and maintenance of the BFF, and tracks the alignment of model-led requirement artifacts in the Business Architecture Repository (BAR). The latest BAR release can be found at <https://vaww.vha.esp.va.gov/sites/BA/default.aspx>.

2.2. Business Requirements and Architecture Package

The Requirements and Architecture deliverables related to the delivery of VHA systems and capabilities are organized together in the RAP. A RAP fully defines the work effort from a business and/or functional viewpoint. A RAP is developed with work effort participants to include SMEs, and is approved by the VHA Business Owner. Once approved, a RAP is shared with OI&T to both inform project initiation and planning, as well as design and development.

Documentation contained in the RAP is maintained in the IBM Rational Suite by SIM. For more information on tooling, see [Appendix D](#).

The RAPs are a compilation of the documents developed during the business requirements and architecture process. These documents are authored by the business community with participation from OI&T EPMO. A package may include the following items:

Table 1: Business Requirements and Architecture Package

Deliverable	Definition	Contents	Responsible	Tool	VIP Phase
VIP Business Epic	<p>This document describes the business needs and expectations in a brief, concise format that is required by the OI&T VIP Account Management Office (AMO). The VIP Business Epic is the vehicle by which the business opportunity is presented to IT Account Manager and Portfolio Director for prioritization.</p> <p>An epic describes a large initiative that:</p> <ul style="list-style-type: none"> • Describes the business opportunity and the VA strategic goals • Identifies if the project is mandated or legislatively required • Summarizes the problem or opportunity • Captures the criticality of the need 	<ul style="list-style-type: none"> • Epic Summary • Epic Value Statement • Alignment to VA/VHA Strategic Plans • Success Criteria • In Scope • Out of Scope • Non-functional Requirements • Point of Contact • References • Sub-Epics (if applicable) 	RDM	Rational DOORS (formerly Composer)	Pre-VIP Initiation
Business Summary Report	<p>This document captures and describes the business needs and expectations. It provides insight into the As-Is and To-Be business areas, identifying stakeholders and profiling primary and secondary-user communities. It details the capabilities that the stakeholders and target users need, and why these needs exist. It provides a foundation for the communication of functionality required in the solution to satisfy</p>	<ul style="list-style-type: none"> • Target Customers • Business Need • Key Benefits • Current Process 	RDM	Rational DOORS (formerly Composer)	Pre-VIP Initiation, VIP Planning

Deliverable	Definition	Contents	Responsible	Tool	VIP Phase
	the business needs. The Business Summary Report is the vehicle by which the business community gathers the supporting information needed to develop business epics.	<p>Deficiencies</p> <ul style="list-style-type: none"> • Program Benefits • Alignment to Strategic Goals • Success Criteria • In-Scope and Out of Scope Features • Non-Functional Requirements 			
Requirements Traceability Matrix (RTM)	This document captures and describes the business needs (epics), business requirements (sub-epics), decomposed business requirements (user stories), acceptance criteria, and their relationships to each other. In addition, the RTM captures mappings of business requirements to business process models and the VHA BFF. The RTM is supported by a collaboration requirements model that is used by the business and OI&T. This joint (VHA/OI&T) RTM will be used to track requirements through User Acceptance Testing (UAT). The RTM will also inform and be leveraged to ensure proper solution deliveries. The RTM is an optional document, as requirements can be developed and shared in the Rational Tools.	<ul style="list-style-type: none"> • Epics • Sub-Epics • User Stories • Acceptance Criteria • Mappings to BFF, Process and Information Models 	RDM	Rational DOORS (formerly Composer)	Pre –VIP Initiation, VIP Planning
Process Model Summary	A summary report describing the development of the As-Is and To-Be Business Process Models and their supporting Activity Description	Current and desired state	Business Process Architecture	Rational System	Pre –VIP Initiation, VIP Planning

Deliverable	Definition	Contents	Responsible	Tool	VIP Phase
Report	Tables for an effort.	process models	(BPA)	Architect	
Information Model Summary Report	<p>Contains the informational perspective of the model-based representation of "To Be" business requirements and processes that may be created / transmitted / received / maintained.</p> <p>Analysis of reusable units of information exchange.</p> <p>Identification of potential information gaps against "As-Is" information sources.</p>	Information models and data dictionary	Business Information Architecture (BIA)	Rational System Architect	Pre –VIP Initiation, VIP Planning

2.3. Work Effort Team Responsibilities

Work Effort team members are critical in the development of the business requirements, business processes, and information models. It is imperative that assigned roles are identified as early as possible and that each work effort is led by an experienced facilitator. For further details on the roles and responsibilities refer to the BRAMP Responsible, Accountable, Supported, Consulted, and Informed chart (RASCI)².

In order for the work effort to proceed efficiently, the following membership for Work Effort Teams has been identified:

- Work Effort Business Owner
- Work Effort Analysts
- Work Effort SMEs

Table 2, Table 3, and Table 4 below list high-level descriptions of the work effort roles.

Table 2: Work Effort Executive Component

Role	Responsibility
Work Effort BO	The Program Office representative (typically at a directorate level) who is responsible for the policy, processes, and practices of a given area. The BO has final sign-off approval of the requirements and architectural deliverables, provides strategic direction to the program, elicits executive support and funding, and monitors the progress and timelines throughout the life cycle of the request.

Table 3: Work Effort Analysts

Role	Responsibility
Work Effort Coordinator	<ul style="list-style-type: none"> • Coordinates and provides overall work effort support throughout the work effort life cycle • Coordinates communications with BOs, SMEs, and Work Effort Analyst Team to include meeting and agenda planning, planning and facilitating virtual and face-to-face meetings, and managing timeline and parking lot issues • Provides support to the Business Owners and stakeholders; serves as an interface to OI&T
Requirements Analyst	Elicits, develops, and manages business and non-functional requirements for the identified capability.
Business Process Architect	Elicits, designs, and optimizes business process models based on data and SME input.
Business Information Architect	Develops conceptual and business information models based on direct SME input, business requirements, process models, expected logical interfaces, and appropriate information exchange standards.
OI&T Technical Architect	Provides technical and feasibility input during development of requirements and architecture. Gathers information to inform the technical architecture.
OI&T Development	The OI&T Analyst will engage with the work effort team during elaboration. The OI&T Portfolio Lead will assign roles based on project focus and available resources.

² <https://vaww.vaco.portal.va.gov/sites/OHIA/sim/BRAMP/default.aspx>

Role	Responsibility
Representative	The development representative ensures proper requirements elaboration is being completed to the degree as needed for the IT project.

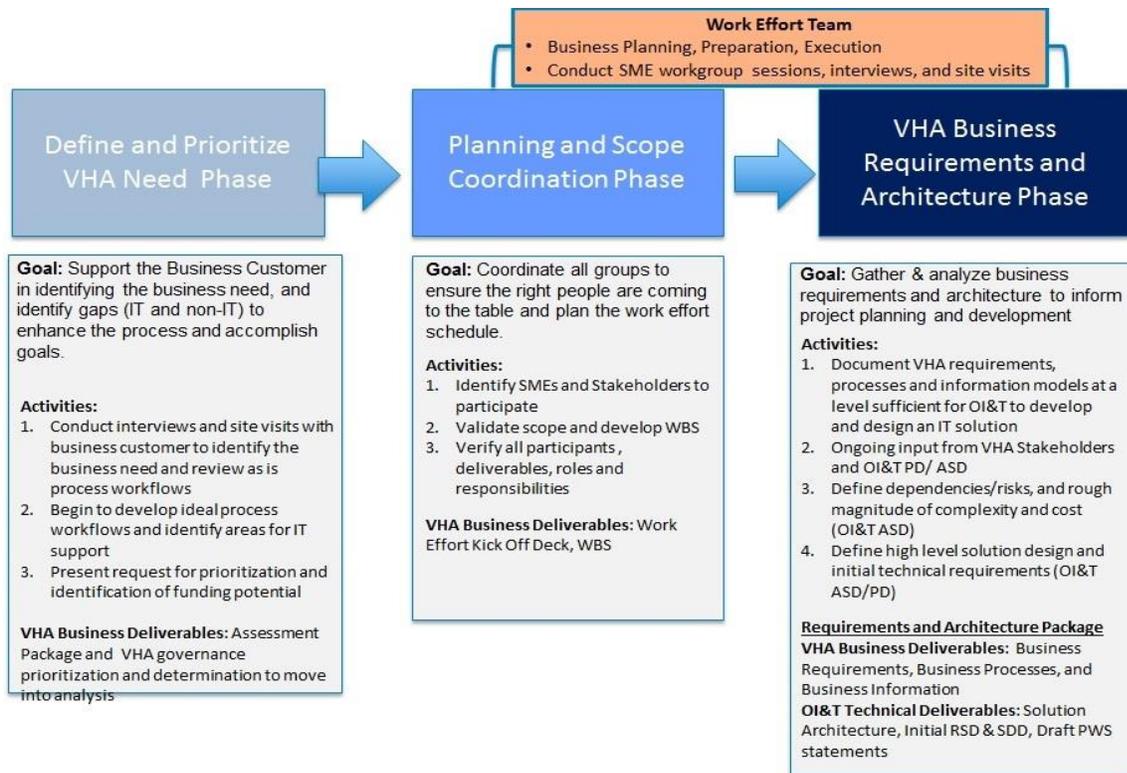
Table 4: Work Effort SME

Role	Responsibility
Lead SME	Provides deep capability expertise and leadership to ensure the functional community's needs are met.
SMEs	A stakeholder with specific expertise/knowledge in a particular area, an aspect of the problem domain, or potential solution alternatives; an individual who exhibits the highest level of expertise in performing a specialized job, task, or skill within the organization. The SME closely assists with developing business requirements and architecture artifacts and continues that work during the development and testing stages.

3. Work Effort Stages: Assessment, Business Requirements and Architecture Development

Work Effort stages provide a structured process for gathering information for the identification of objectives and business needs to be documented. As shown in Figure 1 below, the business requirements and architecture artifacts are developed and decomposed to the level of detail sufficient so the business fully understands the needs, process, and information details and that the artifacts provide the right information to OI&T at the right time.

Figure 1: Work Effort Stages



3.1. Define and Prioritize VHA Needs

This stage of the business requirements and architecture methodology includes identifying and understanding the customer's business needs and facilitating the needs through VHA Governance.

3.1.1. Understanding the Customer's IT Business Need(s)

Business needs are documented descriptions of clinical, business, and administrative needs that support day-to-day operations and work activities of VHA. Business needs originate from mandates and initiatives that are external and internal to VHA including federal laws, regulations, directives, goals, strategic processes, or stakeholders such as clinicians, administrative staff, business office staff, and developers.

Once a business need is identified, the VHA business customer submits an NSR through the Innovations and Development Request Portal (IDRP). NSRs are submitted to enhance existing health IT solutions or to develop/acquire new solutions based on changes to business processes, policies, legislative changes, and other drivers in order to meet VHA clinical and business needs. Upon receipt of the NSR, the RDM Service reaches out to Veterans Integrated Service Network (VISN)-level leadership or higher to confirm endorsement of the request. Endorsement signifies that the request has merit and the business need is worthy of further analysis. Confirmation of the appropriate level of support must be validated prior to accepting the NSR into the New Service Request Database (NSRD). If the endorsement is not verified, the request is rejected in the IDRP. The list of authorized endorsers can be found here:

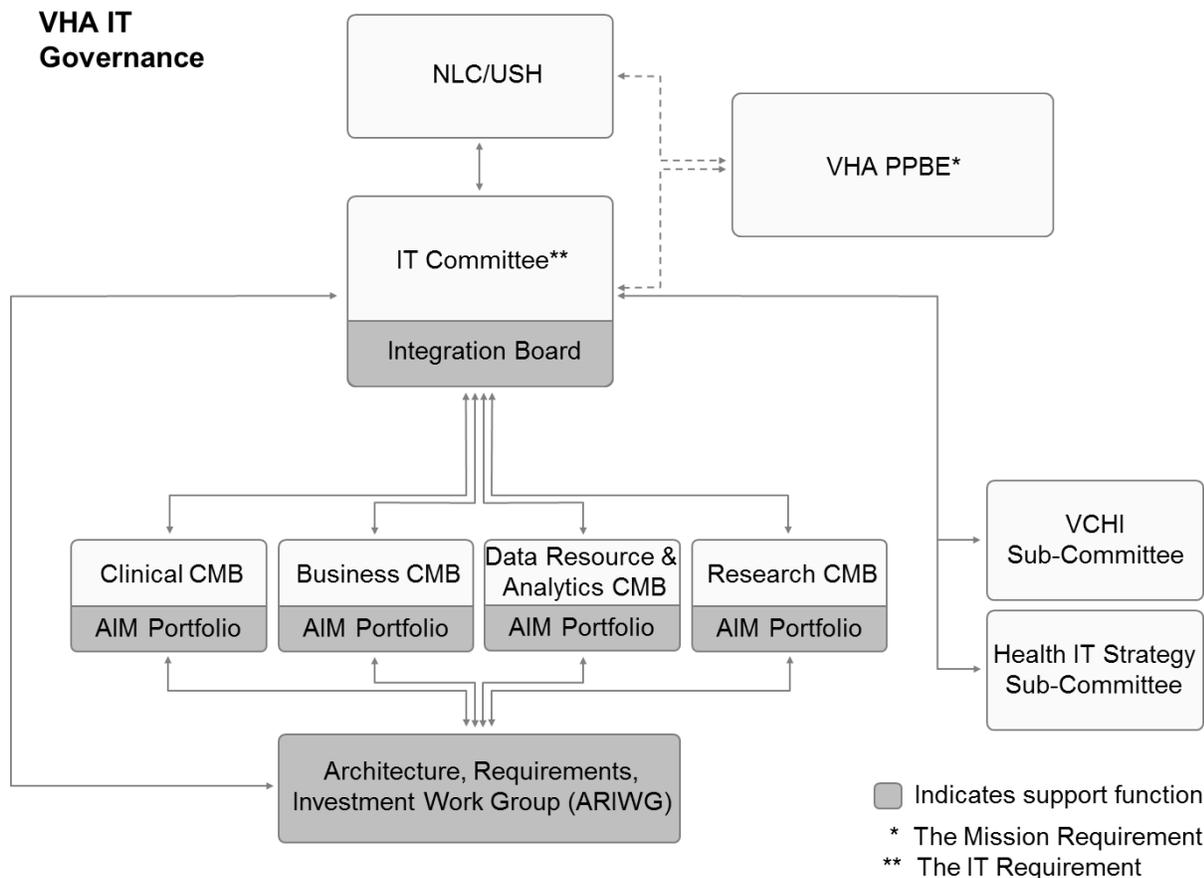
<http://vista.med.va.gov/nsrd/GuidancePolicy.asp>.

Upon verification of endorsement, the NSR moves into the Assessment Phase. The Requirements Analyst conducts an environmental scan for similar work (NSRs, requirements, etc.), and works with the requestor to obtain and document additional information about the problem and business need/driver. If the NSR is urgent and requires immediate review, the NSR is referred to the appropriate review board(s) (Clinical Capability Management Board [CCMB], Business Capability Management Board [BCMB], Data Resources and Analytics Capability Management Board [DRACMB], and Research and Education Capability Management Board [RECMB]). If the NSR is not urgent, it is submitted to the Program Office for potential inclusion in the multi-year planning and budget request. In all cases, during the Assessment Phase, the initial draft of the Business Summary Report is initiated and stored in the New Service Request Database (NSRD).

3.1.2. VHA Investment Governance

VHA has implemented a framework by which IT business cases are collected from VHA Programs (e.g., Pharmacy, Enrollment, Registries, Research), prioritized, recommended for funding and, subsequent to funding, tracked to ensure IT solutions are developed in a timely manner. This governing structure includes several workgroups, sub-committees, boards, and an authoritative decision making committee as outlined in Figure 2 below.

Figure 2: VHA IT Governance



The entities depicted in Figure 2 (and described below) reflect the organizations involved.

IT Committee: The IT Committee (ITC) is commissioned by the National Leadership Council (NLC) and is charged with oversight of the VHA IT Governance Process. The ITC will first determine the strategy and mission of the committee, followed by outlining proper VHA use of technology, aligning IT investments to VHA mission requirements through the Policy, Planning, Budget & Execution (PPBE) process, making IT investment decisions, monitoring execution of IT efforts, and assessing effectiveness and benefits of deployments. This charge is primarily accomplished through defining policies and enforcing compliance with those policies.

Integration Board: The Integration Board (IB) is charged with ensuring the prioritized IT needs submitted by the four Capability Management Boards (CMB) are consistent and appropriately integrated as a whole, performing minor adjustments to the priorities to achieve the overall budget target. The IB supports the ITC by analyzing and de-conflicting proposed IT needs, ensuring that the resulting list of prioritized VHA IT programs aligns with the VHA mission and strategic goals, as well as with OI&T budget constraints and applicable federal regulations.

Capability Management Boards: The CMBs are chartered by the ITC and charged with performing the prioritization of the VHA IT needs in alignment with the ITC criteria and policies and with reporting to the ITC on the progress of OI&T in developing IT solutions to meet VHA’s needs. CMBs are comprised of key VHA leaders and field clinicians to prioritize and determine the scope of programs, using business criteria, for IT investment funding. The CMBs

also provide a business council to review funded IT programs and make sure they are meeting their requirements, executing properly, and doing so within the approved schedule.

Health IT Strategy Sub-committee: The Health IT Strategy Sub-Committee is charged with defining the full strategic direction and mission of VHA IT for endorsement or veto by the ITC.

VISN Chief Health Informatics Sub-Committee: The VISN Chief Health Informatics (VCHI) Sub-Committee is charged with assisting in determining proper use of technology and information and supporting the assessment of technology effectiveness and benefits of deployments for endorsement or veto by the ITC.

Architecture and Requirements Investment Working Group: The ARIWG is charged with both an ITC secretariat function and with performing analysis of IT needs. The ARIWG supports the CMBs by ensuring IT needs are de-conflicted for scope and analyzed for benefit (alignment/impact) and risk (complexity/maturity).

Following VHA Governance prioritization and funding determinations, the SIM team works with each program office to review the Business Case Document and prioritize their needs and work. As soon as funding is allocated, VHA SIM submits the VIP Business Epics for funded business needs to the Account Management Office to begin the IT process. Once an IT Project Manager is assigned to the business need, a work effort will be stood up to ensure the prioritized needs are further defined with business architecture and requirements.

3.2. Work Effort Planning and Scope Coordination

This stage of the business requirements and architecture methodology includes preparing for the business requirements and architecture work effort, defining work effort scope and schedule, identifying stakeholders, reviewing existing documentation, coordinating the work effort planning, and conducting the work effort kick-off meetings.

3.2.1. Define Work Effort Scope and Schedule

The Work Effort Analyst Team works with the business customer(s) to define the work effort scope and schedule. This may include the development of a formal scope statement, a proposal and/or overview of the work effort, description of resources, assumptions, constraints, dependencies and risks, deliverables, expected outcomes, and a tentative project schedule.

3.2.2. Identify Stakeholders

There are various stakeholders who proactively engage as partners during each work effort. The goal of this activity is to identify all individuals, program offices, and groups that have a vested interest in the requested functionality, and invite them to participate in the effort. Stakeholders provide contextual information about the business relative to the request, validate customer requirements, voice expectations, communicate areas of dissatisfaction with the current processes, and convey desired needs for a future state, in order for Analysts to develop deliverables and the RAP. Active stakeholder involvement ensures that the IT solution meets the business and end user needs.

One of the most important stakeholders is the VHA BO. The BO's role is to identify relevant stakeholders, clarify the business need, and make decisions throughout the effort. They are involved in the work effort through solution deployment.

The BO helps the Work Effort Analyst Team to identify a comprehensive list of stakeholders and SMEs, to include identification of a Lead SME. The Lead SME also has decision making and approval authority in the absence of the BO, and is able to determine if there are any gaps in functional SME representation. During this process, dependencies such as availability and surrogate participation are also taken into consideration when confirming stakeholders.

In addition to the business (and where appropriate clinical SME representation), technical staff from OI&T is invited to be involved in the preparatory phase of the work effort, and continue their involvement throughout the process to ensure developed requirements are feasible and testable in the development/acquisition process. Early involvement from OI&T also supports the agile methodology for delivering capabilities in incremental packages.

Once the complete list has been confirmed, stakeholders and SMEs are engaged with the Work Effort Analyst Team to form the Work Effort Team. Recurring meetings (working sessions) are scheduled and during these meetings, the Business Requirements and Architecture process and deliverable templates are reviewed with the Work Effort Team.

The Work Effort Analyst Team works with the Work Effort Team to elicit business needs and associated requirements, along with real-life examples or scenarios that depict how the IT enhancement would bring value to the identified processes. There is great value and knowledge management in ensuring the SMEs that participate in the business requirements and architecture work efforts continue to participate during the IT Project life cycle.

3.2.3. Review Existing Documentation

The Work Effort Analyst Team collaborates with BOs, stakeholders, SMEs and their internal teams to conduct a comprehensive environmental scan that builds upon the environmental scan conducted during the Assessment Phase. The scan may include research of databases such as the NSRD, Business Architecture repositories, Innovations repository, VistA, and the Technical Services Project Repository (TSPR) to gather policies, related and existing requirements, existing applicable models, and other information relevant to the work effort.

3.2.4. Coordinate the Work Effort Planning

Coordination between Work Effort Analyst Team members (e.g., SIM, OI&T representatives) is extremely important to ensure that the appropriate individuals are engaged and aware of work effort activities and information. Analyst team planning sessions will be conducted for the Work Effort Analyst Team to ensure all team members understand the process, methodology, deliverables, roles, and responsibilities. During the planning sessions, guidelines are communicated that include a description of the roles and responsibilities of team members, the approach for developing and delivering the requirements and models, plans for a kick-off meeting, and the process and mechanism that will be used to share and store work product artifacts.³ There may be times when we may partner with requirements and process architects external to SIM (i.e., Veterans Engineering Resource Center [VERC], Community Care Business Systems Management [BSM]).

In order to support efficient requirements and architecture definition, appropriate SME resources are engaged in the work effort based on expertise and the increment that is currently under

³ See Work Effort Analyst Team Guidance for more detailed information.

development. During the work effort planning period, a stakeholder matrix is developed to facilitate the efficient and effective use of SME resources.

The following documents are also shared and reviewed with the team at the beginning of the work effort:

- a. Current version of the BRAMP
- b. Requirements and Architecture Business Life Cycle
- c. Draft Business Requirements and Architecture Work Effort Proposal, consisting of:
 1. Validated Scope Statement
 2. Work Breakdown Structure (WBS)
 3. Team Roster
- d. RASCI Matrix
- e. Review Board (CCMB, BCMB, etc.) outputs
- f. Existing relevant documentation (e.g., models, requirements, and policies)

These documents form the foundation for the initial preparation steps and are provided not only as reference materials, but as a starting point for each work effort. During the initial coordination meeting, the team will review the Requirements and Architecture business life cycle process and the RASCI Matrix to understand the roles, activities, and expectations of everyone on the team.

3.2.5. Hold Work Effort Kick-Off Meeting

A Work Effort kick-off meeting will be held with the entire Work Effort Team, which consists of stakeholders, business owners, SMEs, and any supporting staff. This meeting provides the opportunity to discuss the scope and objectives of the work effort, the role of each team member, and the iterative schedule.

3.3. Develop Business Requirements and Architecture

The development of Business Requirements and Architecture stage brings all of the business and technical stakeholders together to define the desired business needs/requirements and architecture for IT solutions. Requirements and architecture are captured by conducting virtual or in-person working sessions and interviews to interact with SMEs in order to understand and elicit business workflow/process details and requirements. Site visits may also be scheduled to observe end users and gain a better understanding of their normal working environment and the context around their need for an improved IT solution.

The Work Effort Team works together to facilitate the elicitation and documentation of information needs and high level and detailed business requirements based on discussions with SMEs. Business process models provide analysts and SMEs with a logical and visual progression through the process. As the process is being documented visually, the Requirements Analyst and Information Architect ask questions to capture the majority of the high-level and detailed text based requirements. Using this integrated approach reduces the number of SME sessions that would otherwise focus solely on requirements or solely on information architecture.

Process modeling offers important visual cues that inform understanding of the customer's workflow. Following are benefits of utilizing this methodology:

- Through the progression from the As-Is Process and To-Be process, additional business requirements and information needs will be identified.
- Process models will allow the Work Effort Team to visually identify pain points, bottle necks, and areas for improvement.
- Work Effort Team and SMEs will be able to identify dependencies with other processes and out of scope requirements.
- Allows for a requirements alignment to process models to ensure requirements are captured for every activity within the process.
- Unknown needs and requirements (gaps) become more apparent.

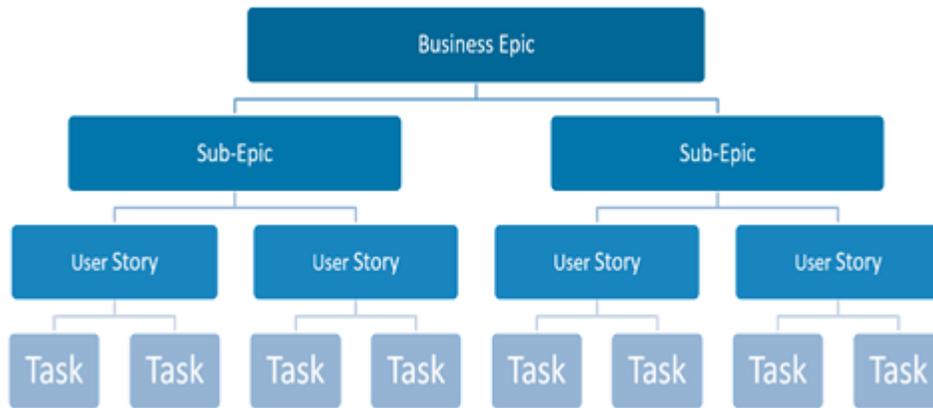
3.3.1. As-Is Process Model Development

The As-Is process is a prerequisite to understanding how processes are executed in the current work flow or system. As-Is process models are developed by leveraging existing processes developed by Business Architecture or external organizations, as well as SME input and descriptions of current processes. The team analyzes the current state of the business need, including current architecture descriptions, performance, and business goals and objectives. While the details of the current environment are being analyzed, the team captures the existing structure, resources, processes, pain points, bottlenecks, and improvement opportunities. This activity produces As-Is process models and associated Activity Description Tables.

3.3.2. To-Be Process Model Development

Utilizing the As-Is artifacts, the Work Effort Analyst Team elicits and documents the desired process through discussions with SMEs. If current capabilities are insufficient to meet the business needs, it is the responsibility of the team to identify where gaps exist and develop To-Be models, references, and other descriptive information to address the deficiencies. Feedback and input from the SMEs are captured in the To-Be processes. The streamlined or improved processes are free of any constraints and activities that do not add value. The To-Be process models are an in-depth depiction of “what good looks like” from the business owner’s or SME’s perspective. These redesigns and enhancements are illustrated in the To-Be business process models. Depending on where the effort is in the SDLC, the Work Effort Analyst Team may be required to develop either high-level or detailed process models. The high-level process models provide an overarching view of the business processes being analyzed. These models are developed to assist in understanding business needs, the identification of business requirements, and activity inputs and outputs. Detailed process models allow traceability to normalized data objects in the information models and assist OI&T EPMO Intake with development of service architecture.

Figure 3: Business Epic Decomposition



3.3.3. Business Epics and Sub-Epics

Epics are business needs articulated by a stakeholder that describe a business or end-user need to be fulfilled by an IT solution. An epic captures a large body of work to be completed during development and is typically too large to complete within a Sprint. It is further decomposed into smaller sub-epics and workable user stories. Epics will be traced to the BFF and the business process models. There are two types of business artifacts: (1) Portfolio Epics which include Business Epics, Sub-Epics, and (2) User Stories. Business Epics and Sub-Epics directly deliver business value with strategic objectives and need to be described in general terms to initiate a further discussion about what types of features an epic implies.

The following table depicts the overarching differences between the types of artifacts.

Table 5: Portfolio Epics vs. User Story

	Portfolio Epic (Includes Business Epic and Sub-Epic)	User Story
Generated by	Business Requirements and Architecture Groups	VHA Business Requirements and Architecture team, or Program/Project Teams
Description	Containers for large initiatives	“Big user story”
Duration	6 months – 1 year	2 – 4 sprints
Format	For <target customers>. Who <statement of the need or opportunity>. A process <is needed/for/to include links to process models, if applicable>. That <statement of key benefit, that is, compelling>. Unlike <primary alternative>. Our process <does something better – the “why” – tie this to USH 5 Priorities/Enterprise Justification>.	As a... I want... So that...
Measurement	Success Criteria	Acceptance Criteria
Backlog	Portfolio	Team

	Portfolio Epic (Includes Business Epic and Sub-Epic)	User Story
Estimation	Duration (Job Size)	Story Points
Prioritization	WSJF (Weighted Shortest Job First)	Business Value
Decomposition	Feature	Feature/Theme User Story

Business Epics and Sub-Epics will be written in the following format:

Table 6: VHA Business Epic Format

	<<Epic Name>>
Epic Summary	<p><Include a summary that addresses:</p> <ul style="list-style-type: none"> • <i>NSR # (if applicable) and name of project or request.</i> • <i>Who is making or supporting the request (e.g., business owner and program office or department)?</i> • <i>What is being requested?</i> <ul style="list-style-type: none"> ○ <i>What must be delivered or accomplished to provide value (this is not “how” it must be delivered)?</i> ○ <i>Include a summary/history of the current situation/problem as well as a summary of the history/background of the system.</i> • <i>Why is this project necessary or desired (describe any research or analysis that has been or is planned to be conducted)?</i> • <i>When is this project needed (i.e., provide information about mandates and/or external deadlines if applicable)?</i> • <i>Where will the change occur (i.e., identify software applications/programs)?</i> <p>This epic includes the following Sub-Epics:</p> <ol style="list-style-type: none"> 1. <Sub-Epic Name> <p><i>Include a numbered list of the Sub-Epics associated with this epic. Hyperlink the Sub-Epic names to the Sub-Epic tables below by inserting a Bookmark on the Sub-Epic title and then creating an internal hyperlink.</i></p>
Epic Value Statement (Repository ID)	<p>NOTE: <i>OI&T has provided the leading terms below (i.e., For, Who, A, That, Unlike, and Our Process). Epic Value Statements should conform to these guidelines whenever possible, with the understanding that there will be instances where the leading terms must be altered slightly to best convey meaning.</i></p> <p>For <i><target users></i>: <i>identify the primary users (and secondary users, if applicable) of the product or end solution.></i></p> <p>Who <i><user role></i>: <i>Describe the common function of the target users’ role as it relates to the request.></i></p> <p>A <i><process></i>: <i>identify the business problem/issue/need. Do not include a technical approach describing how the process or solution should be implemented. Note: If you have a process model or more detailed process descriptions/scenarios, append them to the VIP Business Epic document></i></p> <p>That <i><statement of key benefit></i>: <i>identify the benefit the customer will receive from having the need or solution fulfilled.</i></p> <p>Unlike <i><current process deficiencies></i>: <i>describe the current process and the pain points encountered, including workarounds, that are used or could be used to address the problem.></i></p>

	<<Epic Name>>
	Our process < <u>does something better, the “why”</u> : Describe how fulfillment of this request would improve the current process at the program level.>
Alignment to VA/VHA Strategic Plans	<p><List strategic, tactical, and operational goals that will be met by implementing this Business Epic. Insert in the following order:</p> <ol style="list-style-type: none"> 1. <u>VA Breakthrough Initiatives</u> (12) 2. <u>USH Priorities</u>: (1) Open ACCESS to Care; (2) Improve Employee ENGAGEMENT; (3) Consistency in BEST PRACTICES/Quality; (4) High-Performing Network; (5) Restore TRUST and CONFIDENCE (see <u>VHA Vitals</u> for clarification on the 5 priorities) 3. <u>Blue Print for Excellence</u> (10 strategies) 4. Performance measures 5. Directives, etc. <p>Strategic Goals include: (1) Provide Veterans personalized, proactive, patient-driven healthcare; (2) Achieve measurable improvements in health outcomes; (3) Align resources to deliver sustained value to Veterans.></p>
Success Criteria	<p><Identify acceptance parameters that would validate the implementation was complete and successful. Describe how the success of the Epic will be measured in SMART terms:</p> <ul style="list-style-type: none"> • <u>Specific</u>: targets a specific area • <u>Measurable</u>: quantify or suggest an indicator of progress • <u>Achievable</u>: assure that an end can be achieved • <u>Relevant</u>: appropriate to the process or product • <u>Timely</u>: able to complete within a period of time>
In Scope	<Describe the functionality/requirements needed to complete the request and create value. Document specific details about the desired changes or new functionality being requested and the requirements needed to fulfill the request. The in scope items will become sub-epics>
Out of Scope	<Identify capabilities that are not needed/required for this effort. Identify functionality that may be “nice to have”, but is not necessary.>
Non-functional Requirements	<ul style="list-style-type: none"> • Applicable Office of Information and Technology Compliance Epics should be incorporated to meet the needs of the project. <p><The above is template text and should not be edited.</p> <ul style="list-style-type: none"> • <u>Repository ID</u>: NONF requirement • <u>Add Security Review Rating for the epic</u>. These can be found at https://vaww.vha.esp.va.gov/sites/RDM/internal%20RDMGoalsFY15/Shared%20Documents/Security%20Review%20Rating%20for%20Epics.docx <p>Describe the characteristics or quality attributes of the system (e.g., related to availability, capacity, efficiency, interoperability, performance, security, testability, maintainability, monitorability, portability, reliability, and usability).</p> <p>Applicable OI&T Compliance Epics should be incorporated to meet the needs of the project.></p>
Point of Contact	<Insert name & contact information for key point of contact>
References	<Insert links here, include link to NSR>

3.3.4. Detailed Business Requirements

Detailed business requirements include a decomposition of business requirements (epics and sub-epics) and business rules which result in user stories and acceptance criteria. These requirements are taken to a sufficient level of detail (description of the required behavior of the system which must be clear and readable) to create a set of working business requirements that are defined, prioritized, and testable for all functional capabilities that will be delivered as part of the current release or iteration. The business determines “what” needs to be done, and IT will be instrumental in describing “how” it can be done.

3.3.4.1. User Stories

User stories are brief, simple, and concise statements that describe requirements from a user perspective to capture and communicate customer requirements. User Stories will be developed in collaboration with OI&T. User Stories are written using the following format: As a <insert type of user>, I would like <insert statement of need>, so that I can <insert desired benefit>. For example, “As a member of the health care team caring for women Veterans (‘users’), I need to log in to the application using a unique identifier, so I can view a dashboard of women Veteran patients assigned to my panel, because it includes personal health information that must be accessed securely.”

3.3.4.1.1. Tasks/Acceptance Criteria

Acceptance Criteria define the boundaries of a user story and are used to confirm the completeness and intention of the user story. For example, “A user can log into the application using their VistA credentials.”

3.3.5. Business Rules

Business Rules are a specific, actionable, testable directive that is under the control of an organization and that supports a business policy⁴.

3.3.6. Information Models

Business Information elicitation and development is used to understand and document business information usage, structure, and information exchange requirements that are necessary to create well-designed IT solutions. Information modeling produces a visual depiction of the information requirements for a particular project/subject area where data are well defined and relationships to other information concepts are reflected. This may include the information necessary to achieve interoperability with outside agencies and organizations.

The following describes the As-Is and To-Be Information Models:

- **As-Is VistA (Hybrid) Information Models:** The BA unit leverages a concept known as hybrid models to create the current (As-Is) state models of the VHA systems. Hybrid models reflect the business-related data elements captured and managed by the VistA system. System-related data elements are filtered from view in the hybrid model, such as attributes used to log transaction update dates and times. If the VistA data structure does not group related data elements into well-formed classes, the hybrid model restructures

⁴ Guide to the Business Analysis Body of Knowledge [BABOK] - Version 2.0

the data into logically related groups of attributes. This new structure is more consumable to the business SMEs.

- **To-Be (Future State) Business Information Models:** BIA work products clearly communicate business information requirements as part of the enterprise-wide integrated Requirements and VHA Business Architecture. Although a number of different information artifacts will be developed as part of the business information modeling process, the primary goal is to develop a suite of Unified Modeling Language (UML) 2.0 based-class diagrams that define the work effort's information requirements.

3.4. Finalize Business Requirements and Architecture Package

All work efforts must conclude with the business RAP. The purpose of the RAP is to provide the requirements and architectural artifacts and a summary that describes the process that led to their development. The RAP should include the work effort purpose, the objectives sought, and the accomplishments achieved. For the elaboration phase, the RAP is a compilation of all of the work effort phases that may have been approved and shared with OI&T throughout the work effort. The Work Effort Analyst Team facilitates a comprehensive review process with external stakeholders to ensure all necessary components have been addressed (i.e., Security, Privacy) and the deliverables contain the information needed to be consumable by OI&T. Reviews are conducted by SMEs, Security, and OI&T EPMO.

3.4.1. Quality Management Process

SIM has a comprehensive quality management process to ensure that all requirements and architectural artifacts are consistent, adhere to industry and VHA SIM standards, and meet the overall objective of the work effort. For a complete and unbiased review, all components of the RAP undergo a content/quality review by technical writer, analyst peers, SIM management, and work-effort stakeholders. During this review, the VHA BFF links are confirmed as appropriate and maintained throughout the life cycle and evolution of the architecture. The final RAP will be reviewed and approved by the BO(s). All final approved deliverables are stored in the business requirements repository and business architecture repository and are available to customers via the NSRD and the Rational Tools repositories.

The RAP constitutes a consolidated business requirements and architecture package that is a tool to navigate business requirements, as well as process and information models. The actual requirements and models in their native format are an integral part of the finished product and are made available as part of the system development process to ensure proper traceability from functional requirements to system requirements and implementation.

3.5. VHA and OI&T Collaboration

3.5.1. VIP Project Phase

Once the business epics and sub-epics and high level process models are finalized and approved, the IT Business Analysis Team (BAT) assists the BO in submitting a request through the OI&T Account Management Office (AMO) for review, assessment, and prioritization by the IT

Account Managers (ITAM). Requests approved by the ITAM will be submitted into OI&Ts intake portal by the AMO.

VIP project initiation is kicked off when an EPMO IT Project Manager is assigned. Initiation will include the development readiness transition activities where the Work Effort Analyst Team shares information on existing business requirements, existing process and information architecture, and existing business case documents and technical architecture. The collective team will discuss if further elaboration is needed and if VHA is able to resource elaboration with business analysts and architects. OI&T will determine what additional information is required in order to proceed with development and assign resources appropriately to meet those needs. The EPMO IT Project Manager is directed to the NSRD and VHA business requirements repository in Rational DOORs and Rational Team Concert (RTC) for existing business requirements and architecture deliverables and supporting documents.

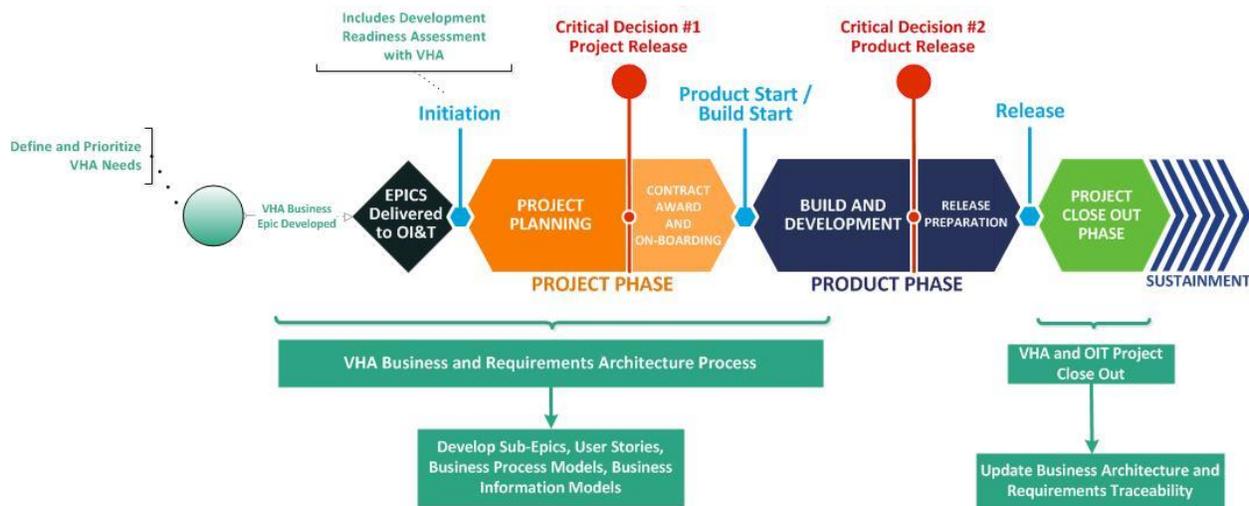
3.5.2. VIP Product Phase

Once a final RAP is delivered and approved, the VIP product phase begins, and EPMO will begin development and release cycles. It may be discovered that a set of requirements were not released for specific reasons, for example, original requirements were modified or changed by SMEs/Users due to policy changes or process changes, or functionality that was not documented in original requirements was built and released. For more information on OI&T processes and deliverables, please reference the [VIP SharePoint](#)

3.5.3. VIP Project Close Out

The project closeout activity involves collaboration and communication between OI&T and Work Effort Analysts to understand the outcomes and results from an OI&T release. The team will determine if original requirements and architecture were satisfied and will ensure the integrity of the architecture by reflecting the current production environment. During the project closeout, designated team members from both organizations review appropriate release documents to determine if changes are needed to existing architecture artifacts. Any proposed updates to BRAMP artifacts may be submitted using the Change Management Process (see Section 3.6). The request will follow the appropriate process, and further decisions and updates will be made.

Figure 4: VIP Process integrated with BRAMP



3.6. RAP Change Management Process

The intent of the RAP Change Management process is to define the mechanisms for consistent management of NSR and deliverable changes. Specifically, the change management process describes the processes and procedures used to request, evaluate, decide, and track proposed changes to requirements and architecture package deliverables, which can occur anytime during the life cycle of the request/project. The change management process provides the overarching framework for requirements and architecture management, change control, and version control. The change management process also enables SIM to consistently track changes to requirements and architecture artifacts, and deliver high quality business requirements and architecture services in support of IT solutions for VHA and VA. SIM uses standardized methods and procedures as well as change management tools to develop, manage, and control requirements and architecture life cycles.

The need for changes to RAP artifacts is typically requested by the Lead SME/BO, the IT Project Manager, IT Development Representative, or other VA governing bodies. All requests for changes will be submitted through the NSRD and addressed by the Work Effort Analyst Team.

Upon receiving a change request, the receiving analyst(s) will notify the appropriate stakeholders as well as appropriate Work Effort Analysts within the Work Effort Team to review the change request and determine if the request is in scope for the work effort and/or IT project. The reviewers will also identify the stage of the work effort in order to determine which stakeholders should be engaged during the change management process. The following scenarios are possible at the conclusion of the change request review:

- Changes Deemed Out of Scope:**
 In cases where the change request is outside the scope of the active project, the Work Effort Analyst Team will advise the requestor to submit a new NSR and the change request will be closed. Upon submission of the new NSR, the standard NSR process will be followed.
- Changes within Scope Where Development Has Not Started:**
 If changes are identified and development has not started yet, the Work Effort Analyst

Team will engage the appropriate stakeholders to begin the analysis and documentation of the change request – See Figure 4 and Figure 5.

- **Changes within Scope While Development is Underway:**

If a change request is submitted for an IT effort where development is already underway, the Work Effort Analyst team should engage a Development Representative to lead the change request analysis and adjudication. The Development Representative will be responsible for identifying appropriate technical stakeholders to be included during the analyze and process change request activities. Other than the addition of these technical stakeholders, the manage change request process continues as normal until the change request is closed.

To analyze a change request, the Work Effort Team must determine the full scope of the change by conducting an impact assessment. A change request could be related to the business, stakeholder, or functional requirements. During this assessment, the internal SIM steps are very similar to the elicitation of new requirements. The team will need to involve all impacted stakeholders in eliciting the requirements of the change, analyzing those items, and then determining the impact to current business requirements and process/information models. Along with identifying the impact of the change, the team should identify the benefit of making the change or the business need driving the change.

Following the completion of the analyze change request sub-process, the Work Effort Team will proceed with processing the change request if it is determined that the change request will be adopted.

If the Work Effort Team rejects the change request, justification will be documented and the status of the change request will be updated and then closed. A change request may be rejected due to (but not limited to) funding, lack of resources, project timeline, or feasibility.

After the change request has been approved, the Work Effort Analyst team will determine when to incorporate the change. Using information from the change request outcome and the change request submittal, the team will determine to either incorporate changes in the existing RAP, or to prioritize the request for a future date. If the changes are to be made to the RAP, the original architects and modelers will need to review and recommend the areas for modifications in the deliverables.

Once the modifications are made to the appropriate RAP deliverables, they are reviewed by the Work Effort Analyst team and then the appropriate Stakeholders are notified to be made aware of the changes. If the changes require Stakeholder and Business Owner review, then the artifacts will follow the standard BRAMP approval process, in [Section 3.4, Finalized Business Requirements and Architecture Package](#). The last step is to finalize the deliverables by reposting the updated RAP to the NSRD, as well as any other collaboration sites, and the change request implementation is considered complete.

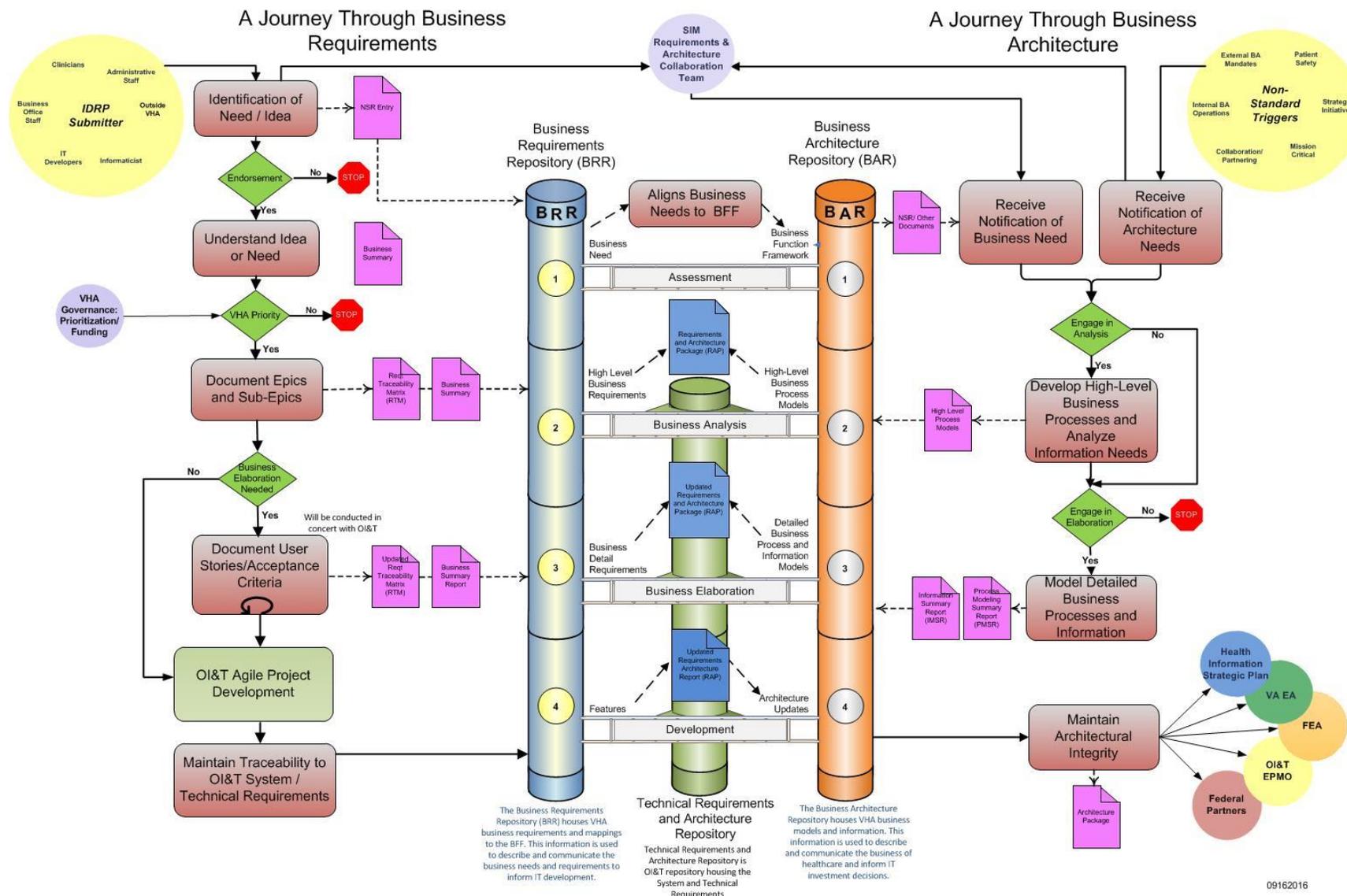
4. Summary

This concludes the BRAMP. The appendices that follow should be used as references to the content in the main document. The BRAMP provides guidance for the development and management of business requirements and architecture to support senior VHA leadership in the decision to adopt, buy, or create solutions to address particular business needs or capabilities, and describes the guidelines and procedures for the collection and management of business

requirements and architecture. Proper use of this document and its processes ensures effective and efficient development of artifacts that accurately describe the needs of the business and clinical end-users. This process ensures enterprise level analysis, traceability, and effective communication throughout the requirements and project life cycle to ensure business needs are met by the delivered IT solution, providing value to its stakeholders.

If you have further questions after reading this document, reach out to the BRAMP Workgroup (VHA10P2ESIMBRAMP@va.gov).

Appendix A. Journey through Business Requirements Architecture



Appendix B. High Level Process and Data Table

VHA and OI&T Collaborative High-Level Process is coming soon in Version 4.

Appendix C: Change Management Process Models

Figure 5: Manage Change Requests

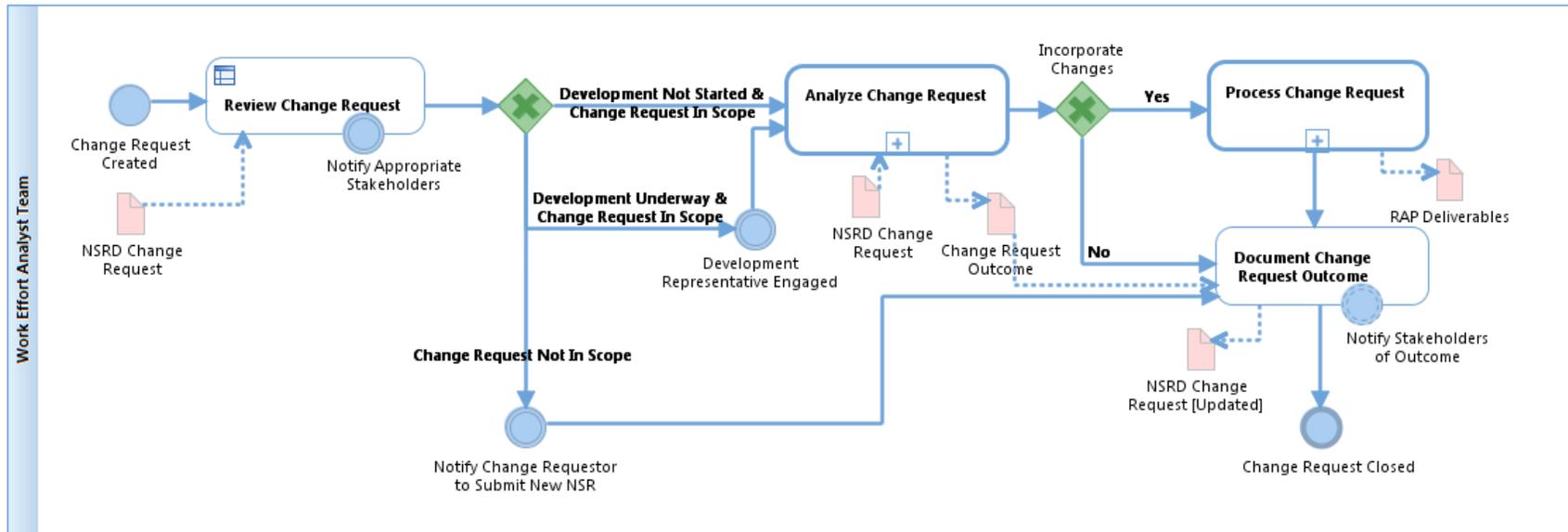


Figure 6: Analyze Change Request

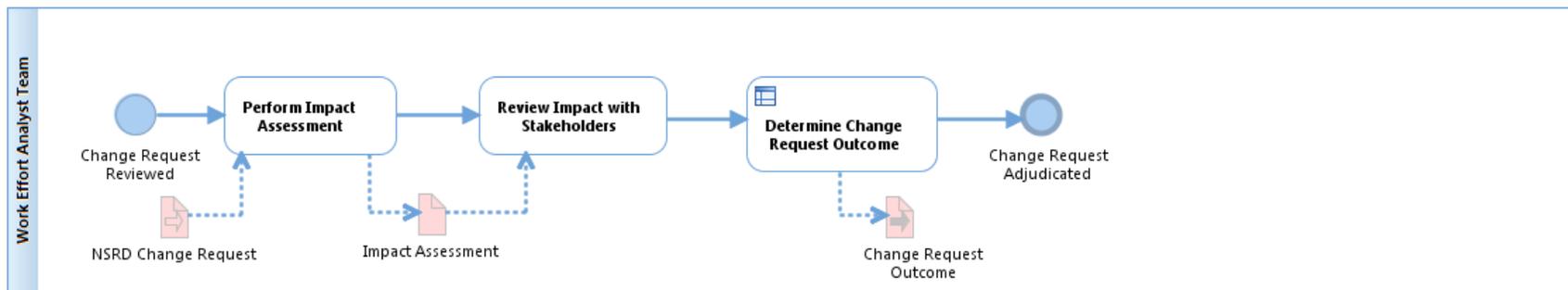
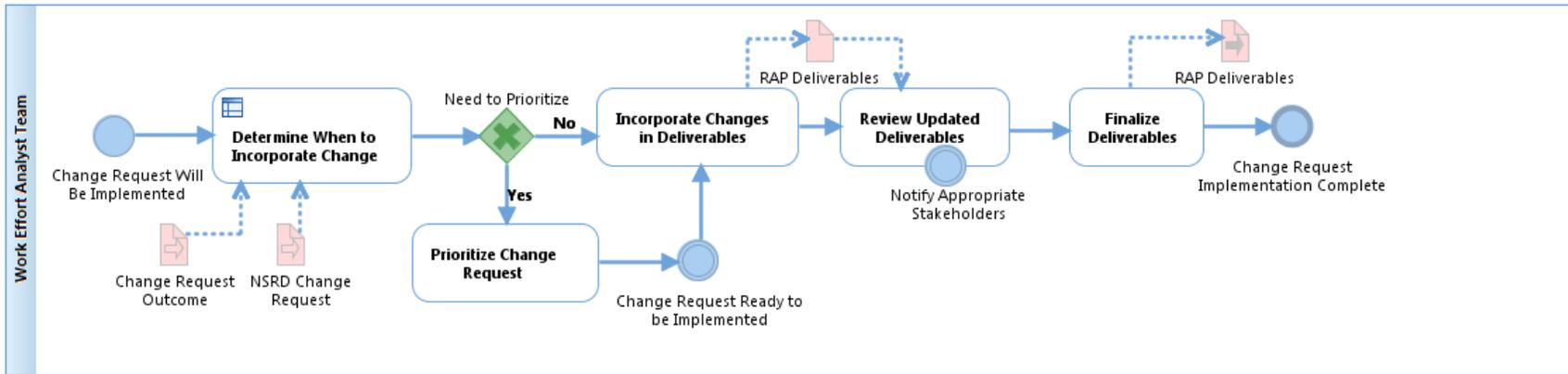


Figure 7: Process Change Request



Appendix D. Requirements and Architecture Tooling

The VHA SIM Office utilizes multiple tools to manage requirements and architecture products. Some of the repositories that SIM uses to track work effort history, activities, and documentation include:

- **[Trous](#)** is used to manage the BAR, its BFF, and other information to allow business leaders to understand how all parts of the enterprise fit together and relate to each other. This tool enables business leaders to make well-informed decisions and better communicate the cost of change, impact of change, and benefit of change to stakeholders throughout the enterprise.
- **[New Service Request Database](#)** is used to collect VHA requests from clinicians or other users to enhance existing health IT solutions or to develop/acquire new solutions. The purpose of the NSR is to identify the business needs and to address the requested changes to the current (As-Is) workflow or business process. Business needs originate from stakeholders within VHA such as clinicians, administrative staff, business office staff, and developers.
- **Needs Repository** is used by OI&T Architecture Strategy and Design (ASD) to maintain business needs and analysis performed in support of the Business Needs, such as product research and life cycle cost estimates.

VHA SIM, along with VA OI&T, and the VA EPMO have jointly adopted the IBM Rational Jazz Tool Suite to assist in managing Work Efforts, as well as Business Requirements and Architecture artifacts across the project life cycle. Requirements Analysts and Business Architects are responsible for documenting business requirements, Business Use Cases, business detailed requirements, business process models, and business information models, as well as the requirements and architecture deliverables using this tool suite. A brief summary of the tool suite is as follows:

- **[Rational Team Concert](#)** is a collaborative environment to manage all aspects of work, such as plans, tasks, revision control, build management, and reports.
- **[Rational DOORS Next Generation](#)** is used to organize, prioritize, and track requirements. Revisions to requirements and versioning can also be accomplished in the tool. RDM utilizes Rational DOORS to capture and manage business requirements, tracings to the BFF and, where possible, cross-project linking with OI&T.
- **[Rational Software Architect](#)** is used to develop, organize, and manage architectural models that reflect both process and information requirements. Business Architecture and Enterprise Architecture utilize Rational Software Architect to develop processes, logical data models, conceptual data models, and business capability models.

Appendix E. Glossary

Term	Definition
Acceptance Criteria	Defines the boundaries of a user story and is used to confirm when a user story is completed and working as intended.
Agile Approach	An approach to software development methodologies based on iterative and incremental development, where requirements and solutions evolve through collaboration between self-organizing, cross functional teams.
Artifact	An object or component developed during requirements analysis and elaboration. Examples: epics, user stories, user narratives, process models and information models.
ASD Representative	Attends analysis and elaboration meetings, advises on project initiation, and identifies content that requires enterprise architecture focus.
Business Architecture (BA) Service	A service line within SIM whose functions are cross-cutting to portfolios. For some of the more complex NSRs, BA participates by providing business process models. As necessary, VA will determine that additional/alternative models, such as activity and information models, are more appropriate. In those cases, BA will provide the alternative models. BA may also provide simulations of business processes to stakeholders through the use of the iRise application.
Business Capability Management Board (BCMB)	Chartered by the Assistant Deputy Under Secretary for Health for Informatics and Analytics as the decision-making entity for establishing priorities for the development and/or enhancement of non-clinical information system (Business Informatics) products for VHA.
Business Customer	An individual that consumes the services or products produced by a business or OI&T.
Business Driver	Resources, processes, and conditions that initiate and support requirement activities in order to provide continued success and growth within VHA.
Business Information Architect	Develops conceptual and business information models based on direct SME input, business requirements, process models, expected logical interfaces, and appropriate information exchange standards.
Business Need	A high-level business requirement that is a statement of a business objective or an impact the solution should have within its environment.
Business Owner	The Program Office representative (typically at a directorate level) who is responsible for the policy, processes, and practices of a given area. The BO provides a request support decision no later than the start of Level 2 of the NSR process, provides final approval of the requirements and architecture deliverables with sign-off authority, provides strategic direction to the program, elicits executive support and funding, and monitors the progress and timelines throughout the life cycle of the request.
Business Process Architect	Elicits, designs, and optimizes business process models based on data and SME input.
Business Process Modeling Notation (BPMN)	Industry standard business process modeling format used to graphically represent specific business processes based on flowcharting techniques.

Term	Definition
Business Requirement	Business rationale that is documented at a lower level than a business need, but is not as detailed as a business detailed requirement. When addressed, it will permit an organization to increase revenue, avoid costs, improve service, or meet regulatory requirements.
Business Requirements Analyst	Develops and manages business and non-functional requirements for the identified work effort. Accomplished by gathering, analyzing, documenting, and validating the needs of business stakeholders and SMEs during analysis of business processes.
Business Summary Report (BSR)	This document captures and describes the business needs, providing insight into the AS-IS and TO-BE business areas, identifying stakeholders and profiling primary and secondary user communities, identifying what capabilities the stakeholders and the target users need and why these needs exist, providing a focused overview of the requested requirements, constraints and IT options considered.
Business Risks	A potential threat to the development, return on investment, and/or implementation of a proposed effort.
Business Rules	A specific, actionable, testable directive that is under the control of an organization and that supports a business policy (Reference: Guide to the BABOK- Version 2.0).
Business Use Cases	Used for capturing textual content that contains a description of the flow of events describing the interaction between users and the system.
Class III Software	See Integrated Application Management .
Clinical Capability Management Board (CCMB)	Chartered by the Assistant Deputy Under Secretary for Health for Informatics and Analytics as the decision-making entity for establishing priorities for the development and/or enhancement of clinical information system (Health Provider System) products for VHA.
Customer/ Requester	This individual submits a request, assists with business requirements creation, monitors progress of request, and contributes to BUSINESS SUMMARY REPORT development.
Deferred Requests/ Requirements	Requests that are not proceeding to analysis and whose business needs/requirements will be stored in the requirements repository for future consideration.
Deliverable	A document produced as a result of the work effort that is intended to be delivered to OI&T. Examples are Business Summary Report, VIP Business Epic, Process Model Summary Report, and Information Model Summary Report.
Digital Signature	A digital signature, like a conventional handwritten signature, identifies the person signing the document. Unlike a handwritten signature, a digital signature is difficult to forge because it contains encrypted information that is unique to the signer and easily verified.
Data Resources and Analytics CMB (DRACMB)	Addresses VHA IT solutions primarily used to collect, analyze, assess, manage, and improve the health of Veteran populations and subsets. This CMB collaborates with the other CMBs that utilize data to take actions within their own domain.
Endorser	VISN level or higher who approves acceptance of the request so that it can be accepted as an NSR and evaluated further.

Term	Definition
VIP Business Epic	<ul style="list-style-type: none"> • A large user story that can be broken down into smaller user stories (similar to a business need). Written in the following manner: <ul style="list-style-type: none"> ○ For <target customers>. ○ Who <statement of the need or opportunity>. ○ A process <is needed/for/to include links to process models, if applicable>. ○ That <statement of key benefit, that is, compelling>. ○ Unlike <primary alternative>. ○ Our process <does something better – the “why” – tie this to USH 5 Priorities/Enterprise Justification>.
Fast Track NSR	Designation for an initiative that cannot wait for implementation due to impending risks.
Field Developed Software	Field Developed Software, aka Class II, is software that is locally developed and managed by Regional Service Line Managers. Typically, regional managers assume responsibility for the review and testing to assess functionality. Class II is often Class III software reassessed, matured, and inherited at the regional level for distribution across a region or regions.
Formal Review Phase	Activities during this phase of the NSR process include obtaining Business Owner approval of the Assessment Package and governance reviews and decisions. This phase occurs between Level 1 (Assessment) and Level 2 (Analysis).
Innovation	New requests that seek to collaborate, mature, and develop a local or national IT enhancement. The Innovation Program offers resources such as collaborative tooling and testing environments.
Innovation and Development Request Portal (IDRP)	<p>A single-entry point launched in March 2011 that allows customers to submit solution requests and provides the customer with the ability to easily track these requests. Customers use IDRP to submit and track requests for the following:</p> <ul style="list-style-type: none"> • New or Enhanced Applications • Device Interface to a Commercial Product • New or Enhanced Software Requests for Field Development • Data Warehouse • Class II/III to Class I Conversions • Innovation Program Registrations • Software Waiver Requests
Integrated Application Management (also referred to as Class III or Field Developed Software)	Class III software is locally developed software that has been shared among sites. Carries minimal technical standards compliance but must safely and respectively interoperate with Class I products hosted in the same environment. Can also be a Commercial-Off-The-Shelf product or other source of software not developed and/or supported by OI&T on a national scale.
IT Project	A project is a component of a program, with defined business requirements, technical requirements, budget allocation, and delivery timeframes. Projects may be synonymous with specific contracting/acquisition actions as well.

Term	Definition
Mandated NSR	Designation for an initiative that is considered mission critical or must-do work due to a business driver, such as a congressional mandate, Food and Drug Administration (FDA)/Joint Commission compliance, Secretary's priority, patient safety recommendation, etc. The mandated request is put on a funding list that will be approved on an annual basis. Funding is applied as monies become available.
Business process-framed requirements Development	A methodology to develop process models to drive the elicitation and documentation of information needs and high level and detailed business requirements.
New Service Request (NSR)	Requests for business problem analysis potentially utilizing IT as an enabler. NSRs are the VHA users' tool to request IT support and solutions for VHA information systems and are designed to address arising needs. NSRs are entered by clinicians, staff, management, and administrative personnel in medical facilities as well as headquarters and are designed to improve service to Veterans. Some of the requests are the result of field based innovations and local changes to VistA software that needs to be evaluated for national release. NSRs can originate in response to business process issues, transformational initiatives, patient safety alerts, national directives, legislative mandates, FDA requirements, interagency sharing initiatives, executive decision memos signed by the Under Secretary for Health, Joint Commission, VA-defined material weakness findings, and system-wide Office of the Inspector General audit findings.
New Service Request Database (NSRD)	The database that contains all NSRs submitted to date. There are 2 separate sites for the New Service Request Database: (1) a public facing Customer Site and (2) an NSRD Management internal site. (Note: Requirements Analysts should share the Customer Site link to the database when communicating with customers. Otherwise, they will receive an unable to access error.) The NSRD Welcome Page provides our customers with information and guidance materials on the NSR process. Customers can search for requests on the site and track the status of any request. RDM Analysts use the NSRD management site to update information about the request as it progresses through the BRAMP process.
Non-Functional Requirements	A requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviors. They are also referred to as qualities of a system. Some examples of non-functional requirements are maintenance, monitoring, transaction speed, response time, training curriculum, help desk support, data protection, metrics, quality, privacy, etc.
NSR Phase – Level 0 (Initiation)	Activities during this phase of the process include submission of an NSR, verification of endorsement, and assignment of a requirements analyst.
NSR Phase – Level 1 (Assessment)	Activities during this phase of the process include the initial gathering of information about the request leading up to the request being sent to the appropriate Program Office(s) for consideration and possible inclusion in their Multi Year Planning Business Case submissions to VHA Governance.
NSR Phase – Level 2 (Analysis)	Activities during this phase of the process include requirements gathering and analysis of the business needs, including production of requirements document deliverables (i.e., VIP Business Epic, Business Summary Report, Requirements Traceability Matrix).

Term	Definition
NSR Phase – Level 3 (Elaboration)	Activities during this phase of the process include the decision (made by the Business Owner and OI&T) to elaborate requirements documented in the Business Summary Report and VIP Business Epic.
OI&T Representative	Attends analysis and elaboration meetings, advises SMEs on technical feasibility of requirements, and provides answers to technical questions that arise in discussions.
Open Source Electronic Health Record Agent (OSEHRA)	An open, collaborative community of users, developers, and companies engaged in advancing electronic health record software and health information technology.
Program Office	Responsible for policy and program development and oversight. Comprised of Business Owners who are responsible for managing the strategic direction of VistA applications.
IBM® Rational® DOORS® Next Generation formerly called IBM® Rational® Requirements Composer.	RNDG is a web-based Requirements Management System. The system empowers teams to define, manage, and report on requirements in a lifecycle development project. It supports iterative, waterfall and agile-at-scale development methodologies using lightweight requirements processes. Benefits include the flexibility for teams to collaborate, clarify, and quickly achieve consensus on requirements. It also provides the ability for all stakeholders including business and technical personnel to view the status of requirements throughout the lifecycle. The tool allows integration with other Rational® tools within the VA enterprise.
Requirements Elaboration (also referred to as Requirements Engineering)	Development and documentation of additional business details as follow-on to the high-level business requirements. Requirements are elaborated with business customers using agile methodologies in collaboration with Business Architecture via model-driven requirements development process. Business requirements documented in this process are at a sufficient level of detail for OI&T to develop technical design specification documents. (Note: This definition refers to the task; not the team.)
Requirements Elicitation	Describes the collection of activities and approaches for capturing the requirements of a target system from the stakeholders. (Source: Business Analysis Book of Knowledge, p. 316)
Requirements Engineering	See Requirements Elaboration .
Requirements Traceability Matrix (RTM)	A matrix used to track requirements' relationships. Each column in the matrix provides requirements information and associated project or software development components. (Source: The Software Requirements Memory Jogger- Gottesdiener, Ellen)
Research and Education Capability Management Board (RECMB)	Addresses VHA IT solutions that primarily support the conduct of health care research and academic affiliations, including developing new strategies to handle diseases, identifying new means for delivery of services, methods, decision models, and practices, and managing clinical trials and research quality as well as conducting an education and training program for health professionals to enhance the quality of care provided to Veterans within the VHA health care system.
Routine NSR	Designation for a request that is not Mandated, not aligned to a Major Initiative, or not classified as 'Fast Track'.

Term	Definition
SIM BA Management	Provides SIM BA Management review and approval of deliverables.
SIM Leadership	Provides SIM RDM Management review and approval of deliverables.
Subject Matter Expert (SME)	A stakeholder with specific expertise/knowledge in a particular area, an aspect of the problem domain, or potential solution alternatives; an individual who exhibits the highest level of expertise in performing a specialized job, task, or skill within the organization. The SME closely assists with developing business requirements and continues to work closely during the development and testing stages to ensure that all the requirements are being met. Provide subject matter expertise as requirements and architecture are developed. SME advises OI&T on the clinical and/or business usability of the new health IT product(s). Usability is a measure of how easy it is to use a product to perform prescribed tasks.
Stakeholder	An individual with interests that may be affected by the proposed project, can influence it, or shares a common business need, but may not be directly involved with doing the project work. A preliminary list of stakeholders is identified prior to initiating analysis of the request. Additional stakeholders are identified during analysis as appropriate. Examples are managers affected by the project, process owners, business architects, security and service delivery, and engineering.
Technical Services Project Repository (TSPR)	The central data repository and database for VA PD project information.
Technical SME	This individual provides technical background information about the current software and requested enhancements.
User SME	This individual ensures that the enhancements will account for current business processes and existing software capabilities.
User Story	<ul style="list-style-type: none"> • A brief, simple, and concise statement that describes requirements from a user perspective to capture and communicate customer requirements. User Stories are written using the following format: As a <insert type of user>, I would like <insert statement of need>, so that I can <insert desired benefit>. • Single-sentence statements that describe features or business objectives that the user needs to accomplish. High-level user stories are classified as epics and can contain several decomposed sub-user stories that all work to accomplish the high-level desired feature or business objective. User stories are required prior to entering the requirement into the product backlog.
VHA ID	A unique database record number sequentially assigned by Reporting & Analysis (R&A) staff and captured in the Health Systems Information Suite (HSIS) database tool. Identifies a unique and specific business need that must be met through the delivery of an IT capability. Regardless of whether it is determined that an NSR should proceed to analysis (a BRD will be created or simply entered into the requirements repository for future consideration), a VHA ID is assigned to the request.

Term	Definition
Voice of Customer Analysis	Proactive engagement of the customers and end users throughout the process to understand and validate customer requirements, expectations, areas of dissatisfaction with the current processes, and desired needs for a future state. (Reference: Guide to the Business Analysis Body of Knowledge [BABOK] – Agile Extension)
Waiver Process	Request to allow sites to use modifications made to one of the national Vista software products.
Work Effort	A business project constituted by business teams within the organization, involving analysis and/or elaboration to define and develop business requirements and architecture.
Work Effort Analyst Team	The Work Effort Analyst Team is a subset of the Work Effort Team and consists of Requirements Analysts, Business Architects, and Work Effort Coordinator.
Work Effort Team	The Work Effort Team consists of Business Owner, Analyst Team, and SMEs.

Appendix F. Requirements and Architectural Artifacts

Artifact	Artifact Description
Business and Non-Functional Requirements	Business rationale that is documented at a lower level than a business need, but is not considered a business detailed requirement. When addressed, it will permit an organization to increase revenue, avoid costs, improve service, or meet regulatory requirements. The RTM is the document repository for all business and non-functional requirements.
Business Detailed Requirements	A decomposition of business requirements and business rules housed in the requirements elaboration document and derived from the business use cases.
Business Information Model	A document that provides definitions for the domain data types (entities), their attributes, and interrelationships included in the initiative.
Business Process Model	A diagram of how the business is conducted in both the current state “As Is” and the future or target state “To Be.”
Business Summary Report	A document that describes the business needs of the customers/business owners and the functional requirements used to select or build an IT solution and is authored by the business and technical communities.
Conceptual Information Model	A diagram of high-level data concepts and relationships.
Data Objects	A business process diagram component that represents inputs and outputs of activities.
Information Model Summary Report	A model-based representation of business requirements and processes from the perspective of information that may be created, transmitted, received, or maintained.
Normalized Data Objects	Provides a consolidated model of information directly or indirectly described in the process models and functional requirements
Process Model Summary Report	A report that describes the process that led to the development of the Business Process Models and their supporting Activity Description Tables.
RASCI	<p>The responsibility assignment matrix used to identify roles and responsibilities for VHA and OI&T. RASCI stands for:</p> <ul style="list-style-type: none"> • Responsible – Those who do the work to achieve the task. There is typically one role with a participation type of Responsible, although others can be delegated to assist in the work required. • Accountable – The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to Responsible. In other words, an Accountable must sign off (Approve) on work that Responsible provides. There must be only one Accountable specified for each task or deliverable. • Supporting – Resources allocated to provide input to the task, Supported will assist in completing the task. • Contributing – Those whose opinions are sought, typically subject matter experts; and with whom there is two-way communication. • Informed – Those who are kept up-to-date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.
Requirements & Architecture	A compilation of the documents developed during the analysis and elaboration process. The RAP is authored by the business community with participation

Artifact	Artifact Description
Package (RAP)	from OI&T.
Requirements Traceability Matrix	A matrix used to track requirements information and associated project or software development components.
Responsible, Accountable, Supportive, and Informed model	A matrix that identifies roles and responsibilities during the project implementation or the change management.
Veteran-focused Integrated Process (VIP) Business Epic	The VIP Business Epic is a high level business requirement that can be further decomposed into sub epics and then into user stories. The VIP Business Epic deliverable includes an epic summary, epic value statement, alignment to VA/VHA strategic plans, success criteria, in scope functionality, out of scope functionality, non-functional requirements, point of contact, and references.

Appendix G. Acronyms

Term	Definition
AIM	Applied Informatics Management
AMO	Account Management Office
ARIWG	Architecture Requirements and Investment Working Group
ASD	Architecture Strategy and Design
BA	Business Architecture
BABOK	Business Analysis Body of Knowledge
BAR	Business Architecture Repository
BAT	Business Analysis Team
BCMB	Business Capabilities Management Board
BFF	Business Function Framework
BIA	Business Information Architecture
BO	Business Owner
BPA	Business Process Architecture
BPMN	Business Process Modeling Notation
BRAMP	Business Requirements and Architecture Management Plan
BRR	Business Requirements Repository
BSM	Business Systems Management
BSR	Business Summary Report
CCMB	Clinical Capabilities Management Board
CMB	Capability Management Board
DRACMB	Data Resources and Analytics Capability Management Board
EA	Enterprise Architecture
EPMO	Enterprise Program Management Office
FDA	Food and Drug Administration
FEA	Federal Enterprise Architecture
HSIS	Health Systems Information Suite
IB	Integration Board
IDRP	Innovations and Development Request Portal
IMSR	Information Model Summary Report
IPT	Integrated Project Team
IT	Information Technology
ITAM	Information Technology Account Management
ITC	IT Committee

Term	Definition
NLC	National Leadership Council
NSR	New Service Request
NSRD	New Service Request Database
OI&T	Office of Information and Technology
OIIG	Office of Informatics and Information Governance
OSEHRA	Open Source Electronic Health Record Agent
PD	Product Development
PMSR	Process Model Summary Report
PPBE	Policy, Planning, Budget & Execution
PWS	Performance Work Statement
R&A	Reporting & Analysis
RAP	Requirements and Architecture Package
RASCI	Responsible, Accountable, Supportive, Contribute, Informed
RDM	Requirements Development and Management
RECMB	Research and Education Capability Management Board
RSD	Requirements Specification Document
RTC	Rational Team Concert
RTM	Requirements Traceability Matrix
SDD	Software Design Document
SDE	Service Delivery and Engineering
SDLC	Software Development Life Cycle
SIM	Strategic Investment Management
SME	Subject Matter Expert
TSPR	Technical Services Project Repository
UAT	User Acceptance Testing
UML	Unified Modeling Language
USH	Under Secretary for Health
VA	Department of Veterans Affairs
VASI	VA System Inventory
VCHI	VISN Chief Health Informatics
VERC	Veterans Engineering Resource Center
VHA	Veterans Health Administration
VIP	Veteran-focused Integration Process
VISN	Veterans Integrated Service Network

Term	Definition
VistA	Veterans Health Information Systems and Technology Architecture
VOCA	Voice of Customer Analysis
WBS	Work Breakdown Structure
WSJF	Weighted Shortest Job First

Appendix H. References

Artifact	Artifact Description
Business Reference Model	https://vaww.vha.esp.va.gov/sites/BA/default.aspx *The Business Reference Model is located under Business Reference Architecture (BRA)
Business Summary Report Template	https://vaww.vha.esp.va.gov/sites/RDM/RDM%20Templates/default.aspx
Guide to the Business Analysis Body of Knowledge	http://www.iiba.org/babok-guide.aspx
Information Model Summary Reports	https://vaww.vha.esp.va.gov/sites/ba/Information%20Model%20Summary%20Reports%20IMSR/Forms/IMSR%20Grouping.aspx
Process Model Summary Report Template	https://vaww.vha.esp.va.gov/sites/BA/PMSR/Forms/PMSR%20Grouping.aspx
Requirements and Architecture Package Approvals Template	https://vaww.vha.esp.va.gov/sites/RDM/RDM%20Templates/default.aspx
Requirements Traceability Matrix Template	https://vaww.vha.esp.va.gov/sites/RDM/RDM%20Templates/default.aspx

Appendix I. Approvals

Approved By:

e/s Steven Taaffe

02/28/2017

Steven Taaffe
Director, Business Architecture Management

Date

e/s Linda Hebert

02/28/2017

Linda Hebert
Director, Requirements Development and Management

Date