

**Department of Veterans Affairs (VA)  
Virtual Lifetime Electronic Record () Core**

**Data Access Services (DAS) Business Process Model  
(BPM) Standard Operating Procedure (SOP)**



*Date*

**Version 0.13**

## Revision History

Date	Revision	Description	Author
Mm/dd/yyyy	0.01	Initial Draft	
Mm/dd/yyyy	0.02	Updated draft to reflect new process flow areas	Ann Slaughter
Mm/dd/yyyy	0.03	Updated Acronyms List and Roles & Responsibilities	Ann Slaughter
Mm/dd/yyyy	0.04	Team Review: Preliminary comments	Ann Slaughter
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Mm/dd/yyyy	0.13	Incorporated comments and clarifications: Jan Clayton, Ken Burnetto, Nancy Burak, Willie Singletary	
Mm/dd/yyyy	0.14	Added suggested changes	

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# **1 Introduction**

## **1.1 Purpose**

Virtual Lifetime Electronic Records () Core is the project that supports the Data Access Services (DAS) product and services in production. The DAS Business Process Model (BPM) Standard Operating Procedure (SOP) outlines the process for Core teams to implement new business requirements and perform maintenance work in an Agile environment. This SOP documents the processes beginning with the User Story development phase (that stems from a business requirement), the receipt of a Service Request (SR), a Change Request (CR), or a Product Support Request (PSR).

The process extends throughout the Agile development lifecycle and ends with the deployment of new DAS service functionality, software/hardware configuration change or optimization, or the addition of a new data consumer/producer. These changes result in a DAS product enhancement or maintenance release into the production environment.

## **1.2 Scope**

This SOP applies to the workflow process implemented during the:

1. Review, analysis and approval phase of DAS SRs from potential consumers and producers of data
2. Requirements definition phase, including follow-on analysis, development, testability review, bug fixes, configuration and network issues, and customer approval of User Stories
3. Architecture and design phase of DAS enhancements based on approved User Stories
4. Implementation phase:
  - a. Coding (including configuration file changes) of both enhancements. CR work and PSRs
  - b. Production environment build and maintenance
5. Testing phases, including component testing, integration testing, and system testing in the Silver and Gold environments
6. Lifecycle support functions, such as documentation, release and risk management, configuration control, Project Management Accountability System (PMAS) reviews and security planning

## **1.3 References**

Other project and product documents are also referenced throughout this SOP. If additional information is needed about a related process or tool, the reader should reference the specific SOP or artifact below:

### **Core Requirements SOP**

<http://vaww.oed.portal.va.gov/products//FIST/das/Implementation/Forms/AllItems.aspx?RootFolder=%2Fproducts%2FFIST%2Fdas%2FImplementation%2F%20Core%20SOPs&FolderCTID=0x012000B49805987FCE2B47B5270BF967EB08BD&View={1D8F1C5B-D2F8-4DA0-861D-FF2407DC3079}>

### **Requirements Traceability Matrix (RTM)**

<http://vaww.oed.portal.va.gov/products//FIST/das/Requirements/Forms/AllItems.aspx?RootFolder=%2Fproducts%2FFIST%2Fdas%2FRequirements%2FRTM&FolderCTID=0x012000CAF5195D61EACC4CBF7CE08FA70AEC5B&View={BAD08E84-FA22-4E62-85D3-D6CB65CE4082}&InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersistence>

### **DAS Sprint Lifecycle, Dev Testing, Technical Story SOPs**

<http://vaww.oed.portal.va.gov/products//FIST/das/Implementation/Forms/AllItems.aspx?RootFolder=%2Fproducts%2FFIST%2Fdas%2FImplementation%2FDevelopment%20SOPs&FolderCTID=0x012000B49805987FCE2B47B5270BF967EB08BD&View={1D8F1C5B-D2F8-4DA0-861D-FF2407DC3079}>

### **Workstream Artifacts, Meeting Minutes and Workstream Status**

<http://vaww.oed.portal.va.gov/products//FIST/das/Implementation/Forms/AllItems.aspx>

### **Sprint Artifacts**

<http://vaww.oed.portal.va.gov/products//FIST/das/Implementation/Forms/AllItems.aspx?RootFolder=%2Fproducts%2FFIST%2Fdas%2FImplementation%2FDeliverables%20Status%20%20%20Sprints&FolderCTID=0x012000B49805987FCE2B47B5270BF967EB08BD&View={1D8F1C5B-D2F8-4DA0-861D-FF2407DC3079}>

### **Change Control Board (CCB) and Integration SOP**

<http://vaww.oed.portal.va.gov/products//FIST/das/Implementation/Forms/AllItems.aspx?RootFolder=%2Fproducts%2FFIST%2Fdas%2FImplementation%2F%20Core%20SOPs&FolderCTID=0x012000B49805987FCE2B47B5270BF967EB08BD&View={1D8F1C5B-D2F8-4DA0-861D-FF2407DC3079}>

## **2 Overview of Process**

DAS requires frequent production releases of enhancements and Adaptive Perfective Maintenance. Each Workstream has a Development Lead and an Advisory and Assistance (A&A) Lead to drive architecture design and development planning and implementation. To

enable the DAS Workstreams to accomplish this work in an Agile environment, a BPM was established which integrates architects, development designers, coders and testers, requirements analysts and Software Quality Assurance (SQA) testers to support rapid development cycles. Each team is called a Workstream. See Appendix B for a snapshot of the BPM. The BPM artifact is located on the Core SharePoint at the following link:

<http://vaww.oed.portal.va.gov/products//FIST/das/Implementation/%20DAS%20Workflow-Workstreams%20BPM.vsd>

Workstreams focus on work that stems from five types of requests:

- **Enhancement** – User Stories will be created to meet a specific business need that represents an enhancement to functionality or new functionality;
  - Note: User Stories document the “what” (desired capabilities and functionality), and do not attempt to direct or capture the “how” (technical implementation).
- **Change Requests** – needed for maintenance of existing code, service packs, configuration changes, code optimization or software improvements (previously known as APMs and RIIs)
- **New Service Requests** – received from potential consumers and producers who want to use DAS services. SRs generally are supported by User Stories.
- **Product Support Request** – received from existing producers or consumers to support with ad hoc reports, production troubleshooting, testing support
- **Defect**-This includes defects found during testing or a defect found in Production

Throughout the DAS lifecycle (User Story, CR, PSR or SR), a Support Services team, that includes resources from project functional areas, supports the Workstreams. Support Services does not complete design, development or testing, but supports those activities through:

- Configuration Management
- Release and Risk Planning
- Project Planning and Schedule
- ProPath/PMAS and Documentation Management
- Security Planning.

In addition, an SR Analysis/Working Internal Project Team (WIPT) specifically focuses on the information gathering and analysis of consumer and producer requests for DAS services. The WIPT reviews and analyzes the request, and then they are approved, or rejected by the DAS CCB. If approved, the SRs are presented for review to the Integrated Project Team (IPT) for workload prioritization.

Workstreams work in parallel within Sprints, based on SRs prioritized and approved by the IPT. Development of enhancement releases into production are discussed at daily CCB meetings, and prioritized from the backlog of approved User Stories. Development of CR and PSR work will

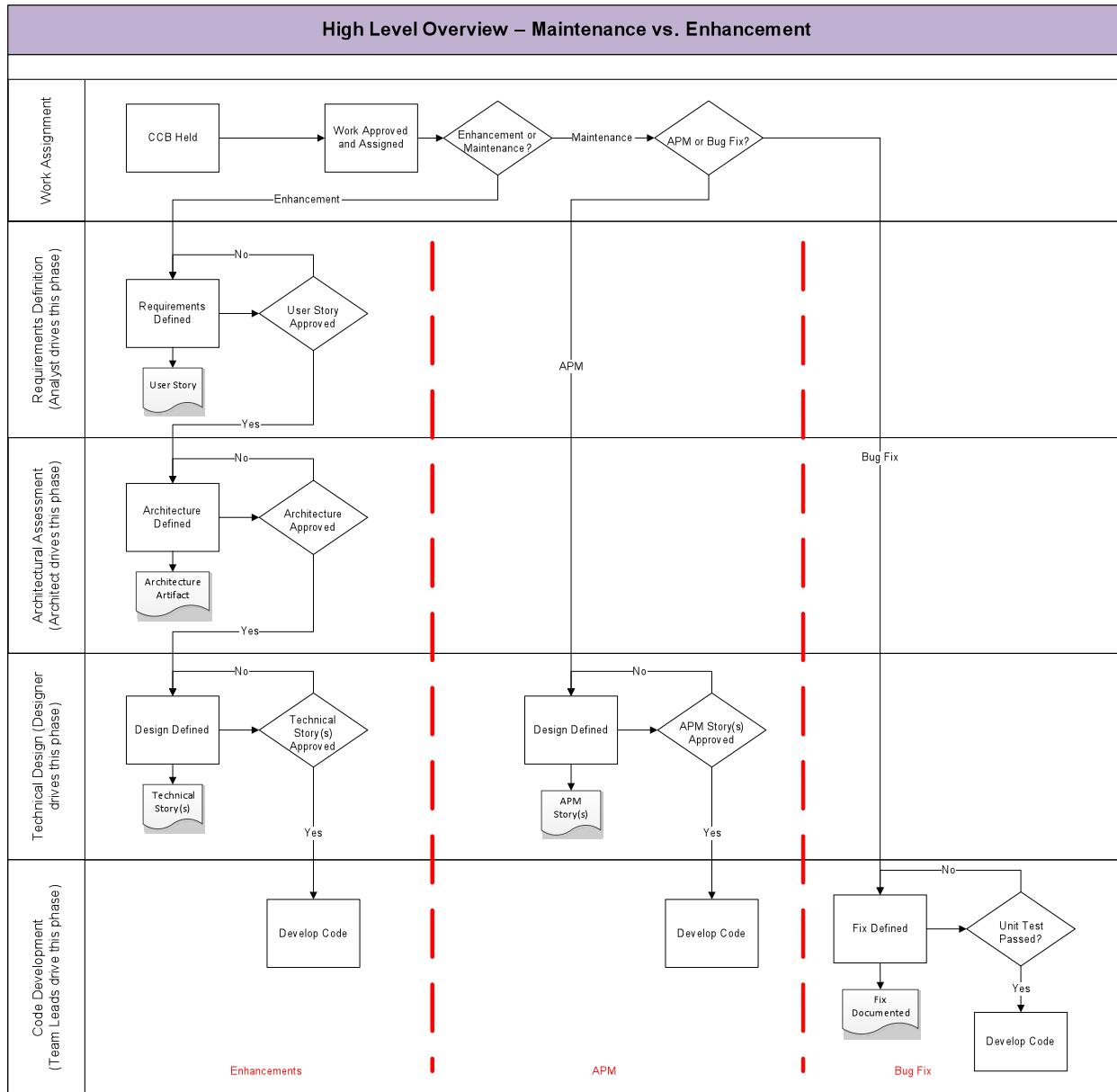
be discussed and prioritized at the CCB. See Appendix B for the BPM Process Workflow diagram that outlines process steps outlined in this SOP.

**NOTE:** No work, except for initial analysis or review, will be completed by any team on either the development team or the A&A team until the work item has been approved at the CCB.

Code development will fall into one of the three following types:

1. Enhancement (User Story)
2. Change Requests
3. Defects

The figure below indicates a high-level overview of the three paths:



**Figure 2-1: Overview of Maintenance and Enhancement**

Releases can be composed of one or more Sprints. Releases can also be entirely composed of enhancement or maintenance work, or can contain both. If a Release is maintenance only, then it follows an abbreviated path (typically as CR work) as opposed to enhancement work. Release numbering is based on whether the work is defined as a major release, minor release, service pack or patch. See Appendix C for release number conventions for DAS.

The work up to hand off to Integration Testing occurs at the Sprint level. The work starting with Integration Testing is done at the Release level, i.e., if three Sprints compose a Release, then they

will run parallel. Once Integration Testing begins it will be at the Release level addressing all Sprints included in that Release. This information is tracked on the Workstream Status Sheet (WSS). See the figure below for the various permutations:

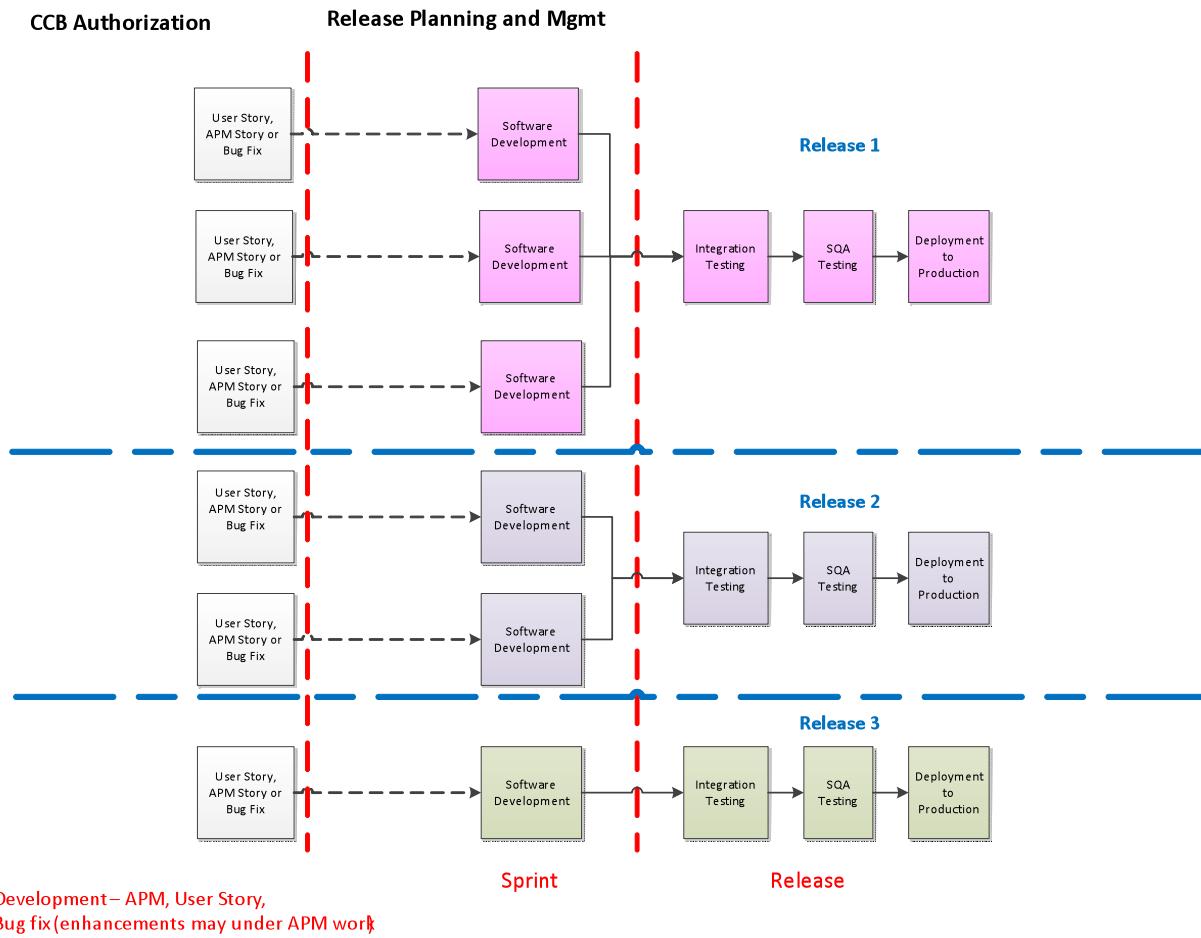


Figure 2-1: Workstream Status

### **3 Workstream Process Steps – Service Requests**

- Requirements Lead sends the SR form to the consumer or producer point of contact (POC).
- Requirements Lead receives SR from consumer or producer.
- Receipt of the request is acknowledged by Requirements Lead via email.
- CM or Requirements team performs a brief review of the NSR to ensure the POC has completed all the necessary information for upload to Rational and SharePoint and before it is sent to Working Internal Project Team (NSR WIPT).
- SR is documented as an Rational Configuration Manager (CM) story work and will have a DAS SR number assigned to it.
- All relevant documentation is included in the repository as attachments to CM work item.
- The SR itself will be added to the Rational Requirements Management (RM) repository, and a link created to the Work Item in Rational CM.
- SR posted on SharePoint.
- Requirements Lead may have initial conversation with SR POC to gather additional information for discussion on SR WIPT meetings.
- Rational CM notifies SR WIPT via email of SR needing review and provides link to CM work item.
- WIPT determines if SR represents new work, an enhancement to existing work already in production or existing work where requirements were only partially met, and provides that information to the requirements lead and CM.
- Requirement team submits the DAS List of Services to the customer, and works with DAS architects and the customer to determine whether new or existing functionality and funding are required.
- Requirements Manager may request that additional discussion be held with SR POC prior to determining preliminary Level of Effort (LOE).
- If WIPT is not able to provide CM with preliminary LOE, risk assessment and possible technical solution, WIPT provides CM with additional information and/or clarification as needed.
- If the SR requests functionality that currently exists in DAS, the SR review steps may be abbreviated, but the WIPT analysis, and the CCB discussion and decision making process still occur.
- CM or Requirements Lead follows up with SR POC, as necessary, to gather additional information, if a recommendation cannot be made by WIPT.
- CM or Requirements Lead reviews SR at the weekly CCB meeting and provides CCB with WIPT analysis and recommendations. Also discussed is team's ability to meet SR POC's requested date.
- If the CCB determines, using input from the WIPT team, that a later production date is needed, CM will notify SR POC and negotiate for a later "expected" date than provided on the SR.
- If additional information is needed from requester before production delivery can be determined, CM will request data and documentation.

- CCB identifies additional risk or challenges. CCB determines if work is integrated into the schedule. If work is not added to the schedule, CCB determines how decision is communicated to SR POC.
- Requirements Team get any additional information needed from SR POC prior to the User Story creation phase.
- DAS management is made aware if the WIPT team is not able to satisfactorily complete an analysis within 2 weeks of receiving the request.

## **4 Work Assignment**

Change Request and PSR work is assigned at the CCB meetings by the Development Manager, immediately following the approval of the work item by the CCB. For Enhancement work items, immediately after approval by the CCB the Lead Architect will assign the work, additionally the Development Manager will assign a workstream/designer to the work item. After assignments are made, the Project Planner emails the updated assignments to the Workstream Leads. Newly assigned work is discussed during meetings held daily and weekly (Workstream Scrums, Scrum of Scrums).

## **5 Sprint Activities**

### **5.1 Workstream Process Steps – DAS Enhancements**

Outlined below are Workstream activities for enhancements to DAS Services. Design, coding and testing can be completed for an upcoming release to production or for a component to be included in a future release.

#### **5.1.1 Requirements**

User Stories are created during the elaboration of business needs as defined in the Business Requirements Document (BRD) or the Service Request. The requirements analysts are responsible for leading the User Story process. During the elaboration process, other Workstream members participate in User Story construction at various stages in the process, based on that team member's role. This participation is important, as the customer acceptance criteria are the specific requirements outlined in the User Story. An integrated workstream that participates at this stage of the process helps drive the right technical solution that supports the customer's criteria. Nevertheless, the Workstream Leads determine the level of involvement required by the Workstream architects, developers and designers during the User Story creation process. This helps assure that the time of technical team members is spent productively. The elaboration process/User Story creation should take no longer than two weeks. DAS management will be made aware by the Requirement Lead if elaboration will extend beyond two weeks. Once the elaboration phase is complete, the Requirements Lead brings the User Story to the CCB for approval and prioritization.

### **5.1.2 Planning and Architecture**

- Kick-off Meeting – A Kick-off Meeting is held and the Team starts an Agile process for the completed and CCB Approved User Story. This Kick-off begins the process of bringing the User Story from backlog to execution of design and implementation.
- Work Activities – Architects start to focus on any required architectural needs, designers focus on any required design, developers and dev testers focus on becoming familiar with the requirements. SQA focuses on testing plans and scripts.
- Sprint Planning Sessions – The team holds Sprint Planning sessions to create specific sprint tasks.
- Design Meetings – The team holds design meetings to focus on architecture. Architecture Overview and Technical Story created.
- Daily Scrum Meetings – Daily scrum meetings are held to track team progress.
- User Story Exploration, Technical Stories, Design Solution Creation – The team creates design solutions, Technical Stories and possible needs for additional User Stories to be created in support of the team's efforts. The team ensures that all planning is completed with relation to the successful delivery of the User Story.
- Note: Any requirement changes, at this point, require LOE reassessment by Workstream Team Leads and notification given to the CCB.
- Design Broken out and Tasks Assigned – Workstream Leads will assign all tasks to team members and track the progress of the work package.
- Tasking should also include any work required for unit, integration and SQA testing.

### **5.1.3 Development**

- Team Implements Design – The team develops the required software or configuration changes necessary for the implementation of the User Story.
- Team updates Jira for code tracking and Rational Tools repository.
- Team Updates Documentation.
- Set up certificate exchanges. Begin the process of getting endpoint information for Silver, Gold and Production.
- Software Components Passed to Dev Test - As software components are completed they are passed to the development testing team members for evaluation.

### **5.1.4 Sprint Review – Demo to Customer and Acceptance**

It is important to note that, although rare, there could be Sprints that do not require a demo.

- The team will create and build a branch in preparation of a customer demo. If there is neither a demo nor release, the process stops here.
- The team develops any required documentation and the PowerPoint slide deck for the customer demo.
- Documentation circulated for review.
- The Technical Writer responsible for the deliverable (based on contractual requirements) posts demo minutes and slide deck on SharePoint.
- Customer Acceptance? – If the customer accepts the demo then the process will move towards dev testing, SQA and the release of the system. If customer acceptance fails, the code/build will be sent back for re-evaluation of the User Story. The A&A team will

coordinate the Customer Acceptance package.

- Decisions regarding re-design and re-implementation are made by the CCB.
- A Sprint may only partially satisfy a User Story, and release activities may be skipped until additional functionality is developed and the code is ready for a testing and deployment build.
- Code is deployed to DevChannel3.
- Complete developer integration test.
- The team creates or updates the Installation Instructions and Release Notes.
- Install the code into Silver, testing the Installation Instructions.

## 5.2 Workstream Process Steps – Change Request

In CR cases, coding is not based on approved User Stories, but on updated Technical Stories or Defects found during testing or in Production. Updated Technical Stories define what and why the coding or software architectural improvement is necessary. Because CR releases are for maintenance, and not enhancements, the release process is abbreviated, but documentation is still needed, as follows:

- Updated Technical Story
- Additional design artifact if necessary

Workstream activities include the following:

- Issue or need for CR is identified and a work item is created for this in Rational CM and assigned a CR number.
- CR is reviewed at the CCB.
- CR issue approved for assignment at CCB and prioritized.
- Issue logged on SharePoint Issue Tracker.
- Team Leads provide CR number to Project Planner.
- Appropriate Technical Story is updated.
- Simple design artifact created, if necessary.
- CR Team updates Rational CM and SharePoint with documentation and issue resolution.
- The VA, Development and A&A project managers will determine if a Customer Acceptance Demo is needed, prior to testing, for CR work. If a demo is needed, the A&A team will coordinate the demo, including preparation of the slide deck, demo minutes and Customer Acceptance package.
- Once Customer Acceptance is received, code is ready for DEV, SQA testing against the updated Technical Story.
- If Customer Acceptance is not required, code is ready for DEV, SQA testing against the updated Technical Story.
- After SQA testing, code is ready to be deployed.
- The CCB will determine which release the CR will go in.
- If issue needs to go into production immediately, then the team develops the Quick Installation Guide and Release Notes.
- Update SharePoint with appropriate artifacts and links.

## **5.3 Workstream Process Steps – Defect**

- Defects found during testing or in production are tracked in Rational CM.
- A defect work item will be created and will be assigned a CR number.
- CRs are discussed, approved and prioritized on the weekly CCB meetings.
- Issue and resolution are documented in Rational Tools.
- The work is assigned to the team that originally worked on the development for resolution.
- The Defect is noted in the Release Notes.

## **5.4 Workstream Process Steps –Product Support Requests**

- Technical Lead or Requirements Lead sends the PSR form to the consumer or producer point of contact (POC).
- Technical Lead or Requirements Lead receives PSR from consumer or producer.
- Receipt of the request is acknowledged by Technical Lead or Requirements Lead via email.
- CM or Requirements team performs a brief review of the PSR to ensure the POC has completed all the necessary information for upload to Rational and SharePoint.
- PSR is documented as an Rational Configuration Manager (CM) story work and will have a DAS PSR number assigned to it.
- All relevant documentation is included in the repository as attachments to CM work item.
- The requirements team adds a PSR Document Review to the CM work item, and assigns the PSR review team with a deadline of one week.
- The PSR review team determine what LOE is needed, on-boarding support, testing support or Production trouble-shooting support.
- After the PSR review and LOE is determined the PSR is brought to the CCB for approval and prioritization.
- For on-boarding support a task will be created in CM for the MOU/ISA, assigned to the security specialist and linked to the PSR. Additionally, a CR will be created for the necessary configuration changes, assigned to the appropriate workstream and linked to the PSR.
- Once all activities have been completed the workstream lead will update the work items in Rational CM.
- For Production on-boarding activities and RFCO will be completed and presented to the CCB for approval and implementation date.

## **6 Release Activities**

### **6.1 Integration Testing and SQA Handoff**

- Unit Test Plan Developed.
- Integration testing is performed against the Technical Story.
- Code Complete and Testing Passed? Completion of these activities is determined by the Team Leads. When Integration Testing completes, Integration testers provide the required quality gate documentation, including the Test Evaluation Summary, to SQA and Service, Delivery & Engineering (SD&E). Integration testers set up a “cutover” meeting with SQA and SD&E.
- The software release will be loaded into the Gold test environment and an email sent to SQA and managers. If a component fails, it is returned for issue resolution and retest.
- Dev/Integration testers package build components and documentation required for SQA.
- Code is installed in the Silver environment to test Installation Instructions.
- The team holds bug review meetings and determines if bugs found should be fixed or deferred.
- Test artifacts are completed and updates are made to test and release documentation.
- Tag Branch, build release, and update Trunk from Branch.
- Dev Test finalizes the Test Evaluation Summary.
- Finalize Release Notes and Installation Instructions.
- Participate in Cutover meeting (Silver to Gold) with Dev testers and SQA
- Provide support for installation into Gold.
- Upon successful completion of handoff to SQA, move code to Gold Test environment

## 6.2 SQA Testing

SQA testers are part of each Workstream team beginning at the SR analysis, User Story and CR assignment phases. During these early phases, SQA testers will draft the Test Plan and test cases. Additional activities during the development lifecycle include:

- Ensure testing dates are scheduled with SD&E Integrated Master Schedule (IMS). Support the Release and Configuration Manager on activities and artifact completion for release
- Develop detailed Test Plan, Test Cases/Test Scripts
  - Ensure requirements traceability to Test Cases/Scripts
  - Update the RTM on SharePoint
- Smoke Test
- System Testing
- Regression Test
- Execute Test Cases
- Update Test Cases as needed
- Support Bug/Defect Resolution
- Facilitate Release Go/No Go
- Finalize deliverables:
  - Test Plan
  - Test Cases
  - Test Case Execution Log
  - Final Test Evaluation Summary
- Participates in Cut-Over meeting with SD&E from Gold to Production
- Provide SD&E with Testing Artifacts
  - Test Plan

- Test Case Execution Log
- Final Test Evaluation Summary
- Support Release process
- Support customer testing as needed

## 7 Process Steps – Support Services

Outlined below is the process used by the Shared Services teams in supporting the Workstream and CR activities throughout the lifecycle.

### 7.1 Project Schedule Estimating

Throughout the process, the Planner will coordinate with the Project Manager(s), Development Manager and Technical Lead to establish the project schedule.

For CR, schedule estimation is based on time needed for Design/Develop/Test/Release:

- Design
- Code/Unit Test
- Integration Test
- SQA Test Release
- Documentation update (if needed)

For enhancements, the estimation process is based on multiple User Stories that are assigned to Workstreams. The testing and release phase will be estimated as one set of activities.

Estimation will be based on the following activities:

- Review User Story 1, 2, 3, etc. and Approve
  - Review
  - Approve
- Design/Develop User Story 1, 2, 3, etc.
  - Design
  - Code/Unit Test
- Test and Release DAS Version
  - Integration Test
  - SQA Test

### 7.2 Configuration Management

- Supports Requirements Team who will manage DAS New Service Request (SR) initiation
  - Send/Receive SR form to consumer/producer
  - Assign SR number to received SR
  - Review SR for completeness
  - Create work item in Rational CM for SR and assign SR number
  - Add SR to Rational RM and link to CM work item.
  - Discuss SR with CCB
  - Communicate SR disposition with SR POC

- Chair DAS Change Control Board (CCB) meetings
  - Discuss status of all SRs
  - Discuss status of Software and Hardware Configuration efforts
  - Discuss status of System Design Engineering Reviews
- Initiate and Manage System Design Engineering Reviews for DAS production hardware and software environment changes
- Monitor DAS Product development through the Agile Software Development Lifecycle using Rational CM
- Provide input to Production Release artifacts Operational Acceptance Plan (OAP) and Product Operations Manual (POM)

## **7.3 Release Management**

Outlined below is the release process for CR releases and enhancement releases:

### **7.3.1 CR Release Process**

- Schedule target release date on appropriate calendar
- Notify data centers of CR release and expected delivery date
- Schedule Pre-Prod Cut-over meeting
  - Documentation needed for Pre-Production Release
    - Installation Guide
    - Release Notes
    - Unit Test Results
- Production Cut-over meeting scheduled
  - Documentation needed for Production Release
    - Installation Guide
    - Release Notes
    - SQA Test Results
    - Configuration Files
    - Deployment Plan

### **7.3.2 Enhancement Release**

- Submit First Contact Form – 6 weeks prior
  - Enterprise Systems Engineering (ESE) assigns a contact (Kristine Larkin)
  - Notification sent to Mark Donoghue of possible Operational Acceptance Plan (OAP) update needed
- Submit Initial Operating Capability (IOC) – 4 weeks prior
  - IOC will assign a contact. IOC requires the following documentation to complete their review:
    - SQA Test Eval, Test Results, Test Plan, Test Scripts (SQA)
    - User Stories (requirements)
- Submit Testing Intake Assessment (TIA) – 4 weeks prior
  - TIA will assign a contact. TIA requires the following documentation
    - SQA Test Eval, Test Results, Test Plan, Test Scripts (SQA)
    - User Stories (requirements)

- OAP – Needed 4 weeks prior to release
  - Draft is sent to Mark Donoghue to begin review/signature process
  - Review/Concurrence needed from Field Operations, Enterprise Operations (EO), Information Technology Service Management (ITSM), and ESE
- Austin Information Technology Center (AITC) Request For Change (RFC) – 4 weeks prior
  - Submit RFC form to Tom McClain (form will need install instructions, server information and back out plan – to be updated)
- Pre-Production – 1 week Prior to Pre-Prod Release
  - Maggie Wenger (SD&E) will setup a cut-over meeting. The following documentation is required
    - Installation Guides (Development)
    - Release Notes (Development)
    - OAP (combined information)
    - POM
    - Test Evaluation Summary (Development)
    - Configuration Files
- AITC Coordination – 2 week prior to Prod Release
  - Tom McClain will coordinate documentation and cut-over meeting
    - Installation Guides (Development)
    - Release Notes (Development)
    - OAP (combined information)
    - POM (combined information)
    - Version Description Document (VDD) (Config Mgr/Release Mgr)
    - SQA Test Evaluation Summary, Test Results, Test Plan (SQA)
    - Deployment Plan (combined information)
    - BRD
    - System Design Document (SDD)
    - Mongo Instructions (Config Mgr)
    - Updated RFC
    - Configuration Files
- Veterans Health Administration (VHA) Release Process – 10 days Prior
  - Submit Release package to VHA Release Management Team  
[VHAResearchManagementTeam@va.gov](mailto:VHAResearchManagementTeam@va.gov)
  - Includes:
    - IOC Entry/Exit Form
    - Installation Guides
    - Release Notes
    - OAP
    - POM
    - VDD
    - Risk Log
    - Requirements Traceability Matrix
    - SQA Test Eval, Test Results, Test Plan
    - Deployment Plan
    - BRD

- SDD
- ESE Release Documentation – 1 week Prior
  - ESE Requires the following documentation
    - Installation Guides (Development)
    - Release Notes (Development)
    - OAP (combined information)
    - POM (combined information)
    - VDD (Config Mgr/Release Mgr)
    - Risk Log
    - BRD
    - (SDD)
    - Requirements Traceability Matrix
    - SQA Test Eval, Test Results, Test Plan (SQA)
    - Deployment Plan (combined information)
- Production Documentation – One week prior to Production release
  - SD&E facilitates Cut-Over meetings. The following documentation is required
    - Installation Guides (Development)
    - Release Notes (Development)
    - OAP (combined information)
    - POM (combined information)
    - VDD (Config Mgr/Release Mgr)
    - Risk Log
    - RTM (Requirements Team)
    - SQA Final Test Evaluation Summary, System Test Execution Log/Results, System Test Plan
    - Deployment Plan (combined information)
    - BRD
    - SDD
    - Configuration Files

## 7.4 PMAS Activities

- Prepare PMAS Milestone presentations for the project and work with the project team to ensure all required information is complete and accurate.
- Work with PMAS office to schedule Milestone reviews to appropriately align with the project schedule.
- Review Milestone Presentation material and gain concurrence from VA PM and other project stakeholders prior to the formal Milestone review.
- Work with the project team to ensure all PMAS required project documentation is complete, approved, and published as appropriate.

## 7.5 Risk Management

Risks can be identified by any team member and should be brought to the attention of the Development or CR Lead for initial assessment, root causes and possible escalation. Once the risk is identified, the Team Leads and/or Architects will determine if immediate mitigation is

necessary depending on the type of risk. Below are follow-on steps in the risk identification process:

- Work with the Program, Project and Risk Managers to document the risk, priority, and mitigation strategy
- Enter Risk in CQ
- Monitor Risk until mitigate
- Communicate high-level risks to Project Management Office (PMO)
- Participate in management of PMAS Yellow and Red Flag process, as necessary, for risks that have a high level of probability and impact on project work and objectives

## 7.6 Security Activities

The accreditation requirements include technical/testing, security documentation, and security control compliance requirements. If a required security control is not implemented, the project team must establish a Risk Based Decision (RBD) by following the applicable steps provided in the [Accreditation Requirements Guide line SOP; January 2014 revision.](#)

If a system goes through a significant (major) change (as defined below) after an Temporary Authority to Operate (TATO) or Authority to Operate (ATO) determination is made, the system is required to re-complete the accreditation requirements, including updating all security documentation to reflect the change.

*Significant Change Definition:* Per the current 'draft' VA Handbook 6500.3, Assessment, Authorization, And Continuous Monitoring of VA Information Systems, the definition of 'significant change' is as follows: A significant (major) change to an information system or environment of operation is a change that is likely to affect the security state of the information system. Significant changes to an information system may include, but are not limited to, for example: (i) installation of a new or upgraded operating system, middleware component, or application; (ii) modifications to system ports, protocols, or services; (iii) installation of a new or upgraded hardware platform; (iv) modifications to cryptographic modules or services; or (v) modifications to security controls. Examples of significant changes to the environment of operation may include, but are not limited to, for example: (i) moving to a new facility; (ii) adding new core missions or business functions; (iii) acquiring specific and credible threat information that the organization is being targeted by a threat source; or (iv) establishing new/modified laws, policies, or regulations. Source: SP 800-37 [VA Adapted].

## 8 Roles and Responsibilities

Role	Responsibilities
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Role	Responsibilities
A&A / Development Manager	<ul style="list-style-type: none"> <li>• Primarily responsible for overseeing and directing development, design and support activities throughout project lifecycle</li> <li>• Works with program leadership to assure that project goals are met.</li> <li>• Works with program leadership to oversee the customer integration process.</li> <li>• Works with program leadership to manage stakeholder expectations</li> <li>• Determines “Next Steps” if requirements change while a User Story is being worked.</li> <li>• Makes the following decisions based upon work stream input at Sprint Planning Meeting: <ul style="list-style-type: none"> <li>○ Demo Decision</li> <li>○ Release required</li> </ul> </li> <li>• Hosts Sprint Planning Meeting</li> <li>• Schedules and hosts the Demo Dry Run and Demo</li> <li>• Obtains Demo Acceptance (A&amp;A responsibility)</li> <li>• Provides guidance on addressing unresolved bugs identified during Integration and SQA Testing</li> </ul>
A&A Team Lead/ Development Team Lead	<ul style="list-style-type: none"> <li>• Both are responsible for Workstream team. Leads Workstream team in all planning, analysis and implementation process, through development lifecycles.</li> <li>• Coordinates/leads code review</li> <li>• Responsible for identifying risk associated with Workstream activities (including schedule risks), assisting with coordination of release activities and working with the team to eliminate roadblocks</li> <li>• Hosts Scrum meetings</li> <li>• Coordinates preparation of the Demo slide deck</li> </ul>

Role	Responsibilities
CR Workstream	<ul style="list-style-type: none"> <li>• Takes assigned CR Story and develops executable code</li> <li>• Produces or updates the following artifacts: <ul style="list-style-type: none"> <li>○ Updated Technical Story</li> <li>○ Release Notes</li> <li>○ Installation Instructions</li> </ul> </li> <li>• Works with Leads on refining technical solution</li> <li>• Codes to implement the updated Technical Story</li> <li>• Performs the following testing activities: <ul style="list-style-type: none"> <li>○ Unit Testing</li> <li>○ Integration Testing with Mocks, if applicable</li> </ul> </li> <li>• Performs Code Reviews</li> <li>• Captures Release information in cases where there is no release</li> <li>• Set up certificate exchanges, where necessary.</li> <li>• Begin the process of getting endpoint information for Silver, Gold and Production.</li> <li>• Deploy code to DevChannel3</li> <li>• Participate in code merge into Trunk</li> <li>• Install code into Silver, testing the Installation Instructions</li> <li>• Provides support for Installation into Gold and Production</li> </ul>
Application Architect	<ul style="list-style-type: none"> <li>• Responsible for the architectural design from a development/coding perspective</li> <li>• Contributes to updates of Interface Control Document (ICD) and System Design Document (SDD) artifacts. Updated artifacts required for each enhancement release.</li> <li>• Participates in discussion of technical solution</li> <li>• Works with Workstream architects as needed to implement design solution</li> <li>• Works with Workstreams to leverage existing design during development cycle</li> <li>• Provides expertise as needed to contribute to productive Workstream activities</li> </ul>

Role	Responsibilities
Architect	<ul style="list-style-type: none"> <li>• Responsible for providing over-arching architecture guidance to Workstreams.</li> <li>• Responsible for overseeing architecture design process</li> <li>• Participates in creation of Technical Stories for the User Stories approved for a sprint</li> <li>• Participates in updating Technical Stories for CR</li> <li>• Works with team on technical solution</li> <li>• Creates design artifact that provides sufficient guidance for design creation and implementation</li> <li>• Contributes to updates of Interface Control Document (ICD) and System Design Document (SDD) artifacts. Updated artifacts required for each enhancement release.</li> </ul>
Configuration Analyst	<ul style="list-style-type: none"> <li>• Create and build Branch</li> <li>• Tags/preserves branch and builds release upon successful Integration Testing</li> <li>• Promotes build into SD&amp;E Servers</li> <li>• Participate in code merge into Trunk</li> <li>• Moves code to VA Jazz</li> </ul>
Designer	<ul style="list-style-type: none"> <li>• Primary responsibility for creation of Technical Stories for the User Stories approved for a sprint</li> <li>• Works with Workstream on technical solutions</li> <li>• Contributes to updates to Interface Control Document (ICD) and System Design Document (SDD) artifacts. Updated artifacts required for each enhancement release. Contributes to Release Notes and Installation Instructions if needed</li> <li>• Works with team on software architecture, coding practices, test planning</li> </ul>

Role	Responsibilities
Developer	<ul style="list-style-type: none"> <li>• Participates in planning, analysis, implementation process, through all development lifecycles</li> <li>• Participates in User Story creation, as directed by Workstream Leads.</li> <li>• Works with Leads on refining technical solution</li> <li>• Enters tasks, and hours worked against tasks</li> <li>• Codes to implement the Technical Story</li> <li>• Performs the following testing activities: <ul style="list-style-type: none"> <li>◦ Unit Testing</li> <li>◦ Integration Testing with Mocks, if applicable</li> </ul> </li> <li>• Conducts Code Reviews for developed code</li> <li>• Supports code reviews for other teams</li> <li>• Captures Release information in cases where there is no release</li> <li>• Set up certificate exchanges, where necessary.</li> <li>• Begin the process of getting endpoint information for Silver, Gold and Production.</li> <li>• Deploy code to DevChannel3</li> <li>• Participate in code merge into Trunk</li> <li>• Install code into Silver, testing the Installation Instructions</li> <li>• Provides support for Installation into Gold and Production</li> </ul>
Dev Tester	<ul style="list-style-type: none"> <li>• Provides input on testability of User Story during User Story development</li> <li>• Conducts Integration Testing in Silver</li> <li>• Enters bugs into Rational CM if found</li> <li>• Schedules Defect Review Meetings, as necessary</li> <li>• Produces the Unit Test Plan and Test Evaluation Summary</li> <li>• Holds Cutover meeting with SQA</li> <li>• Supports SQA during SQA Testing</li> <li>• Produces or updates the following artifacts: <ul style="list-style-type: none"> <li>◦ Unit Test Plan</li> <li>◦ Test Evaluation Summary</li> </ul> </li> <li>• </li> </ul>

<b>Role</b>	<b>Responsibilities</b>
Requirements Analyst	<ul style="list-style-type: none"> <li>• Within context of workstream, leads activities associated with User Story development</li> <li>• Maintains User Story Priority List of approved and in process User Stories</li> <li>• Updates User Story Priority List based upon prioritization</li> <li>• Manages updates to User Story Priority List with assignments</li> <li>• Accepts New Service Requests and assists with initial analysis</li> <li>• Creates the story Work Item in Rational CM for Service Requests and User Stories</li> <li>• Updates the RTM as user stories are prioritized into a Release</li> <li>• Note: Regression Testing is included on a separate tab, and not within the Release tab</li> </ul>
SQA Tester	<ul style="list-style-type: none"> <li>• Sits in on all phases of the DAS lifecycle processes</li> <li>• Provides input into testability of the User Story requirements</li> <li>• Performs SQA testing</li> <li>• Coordinates with Development Team</li> <li>• Manages SQA/Defect Cycle Process (enters Code Change Requests (CCRs) in CQ</li> <li>• Responsible for SQA deliverable artifacts, i.e., Test Plan, Test Log, Defect Log, Final Test Evaluation Summary.</li> <li>• Test environment setup for System testing, including test data needed.</li> </ul>

Role	Responsibilities
User Story Workstream (integrated technical and functional team)	<ul style="list-style-type: none"> <li>• Works as integrated group on enhancement development/coding. Workstreams include developers, architects, SQA analysts, designers and requirements analysts.</li> <li>• Participates in User Story development (as directed by Team Leads)</li> <li>• Takes assigned User Story and develops executable code</li> <li>• Works with Leads on refining technical solution</li> <li>• Enters tasks in Rational Tools</li> <li>• Performs the following testing activities: <ul style="list-style-type: none"> <li>○ Unit Testing</li> <li>○ Integration Testing with Mocks, if applicable</li> </ul> </li> <li>• Performs Code Reviews</li> <li>• Captures Release information in cases where there is no release</li> <li>• Set up certificate exchanges, where necessary.</li> <li>• Begin the process of getting endpoint information for Silver, Gold and Production.</li> <li>• Deploy code to DevChannel3</li> <li>• Participate in code merge into Trunk</li> <li>• Install code into Silver, testing the Installation Instructions</li> <li>• Provides support for Installation into Gold and Production</li> <li>• Produces the following artifacts: <ul style="list-style-type: none"> <li>○ User Story</li> <li>○ Architectural Design</li> <li>○ Technical Story</li> <li>○ Release Notes</li> <li>○ Installation Instructions</li> <li>○ Unit Test Plan</li> <li>○ Test Evaluation Summary</li> </ul> </li> </ul>
<u>Technical Writer</u>	<ul style="list-style-type: none"> <li>• Updates the Workstream Status Sheet (WSS) based upon information at status meetings.</li> <li>• Creates Sprint Planning Meeting Minutes.</li> <li>• Creates CRs for Technical Stories</li> <li>• Posts all final documents to SharePoint and Technical Services Project Repository (TSPR)</li> <li>• Reviews the Demo Slide Deck</li> <li>• Creates Demo Minutes and posts to SharePoint</li> </ul>

## **Support Services Team**

Throughout the DAS lifecycle (enhancement or CR), a Support Services team completes activities associated with the planning, testing, release, documentation, and the risk and configuration management phases of the development cycle. Support Services does not participate in design or development.

<b>Role</b>	<b>Responsibility</b>
<u>A&amp;A Program Manager</u>	<ul style="list-style-type: none"><li>• Leads and/or supports the team to assure that support activities are successfully completed.</li><li>• Works with Development Manager to assure that project goals are accomplished</li><li>• Works with program leadership to manage and mitigate risk</li><li>• Oversees and directs activities of</li></ul>
<u>A&amp;A Project Manager</u>	<ul style="list-style-type: none"><li>• Supports team on project activities and accomplishing project work</li><li>• Works with team to manage and implement support functions such as configuration, document, risk and release management.</li></ul>
<u>Configuration Manager</u>	<ul style="list-style-type: none"><li>• Works with team to manage SR process</li><li>• Responsible for applying the program configuration management process to project activities</li><li>• Drafts and maintains the change control processes</li><li>• Oversees the SR process</li><li>• Distributes weekly reports to WIPT on status of CR tickets within CM state, expiration, open, closed, resolved, etc.</li><li>• Reports CR ticket status to CCB</li><li>• Identifies risks to schedule</li><li>• Audits CM to assure conformance by other teams per this SOP</li></ul>

<u>Meeting Support</u>	<ul style="list-style-type: none"> <li>• Sets-up (or removes) meetings via Outlook invites (or cancellations) with call-in information and distributes agendas and any other read-aheads</li> <li>• Develops scribing tools and templates for capturing information and processes for distribution and approval of scribing templates, when applicable</li> <li>• Scribes key discussion points, decisions and action items</li> <li>• Manages audio visual tools, meeting space and meeting time allocated</li> <li>• Distributes notes via email and/or SharePoint</li> <li>• Tracks, reviews and follows up on action items</li> <li>• In coordination with Facilitator, conducts stakeholder interviews to identify challenges, conduct analysis, and recommend solutions</li> </ul>
<u>Planner</u>	<ul style="list-style-type: none"> <li>• Manages project schedule/resource allocation and identifies potential slips in schedule</li> <li>• Tracks and monitors schedule activities</li> <li>• Works with team on managing future planning activities and milestones</li> <li>• Manages Primavera Progress Planner</li> <li>• Updates the PMAS Dashboard with project-related schedule and milestone data</li> </ul>
<u>PMAS Analyst</u>	<ul style="list-style-type: none"> <li>• Audits the DAS BPM Process for PMAS compliance</li> <li>• Manages Milestone reviews in conjunction with scheduled releases and increments</li> </ul>
<u>Release Manager</u>	<ul style="list-style-type: none"> <li>• Initiates Release Management process through Enterprise System Engineering (ESE)</li> <li>• Manages deliverable artifacts for all DAS code releases</li> <li>• Coordinates with PMAS analyst and DAS team members to ensure release documentation is complete and posted to approved VA repositories.</li> </ul>
<u>Risk Manager</u>	<ul style="list-style-type: none"> <li>• Manages risks by executing policy, procedures and plans</li> <li>• Ensures risk sub-processes activities are executed.</li> <li>• Periodically reviews all risks and may identify additional risks and assess documented risk strategies</li> <li>• Escalates risks, as appropriate</li> <li>• Reports risk status to Project Manager and project Risk Review Board (RRB) which is the IPT</li> </ul>
<u>Technical Writer</u>	<ul style="list-style-type: none"> <li>• Posts all final documents to SharePoint and Technical Services Project Repository (TSPR)</li> </ul>



## **Appendix A. Terms and Acronyms**

**Table A-1: Terms and Acronyms**

<b>Term/Acronym</b>	<b>Definition</b>
A&A	Advisory & Assistance
AITC	Austin Information Technology Center
CR	Adaptive Perfective Maintenance
ATO	Authority to Operate
BRD	Business Requirements Document
BPM	Business Process Model
CCB	Change Control Board
CCR	Code Change Request
CM	Configuration Manager
CR	Change Request
CQ	ClearQuest
DAS	Data Access Services
EO	Enterprise Operations
ESE	Enterprise Systems Engineering
IMS	Integrated Master Schedule
IOC	Initial Operating Capability
IPT	Integrated Project Team
ITSM	Information Technology Service Management
LOE	Level of Effort
SR	Service Request
OAP	Operational Acceptance Plan
PM	Program Management Program Manager
PMAS	Project Management Accountability System
PMO	Project Management Office
POC	Point of Contact

<b>Term/Acronym</b>	<b>Definition</b>
POM	Production Operations Manual
RBD	Risk Based Decision Memo
RFC	Request For Change
RRB	Risk Review Board
RSD	Requirements Specification Document
RTM	Requirements Traceability Matrix
SD&E	Service, Delivery & Engineering
SDD	System Design Document
SOP	Standard Operating Procedure
SQA	Software Quality Assurance
TATO	Temporary Authority to Operate
TIA	Testing Intake Assessment
TSPR	Technical Services Project Repository
VA	Department of Veterans Affairs
VDD	Version Description Document
VHA	Veterans Health Administration
	Virtual Lifetime Electronic Record
WIPT	Working Internal Project Team
WSS	Workstream Status Sheet

## Appendix B. BPM Workflow Diagrams

The following figures detail various stages of the BPM workflow and can be enlarged in Visio by double-clicking on the image, or by opening the [file on Core SharePoint](#).

### SR Workstream:

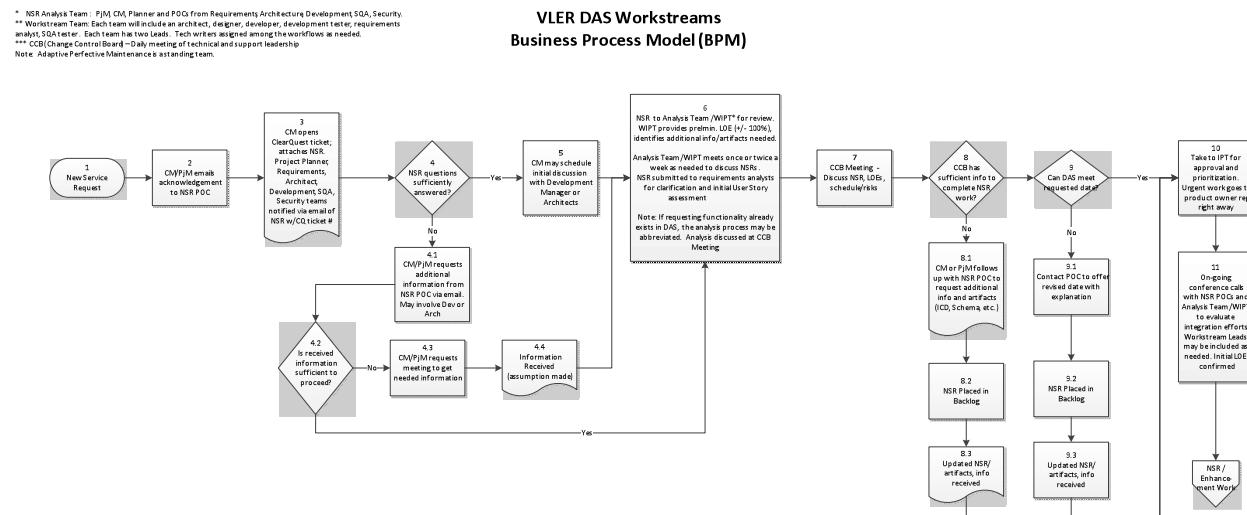
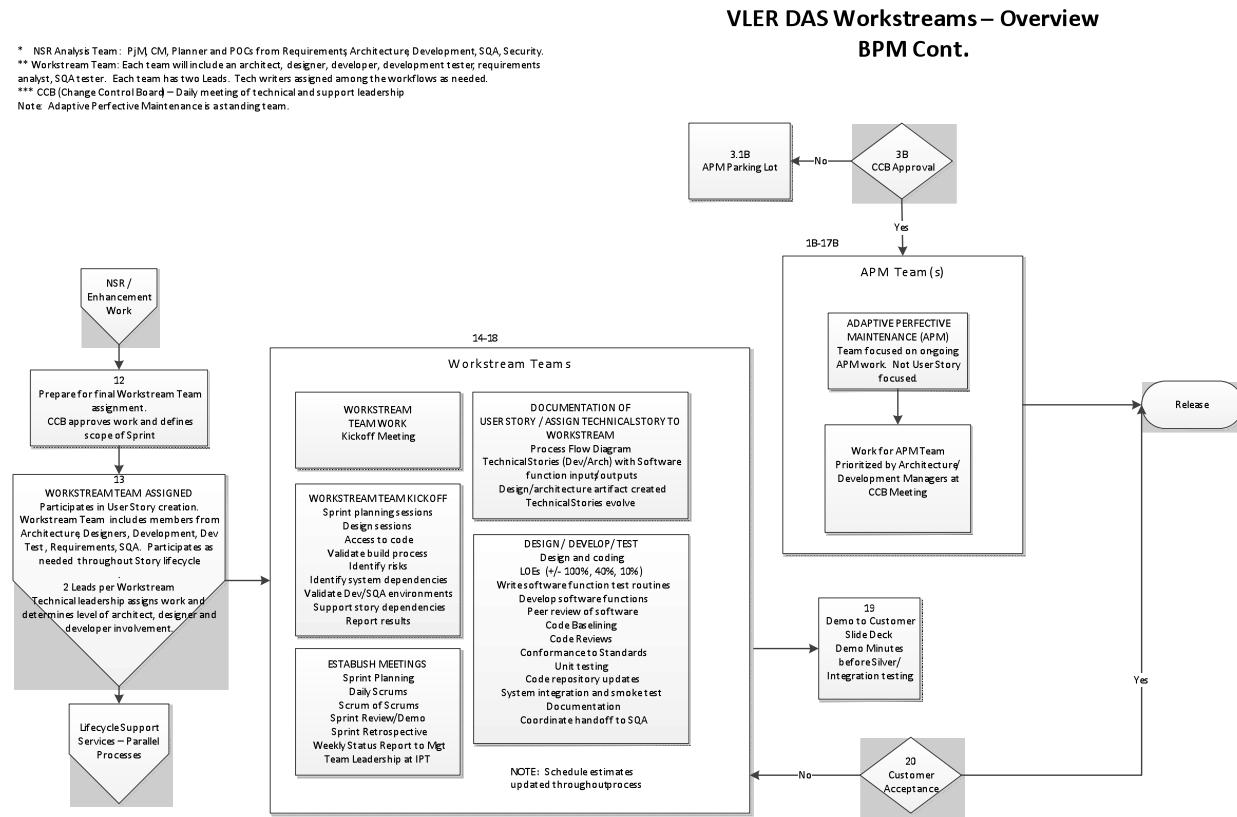


Figure B-1: SR Workstream

## Workstream Overview:



**Figure B-2: Workstream Overview**

## CR Workflow:

VLER DAS Adaptive Perfective Maintenance (APM) Workstream Team

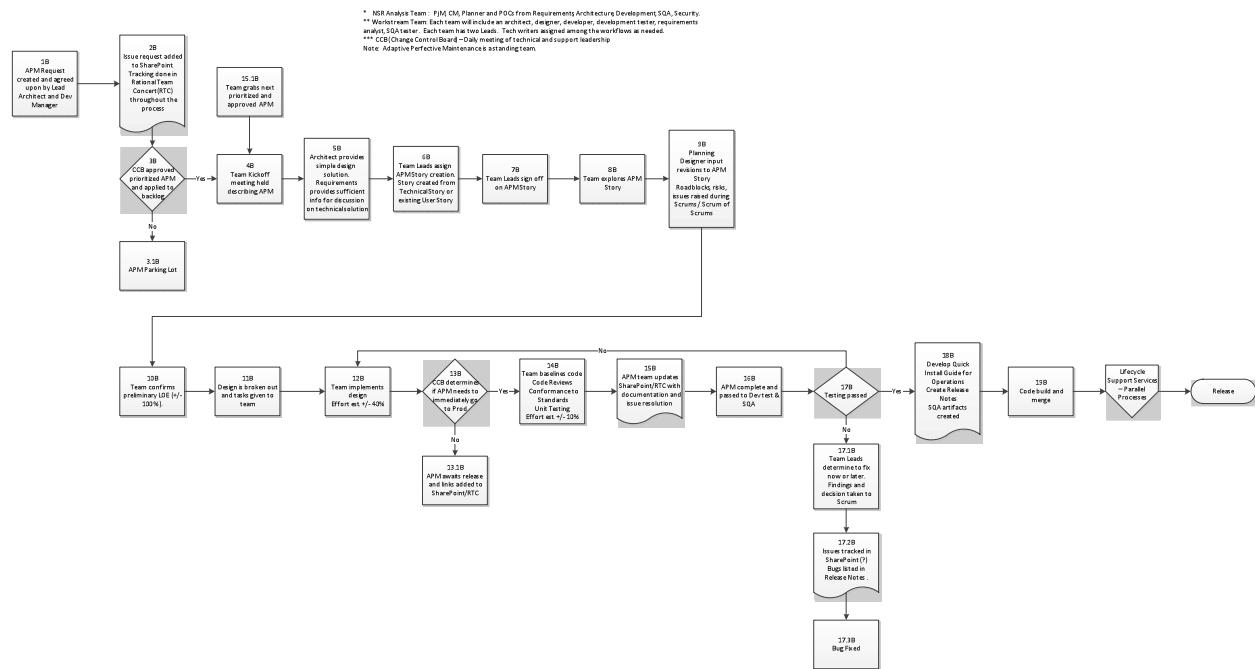


Figure B-3: CR Workflow

## User Story Workflow:

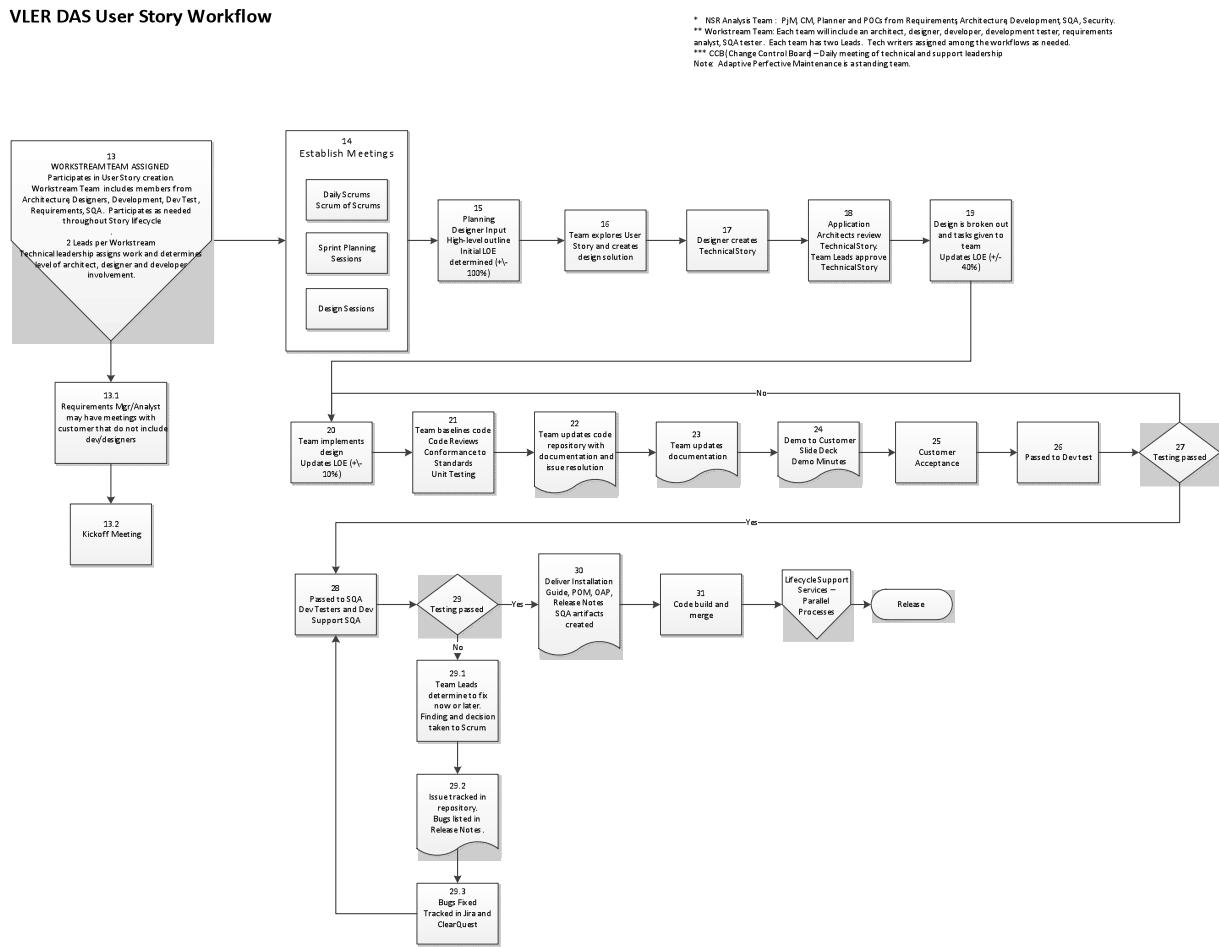


Figure B-4: User Story Workflow

## Lifecycle Support Services:

### VLER DAS Lifecycle Support Services Parallel Processes

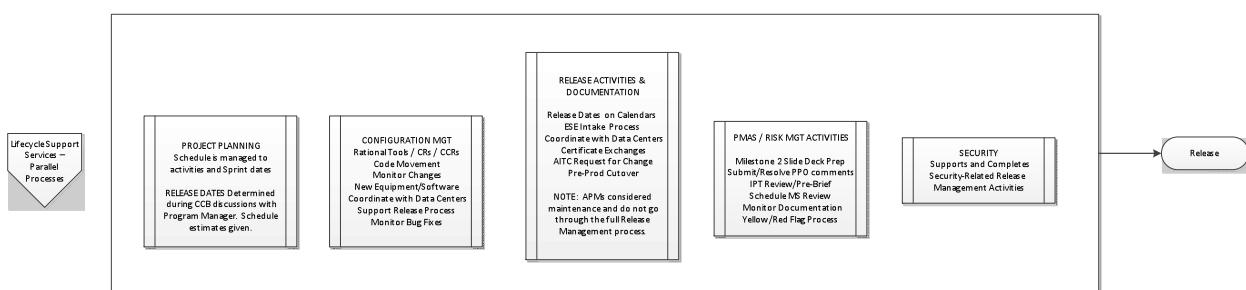


Figure B-5: Lifecycle Support Services

## **Appendix C. Release Numbering**

### **Major Release**

- Major new features, architecture changes, product components
- Full, standalone product build
- Naming convention: W.0

### **Minor Release**

- May include significant new features beyond previous minor/major version
- Full, standalone product build
- Naming convention: W.X

### **Service Pack**

- Periodic rollup of Hot fixes and Patches
- May only be a set of files, not a full, standalone product build
- Released on a planned availability date
- Recommended to all customers as part of a proactive maintenance plan
- Naming convention: W.X.Y

### **Patch**

- In response to a specific Software Anomaly (Patch)
- May only be a set of files, not a full, standalone product build (Patch)
- Released ad-hoc, as soon as available (Patch)
- Recommended to all customers to prevent a critical failure (Maintenance)
- Standalone maintenance build
- Naming convention: W.X.Y.Z

## **Appendix D. Artifact Overview**

The following table presents an overview of the primary development-related artifacts, who is responsible for them and what phase they should be completed in.

<b>Artifact</b>	<b>Responsible Role</b>	<b>Phase</b>
User Story	Requirements Analyst	Requirements Definition
Architecture Overview	Architect	Architectural Assessment
Technical Story	Designer	Technical Design
Code	Developers	Code Development