

PFS ADL Letters Awards via Enterprise Content Management for Letters (ECM-L)

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Solution Metadata

Name	Value
Solution Status	FINAL
Solution Type	NEW TENANT APP PROPOSED INTEGRATION WITH NEW TENANT (ECM-L)
Recommended BIP Tenant Namespace	vbms-awards
Recommended System Acronym	VBMSA
Recommended BIP Tenant App(s)	Awards <i>bip-vbms-awards-api</i> <i>bip-vbms-awards-legacy</i> <i>bip-vbms-awards-ui</i>

	<i>ECM-L</i> <i>bip-docgen-eclm-l-resource-manager</i> <i>bip-docgen-eclm-l-resource-manager-mfe-ui</i> <i>bip-docgen-eclm-l-letter-manager</i> <i>bip-docgen-eclm-l-letter-manager-mfe-ui</i> <i>bip-docgen-eclm-l-definition-manager</i> <i>bip-docgen-eclm-l-definition-manager-mfe-ui</i> <i>bip-docgen-eclm-l-svc</i> <i>bip-docgen-eclm-l-mfe-root-ui</i>
Sponsoring organization	OIT
Number of users	5,000 Awards Users
Estimated Monthly Cost	TBD
Privacy	<i>PHI and PII would depend on PFS ADL Letter Template Content.</i>
Will need 508 Compliance	Yes
Deployment date	TBD

Introduction

Overview of Pension Fiduciary Systems (PFS) Automated Decision Letters (ADL) via Enterprise Content Management for Letters (ECM-L)

[Enterprise Content Management for Letters \(ECM-L\)](#) is a true enterprise level correspondence management system that allows multiple Lines of Business (LOBs) to effectively and efficiently generate Letters relating to Veteran Benefits. ECM-L is "de-coupled" from the Veteran Benefit Management System (VBMS) umbrella and allows LOBs to configure Resources and Data in order to generate Letters that meet their individual business needs without OIT intervention. The Pension Fiduciary Systems (PFS) Automated Decision Letters (ADL) is one of the first use cases of ECM-L.

In the **Legacy Solution**, PFS ADL Awards correspondence is generated through the use of [Personal Computer Generated Letters \(PCGL\)](#). PCGL is a deprecated application that integrates with Microsoft Word on a user's desktop. PCGL does not enforce standard usage of Letter Definitions, Letter Content, Enclosures and Attachments. PCGL does not support versioning.

Requirements are currently being developed to migrate letter-creation functionality for PFS ADL from PCGL to VBMS Correspondence. This effort is defined as an the **Interim Solution**, with the ultimate goal of using ECM-L for the creation of PFS.

This solution document describes the context, target architecture, and recommendations to implement the **Future Solution** that will allow Pension and Fiduciary Awards to use the new architecture of ECM-L to generate PFS ADL awards letters.

What Problem Needs to be Solved?

PFS ADL Letters are manually created using Microsoft Word, PCGL [Personal Computer Generated Letters \(PCGL\)](#) tool, or the combination of the two. The absence of a centralized enterprise correspondence management system for PFS ADL letter generation leads to a lack of letter standardization, resource constraints, user inefficiencies, and a lack of historical validation. These deficiencies ultimately cause delays or inaccuracies in the correspondence delivered to our Veterans. While using VBMS-Awards with Correspondence temporarily resolves some issues, this interim solution doesn't allow for independent letter management without IT involvement. Integrating PFS ADL letters and Award Print into the ECM-L architecture will demonstrate its capability to handle real use cases and maintain standards without IT intervention.

Business Needs

Is this a defect or an enhancement?	Enhancement
Who reported the need?	Office of Information & Technology (OIT)
When was the need noticed?	Q2 2022

When did/will it become a problem?	Q2 2024
Is there an existing Requirement? Strategic Objective?	BAM Portfolio Team/BPT - 2111 IT: VBMS Core, Ratings, Awards - Document Generation Modernization
What existing resources, tickets, emails, etc. might serve to better understand the problem?	<p>VBMSD-256963 - Getting issue details... STATUS</p> <p>Integration Architecture: Enterprise Content Management - Letters</p> <p>White Paper: PCGL Modernization</p> <p>Strategic Objective: BPT-2370 Updating VBMS Awards Letters to Incorporate P&F Automated Decision Letters</p> <p>Special Project: ECMT-429 BAM Enterprise Correspondence Management (ECM) - Letters (IT Theme)</p> <p>Initiative: VBMSR-30957 Capability to create a "PFS Automated Decision Letter" for DIC Grant in VBMS Awards</p> <p>Initiative: VBMSR-31242 Capability to create a "PFS Automated Decision Letter" for Pension Grant in VBMS Awards</p> <p>Initiative: VBMSR-30953 Capability to create a "PFS Automated Decision Letter" for Excess Income Denial in VBMS Awards</p> <p>Epic: VBMSR-27690 Ability to create a "PFS Automated Decision Letter" in VBMS Awards</p> <ul style="list-style-type: none"> • In-progress updates of Pension Letter Template Blocks Pension Letter Template Blocks_V2 (006).docx <p>In-progress notes of how to trigger PFS Decision Points: September 2024_DRAFT.xlsx</p>
What business processes are involved?	Document Generation, Document Storage and retrieval
Who is the business owner for the impacted systems or processes?	Jeffry Boutet Melissa Morris
Who are the business decision makers for solving the problem?	<p>VA Business POCs:</p> <ul style="list-style-type: none"> • Simon Dessus • Michael Hart • Jennifer Feuer <p>STE/RTE/ART Level POCs:</p> <ul style="list-style-type: none"> • Rachel Ankrapp, STE • Amy Piazza, RTE <p>VA OIT:</p> <ul style="list-style-type: none"> • Jeffry Boutet • Melissa Morris • Brian Steege • Peter Graziatis
What is the historical context? How did we get where we are?	PFS ADL Letters is currently generated through the use of Personal Computer Generated Letters (PCGL) . PCGL is a deprecated application that integrates with Microsoft Word on a user's desktop. PCGL does not enforce standard usage of Letter Definitions, Letter Content, Enclosures and Attachments. PCGL does not support versioning. Given the extended time necessary to develop the long-term vision of ECM-L, the decision to build a short-term solution in VBMS-Awards using Correspondence Service was made. This solutioning effort is intended to integrate PFS ADL Letters into the long-term vision of ECM-L.
What happens to the business stakeholders if nothing is done?	The business will remain dependent on PCGL and Microsoft Word for the creation of PFS ADL Letters until VBMS-Awards using Correspondence Supports supports PFS ADL Letter functionality. Regarding PCGL and offline templates, since usage standards are not enforced or consistent across users, non-standard letters will continue to be created and distributed. Non-standard letters may include erroneous, non-compliant or outdated content that may require downstream intervention. If the business continues to use VBMS Correspondence, they would not be taking advantage of the proposed ECM-L system, meaning they would remain dependent on IT resources for any letter changes needed.

Of the various aspects of this problem, which of them does the business consider as critical flaws? Which are nice-to-have changes?	<p>Critical:</p> <ul style="list-style-type: none"> PFS ADL Letters are manually created using Microsoft Word or the outdated PCGL tool, which lacks standardization Using VBMS Correspondence doesn't allow for independent letter management without IT involvement
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Technical Needs

Describe the problem in technical terms	<p>Since its introduction as a method to generate PFS ADL Letters, PCGL has suffered from a lack of adoption/availability and lack of updates to templates. Overall functionality has steadily declined. These issues have led to the current state, where users will typically "stitch" together PFS Awards Letters using a variety of resources that include: PCGL, previously generated letters/templates stored on local drives and manually typed/copied Veteran data. This process is time-consuming and lacks standardization, leading to inconsistent letters that do not enforce legislative mandates or undergo formal review.</p> <p>The interim solution of using VBMS Correspondence to create PFS ADL Letters solves usability and standardization issues, but does not achieve the long-term goal of provide a mechanism for an individual Line of Business to create, edit, and finalize letters without OIT involvement.</p> <p>Integrating PFS ADL letters into ECM-L will demonstrate that the ECM-L architecture can be applied to real use cases without modification. This successful integration will allow the business to keep up to date with new requirements and standards by maintaining Letter Definitions and aligning resources (data, enclosures, etc.) to those Definitions without OIT Intervention.</p>
What are the architectural components in the problem's context?	<ul style="list-style-type: none"> ECM-L <ul style="list-style-type: none"> Resource Manager Definition Manager Letter Manager ECM-L Service Claim Evidence Awards <ul style="list-style-type: none"> Awards API
What are the integration points that might be impacted by this problem?	<ul style="list-style-type: none"> ECM-L Awards application Claim Evidence Awards API Authentication Interface to Letters Manager
Is this related to already-stated technical debt?	No
If the problem is with a technology, what were the reasons for using this technology in the first place?	PCGL was originally used to implement standard templates and content with Microsoft Word.
Has an attempt been made before to fix the problem?	Yes. As mentioned, there is a short-term solution to use VBMS Correspondence to generate PFS ADL Letters
Did it fail or did it just not finish?	This effort runs concurrent with the short-term solution
Who are the technical POCs for that attempt?	Simon Dessus
What components are impacted by this problem?	<ul style="list-style-type: none"> Awards
Are there current mitigations that help alleviate the impact of the problem?	Yes. As mentioned, there is a short-term solution to use VBMS Correspondence to generate PFS ADL Letters. Requirements have been developed for this short term fix but have yet to be implemented.
What are the technical dependencies for this? What does this depend on? What depends on it?	This solution depends on the Architectural Components of ECM-L to be developed in advance.

Based on the SV-1 and SV-9 generated what is estimated monthly cost for this new service? Upload estimate of resources from the AWS Pricing Calculator	N/A
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Summary and Recommended Solution

As a consumer of ECM-L, VBMS Awards will leverage the capabilities of ECM-L components to generate PFS ADL Draft and Final letter as described in this Solutioning Document. However, the following capabilities need to exist in VBMS Awards and Awards API for ECM-L to successfully process requests from Awards application to generate PFS ADL letters.

- VBMS Awards needs the capability to integrate with ECM-L for generation of Draft and Final PDF for PFS ADL.
- VBMS Awards must be a consumer of Kafka and subscribe to specific Kafka Events to support letter generation and finalization process.
- Awards API must be able to gather specific Awards Data as well as apply additional validation and transformation logic that Awards performs currently to construct letter data object tailored for each letter type.

As defined in the "Phases and Roadmap" section of [Enterprise Content Management - Letters – Integration Architecture](#) document, PFS ADL Letters would be classified as "Phase 4: Complex Inputs" Letters. This is based upon the use of data resources needed to support the input groups. Therefore, PFS ADL Letters may not be transitioned to the ECM-L Architecture until Phase 4 of the implementation is complete.

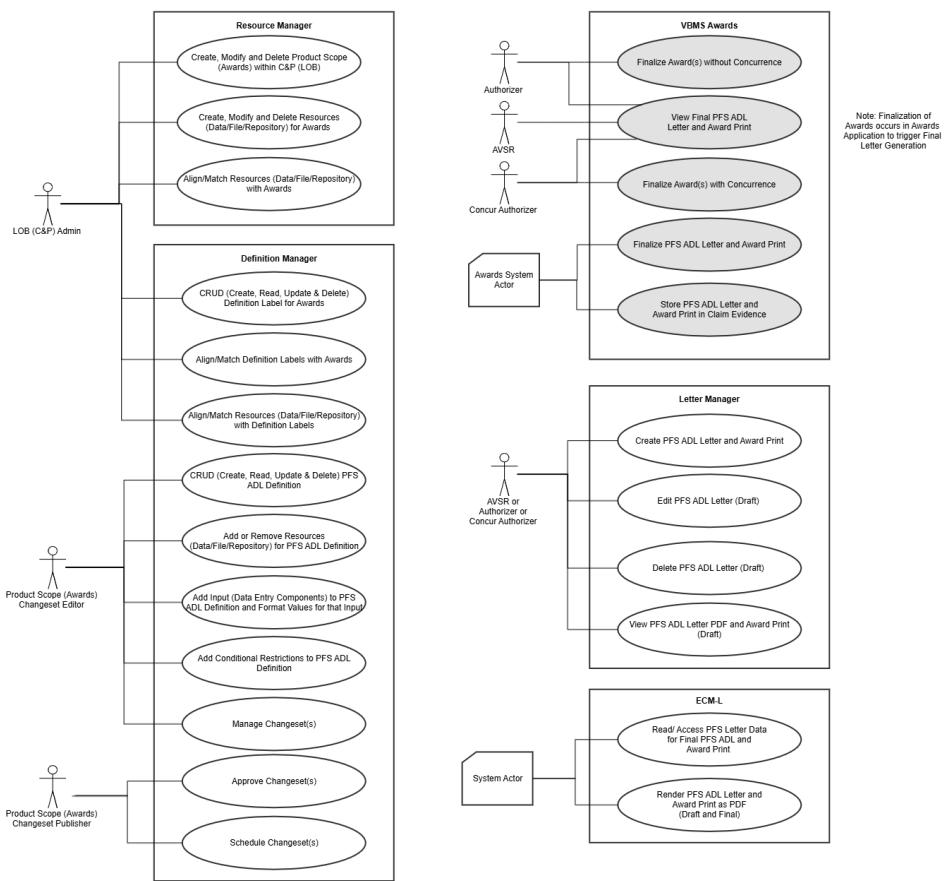
Solution Space and Discussion

Use Case View

The Use-Case (or Business) View describes a high-level understanding of what the system must enable the users to do. This view closely ties to requirements documents and, in many ways, serves to restate needs formally listed there.

Use Cases

The below Use Case Diagram specifies expected behaviors of each system from a user or actor's perspective.



Main Actors

The following table describes the actors listed in the diagram above. An actor is user in the scope of this architecture and can be a human user or a "system actor" as appropriate.

Actor Name	System	Description
LOB (C&P) Admin	Resource Manager	<ul style="list-style-type: none"> Create, Modify and Delete Product Scope (Awards) within C&P (LOB) Create, Modify and Delete Resources (Data/File/Repository) for Awards Align/Match Resources (Data/File/Repository) with Awards
	Definition Manager	<ul style="list-style-type: none"> CRUD (Create, Read, Update & Delete) Definition Label for Awards Align/Match Definition Labels with Awards Align/Match Resources (Data/File/Repository) with Definition Labels
Product Scope (Awards) Changeset Editor	Definition Manager	<ul style="list-style-type: none"> CRUD (Create, Read, Update & Delete) PFS ADL Definition Add or Remove Resources (Data/File/Repository) for PFS ADL Definition Add Input (Data Entry Components) to PFS ADL Definition and Format Values for that Input Add Conditional Restrictions to PFS ADL Definition Manage Changeset(s)
Product Scope (Awards) Changeset Publisher	Definition Manager	<ul style="list-style-type: none"> Approve Changeset(s) Schedule Changeset(s)

Authorizer	VBMS Awards, Letter Manager	<p>Authorizer can perform all the functions what AVSR does in addition to the following:</p> <ul style="list-style-type: none"> • Finalize Award(s) without Concurrence • View Final PFS ADL Letter and Award Print • Additionally, Authorizer inherits all capabilities of the AVSR, as defined below.
Concur Authorizer	VBMS Awards, Letter Manager	<p>Concur Authorizer can perform all the functions what AVSR does in addition to the following:</p> <ul style="list-style-type: none"> • View Final PFS ADL Letter and Award Print • Finalize Award(s) with Concurrence • Additionally, Concur Authorizer inherits all capabilities of the AVSR, as defined below.
AVSR	Letter Manager	<p>Primary adjudicator for C&P benefit using the rating, military service information, family member relationships, institutional events, and other data to shape and complete the award.</p> <p>AVSR can perform the following:</p> <ul style="list-style-type: none"> • Create PFS ADL Letter and Award Print • Edit PFS ADL Letter (Draft) • Delete PFS ADL Letter (Draft) • View PFS ADL Letter PDF and Award Print (Draft) <p>Note: AVSR can select PFS ADL in Letter Manager UI for now but in future there might be other Award letters for which AVSR can choose from to generate letter. This user menu options can be the foundation for that possibility that may arise in the future. If this option resides in Awards, it will require dev resources to add new letter options in the menu.</p>
Awards System Actor	VBMS Awards	<ul style="list-style-type: none"> • Finalize PFS ADL Letter and Award Print • Store PFS ADL Letter and Award Print in Claim Evidence
System Actor	ECM-L	<ul style="list-style-type: none"> • Read/Access Awards Data for PFS ADL and Award Print • Render PFS ADL Letter and Award Print as PDF (Draft and Final)

System/Tenant/Application Description

The following table describes each system/tenant/application (rectangles) listed in the diagram above.

System Name	Description
VBMS Awards	VBMS Awards is an application that allows users to add, edit, and review information that is required to generate an Award Decision. Once an Award amount is determined, the user can review a preview of correspondence and generate finalized correspondence for storage in Claim Evidence.
Resource Manager	Resource Manager defines connections to Resources. Line of Business (LOB) Administrators use Resource Manager to Create Read, Edit /Update and Delete (CRUD) Product Scope(s). Resource Manager Creates, Reads, Edits and Deletes Resources (Data/File/Repository) for use by the Definition Manager and Letter Manager. The Resource Lifecycle states include Draft, Deleted, Available and Retired
Definition Manager	Definition Manager Creates, Reads, Edits and Deletes Definition Labels and Definitions. Resources, made available by Resource Manager may be added or removed from Definitions. Inputs and restrictions may be created by the Definition Manager. Definition Lifecycle states include Draft, Cancelled, Completed, Approved, Active or Retired.
Letters Manager	<p>Letter Manager creates and manages a letter instance.</p> <p>Letter Manager UI:</p> <ul style="list-style-type: none"> • Create, Read, Edit and Delete Letter Drafts • View Letter PDF in Draft or Final State <p>Letter Manager API:</p> <ul style="list-style-type: none"> • Creates and Manages Letter Instance. Letter Instance Lifecycle states include Draft, Ready for Review, Deleted or Finalized.
Awards API	Awards API provides Letters Manager with Awards data to populate a letter instance. Awards API represents a conglomeration of APIs that allow ECM-L access to Awards-related data required to populate Letter Instance. This includes Veteran API, Participant API, POA API, Evidence API and Claims API. Awards Data and Logic is contained within the Awards API.
ECM-L	ECM-L Renders a Letter as PDF.

Claim Evidence	The specific name of an AWS S3 Bucket, used for storing Finalized Awards Letters & Award Prints.
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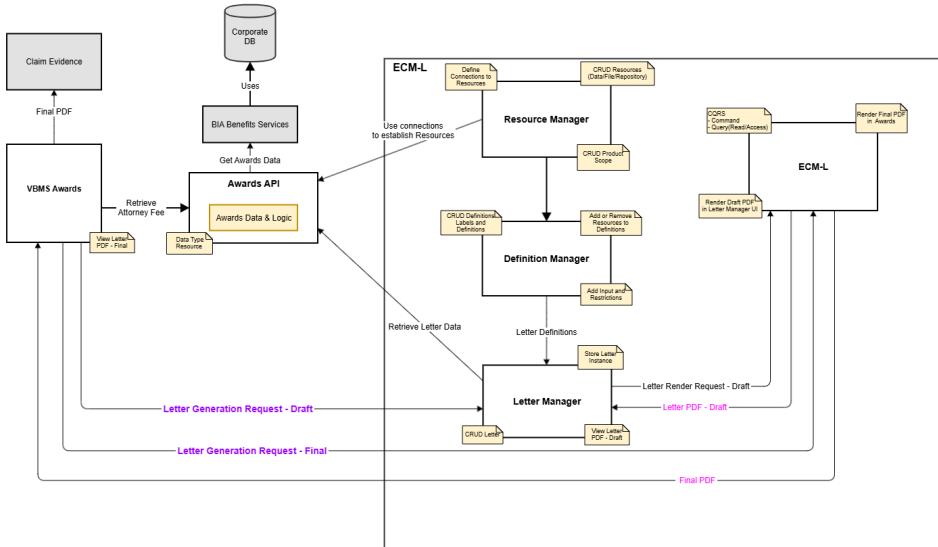
Main User Functions (Use Cases)

The following table describes each of the use cases (ovals) in the diagram above.

Actor(s)	System	Ability	Details
LOB (C&P) Admin	Resource Manager	Manage Resources	Create, Modify and Delete Product Scope (Awards) within C&P (LOB) Create, Modify and Delete Resources (Data/File/Repository) for Awards Align/Match Resources (Data/File/Repository) with Awards
		Manage Labels	CRUD (Create, Read, Update & Delete) Definition Label for Awards Align/Match Definition Labels with Awards Align/Match Resources (Data/File/Repository) with Definition Labels
Product Scope (Awards) Changeset Editor	Definition Manager	Manage Definitions	CRUD (Create, Read, Update & Delete) PFS ADL Definition Add or Remove Resources (Data/File/Repository) for PFS ADL Definition Add Input (Data Entry Components) to PFS ADL Definition and Format Values for that Input Add Conditional Restrictions to PFS ADL Definition
		Manage Changeset	Manage Changeset(s)
Product Scope (Awards) Changeset Publisher	Definition Manager	Approve Changeset	Approve Changeset(s)
		Schedule Changeset	Schedule Changeset(s)
Authorizer	Awards	Approve Letters	Finalize Award(s) without Concurrence Additionally, Authorizer inherits all capabilities of the AVSR, as defined below.
Concur Authorizer	Awards	Approve Letters	Finalize Award(s) with Concurrence Additionally, Concur Authorizer inherits all capabilities of the AVSR, as defined below.
AVSR, Authorizer, Concur Authorizer	Letter Manager	Manage Letters	Create PFS ADL Letter and Award Print Edit PFS ADL Letter (Draft) Delete PFS ADL Letter (Draft) Render PFS ADL Letter PDF and Award Print (Draft) View Final PFS ADL Letter and Award Print
System Actor	Awards	Finalize Letters	Finalize PFS ADL Letter and Award Print Store PFS ADL Letter and Award Print in Claim Evidence
	ECM-L	Render Letters	Read/Access Awards Data for PFS ADL and Award Print Render PFS ADL Letter and Award Print as PDF (Draft and Final)

Primary Systems High Level Operational Viewpoint (OV-1)

The OV-1 diagram is a high level visual of the architectural players and operations involved in PFS ADL letter generations using ECM-L. It illustrates the key components of ECM-L (Letter Manager, Definition Manager, Resource Manager, ECM-L Service) and its interaction with VBMS Awards to process letter generation request by gathering data from Awards API and rendering the PDF for the Draft and Final Version.



Legend	
Gray Rectangle	= External resource to resource being documented
White Rectangle	= Internal resource to resource being documented

The table below describes the lines and arrows in the diagram above:

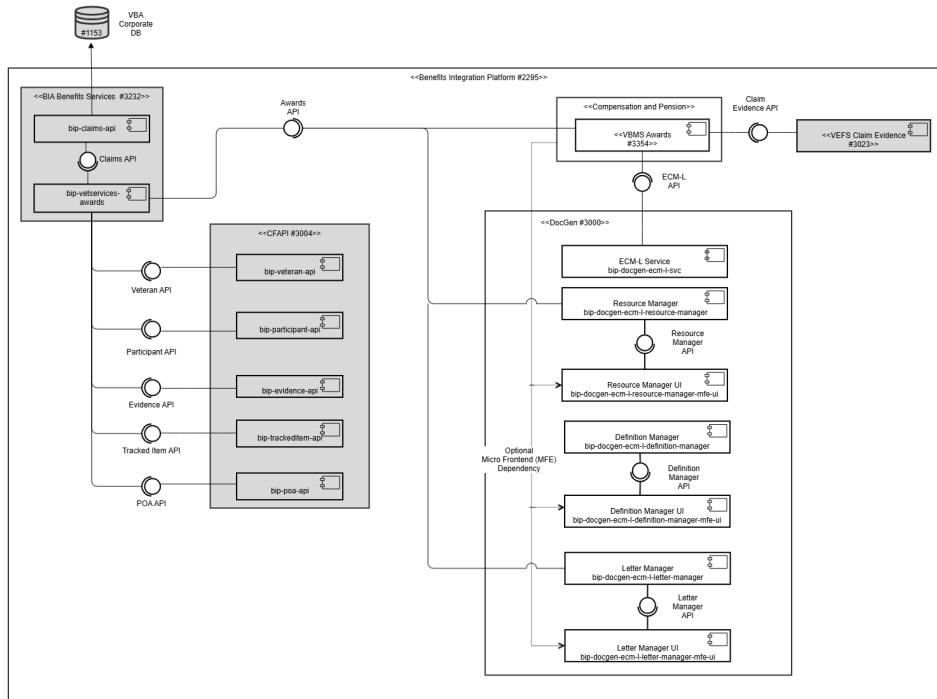
System A and VASI ID	System B and VASI ID	Interaction Description
VBMS Awards (LOB) (VASI ID 3354)	Letter Manager	VBMS Awards requests draft versions of PFS ADL Letter and Awards Print.
VBMS Awards (LOB) (VASI ID 3354)	ECM-L	VBMS Awards requests final versions of PFS ADL Letter and Awards Print.
VBMS Awards (LOB) (VASI ID 3354)	Awards API (VASI ID 3354)	VBMS Awards retrieves Attorney Fee from Awards API.
Awards API (VASI ID 3354)	BIA Benefits Service	BIA Benefits Service retrieves Awards data needed for Awards API.
BIA Benefits Service	Corporate DB	BIA Benefits Service uses Corporate DB for data retrieval.
Resource Manager	Awards API (VASI ID 3354)	Resource Manager stores connection details for the Awards API to be used by Letter Manager.
Resource Manager	Definition Manager	Resource Manager provides resource information to the Definition Manager.
Definition Manager	Letter Manager	Definition Manager provides letter definitions to Letter Manager including inputs and restrictions.
Letter Manager	Awards API (VASI ID 3354)	Letter Manager requests resource data from Awards API.
Letter Manager	ECM-L	Letter Manager sends draft letter render request to ECM-L.
ECM-L	Letter Manager	ECM-L returns draft letter PDF to Letter Manager.
ECM-L	VBMS Awards (LOB) (VASI ID 3354)	ECM-L sends final letter PDF to VBMS Awards.
VBMS Awards (LOB) (VASI ID 3354)	Claim Evidence (VASI ID 3023)	VBMS Awards sends final letter PDF to Claim Evidence for storage.

Logical View

The Logical View describes the conceptual view of the functionality and of the systems that will participate. This view defines what nouns are involved and the relationship between them. For example, it may decompose the design into sub-systems and packages, and for significant packages, the decomposition into classes and class utilities. This section may include the Business Object Model, states and transitions for key objects, and other key details about classes and attributes.

Systems Interface Description (SV-1)

The following diagram provides a detailed view of system interfaces, depicting how systems and components interact with each other within the Awards and ECM-L components architecture.



Legend

- Gray Rectangle = External resource to resource being documented
White Rectangle = Internal resource to resource being documented

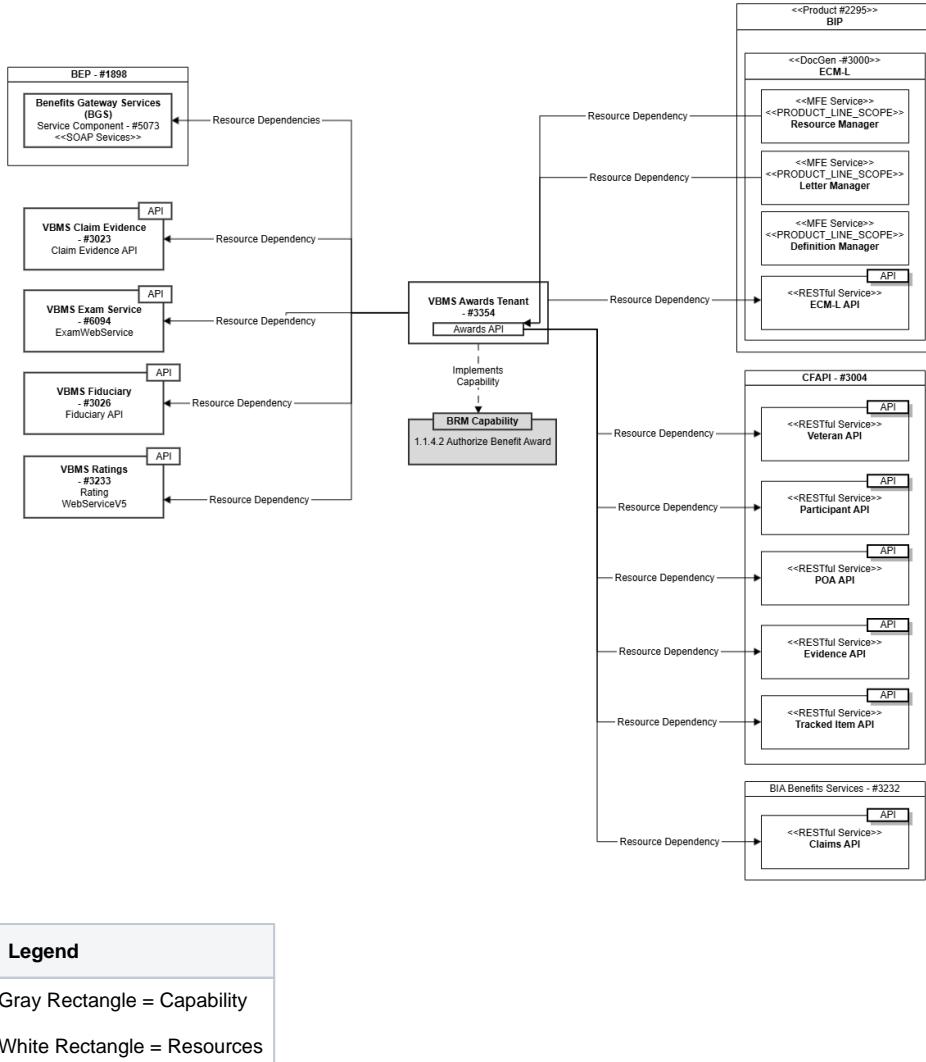
Component References Table

Name	Description	Ports	Protocols
VBA Corporate DB	VBA Corporate Database (CRP) serves as a central, one-stop repository for definitive Veteran records, personal information, history, and benefits-related information (such as claims, awards and payments.)	1527	TCP
Benefits Integration Platform	Benefits Integration Platform (BIP) provides a container-based application platform in VAEC AWS GovCloud in which VA Benefits, Appeals, and Memorial (BAM) and Federal Tax Information (FTI) applications can be hosted.	N/A	N/A
BIA Benefits Services	Benefits Integration & Administration (BIA) Benefit Services, a VA minor application tenant of BIP, are a collection of Benefit Gateway Service (BGS) Application Programming Interfaces (APIs) that provide standard access to data within the VBA Corporate Database for the purpose of processing Veteran claims.	N/A	N/A
Claims API	Claims API provides a simple and concise mechanisms to create and view claim information.	443	HTTPS /REST
Veteran API	Veteran API provides Veteran data ensuring that appropriate systems of record are sourced for data and then simplifies the use of the data.	443	HTTPS /REST
Participant API	Participant API is a service that is intended to support accessing Participant data as it is consistent with its use inside of the claim processing domain.	443	HTTPS /REST
Evidence API	A restful API that retrieves evidence from BGS for consumption	443	HTTPS /REST
Tracked Item API	Tracked Item API is intended to provide to tenants on the BIP platform, a simplified mechanism to create a Tracked Item and do so in a manner consistent with required VA data integrations. This API ensures that Tracked Items are created and an accurate status of the item is maintained.	443	HTTPS /REST
POA API	Power of Attorney (POA) API is a service that is intended to support accessing Power of attorneys list and POA details to consuming systems.	443	HTTPS /REST

CFAPI	Common Functional Application Programming Interfaces (CFAPI) provides applications residing within the Benefits Integration Platform (BIP) a programmatic interface for Create Read Update and Delete (CRUD) operations for Veteran profile, notes and claims data.	N/A	N/A
Awards API	Awards API provides Letters Manager with Awards data to populate a letter instance. Awards API represents a conglomeration of APIs that allow ECM-L access to Awards-related data required to populate Letter Instance.	443	HTTPS /REST
VBMS Awards	Veterans Benefits Management System - Awards (VBMSA) provides the Veterans Benefits Administration the processing capabilities to generate and authorize awards for Veterans and their beneficiaries. It is used to prepare, calculate, determine, authorize, and maintain award history.	N/A	N/A
ECM-L API	Enterprise Content Management - Letters (ECM-L) API is the umbrella service for the ECM-L system, integrated with all of the internal components.	443	HTTPS /REST
Enterprise Content Management - Letters	Enterprise Content Management - Letters (ECM-L) is a centralized solution enabling Line of Businesses (LoBs) to self-manage their correspondence needs within a unified infrastructure. Provisioned LoBs have autonomy to implement changes such as modifications to letter definitions and resources independently of IT resources, while still operating within a standardized environment.	N/A	N/A
Resource Manager API	Provides the connection between Resource Manager and the Resource Manager UI.	443	HTTPS /REST
Definition Manager API	Provides the connection between Definition Manager and the Definition Manager UI.	443	HTTPS /REST
Letter Manager API	Provides the connection between Letter Manager and the Letter Manager UI.	443	HTTPS /REST
Claim Evidence API	Claim Evidence API provides Veterans Benefits Administration (VBA) systems, outside of VBMS, with the ability to upload, update, and retrieve files and/or associated data for API consumers. It is the main system responsible for managing files supporting VA benefit claims.	443	HTTPS /REST
VEFS Claim Evidence	Veteran Enterprise File Storage (VEFS) Claim Evidence service extracts the logical elements of the legacy service and restructures them as a standalone application for use both in updated VBMS capabilities as well as new capabilities requiring access to files providing evidence for claims. VEFS is a replacement for the legacy eFolder Web Service and user interface (UI) originally built inside of VBMS Core, supporting uploads, edits, and reads of files.	N/A	N/A

Services Context (SVC-V1)

The following diagram describes service compositions and interactions, detailing the immediate service dependencies of VBMS Awards. Specifically, VBMS Awards is dependent upon BGS Services, VBMS Core, VBMS Ratings, VBMS Fiduciary and ECM-L. VBMS Awards implements the BRM Capability "Authorize Benefit Award."



Data Models

ECM-L Conceptual Data Model (Div-1)

The below linked Div-1 diagram from the Enterprise Content Management - Letters Architecture page shows the main high-level data concepts and their relationships to portray the operational and business "information requirements". It describes the conceptual data elements within the scope of this architecture and indicates the constraints on the organization's business activities.

- [Enterprise Content Management - Letters | Integration Architecture | Conceptual Data Viewpoint Model \(DIV-1\)](#)

ECM-L Logical Data Viewpoint Model (DIV-2)

The below linked Div-2 diagram from the Enterprise Content Management - Letters Architecture page shows the abstract structure of the data model including the primary entities and the relationships between them as represented in the program code.

- [Enterprise Content Management - Letters | Integration Architecture | Logical Data Viewpoint Model \(DIV-2\)](#)

Process View

The Process View describes the behavior of the systems, the sequence of events, and how various tasks combine to the functionality described in the Use-Case View. It decomposes the systems into lightweight processes (single threads of control) and heavyweight processes (groupings of lightweight processes). The Process View describes how systems interact, detailing the timing of messages or events.

Legacy Awards using VBMS Correspondence

Process Model

The existing process model of VBMS Awards using VBMS Correspondence can be found here: [Awards Correspondence Process Model](#)

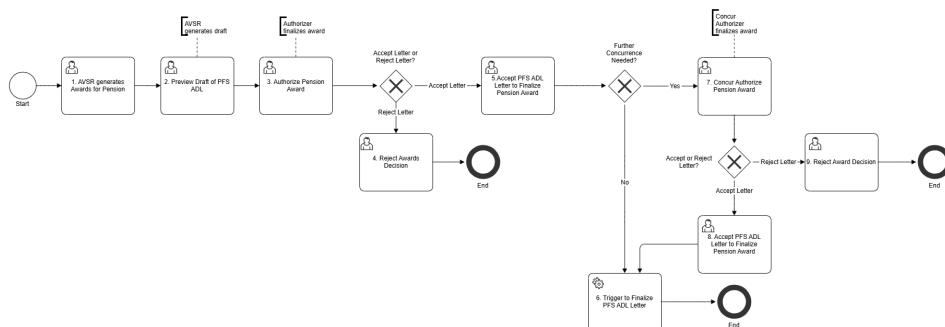
Description

VBMS Awards generates letters and Award Print through Correspondence application. The AVSR selects 'Gen Letter' in the UI and the MainController takes the request and builds the input argument from the participants context data associated with the request and calls the internal Correspondence Service. Correspondence Service with the input argument calls the internal Awards service to get VetsNet awards data. The Awards service makes multiple external BGS calls to collect data. The BGS web services calls are the wrapper for the legacy VetsNet services which are used to gather awards data (see [Enterprise Context diagram](#)). For example, getAwardEventDecision is called to read Award Event Decisions related to the provided Award Event. It then builds each award letter type (Compensation, Burial, SummaryOfCase, Enad, NonRatingHigherLevelReview) by using the awards data. It performs validation, transformation and incorporates additional logic to build each letter object which is finally converted to the letter response object. The letter response object with the collected data for the letter is returned to the Correspondence service which then generates PDF by populating data on the letter template based on the decision points associated with the letter.

Awards High Level ADL Process Model

The below process model depicts the following user roles in the current Awards workflow:

- AVSR previews PFS ADL Draft (Letter and Award Print).
- Authorizer finalizes Awards when no further concurrence is needed.
- Concur Authorizer finalizes Awards when concurrence is needed.
- Awards Application triggers to finalize PFS ADL (Letter and Award Print) generation.

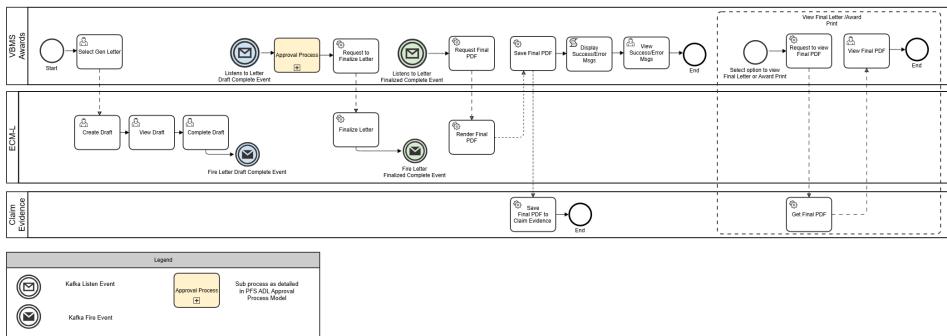


Step	Activity	Description
1	AVSR generates Award for Pension	In VBMS Awards, an AVSR generates a Pension Award based upon a Veteran Claim.
2	Preview Draft of PFS ADL	An AVSR is able to preview a draft of the PFS ADL Letter and Award Print in the 'Current and Proposed Award' page.
3	Authorize Pension Award	An Authorizer is able to authorize a Pension Award in the 'Current and Proposed Award' page.
4	Reject Awards Decision	An Authorizer is able to reject a Pension Award decision.
5	Accept PFS ADL Letter to Finalize Pension Award	An Authorizer is able to accept the PFS ADL Letter to finalize a Pension Award.
6	Trigger to Finalize PFS ADL Letter	VBMS Awards triggers the request to finalize the PFS ADL Letter.
7	Concur Authorize Pension Award	A Concur Authorizer is able to Concur Authorize a Pension Award in the 'Current and Proposed Award' page.
8	Accept PFS ADL Letter to Finalize Pension Award	A Concur Authorizer is able to accept the PFS ADL Letter to finalize a Pension Award.
9	Reject Award Decision	A Concur Authorizer is able to reject a Pension Award decision.

Proposed Awards Process Models using ECM-L

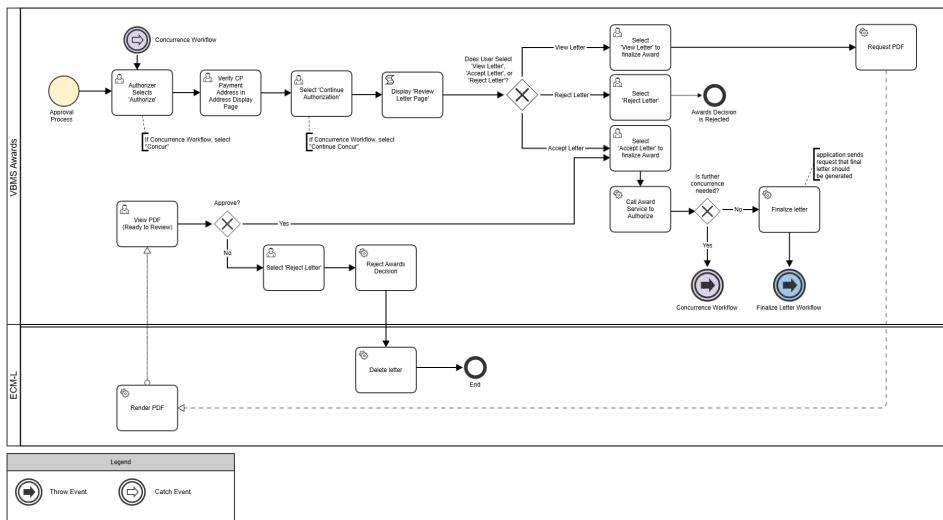
PFS ADL Main Business Process Model (OV-6D)

The below process model is a high-level diagram which depicts the PFS ADL Letter (Draft and Final) generation in VBMS Awards using ECM-L.



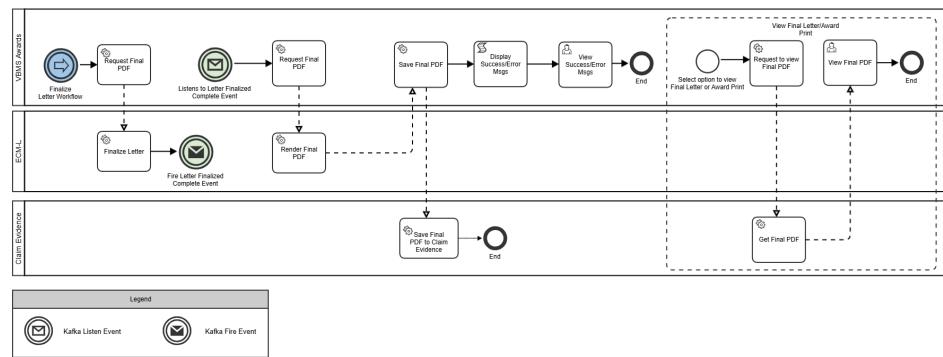
PFS ADL Approval Process Model

In the below process model, the Authorizer and Concur Authorizer can view the Draft letter that is ready for review to accept or reject the letter. If they accept the letter, Awards Service validates further to determine when to call ECM-L to generate the Final letter.



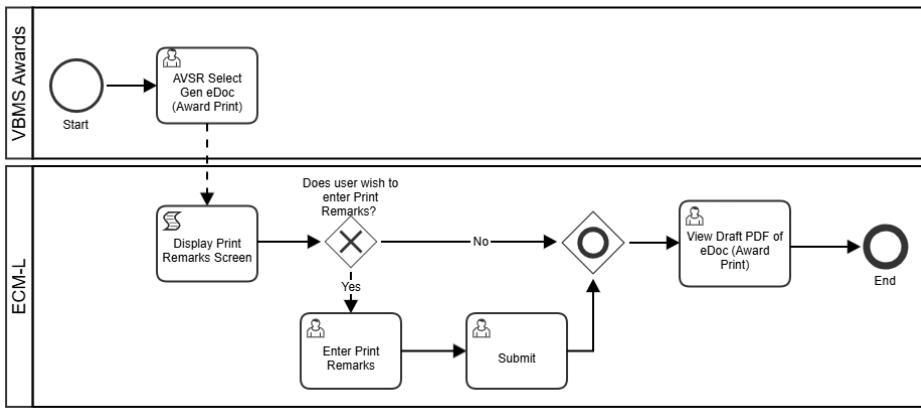
PFS ADL Finalize Letter Process Model

In the below diagram The Awards Service calls ECM-L to generate the final letter which Awards stores in Claim Evidence.



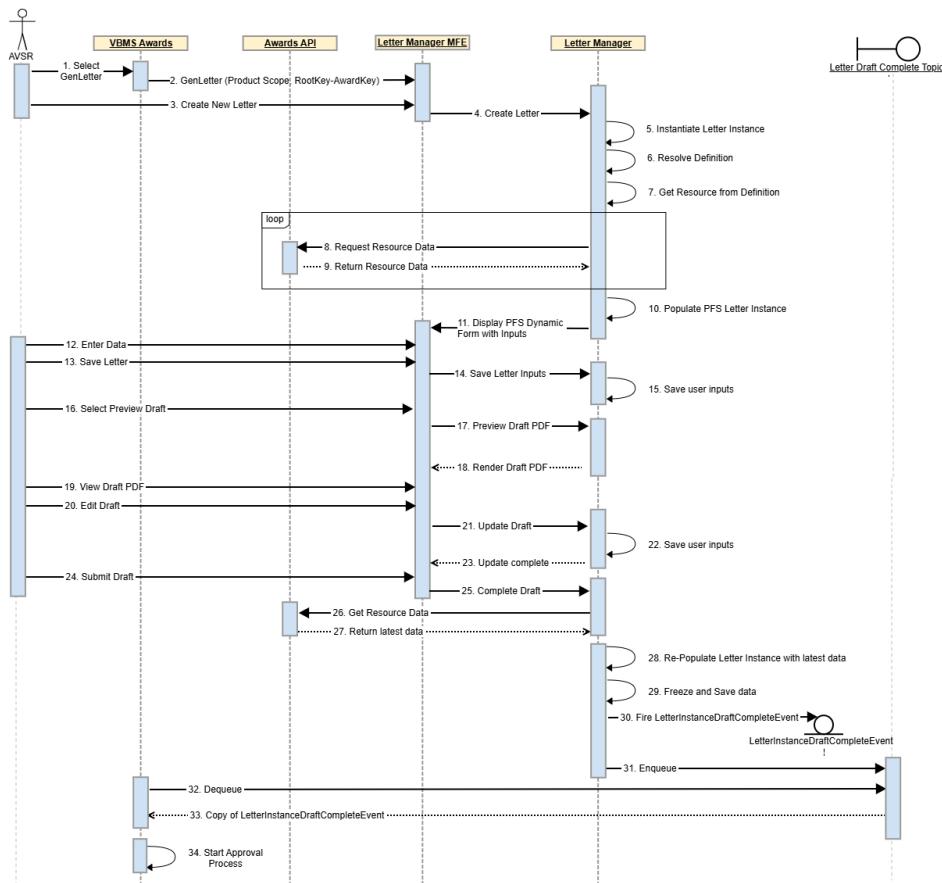
PFS ADL Generate Award Print (eDoc) Draft Process Model

In the below process model, the AVSR navigates to Current and Proposed page to generate Award Print for the PFS ADL letter by entering print remarks in ECM-L - Letter Manager. Award Print is generated in report format as a biproduct of the PFS letter and used internally by the AVSR.



PFS ADL Generate Draft Sequence Diagram

The sequence diagram below provides the time and location of the messages and the sequential flow of events between VBMS Awards and ECM-L for the PFS ADL Draft generation process. It illustrates the initiation of the Draft request in Awards and the processing of the request in the ECM-L components to generate the Draft version of the PDF for PFS ADL.

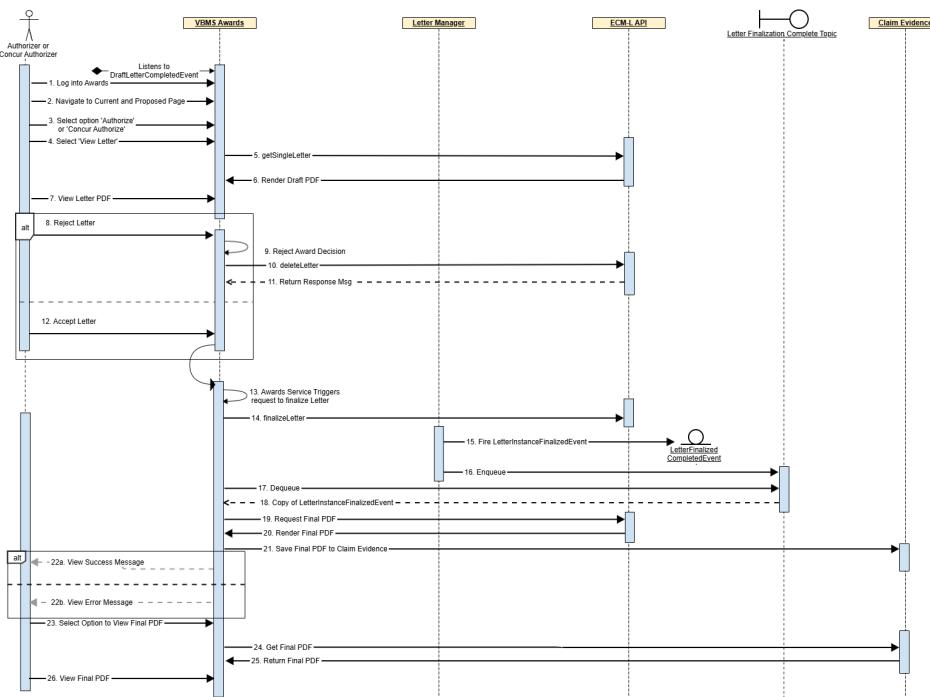


Step	Name	Description
1.	Select GenLetter	AVSR selects GenLetter in VBMS Awards
2.	GenLetter (Product Scope, RootKey-AwardKey)	Awards processes the request and calls Letter Manager MFE with scope & RootKey-Award Key. The Award Key Input includes Award Type, Veteran ID, Beneficiary ID.
3.	Create New Letter	AVSR calls Letter Manager MFE to create new letter

4.	Create Letter	Letter Manager MFE calls Letter Manager to create new letter
5.	Instantiate Letter Instance	Letter Instance is represented in Letter Manager
6.	Resolve Definition	Letter Manager resolves the Letter definition
7.	Get Resource from Definition	Letter Manager retrieves required resources from the definition
8.	Request Resource Data	Letter Manager requests necessary Awards data from Awards API. The Letter Manager also gets data from CFAPIs to populate definitions. The CFAPIs include Veteran API, Participant API, Evidence API, Tracked Item API, and POA API.
9.	Return Resource Data	Awards API returns the resource data to Letter Manager
10.	Populate PFS Letter Instance	Letter Manager populates PFS Letter Instance
11.	Display PFS Dynamic Form with Inputs	Letter Manager displays the PFS Dynamic Form with Inputs in Letter Manager MFE
12.	Enter Data	AVSR enters required data in Letter Manager MFE
13.	Save Letter	AVSR saves data in Letter Manager MFE
14.	Save Letter Inputs	Letter Manager MFE saves Letter Inputs in Letter Manager
15.	Save User Inputs	Letter Manager saves user inputs
16.	Select Preview Draft	AVSR selects Preview Draft in Letter Manager MFE
17.	Preview Draft PDF	Letter Manager MFE previews the Draft PDF in Letter Manager
18.	Render Draft PDF	Letter Manager renders the Draft PDF in Letter Manager MFE
19.	View Draft PDF	AVSR views the Draft PDF in Letter Manager MFE
20.	Edit Draft	AVSR edits the Draft in Letter Manager MFE
21.	Update Draft	Letter Manager MFE updates the Draft in Letter Manager
22.	Save User Inputs	Letter Manager saves user inputs
23.	Update Complete	Letter Manager pushes the completed update to Letter Manager MFE
24.	Submit Draft	AVSR submits the Draft in Letter Manager MFE
25.	Complete Draft	Letter Manager MFE completes the Draft through Letter Manager
26.	Get Resource Data	Letter Manager gets Resource Data from Awards API
27.	Return Latest Data	Awards API returns the latest data to Letter Manager
28.	Re-populate Letter Instance with latest data	Letter Manager re-populates the Letter Instance with latest data
29.	Freeze and Save Data	Letter Manager freezes and saves the data
30.	Fire LetterInstanceDraftCompleteEvent	Letter Manager fires LetterInstanceDraftCompleteEvent
31.	Enqueue	Letter Manager enqueues data in Letter Draft Complete Topic
32.	Dequeue	VBMS Awards dequeues data in Letter Draft Complete Topic
33.	Copy of LetterInstanceDraftCompleteEvent	Letter Draft Complete Topic sends a copy of LetterInstanceDraftCompleteEvent to VBMS Awards
34.	Start Approval Process	VBMS Awards starts the Approval Process

PFS ADL Final Letter Sequence Diagram

The sequence diagram below specifies the order and location of messages and the sequential flow of events between VBMS Awards and ECM-L for the PFS ADL Final PDF generation. It illustrates the initiation of the final letter request in Awards and the processing of the request in ECM-L to generate the Final version of the PDF for PFS ADL.

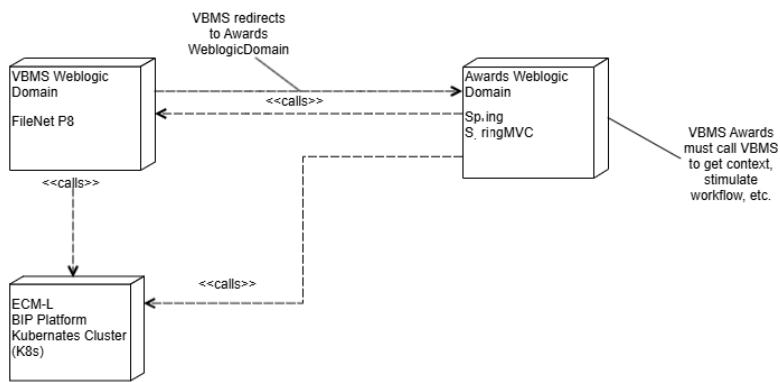


Step	Name	Description
1.	Log into Awards	Authorizer or Concur Authorizer logs into VBMS Awards
2.	Navigate to Current and Proposed Page	Authorizer or Concur Authorizer navigates to Current and Proposed Page in VBMS Awards
3.	Select option 'Authorize' or 'Concur Authorize'	Authorizer or Concur Authorizer selects option 'Authorize' or 'Concur Authorize' in VBMS Awards
4.	Select 'View Letter'	Authorizer or Concur Authorizer selects 'View Letter' in VBMS Awards
5.	getSingleLetter	VBMS Awards requests Draft PDF from ECM-L API
6.	Render Draft PDF	ECM-L API renders Draft PDF in VBMS Awards
7.	View Letter PDF	Authorizer or Concur Authorizer views Letter PDF in VBMS Awards
8.	Reject Letter	Authorizer or Concur Authorizer rejects Letter in VBMS Awards
9.	Reject Award Decision	VBMS Awards rejects the Award Decision
10.	deleteLetter	VBMS Awards calls ECM-L API
11.	Return Response Message	ECM-L API returns a response message to VBMS Awards
12.	Accept Letter	Authorizer or Concur Authorizer accepts Letter in VBMS Awards
13.	Awards Service Triggers Request to Finalize Letter	VBMS Awards Service triggers request to finalize the letter
14.	finalizeLetter	VBMS Awards request ECM-L API to finalize the letter
15.	Fire LetterInstanceFinalizedEvent	Letter Manager fires LetterInstanceFinalizedEvent
16.	Enqueue	Letter Manager enqueues data in the Letter Finalization Complete Topic
17.	Dequeue	VBMS Awards dequeues data in the Letter Finalization Complete Topic
18.	Copy of LetterInstanceFinalizedEvent	Letter Finalization Complete Topic sends a copy of LetterInstanceFinalizedEvent to VBMS Awards
19.	Request Final PDF	VBMS Awards requests Final PDF from ECM-L API
20.	Get Final PDF	
21.	Return Final PDF	
22.	View Success Message	
23.	View Error Message	
24.	Select Option to View Final PDF	
25.	Get Final PDF	
26.	View Final PDF	

20.	Render Final PDF	ECM-L API renders the Final PDF in VBMS Awards
21.	Save Final PDF to Claim Evidence	VBMS Awards saves Final PDF to Claim Evidence
22a.	View Success Message	VBMS Awards displays Success Message to Authorizer or Concur Authorizer
22b.	View Error Message	VBMS Awards displays Error Message to Authorizer or Concur Authorizer
23.	Select Option to View Final PDF	Authorizer or Concur Authorizer selects option to View Final PDF
24.	Get Final PDF	VBMS Awards requests Final PDF from Claim Evidence
25.	Return Final PDF	Claim Evidence returns Final PDF to VBMS Awards
26.	View Final PDF	Authorizer or Concur Authorizer views Final PDF in VBMS Awards

Deployment View

PFS ADL Deployment View



Environment Mapping

VBMS Environment	BEP Environment	VBMS Environment Description
UAT	LinkTest	Independent validation and verification by the UAT team
SQA	INTGD	Independent verification and validation by the QA team
Production (PROD)	PROD	Production-level version of the software used by VA employees in the ROs
PRODTest (daily copy of Production)	PRODTest	Environment where PRODOps team can triage issues with production-level code and data
PREPROD	PREPROD	Environment where changes to code and system configuration can be tested and verified prior to production implementation
Perf	PERF	Environment where load testing and integrity tests of the VBMS application can be executed
Pdt	DEV2	Snapshot of the production code base for development to support triage efforts
DEVTest	Webtest	Like Dev, but with an alternate cycle
Dev	DEV	First proof of successful integration of the latest code
Demo	Academy (ACAD)	Environment where training occurs before individuals take positions at regional offices

System Monitoring and Metrics

VBMS-Award's availability is ensured by actively monitoring the PROD environment to detect and resolve minor incidents before they become serious problems. Standard industry and application-integrated tools are used to alert PRODOps. These tools include AppDynamics, OEM, Nagios, Hazelcast, and Splunk, as well as custom scripts. These tools allow PRODOps to resolve potential issues and to contact end users before these issues become outages. They also allow for real-time monitoring and providing alerts to both PRODOps and VA business managers.

ECM-L components will be deployed in the BIP platform. Application Performance Monitoring (APM) is used on the BIP Platform to enable the tenant projects to capture metrics and issues on their code running as well as the ability to quickly triage issues. The tools which include Fluentd, Prometheus, Grafana, CloudTrail, Kibana, OpenSearch, AppDynamics are used for successful logging and monitoring of the BIP platform.